

Visit our award-winning site: canadacomputes.com

The Computer PAPER

Canada's Computer Information Source

FREE

Subscription Publication

Subscription Mail Sales Product Agreement #40064828

B.C. EDITION (LOWER MAINLAND) AUGUST 2002 VOLUME 15

THE GADGETEER



test
Lab:

FLAT-PANEL MONITORS

Dell | Home

Ensemble Performance.



\$899

\$1799

\$1499

\$2399

\$239



\$299



\$449

ORDER THE EASY WAY@

ORDER THE EASY WAY@
www.dell.ca



DELL
DEALS
ONLINE

1-877-876-7565

MON-FRI 8AM-10PM EST • SAT 10AM-6PM EST • SERVICE IN FRENCH: MON-FRI 8AM-7PM EST • SAT 10AM-6PM EST
DELL PCs USE GENUINE MICROSOFT® WINDOWS®
www.microsoft.com/piracy/howtotell

[illegible]

000000

SAMSUNG

No Compromise!



A Monitor Display that optimizes every application!

Introducing the Samsung SyncMaster™ MagicBright™ Monitor Series, the first 3-in-1 monitor displays that suit any application! With the simple use of MagicBright's revolutionary "hot key" you can now use the same monitor display for spreadsheets, presentations, surfing the net or watching television.

Text mode has optimal brightness that will satisfy your work related tasks such as word processing, spreadsheets, presentations and more.

Internet mode delivers more vivid text and graphics. Surf through the oceans of information on the web.

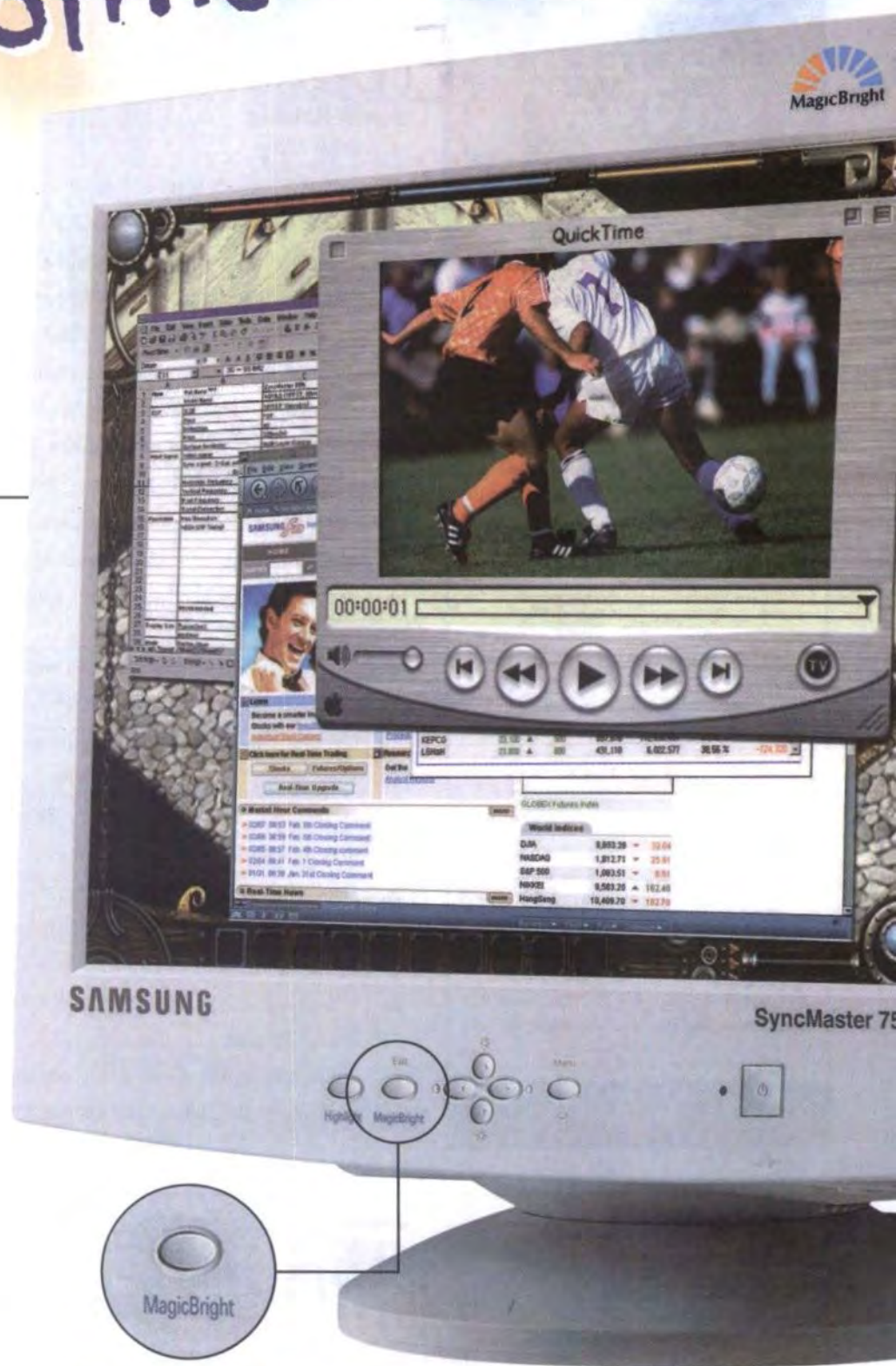
Entertain mode has the brightness equivalent to TVs. This allows you to engage HDTV, DVD and more for enhanced digital excitement.

No more compromises on the vividness, clarity and ease in which you view your monitor display!

www.samsung.ca • 1-800-SAMSUNG* (726-7864)

*For Mississauga call: 905-542-3837

©2002 Samsung Electronics Canada Inc. SyncMaster and MagicBright are trademarks of Samsung Electronics Co., Ltd. All brand and product names are trademarks or registered trademarks of their respective companies. Product appearance and specifications subject to change without notice. 22001606



One-Touch Hot Key Button

The MagicBright Monitor Series includes a selection of 19" and 17" monitors: 957MB, 955MB, 757MB, 765MB and 763MB. Shown here is MagicBright 17" 757MB.



SAMSUNG DIGITall
everyone's invited™

IN THIS ISSUE



BC EDITION
AUGUST 2002

COMING UP

September 2002

Cover story: Managing a career in IT
Lab Test: Inkjet and laser printers

Ad Deadline Tue., July 30

Distribution begins Wed., Aug. 14

October 2002

Cover story: Graphics tools
Lab Test: Connectivity add-on cards

Ad Deadline Tue., Aug. 27

Distribution begins Wed., Sept. 11

November 2002

Cover story: Ergonomics
Lab Test: Wireless

Ad Deadline Tue., Sept. 24

Distribution begins Wed., Oct. 9

Commentary

- 6 From the Editor
- 8 Why HP wanted Compaq
- 8 Letters

New & Notable

- 12 What's New
- 86 TechXNY Report: Bluefish lightens your load
- 86 Seagate announces first Serial ATA drive
- 94 Telus Mobility launches national 1X network
- 94 MSN.ca studies language of keyboard generation
- 98 HP ready to launch 50 new products
- 98 Amazon.ca sparks criticism from Canadian booksellers
- 98 Drive to 3G gives new meaning to mobile technology
- 100 TechXNY Report: Panasonic unveils new DVD line
- 106 Computex Report: What's here is coming everywhere
- 108 Computex Report: Motherboards are easy
- 109 Japanese teams triumph in RoboCup
- 110 PC Expo Report: Innovation still apparent at smaller show

The Gadgeteer

- 14 Gadgets to watch: Timex sports lines feature-filled
- 14 Slim, trim Toshiba e310 impresses
- 32 Clié sets new standard for Palm devices
- 48 Sony MD offers alternative to MP3
- 52 CD recorder puts end to 'mystery' discs
- 52 Now serving: 75 CDs
- 54 Palm: the original groovy gadget
- 64 Backpack Bantam burner gains USB 2.0
- 64 Is that a GameBoy in your Palm?
- 66 Treo nicely integrates PDA, phone
- 68 Orange PC Card adds USB 2.0
- 84 Online and on the move: dual-mode digicams fit the bill
- 85 Here comes the sun: a solar charger for your stuff

- 85 A BlackBerry for the gabbing crowd
- 99 Nokia releases next-gen Communicator

Hands On

- 34 Flat, bright... and getting affordable
TCP Lab checks out 17-inch-plus TFT monitors
- 34 Pavilions move to Pentium 4
- 34 Norton suites a good upgrade for OS X users
- 56 Wish you were here: tools for remote support

Small Office Technology

- 70 Blended threats latest menace
Virus writers, hackers team up to create security headaches
- 70 Office Suite Training: Making inroads with Access queries
- 70 Mr. Forklift wins business makeover
- 82 QuickTips: Vector objects in PaintShop Pro

Platform News

- 74 Taking a tablet PC for a spin
- 74 Are you fresh? Talking to fish and other RD IF adventures
- 74 Apple News: Office update includes smoother text

Online & Connected

- 90 Taking GPRS for a test drive
- 90 10 anti-scam and anti-spam Web sites
- 90 Weaving your own Web site: IE CSS extensions Part 8

Careers & Training

- 102 Career Profile: Manager gets mice to market
- 104 Book review: Solid Mac OS X guide goes beyond basics
- 104 Book review: Friendliest OS X book ain't little

Reader Services

- 109 Training Listings
- 112 Classified
- 112 User Groups
- 113 Business Directory
- 116 Advertising Index

PROMAR
Enterprises Co. Ltd.

HEAD OFFICE 8275 Sherbrooke St.
Vancouver, BC, V5X 4E6
Tel: (604) 322-1799
Fax: (604) 322-1766

BRANCH OFFICE 1423K-45th Ave., N.E.
Calgary, AB, T2E 2P3
Tel: (403) 717-0688
Fax: (403) 717-0690

www.promarcanada.com
sales@promarcanada.com

**DEALERS
WANTED!**



Rackmount
Chassis



300/350/
400/450W
ATX Power Supplies



LCD
Projector

Specializing in **CSA** approved Cases
• 1U, 2U, 3U, 4U Rackmount Chassis
• CSA Approved ATX Power Supplies & Cases
• Surround Sound Speakers & Keyboards



PC Series Super Cases



USB XP
Keyboards &
Scroll Mouse



5.1 Surround
Sound Speakers

See the Difference



Step up to the Style and Performance of a ViewSonic Display.
After all, it's not the computer you stare at.

An LCD for Every Need

ViewSonic's family of LCDs come with varying feature sets to satisfy your unique needs. Choose the features that are right for you, including:

- SuperClear MVA™ Technology, delivering high contrast and brilliant colours for superior image clarity
- Exclusive ØTouch™ auto tune, ensuring the best possible image by automatically optimizing the monitor settings

- 3X video response, for applications like DVD and streaming video
- Dual USB ports
- Picture-in-picture
- Portrait/landscape pivot, ideal for spreadsheets, desktop publishing and long internet pages.
- Folding base for easy wall mounting

Explore all your visual display choices, including the world's largest selection of LCD features and sizes - from 15" - 23" at www.ViewSonic.com

15" LCDs									17" LCDs						
	VE155/b	VE500	VE510+	VE150m/b	VG150/b	VG150m	VX500	VG500		VE170/b	VE170m/b	VG171/b	VE700	VX700	VG175
Panel Size	15.0"	15.0"	15.0"	15.0"	15.0"	15.0"	15.0"	15.0"	Panel Size	17.0"	17.0"	17.0"	17.0"	17.0"	17.4"
Resolution	1024x768	1024x768	1024x768	1024x768	1024x768	1024x768	1024x768	1024x768	Resolution	1280x1024	1280x1024	1280x1024	1280x1024	1280x1024	1280x1024
Features	Folding base for easiest wall mount	Folding base Silver & Black	UltraBrite™ and 400:1 contrast	Multimedia	High Brightness/ Contrast	Multimedia	Sleek Corporate Silver & Black Finish	Multimedia	Features	High Value/ Cost-effective	Multimedia	OptiSync™ Analog/Digital	Folding base for easiest wall mount	SuperClear MVA™ Analog/Digital	SuperClear MVA™ with 160° Viewing

Specifications and pricing subject to change without notice. Corporate names and trademarks stated herein are the property of their respective companies. Copyright © 2002 ViewSonic Corporation. All rights reserved. [10603-00C 05/02]


ViewSonic®
See the difference.®

Tokyo tech



David Tanaka

FROM THE EDITOR

The pilgrimage to Electric Town was less than I had anticipated, but more than I could have ever imagined. Less because I had often heard that in Japan, and particularly in the Akihabara district of Tokyo (aka Electric Town), I would see technology products for sale that would not be found in North America for at least a couple of years.

There were some examples of that fabled one-step-ahead technology. For example, CRT-based monitors are virtually nonexistent. TFT monitors are the norm, and the latest versions are wide-screen models that also serve as TV sets. PCs themselves seem to be morphing into Internet-centric home entertainment centres. Broadband content development seems at least a generation ahead of North America, and in one store I saw a wall of about 20 monitors displaying examples of streaming services.

Another example of leading technology is cellular service. While North America is taking baby steps with 2.5G cellular service, 3G has been available in Tokyo since October (although I've been told that consumer uptake has been disappointing). And text-chat and short messaging over wireless phones has reached a high art in Tokyo.

But to a large extent, globalization appears to have been a big equalizer. Multinationals develop for a world market, which means that the various regions get new products at roughly the same time. So, the latest MiniDisc recorders, MP3 players, digital cameras, and personal computer equipment I saw there were pretty much the same as what you'd find in Canadian retail stores.



Store after multi-level store is filled with nothing but computers and computer-related peripherals and accessories.

There were some differences in product offerings, but this mainly reflects the Asian market's different taste for products. An example of this is the large numbers of fly-weight (about 1 kg) notebooks available for purchase. Historically, this category has been more popular in Asia than in North America. There are also differences in brand visibility, but again this seems to be due to regional market variations. Sony is a case in point. It has just a minor part of the PC market here, but is the leading brand in Japan, with a 33 percent market share, according to the Japanese computer trade publication, *Business Computer News*.

All this is not to say that it is a market that's largely the same—au contraire. I mentioned that my visit to Electric Town was also more than I could have imagined, and that was due to the sheer scale of retail activity. When you pack the equivalent of most of Canada's

population into a single metropolitan area, things happen that would not otherwise be possible.

The Akihabara district is one result. Store after multi-level store is filled with nothing but computers and computer-related peripherals and accessories. Scores of magazines are devoted to some aspect of personal computing (including one called, roughly translated, "PCs for Housewives" with a circulation of 80,000). Do-it-yourself computer stores have huge inventories—I counted several dozen motherboard cartons in one store, stacked on shelves like dry goods in a grocery store.

Across town, for several blocks around the Shinjuku subway station, is a second mecca for digital technology products. This area has long been known as a retail centre for photography, with many camera shops concentrated there. They've gone into digital in a big way, and I found multi-floor stores with digital cameras on one floor, 35-mm on another, medium and large format cameras on another, film, paper, and other developer chemicals on yet another, etc. Some of these stores have branched into other digital products too, for example handheld computers and MP3 players. And one department store I walked into also had a large part of one floor devoted to personal computers and accessories.

I came away from the experience not feeling at all digitally deprived. In terms of selection of products, we have it pretty good here; pricing is also not too different, although it can vary substantially, depending on the product in question. And ironically, the Handspring Treo I had with me caused a bit of stir among a couple of ad agency folks I showed it to. They'd never seen the device before—imagine that.

Enjoy the issue!

David Tanaka, Editor

The Computer PAPER

A Trader.com Publication Canada's Computer Information Source

VOL. 15, NO. 8, AUGUST 2002

EDITORIAL

EDITOR David Tanaka, david@tcp.ca
 MANAGING EDITOR Megan Johnston, megan@tcp.ca
 PRODUCT REVIEW EDITOR Sean Carruthers, sean_carruthers@tcp.ca
 ASSISTANT EDITOR Sharlene Myers, sharlene_myers@tcp.ca
 CONTRIBUTING EDITOR Jeff Evans
 COPY EDITORS Helga Stitt, Liz Van der Wee
 COVER DESIGN Chris Brockley
 PRODUCTION SUPERVISOR Michelle Perakopis
 PRODUCTION Lara Bazant, Abi Benjamin, Roxanna Bennett, Chris Brockley, Sabrina Garofalo, Steven Stoner, Liz Van der Wee
 BC PRODUCTION
 PRESS RELEASES: tcpeditorial@tcp.ca LETTERS: letters@tcp.ca

BUSINESS GROUP

PUBLISHER / GENERAL MANAGER Dick Peters, dick_peters@tcp.ca
 CONTROLLER Frank Dieodue, frank_dieodue@tcp.ca
 DIRECTOR PRODUCTION / CIRCULATION Maxine Lewis, maxine_lewis@tcp.ca
 MARKETING MANAGER Natalia Nossovskaya, natalia_nossovskaya@tcp.ca
 DISTRIBUTION Kim Jewison, kim_jewison@tcp.ca
 CIRCULATION Tracy Magee-Graham, tracy_magee-graham@tcp.ca
 SUBSCRIPTIONS Sabrina Garofalo, subscriptions@tcp.ca

ADVERTISING SALES

NATIONAL SALES MANAGER Ian Harling, ian_harling@tcp.ca
 REGIONAL SALES MANAGER (WESTERN CANADA) Frank Howie, fhowie@tcp.ca
 AD SALES Vivian Jin, vivian_jin@tcp.ca, Melody Jones, melody_jones@tcp.ca
 OPERATIONS SUPERVISOR Sylvia Gaertner, sylvia_gaertner@tcp.ca
 B.C. AD COORDINATOR Kim Jewison, kim_jewison@tcp.ca
 Tel: 604-777-2424, Email: bcsales@tcp.ca
 Classified Ads Email: classifieds@tcp.ca

SUBSCRIPTIONS

Tel: 1-800-465-3517 Email: subscriptions@tcp.ca
 To have 12 issues of *The Computer Paper* mailed directly to your home (in Canada), send a cheque payable to *The Computer Paper* for \$19.99 to 625 Church St., 6th Floor, Toronto, ON M4Y 2G1. American subscriptions please send \$75 in US Funds. Overseas please send \$135 Canadian (first class). *The Computer Paper* is published monthly by Canada Computer Papers Inc. All rights reserved. Reproduction in whole or in part without the permission of the publisher is strictly prohibited. The opinions expressed in articles are not necessarily those of the publisher. Information presented here is compiled from sources believed to be accurate, however, the publisher assumes no responsibility for errors or omissions. The publisher reserves the right to refuse ads. The opinions expressed in the articles and columns and ads are those of the writer/advertiser and not necessarily those of *The Computer Paper*. Canadian Publication Mail, Sales Product Agreement #40064828. Printed in Canada. ISSN 0840-3929. Member of the BPA Division of CCAB.

CCAB



trader.com

CANADA COMPUTER PAPER INC.

600-625 Church St., Toronto, ON M4Y 2G1. Tel: (416) 923-7100

TCP VANCOUVER

350 Columbia St., New Westminister, BC V3L 1A0
Tel: 604-777-2424 Fax: 604-777-2820

TCP ALBERTA

306-908 17 Ave. S.W., Calgary, AB T2T 0A3
Tel: 403-228-3355 Fax: 403-228-3456 Toll-free: (800-407-3355 Fax: 800-695-1159)

TCP PRAIRIE

1430 Church Ave., Winnipeg, MB, R2X 1G4
Tel: 204-949-6474 Fax: 204-632-5854 Toll-free: 866-615-6607

TCP SOUTHWESTERN ONTARIO

196 Kehl St., Kitchener, ON N2M 3V2, Tel: 519-221-6977
Fax: 519-741-9186 London Tel: 519-433-3134

TCP TORONTO

600-625 Church St., Toronto, ON M4Y 2G1, Tel: 416-923-7100

TCP MONTREAL

130 De Laigo Est., Montreal, QC H2P 1J1, Tel: 514-384-1123
Fax: 514-384-3384 Toll-free: 1-877-643-4770

TCP OTTAWA

108-376 Churchill Ave. N., Ottawa, ON, K1Z 5C3,
Tel: 613-789-6431 Fax: 613-789-6433

TCP HALIFAX

1 Dillon Ave., Halifax, NS, B3M 3Y8. Tel: 902-457-0121. Tel & Fax: (902) 457-4390

Call 604-777-2424
for ad information

\$10 Billion Worldwide Group #1 Total Component Solutions

AOpen®

1-888-97-AOpen



Optical Drives
56X CD ROM
16X DVD
40X12X48 CDRW



Multimedia
AW840 4 channel PCI sound card
AW850 Deluxe Optical SPDIF 5.1, 6 channel sound cards
MS810 3pcs. Speaker w/sub woofer
MS900 6 pcs. 5.1 speaker w/ Amp controller console
Titanium GT Titanium, 360% surround sound wave



Monitor
15" LCD w/ built-in speaker
17" LCD w/ built-in speaker
17" Flat CRT 0.25mm; 1280x1024
19" Flat CRT 0.26mm; 1600x1200



VGA
M64 32MB / TV OUT
MX400 64MB / TV OUT
GF3 Ti200 64MB DDR DVI TV OUT
GF4 MX460 64MB DDR VIVO
GF4 Ti4200/4400/4600 128MB DDR

Sponsored by AOpen Distributors:



www.alomicro.com



www.comtronic.com



www.emj.com

To Purchase, Please Contact AOpen Premium Resellers:

Tolga Computer Systems Inc.
613-729-8023
Sprint Computer
613-563-7598
Accessware
613-933-9457
JKL Micro Distribution Inc.
613-384-8980
Canada Computer & Electronics
613-542-8467
A.O. Computers
416-967-7485

Computer Edge
416-252-4868
Primetime Computer Training Center
416-741-4449
Micro 411 Inc.
905-479-8389
PC Gate
905-944-9821
JK Computer
905-305-0555
Primax Computer Systems Inc.
905-886-9955

Biznet Computer Integration
905-328-3232
Computer Express Inc.
905-672-5595
Audcomp Computer Systems
905-575-9775
Skynet Computer Systems Inc.
905-513-7072
Clockwork Computer
705-253-3305
Virtual Micro
519-679-2922

Canada Business Services
519-436-1148
Century Computer
902-423-2500
Southampton
506-384-5500
JP Electronics
506-759-8115
Micro-Tech Computer
709-368-6008



Feature Product Titanium GT

360 degree Surround Sound Speaker

- Wired Remote Controller
- One piece fabrication Aluminum Cylindrical Shell
- CylinDynamics Sound Wave Profiler
- 900 Watts Peak Music Performance Output
- 17 Watts Subwoofer + 6 Watts satellite



Motherboard

AX4G Intel 845G, 533MHz FSB, DDR 200/266, LAN on-board
AX4LN Intel 845GL, 533MHz FSB, DDR 200/266, TV out, DVI, LAN on-board
MX46-533 SiS 651, 533 MHz FSB, DDR 333, ATA 133, VGA on-die, AC97 5.1
AK75 Pro SiS 745, 266 MHz FSB, DDR 333, ATA 133, Vcore Adj. AC97 5.1



Input Device

18 hot key multimedia keyboard
107 key pill resistance keyboard
Wireless keyboard & mouse combo
5 button dual wheel optical mouse
2 button wheel mouse

For complete product information, please visit WWW.AOPEN.COM

Communication

56K V.92 external fax modem
56K V.92 controls modem
16/24 ports rack mountable switches
IEEE 802.11B wireless LAN products
Gigabit products series
Easytalk SOHO telephone systems



Housing

KF45 300W P4 mid tower
QF45 300W P4 mid tower
w/ front USB access port
H500 300W Super mid tower
H600 300W Super mid tower
H340 180W Slim line chassis



Why HP wanted Compaq

Fiorina says customers are in control of industry



Geoff Wheelwright

COMMENTARY

Now that Compaq has officially been acquired by Hewlett-Packard, it's worth taking a few minutes to look at where this deal came from—and what it really

means to us, the humble computer users. From a historical perspective, the deal marks the end of an era in which anything seemed possible.

Compaq was born during the initial personal computer boom back in 1982. At that time, I was lucky enough to meet the people involved in founding the company (financier and longtime chairman Ben Rosen, co-founder and former chief executive officer Rod Canion, and co-founder Bill Murtlo) and there was no indication back then that this venture would turn into anything like a \$30 billion company. They had a good idea for an IBM-compatible computer that could be transported from place to place. That idea took hold in the absence of anything as innovative coming from IBM itself.

And that's where the current merger with HP comes in. Compaq was born

out of a desire to innovate—but not too radically. Canion and Rosen always talked about “innovation around standards,” which was really another form of Microsoft co-founder Bill Gates's much-vaunted “embrace and extend” idea (wherein Microsoft would embrace new standards, then extend them by optimizing those standards for Windows and Microsoft Office).

Canion and Rosen always talked about “innovation around standards,” which was really another form of Microsoft co-founder Bill Gates's much-vaunted “embrace and extend” idea.

Enter HP chief executive officer, Carly Fiorina, who has used innovation as her rallying cry and touchstone since she succeeded John Young as head of HP. At first blush, the notion of acquiring Compaq, removing duplication and blending product lines doesn't seem very innovative. It's a classic strategy that sometimes works—and has often failed. After all, who remembers Unisys these days (born of the Sperry and Burroughs merger), or Borland (which sank to

near-death following its acquisition of Ashton-Tate)?

That appears to be missing the point, however. At the Accenture Global Convergence Forum in Monte Carlo in April, only weeks prior to final approval of the merger, Fiorina spoke passionately about her reasons for pursuing this deal and they sounded more innovative than you might think.

She started by referencing the House of Grimaldi, the ruling family of the Principality of Monaco (of which Prince Rainer is the head of state). It has maintained control of the tiny Mediterranean country for something like 1,000 years, amidst a great deal of change and turmoil throughout the rest of Europe.

Fiorina said that the computer industry's House of Grimaldi resides in its customers. She suggested that, despite appearances to the contrary, customers have really always been in charge of the industry's destiny. The problem has been that the computer industry hasn't always recognized that fact.

“We are not driving the tech agenda, you and your customers are driving it,” she told an audience full of chief and senior executives from some of the world's largest IT, telecommunications, and media companies. “There is a shift in vision and point of view: it is now

your vision and not ours. In this industry, you are the centre. It is a tectonic shift and a vital shift.”

Fiorina talked about how this perceptual shift had a lot to do with why she pursued this merger so aggressively and the questions she had to ask within HP as a result. These are questions that resonate within the PC industry as a whole: the days of double-digit growth are gone.

“What does the future hold for tech companies tuned to 40 to 60 percent growth rates? Where will growth come from as companies come to grips with this? What type of tech company do we want to be?” she asked.

Fiorina also credits the computer industry with helping to create a more global economy, and speculated as to whether the industry was now structured in a way that it could serve the needs of what it helped create.

“The age of globalization has come from this democratization of technology and that is why bold moves are necessary,” she concluded. “People will seek out the companies that deliver what they need, companies that will narrow their focus and specialize. We knew we could lead the trend or be swallowed up by it, and by merging we become a leader.” □



More info on VIA please

I'm in the market for a budget-priced, good-performing computer. I've noticed that some of your advertisers are selling what appears to be a good bundle with a VIA 1 Giga Pro processor (PCchips 783). What is a VIA Giga Pro? I haven't seen or read anything about this. Can you shed some light on this value-priced computer (processor)?

Mark Cheung

Sean Carruthers replies: The “1 Giga Pro”

CPU appears to be the 1 GHz version of the Via C3 processor—a very value-oriented processor that's good for office applications and Internet surfing, but not the best choice if you want to do 3D gaming. You can see our initial report on the C3 archived on our Web site: www.canadacomputes.com.

Since that original review, the cache has been changed to 128KB Level-1 and 64KB Level-2, which increases overall performance a bit, but you're still going to want to consider other options if you intend to move heavily into multimedia applications.

Multimedia notebooks query

In The Computer Paper's June Lab Report, you evaluated many mobile multimedia notebook computers and I am seriously

interested in this product.

Your analysis is good, but something is missing in the specs: you never said how much video RAM each had, and I think that's quite important.

You did not mention the Sony GRX-590. The main difference between it and the 570 you included is that the 570 comes with a 1.6 GHz processor and the 590 uses a 1.7 GHz processor and includes wireless Ethernet.

Rene Larocque

Sean Carruthers replies: We didn't mention the VAIO GRX-590 because the model doesn't appear on Sony's Canadian Web site, which means availability here is doubtful. The main difference appears to be, as you note, the processor speed (1.7

GHz as opposed to 1.6 GHz) and built-in wireless Ethernet.

Some notebooks support dual monitors

I enjoyed the article on dual monitors in the July issue.

One option that you didn't mention, is that some laptops with ATI graphics processors on board also include the ability to extend the desktop on to an external monitor (as well as the ability to duplicate the desktop on the external monitor).

So, if you use a laptop with an external display, you may already have everything you need for multi-monitor desktop computing.

Glen C. Taylor

Store Hours:
M-F 9:30am-6:30pm
Sat: 10am-5 pm

410 Willingdon A venue
Burnaby, BC V5C 5G4
http://www.phase-1.com

Phase 1 Systems Corporation

Since 1988
14 Years Strong

Phone: (604) 291-1558
Fax: (604) 298-5126
Email: info@phase-1.com

Ask About Our Five Star
★★★★★
Total Commitment Program

- 1 Your Satisfaction Is Guaranteed With Our EXCLUSIVE 30-day "NO PENALTY" Upgrade Program. Ask your Sales Rep for details.
- 2 Personalized Technical Support And Service.
- 3 Intelligent, Affordable Network and Internet Solutions.
- 4 Commitment To Top Quality Components And Configurations.
- 5 3-Year Canada-Wide Warranty (3-year labour / 3-year parts)

TOUCH SYSTEMS
solutions for today and tomorrow.

Touch Systems include Five-Year Labour/Three-Year Parts Warranty.

TOUCH SYSTEMS
solutions for today and tomorrow.

***Play Now...Pay Later! Interest Free 12, 24 or 36 Month Financing Now Available.**



Custom Configurations Available!



Family Special

Intel Celeron 1.1 Ghz
Asus TUSI-ML MB
128mb PC133 Memory
20GB Maxtor Hard Drive
Liteon 52X CD Rom
Intel 810 Video
Mid Tower 250W ATX Case
On Board Sound
On Board 10/100 Nic
Jazz 1104 Stereo Speakers
Fujitsu 8729 PS/2 Keyboard
Logitech Wheel Mouse
Microsoft Windows XP

\$899

256MB PC133 Memory: \$Call

Home & Office

Intel Celeron 1.3Ghz
Asus TUV4X 133 ATX MB
256 PC133 Memory
40GB Maxor 7200RPM
LG 52x CD Rom Drive
Mid Tower 250w ATX Case
ATI Xpert 2000 Pro 32MB AGP
SoundBlaster 128 Sound Card
Fujitsu 8729 PS/2 Keyboard
Logitech Wheel Mouse
Jazz 1104 Stereo Speakers
Microsoft Windows XP

\$1049

512MB PC133 Memory: \$Call

SOHO Special

AMD Duron 1.3Ghz
Asus A7V266-E-AA MB
256 DDR Memory
40GB Maxor 7200RPM ATA133
LG 52x CD Rom Drive
Mid Tower 250w ATX Case
ATI Xpert 2000 Pro 32MB AGP
Sound Blaster 128 Sound Card
Fujitsu 8729 PS/2 Keyboard
Logitech Wheel Mouse
Jazz 1104 Stereo Speakers
Microsoft Windows XP

\$1099

512MB SDRAM Memory: \$Call

Workstation

Intel Pentium III 1.2Ghz
Asus TUV4X 133 ATX MB
256 PC133 Memory
40GB Maxor 7200RPM ATA133
LG 52x CD Rom Drive
Mid Tower 300w ATX Case
Asus Geforce V7100 32MB AGP
Sound Blaster 128 Sound Card
Microsoft Internet Keyboard
Microsoft Intellimouse w/Wheel
Jazz 1104 Stereo Speakers
Microsoft Windows XP

\$1249

512MB Pc133 Memory: \$Call

Gamer's Power

AMD XP 2000+ Processor
Asus A7S333 333FSB MB
256 DDR Memory
60GB Maxor 7200RPM ATA133
LG 16x DVD Drive
Liteon 40x12x48 CD Writer
Mid Tower 300w ATX Case
GeForce 4 64mb DDR/TV Out
Sound Blaster Live! 5.1 Dolby
Micorsoft Internet Keyboard
Microsoft Intellimouse w/Wheel
Altec Lansing AVS500 5pc
Speakers
Microsoft Windows XP

\$1699

512MB DDR SDRAM Memory: \$Call

All Touch Systems are ISO-9002/Y2K/CSA Certified. Government and Corporate bids are welcome.

Add-Ons, Upgrades and Software Specials

MS Natural Elite Keyboard \$49	Acer 4300U Colour Scanner \$119	WinFax PRO v10.0 CD \$99
Logitech Quickcam Express USB \$69	MS Works Suite 2002 CD \$129	Microsoft Office XP, SBE \$289
Lexmark Z53 Colour Printer \$179	Headset w/Microphone \$15	WordPerfect Office Pro 2002 \$99

Monitor Upgrade!

17" Envision 710E	27	\$219
17" Envision 770E	25	\$269
19" Envision 980E	25	\$399
19" Samsung 955DF	20	\$449

At Phase 1 Systems, we're committed to helping you design the perfect system by listening to your needs and providing you with the perfect mix between power and price. This has always been our policy and always will be.

SUPER SPECIAL!

Completely configured with the following features:

- ▶ Intel P4 1.8GHz Processor
- ▶ ASUS P4B266 Motherboard
- ▶ 256MB (PC2100 DDR Memory)
- ▶ 300 Watt Enlight Midtower ATX Case
- ▶ Maxtor 60GB 7200RPM UDMA 100 Drive
- ▶ 1.44 Floppy Drive
- ▶ Sound Blaster Live! Dolby Dig 5.1 S/C
- ▶ Altec Lansing AVS300 3pc w/sub
- ▶ LG 16x DVD Rom Drive
- ▶ LG 32x10x40 CD Writer w/Software
- ▶ nVIDIA MX400 64mb AGP4X Video Card c/w TV Out
- ▶ USR 56k PCI FM
- ▶ SMC 10/100 Ethernet Network Card
- ▶ Microsoft Internet PS/2 Keyboard & Trekker Wheelmouse
- ▶ Windows XP OEM CD & PC Works Suite S/W

Super Special!
Intel P4 1.8GHz



(Not exactly as illustrated)

\$1749

SERVICE CENTER

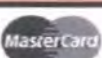
Take advantage of our full service center! Upgrades, Repairs, Virus Removal, Hardware installation, On-Site Services available. Fast, professional service with most issues repaired on the same day! If you have any questions on upgrades, allow our consultants to point you in the right way with the right products for the right price!

BBB

Supporting Better Business
Through The Better Business
Bureau Reg. Number 12433



Member
Since
1992



All Prices
Reflect 2.5%
Cash Discount



Prices are based on payment by cash, cheque or debit card.
Add 2.5% for payment by Visa or Mastercard.
Prices are subject to change without notice.

*Financing options do not include GST and PST.
Financing is based on 24-month term and subject to credit approval.
One-time Administration Fee of 15% will apply to financed purchases.

NOTEBOOK SPECIALS

TOSHIBA Satellite 1000
14.1" TFT Screen
Celeron 1.06GHz CPU
256MB Ram
15Gb Hard Drive
56K Modem
DVD Rom
Win XP Pro

\$1949

SmartBook 5600
15.1" SXGA+TFT Screen
P4 1.6GHz CPU
256MB Memory DDR
20GB Hard Drive
DVD CDRW
ATI 64MB DDR Video
56k Modem
10/100 LAN
Firewire /TV S-Video Out
Windows XP home

\$3099

Can be upgraded
to P4 2.2G

Fujitsu P2040A
10.6" TFT Screen
800MHz Crusoe CPU
128MB Ram
20GB Hard Drive
DVD CDRW
Ext 1.44 FDD
56k Modem
10/100 LAN
WinXP home

\$2599

Sony Vaio PCG-GRX570
16.1" UXGA TFT Screen
P4 1.6GHz CPU
512MB Memory
40GB Hard Drive
DVD CDRW
56k Modem
10/100 LAN
Windows XP home

\$4499



MTI

Free Carrying Case
Included!
http://www.mobiltech.net

NOTEBOOK SPECIALS

Fujitsu, Sony, Toshiba,
Acer, IBM

**INCREDIBLE PRICING
CALL FOR DETAILS**

All Notebooks include 2-Type II PCMCIA
(32bit) Slots. Call us for other upgrades
and options.

Smartbooks include 3-year
Labour/1-year Parts Warranty
and Toll-Free technical support.

**Call us for detailed information
and custom configurations on
all Smartbook Notebooks**

080400

NOTEBOOK SPECIALS

Symptom: Fear of low speed Treatment: FSB 533MHz

Superb choice to speed up your Pentium® 4 processor!



[Note: Only for Pentium® 4 computers.
With Intel® new FSB 533MHz processors,
better performance will be presented. **]**

P4 Titan DDR FSB 533 GA-8IEXP Intel® 845E Chipset

- Socket 478 for Intel® new 0.13 micron-process Pentium® 4 processor
- Provides 6 high speed USB2.0 IEEE1394 ports
- Promise IDE RAID 0,1 and Ultra ATA 133 support
- GIGABYTE patented DualBIOS™ technology
- Intel® PRO/100 VE Network Connection
- High quality Creative PCI Sound and 5.1-channel support via S/P DIF output
- Round corner PCB plate design for better durability
- Rich in Overclocking features via BIOS setting



P4 Titan DDR FSB 533 GA-8IEX Intel® 845E Chipset

- Socket 478 for Intel® new 0.13 micron-process Pentium® 4 processor
- Provides 6 high speed USB2.0
- Intel® PRO/100 VE Network Connection
- GIGABYTE unique EZ-Fix AGP slot
- GIGABYTE patented DualBIOS™ technology
- High quality Creative PCI Sound and 5.1-channel support via S/P DIF output
- Round corner PCB plate design for better durability
- Rich in Overclocking features via BIOS setting



P4 DDR+ FSB 533 GA-8IR533 Intel® 845E Chipset

- Socket 478 for Intel® new 0.13 micron-process Pentium® 4 processor
- Supports high performance DDR266/200 memory
- Provides 4 high speed USB1.1
- Integrates 6-channel AC97 audio
- Gigabyte unique EZ-Fix AGP slot
- Supports EasyTune™ 4, @BIOS™ and Q-Flash



Award News



For more information, please call our distributors:



PE Toronto
Tel: 905-513-5777 Fax: 905-513-5770
PE Montreal
Tel: 514-956-1234 Fax: 514-956-1099
PE Vancouver
Tel: 604-273-8281 Fax: 604-273-4172
PE Calgary
Tel: 403-250-8281 Fax: 403-250-8325



www.supercom.ca

Supercom Toronto
Tel: 905-415-1166 Fax: 905-415-1177
Supercom Montreal
Tel: 514-335-1166 Fax: 514-335-9326
Supercom Vancouver
Tel: 604-276-2677 Fax: 604-276-0807



GIGABYTE
TECHNOLOGY

www.gigabyte.com.tw

FLAT OUT BRILLIANT



LG's sleek design and innovative technology provide you with superior quality at an exceptional price. Discover a complete line of feature rich LCD display options in a range of sizes from 15" - 30" at www.lg.ca or visit your nearest LG authorized dealer.

563LE LCD

- VIVID COLOR AND RESOLUTION
- SPACE AND ENERGY SAVING
- NO HARMFUL EMISSIONS



782LE-17" LCD

- Dual Interface
- 1280 x 1024 @ 75Hz
- Wall Mountable/VESA Standard



L1800P-18" LCD

- Narrow Bezel
- Pivot Enabled and Height Adjustment Stand
- 160° Viewing Angle



Digitally yours



604-435-2038



604-273-8868



VICTORIA
604-382-3475



604-572-8722



604-451-8682
www.ncix.com



www.sneakerscomputers.com

WHAT'S NEW



CorelDRAW Graphics Suite 11 debuts

Corel Corp. (www.corel.com) says the latest incarnation of its CorelDRAW Graphics Suite will be hitting retail shelves around the time this issue of *TCP* hits the streets. The CorelDRAW Graphics Suite 11—which includes tools for graphic design, page layout, photo editing, and vector animation—was designed for Windows XP and built for Mac OS X, according to the company.

The suite includes CorelDraw 11, Photo-Paint 11 and Corel R.A.V.E. 2—all of which have new tools and ease-of-use features. In addition to the three main applications, the suite has a range of supporting utilities, including: ScanSoft OmniPage SE; Bitstream Font Navigator 4 (Windows only); Font Reserve (Mac OS X only); Microsoft Visual Basic for Applications 6.3 (Windows only); CorelTrace 11; and CorelCapture 11 (Windows only).

The full suite has a suggested retail price of US\$529 or US\$249 to upgrade (see the Corel site for upgrade eligibility).

—TCP Staff

Tool integrates QuickBooks, FileMaker

Happy Software Inc. (www.filebookslink.com) has created FileBooks Link, which it claims is the only comprehensive FileMaker Pro-to-QuickBooks integration

solution. It allows FileMaker Pro (versions 4.0 through 5.5) users to exchange financial data between FileMaker Pro for Windows databases and QuickBooks Pro 2002 for Windows.

The company says the FileBooks Link plug-in supports three main modes of operation: posting, modifying, and querying data elements in QuickBooks. Users can post invoices, journal entries, credit memos, cheques, and every other type of transaction directly to QuickBooks via the plug-in. Users can modify customer address information directly in FileMaker and see those results in QuickBooks. In addition, the application is able to query QuickBooks and send that information directly to FileMaker, allowing users to extract customer lists, account balances, payment histories, payroll numbers, and other significant data from a QuickBooks system for use in FileMaker.

The FileBooks Link plug-in kit includes the FileBooks plug-in for FileMaker; technical documentation in PDF format; an unlocked FileMaker Pro sample file showing the most common uses; and a sample QuickBooks company file for testing. A limited demo version of the plug-in can be downloaded free of charge for evaluation. Licensing for unlimited use at one site for one QuickBooks company is US\$299, but at press time, the plug-in is available at an introductory price of US\$199.

—TCP Staff

Tool adds blue-screen effects to iMovie

Hot on the heels of eZeMatte 1.0, EZedia Inc. (www.ezedia.com) has released a second plug-in for Apple's iMovie 2. The new plug-in, eZeScreen 1.0, adds professional blue-screen and green-screen video effects, allowing users to position one iMovie clip over another and adjust the transparency and fade levels of any selected colour to add animated logos, talking heads, or any QuickTime supported movie.

E Ink unveils 'thinnest' active-matrix display

E Ink Corp. (www.eink.com), a developer and marketer of electronic ink technology, unveiled prototypes of active-matrix displays at the Society for Information Display Symposium, held in Boston, in May.

The company demonstrated two display sizes it is developing for use in portable, rugged appliances. E Ink says the prototypes are 0.3 mm thick, about half the thickness of a credit card. Traditional active-matrix display panels are 2 mm thick and often require a backlight for a combined thickness of 4 mm or more, according to E Ink.

Its prototype displays are also more durable because they aren't produced with glass like commercially available active-matrix displays. To avoid this fragility, E Ink has combined a thin, steel foil transistor layer with its flexible paper-like electronic ink display material coated onto a plastic face sheet. Not only are they thin, light, and flexible, but the company says the displays also consume very little power.

The first prototype is targeted at card-sized mobile applications such as SmartCards and cell phones. The 1.6-inch (diagonal) display has a resolution of 100x80 pixels. The second prototype—with a 3-inch (diagonal) display



and 240x160 pixel resolution—is targeted at handheld devices, including PDAs, two-way pagers, and new devices such as mobile display appliances or handheld monitors, according to the developers.

Because of the flexibility, E Ink says the prototype will appeal to device makers, allowing them to design products with flexible and curved surfaces.

E Ink plans to license the technology to manufacturers and says it expects displays based on the prototypes will reach consumers in 2004 or 2005.

—TCP Staff

EZeScreen requires Mac OS X and iMovie 2.1.1 or greater. It costs US\$39 and can be purchased and downloaded through the eZedia Web site.

—TCP Staff

Logitech aims new camera at notebooks



Peripheral maker, Logitech (www.logitech.com), has released a new QuickCam designed especially for notebooks.

The digital video and still camera has the golf-ball shape of Logitech's other

Webcams, but its base allows it to sit on the edge of a laptop screen and can be folded up for easy storage. It has a 30-inch USB cable and can tilt and rotate 360 degrees. It ships with Logitech's QuickCam software, which enables video instant messaging; emailing photo and video messages; video calls over the Internet using Microsoft NetMeeting; personal video broadcasting via SpotLife; and picture and video organization in an integrated gallery.

The QuickCam for Notebook has a suggested list price of US\$59.95.

—TCP Staff

Palm OS 5 ships

PalmSource Inc. (www.palmos.com) has started shipping the final version of Palm OS 5 to licensees and developers. According to PalmSource, the release will bring Palm OS to a new generation of mobile devices through powerful ARM-compliant processors. Licensees can now

Continued on page 24



The right connectivity solution for your business is all wrapped up.

Your business demands a high-performance infrastructure to run its mission-critical business applications. And AT&T Canada can provide it locally, nationally or globally. After all, we offer a full range of secure connectivity solutions – all backed by a 99.5% service uptime guarantee and a 30-day risk-free guarantee[†]. To determine the right connectivity solution for your business, consider the following:

Internet solutions						Data Network solutions				
Dial-up	ISDN	ADSL	T1	E10	OC3	Private Line	Transparent LAN Service (TLS)	Frame Relay	ATM	Business IP
• Do your employees require e-mail, Web browsing or Internet-based applications? • Does your business have a single office or multiple locations? • Does your business have a LAN? • How many users are on the LAN?						• Do your employees continuously need to share information such as inventory, CRM or financial data? • Does your business have multiple locations? • Are you deploying new business applications? • Are you centralizing your servers?				

Still not sure what your business requires? Contact an AT&T Canada Connectivity Specialist to assess your business' networking needs. Visit our Web Site or call today.

www.attcanada.ca/connect

1 866 511-7977



B O U N D L E S S

V o i c e D a t a I n t e r n e t E - B u s i n e s s

[†]Terms and conditions apply. Visit our Web site for complete details on AT&T Canada's service guarantees. Guarantee applies to Internet products only and is subject to change. Refunds will be granted based on set-up fees and/or monthly fee (as applicable), before taxes. Requests for a refund must be made in writing within 30 days following the installation of service. ©AT&T Corp. Used under license. Please quote the following Promotion Code N375.

Gadgets to watch

Timex packs sports lines with functions

By Sean Carruthers

Yeah, so the headline is a bad pun, but check out these new Timex watches—they're great little gadgets. The almost 100-year-old company is known for a number of innovations in watchmaking. Here are a few of the latest wrinkles it has added to standard time keeping.

Timex Helix WRKS

From: Timex Corp., www.timex.com
Estimated price: \$260



While digital watches are known for being jam-packed with features, how many watches do you know of that include not only a timer, alarm, and chronograph with a 50-lap memory, but also a digital compass, thermometer, barometer, and altimeter?

As you'd expect from that lead-in, Timex's new Helix WRKS performs all of those functions, and as you may also have deduced from that group of features, it's bigger than your typical wrist-watch, with a face about 5 cm across, 1.3

cm deep, and weighing in at 75 g. By comparison, my metal-encased Swiss Army watch (the heaviest watch I've ever owned) is only 50 g. In other words, it's not a watch for casual wear.

It is designed to be a companion for those who love the outdoors: the compass makes sure you don't get lost in the woods, the altimeter tells you how high up you are, and the barometer warns of impending storms. You can easily switch between modes by spinning the oversized crown on the side of the watch, and you can lock into one mode with the flick of the lock switch, protected at the bottom of the face near the strap.

The Helix WRKS uses Indiglo illumination, so you can see its face when it's dark. As well, thermometer, barometer, and altimeter readings can be displayed in either metric or imperial units. It's also water resistant, though you should resist the urge to press the buttons while the watch is underwater—doing so will break the watertight seal.

The expected caveats apply here: the specialized functions of the watch won't work well indoors, and the digital compass may not be accurate indoors, especially if there are electrical or magnetic sources of interference in the vicinity.



Despite these issues (and its large size), the Helix WRKS is a great companion if you're hitting the wilderness.

(Special note: Whoever wrote the manual for this watch should either be given an award or a reprimand for the humorous comments throughout, such as the warning "Do not eat watch.")

Timex Helix Digital Compass

From: Timex Corp., www.timex.com
Estimated price: \$120

Timex also offers a more basic version of the Helix for those who just want to avoid getting lost.



The Digital Compass model is more compact and features an adjustable outdoor-friendly cloth strap.

It includes a chronograph, timer, alarm, and, of course, a built-in

digital compass—just press the heading button and it shows you your heading in degrees. A spinning direction dial on the top of the watch allows you to reorient yourself easily. As with other compasses, the accuracy won't be good around electrical or magnetic sources, so it's best used outdoors away from wiring and computer equipment. About the only complaint we really have—and it's a small one—is with the fairly bold grid-lines on the watchface, which can make it a bit more difficult to read the display.

If you do a lot of hiking in strange locales, the Digital Compass will certainly keep you headed in the right direction.

Timex Speed + Distance System

From: Timex Corp., www.timex.com
Estimated price: \$360 (50-lap), \$400 (100-lap)

If you're a runner training for longer distances (say, a marathon), you'll know that it's harder to keep your pace the

Continued on page 30

Slim, trim Toshiba e310 impresses

Toshiba made a strategic exit from the handheld computing space a few years back, ditching anything smaller than its notebook line. Now it's back, and it certainly looks like a very strategic re-entry: the Toshiba e310 Pocket PC is one of the nicest Windows Pocket PC-based handhelds to come along, owing largely to its streamlined design and attractive price.

First and most important, the e310 isn't much bigger than the handhelds in Palm's m500 series—it's slightly taller but virtually the same width and thickness. Despite the small form factor, it

Toshiba e310

From: Toshiba Canada, www.toshiba.ca
Estimated price: \$649

still manages to fit in an exceptionally clear 320x480-pixel colour TFT screen and a MMC/SD slot for software/hardware expansion.

The e310 is set up with all the usual software that comes with the new Pocket PC devices, including MSN Messenger, Pocket Word and Excel, and Microsoft Reader (for e-books). It also has a mini Web browser, and a version

of Windows Media Player, so you can play your MP3 files back from the external media slot. (There's a headphone jack for high-quality stereo audio located along the top. The sound is quite good using headphones.)

In the end, if you've been reluctant to head to the Pocket PC platform because of the size and price of the devices, the e310 will give you plenty of reason to reconsider: it costs about the same and is generally the same size as the Palm m515—and includes an audio component to boot. Welcome back, Toshiba!

—Sean Carruthers



“Sure, I remember saving
that file on my PC.
It’s the *name* of the file
I can’t remember.”

Announcing desktop software that can search for a file – even if you’ve forgotten its name.

It’s called Search Companion, a feature in Windows XP® Professional that makes it easy to find files and folders on your PC. Users can enter a part of the file name, a title or sentence within the file – or even the time or date it was last opened – and Search Companion will scan your PC for the appropriate match. Office XP is also designed to make basic tasks faster and easier. With its improved

calendar features, users can check colleagues’ schedules before selecting a meeting time. (If the time they propose isn’t ideal, a new time can be proposed right within the original message.) Office XP also enables users to consolidate multiple email accounts, MSN® Messenger, and their personal

information into one, convenient location. And with our new Smart Tags in both Office XP and Windows XP Professional, context-sensitive options appear on-screen when and where you need them to deliver relevant information about formatting documents, correcting formulas, or linking to information on the Web. For more details on how Windows XP Professional and Office XP can help make your entire organization more productive, contact your preferred technology vendor or visit us at: www.microsoft.ca/desktop

Workers using Windows XP Professional are 25% more productive.

An independent study by American Institute for Research concluded that users of Windows XP Professional are 25% more productive than users of Windows 2000 while doing common business tasks (i.e. launching programs, sending email, installing new applications). The Institute also found that end users could save an average of over 23 minutes on 11 common tasks with Office XP versus Office 2000.

AMD Athlon Best Buy

Shuttle K7T266A AK31A XP Board
128MB DDR RAM (PC2100)
1.44MB Floppy Drive
20GB ATA100 7200RPM Hard Drive
Ultra ATA100 Cont. w/2x16550 Serial
1xBI-Directional Parallel, 2xUSB Port
AGP nVidia GeForce 2 MX 200 32MB
On Board AC-97 Sound Card
52x Speed UDMA CD-ROM
800W (PMPO) 3 pcs. Sub-Woofers Speaker System
ATX Mid-Tower Case 250W Power Supply
107-keys Windows 98 Keyboard, PS/2 Mouse
1 Year Parts & Service Warranty



DDR266



Athlon K7-1.2GHz \$ 5 3 5
Athlon K7-1.3GHz \$ 5 4 0
Athlon K7-1.4GHz \$ 5 8 0

AMD Gamer Xtreme

MicroStar 6561 DDR333 ATA133 Board
256MB DDR RAM 333 (PC2700)
1.44MB Floppy Drive
40GB ATA133 7200RPM Hard Drive
Ultra ATA133 Cont. w/2x16550 Serial
1xBI-Directional Parallel, 4xUSB Port
MSI GeForce 4MX 420 AGP 64MB TV out
On board 3D PCI Sound
52x Speed UDMA CD-ROM
800W (PMPO) Speaker w/Subwoofer
Daytek 17" DT-77A .28mm Monitor
ATX Mid-Tower Case with 300W Power Supply
107-keys Windows 98 Keyboard, PS/2 Mouse
1 Year Parts & Service Warranty

DDR333

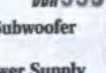
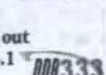


Geforce 4 MX420 & ATA 133

Athlon XP-1600+ \$ 8 9 9
Athlon XP-1700+ \$ 9 2 5
Athlon XP-1800+ \$ 9 3 5
Athlon XP-1900+ \$ 9 8 9
Athlon XP-2000+ \$ 1,034

Titanium XP Game Station

MicroStar 6561 DDR333 ATA133 Board
256MB DDR RAM 333 (PC2700)
1.44MB Floppy Drive
60GB ATA133 7200RPM Hard Drive
Ultra ATA133 Cont. w/2x16550 Serial
1xBI-Directional Parallel, 4xUSB Port
MSI GeForce 4MX440 AGP DDR 64MB TV out
Creative Labs Sound Blaster Live Value 5.1
52x Speed UDMA CD-ROM
Altec Lansing AVS500 5 pcs Speaker w/Subwoofer
NEC AS75F 17" .25mm Flat Monitor
ATX Mid-Tower Case with CSA 300W Power Supply
107-keys Windows 98 Keyboard, PS/2 Mouse
1 Year Parts & Service Warranty



Geforce 4 MX440 & ATA 133

Athlon XP-1700+ \$ 1,095
Athlon XP-1800+ \$ 1,105
Athlon XP-1900+ \$ 1,160
Athlon XP-2000+ \$ 1,205
Athlon XP-2100+ \$ 1,265

AMD Duron Station

Shuttle MK20N All-in-One AGP Motherboard
128MB PC133 SD RAM
1.44MB Floppy Drive
20GB ATA100 5400RPM Hard Drive
Ultra ATA100 Cont. w/2x16550 Serial
1xBI-Directional Parallel, 2xUSB Port
On Board 3D Graphics Accelerator
On Board AC-97 2.0 3D Audio Sound
On Board 10/100 LAN
52x Speed UDMA CD-ROM
MLI 699 120W Stereo Speakers
ATX Mid-Tower Case with 250W CSA Power Supply
107-keys Windows 98 Keyboard, PS/2 Mouse



Upgrade to Book PCS39



Duron 1.0GHz \$ 4 2 9
Duron 1.1GHz \$ 4 3 9
Duron 1.2GHz \$ 4 4 5
Duron 1.3GHz \$ 4 6 5
Duron 1.4GHz SCALL

LINKSYS

ProConnect KVM 2 Port Switch
Model:PS2KVM2
ProConnect KVM 4 Port Switch
Model:PS2KVM4

\$75
\$125

IDE Hard Drive Special!!

20GB \$94
40GB \$105
60GB \$145
80GB \$175

120GB \$259

HARD DRIVE

Promise ATA100 PCI Controller

\$39.00
Promise ATA133 PCI Controller
\$55.00

Pentium 4 Best Buy

Shuttle MV42N P4 Intel 478 Socket AGP ATX Board
128MB DDR PC2100 Memory
1.44MB Floppy Drive
20GB ATA100 5400RPM Hard Drive
Ultra ATA100 Cont. w/2x16550 Serial,
1xBI-Directional Parallel, 2xUSB Port
On Board AGP 3D Video Card
On Board AC-97 3D Sound Card
10/100 Network Adaptor
52x Speed UDMA CD-ROM
MLI 699 120W Stereo Speakers
ATX Mid-Tower Case w/300W PS
107-keys Windows 98 Keyboard, PS/2 Mouse
2 Year Parts & Service Warranty



Celeron 1.7GHz \$ 5 0 9
Pentium 4 1.6GHz \$ 5 9 9
Pentium 4 1.7GHz \$ 5 9 9
Pentium 4 1.8GHz \$ 6 2 9
Pentium 4 1.9GHz \$ 6 3 9

Pentium 4 Office Station

INTEL Motherboard D845GLAD i845 chipset 400MHz
3PCI ATX Board
256MB DDR RAM (PC 2100MHz)
1.44MB Floppy Drive
40GB ATA100 7200RPM Hard Drive
Ultra ATA100 Cont. w/2x16550 Serial,
1xBI-Directional Parallel, 2xUSB Port
AGP nVidia GeForce 2 MX 400 64MB TV Out
On Board AC-97 Sound Card
52x Speed UDMA CD-ROM
MLI 699 120W Stereo Speakers
ATX Mid-Tower Case w/300W PS
Daytek 17" DT-77A .28mm Monitor
107-keys Windows 98 Keyboard, PS/2 Mouse
2 Year Parts & Service Warranty



Pentium 4 1.6GHz \$ 985
Pentium 4 1.7GHz \$ 985
Pentium 4 1.8GHz \$ 1015
Pentium 4 1.9GHz \$ 1025
Pentium 4 2.0GHz \$ 1069

Pentium 4 Gamer TI. DDR

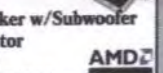
MicroStar 6566-E 533FSB DDR 133 s478 Board
256MB DDR RAM (PC 2100MHz)
1.44MB Floppy Drive
60GB ATA133 7200RPM Hard Drive
Ultra ATA133 Cont. w/2x16550 Serial
USB 2.0 1xBI-Directional Parallel
ATA 133 & USB 2.0
MSI GeForce 3 Ti200 128MB DDR VIVO AGP
Creative Sound Blaster Live Audigy Sound
24x CDRW CD-ROM, FireWire IEEE
Altec Lansing AVS300 Sub-Woofers Speaker
ATX Mid-Tower Case w/300W PS
NEC 17" AS75F Flat Monitor .25mm
107-keys Windows 98 Keyboard, PS/2 Mouse
2 Year Parts & Service Warranty



Pentium 4 1.8GHz \$ 1445
Pentium 4 1.9GHz \$ 1455
Pentium 4 2.0GHz \$ 1499
P4 2.26GHz 533FSB \$ 1579
P4 2.40GHz 533FSB \$ 1799

AMD XP Gamer's Dream

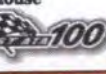
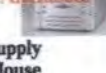
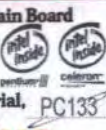
MicroStar KT3-ARU DDR333 Board
256MB DDR RAM 333 PC2700
1.44MB Floppy Drive
80GB ATA133 7200RPM Hard Drive
Ultra ATA133 Cont. w/2x16550 Serial,
1xBI-Directional Parallel, 2xUSB Port
ATA RAID & USB 2.0
AGP MSI 8871 GeForce 4 Ti4400 128MB VIVO DVI
Creative Sound Blaster Audigy Sound
24x CDRW ROM, FireWire IEEE
Altec Lansing AVS500 5 pcs Speaker w/Subwoofer
NEC 17" AS75F .25mm Flat Monitor
ATX Mid-Tower Case w/300W PS
107-keys Windows 98 Keyboard, PS/2 Mouse
1 Year Parts & Service Warranty



AMD XP-1700+ \$ 1,539
AMD XP-1800+ \$ 1,549
AMD XP-1900+ \$ 1,605
AMD XP-2000+ \$ 1,649
AMD XP-2100+ \$ 1,699

Intel Best Buy

Shuttle MV25N Intel Socket 370 AGP Main Board
128MB 168 Pin SDRAM (PC133MHz)
1.44MB Floppy Drive
20GB ATA100 5400RPM Hard Drive
Ultra ATA100 Controller w/ 2x1655 Serial,
1xBI-Directional Parallel, 2xUSB Port
AGP On board 3D Video Card
On Board AC-97 3D Sound Card
10/100 On board Network Card
52x Speed UDMA CD-ROM
MLI 699 120W Stereo Speakers
ATX Mid-Tower Case with CSA Power Supply
107-keys Windows 98 Keyboard, PS/2 Mouse
1 Year Parts & Service Warranty



Celeron 1.1GHz \$ 4 3 5
Celeron 1.2GHz \$ 4 4 5
Celeron 1.3GHz \$ 4 5 5
Pentium III 1.13GHz \$ 5 1 9
Pentium III 1.2GHz \$ 5 3 9

Dual Intel PIII Server

TYAN DUAL FCPGA s370 Tiger AGP Board
- Dual Channel ATA100 RAID
- MAX Up to 6GB Memory
ECC Register 256MB 168 Pin SDRAM (PC133MHz)
1.44MB Floppy Drive
40GB ATA100 7200RPM Hard Drive
Ultra ATA100 Cont. w/2x16550 Serial
1xBI-Directional Parallel, 4xUSB Port
On Board ATI Rage XL 8MB SDRAM
52x Speed UDMA CD-ROM
ATX Full-Tower Case with
Enermax 350W CSA Power Supply
107-keys Windows 98 Keyboard, PS/2 Mouse
1 Year Parts & Service Warranty



PIII 1.13GHz Dual \$ 1,345
PIII 1.20GHz Dual \$ 1,445
PIII 1.26GHz Dual SCALL

Upgrade Special

Upgrade to Shuttle SpaceWalker
Chassis: All Aluminum
Dimensions: 270x190x160mm
Drive bays: 5.25x1 3.5x2 \$259 for PIII-550

Upgrade from ATX Case to Aluminum Tower Case
18" ATX Tower 300W Power \$175

Upgrade from ATX Case to Blue or Red Tower Case
18" ATX Tower 300W Power \$25

Upgrade from ATX Case to USB Audio Jack up front
18" ATX Tower 300W Power \$29

!!!! Old inventory Clearance !!!!
Video Card from \$10.00
Network Card from \$5.00
MS Financial Package \$39
Lotus \$10
MS Word 97 \$59
Backup Exe \$59
Games \$5
DreamWeaver \$399
Used Monitor 15" \$69
Used Monitor 17" \$109

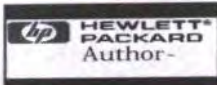
Upgrade Options

Upgrade from 52x CDRW to DVD Drive .. \$ 25.00
Upgrade from 52x CDRW to 24x CDRW .. \$ 30.00
LG 24x CDRW IDE Internal Drive \$ 75.00
Upgrade 52x ROM to CDRW-DVD Combo .. \$ 79.00
Windows XP Home \$149.00
Windows XP Professional \$239.00
Windows 2000 Professional \$249.00
Windows 98 SE \$165.00
MS WorkSuite 2002 with Works and Word .. \$149.00
Corel Word Perfect Office \$35.00
Corel Draw 8/9 \$39/89
Lotus Smart Suite Millennium 9.5 \$19.00
Norton Internet Security \$29.00
Norton AntiVirus 2002 \$29.00
WinFax Pro 10.0 \$35.00
Acer 56K Modem PCI V.90 \$23.00
D-link 10/100 PCI 530TX Network Card \$18.00
Logitech QuickCam \$49.00
MultiMedia Microphone \$ 8.00
Surge Protected Power Bar \$10.00
Daytek 17" .28mm DT-77A Monitor \$199.00
Extended Warranty SCALL



COMPAQ

Authorized Reseller



Intel Processor Dealer



SONY



3Com net Working Partners



MicroConcept

102 - 1245 West Broadway
Vancouver, B.C. V6H 1G7

PC Memory Specials

16MB/32MB/64MB 60ns 72-Pin EDO SIMM	\$22/35/69
128MB/256MB SDRAM PC-100	\$45/79/143
128MB/256MB/512MB SDRAM PC-133	\$42/75/139
128MB/256MB/512MB ECC SDRAM PC-133	\$55/84/159
128MB/256MB/512MB DDR PC-2100	\$49/92/179
256MB/512MB DDR PC-2700	\$109/219
256MB/512MB ECC DDR PC-2100	\$109/189
64MB/128MB/256MB RAMBUS 800MHz	\$40/83/155
128MB/256MB/512MB ECC RAMBUS 800MHz	\$85/185/469
64MB/128MB/256MB 144-Pin Notebook Memory	\$32/45/105

Hot Spots

HDD IDE Special 120GB 7200RPM IDE HDD 80GB 7200RPM IDE HDD	Pioneer 104 IDE DVDR/RAM	MSI 8840 40x CDRW IDE	IOmega CDRW External USB 2.0	AverMedia PC to TV Converter
DVD-R Each \$12 50 per CDR Spindle \$25	LQ 12x CDRW DVD	Plextor IDE 40x120x40x	Plextor 40x IDE CDRW	LQ 16x DVD IDE Drive

Floppy & Hard Drives

Panasonic 1.44MB Floppy Drive	\$15.00
20GB/40GB/60GB 7200RPM IDE HDD	\$105/109/129
80GB/120GB 7200RPM IDE HDD	\$145/250

Video Graphics Adapters

MSI GeForce 4 4600 128MB VIVO \$485.00	
ATI FireGL 8700 64MB DDR OpenGL for MCAD	\$365.00
ATI All-in-Wonder Radeon 7500 AGP 64MB	\$285.00
ATI Rage 128 32MB AGP Card	\$45.00
ATI Radeon 7000 PCI 32MB Video Card	\$69.00
ATI Radeon 7000 32MB/64MB AGP Video Card	\$89/115
ATI Radeon 7000 Dual / DVI&VGA 64MB TV	\$65/79
ATI Radeon 7500LE 64/128MB TV DVI / Dual	\$99/129
ATI Radeon 8500LE Dual Head 64MB DDR AGP	\$245.00
ATI Radeon 8500 64MB All-in-Wonder	\$429.00
ATI DV Wonder TV Wonder Card (NTSC)	\$69/99
ATI USB TV Wonder External	\$119.00
ASUS V7100 GeForce2 MX 400 64MB	\$119.00
ASUS V7100 Twin View Digital Pure 32MB Card	\$129.00
ASUS V8420/44 GF4 4000/4400 TV DVI 128MB	\$295/389
ASUS V8400 GF4 4000 128MB Pure/Deluxe	\$515/569
ASUS V8710 GF4 4000/4400 64MB AGP Card	\$129/149
Matrox G450/G550 32MB DDR Dual Display	\$139/159
MicroStar 8850-003 GeForce3 Ti200 128MB VIVO	\$209.00
MicroStar 8870 GF4 Ti-4200 64/128MB TV-Out	\$249/289
MicroStar 8866/67 GeForce 4 440/460 VIVO 128	\$169/185
MicroStar 8861 GeForce 4 MX420/440 64MB TV	\$105/129
MicroStar 8872 GF4 Ti4400/4600 128 VIVO DVI	\$379/499
nVIDIA TNT2 M64 AGP / PCI 32MB	\$46/69
nVIDIA GeForce 2 MX 200 32MB / 32MB TV	\$58/59
nVIDIA GeForce 2 MX 400 64MB / 64MB TV-Out	\$59/65

Monitors

Daytek DT-57A 15" 1024x768, 28mmDP	\$177.00
Daytek 17" DT-77A 1280x1024, 27mmDP	\$199.00
NEC AS50 15" / AS70 17" 1280x1024, 27mmDP	\$209/230
NEC AS90 19" 1600x1200, 26mmDP	\$339.00
NEC AS120 21" 1600x1200, 25mmDP	\$799.00
NEC FE791S 17" 1600x1200, 25mmDP FD	\$349.00
NEC FE950A 19" 1792x1344, 25mmDP FD	\$499.00
NEC AS125F 21" Flat 1600x1200, 25mmDP FD	\$839.00
NEC LCD 19" 1720" Viewable Flat Monitor	\$1889/2419
see next page for more Samsung and NEC specials	
Sony E240 15" 1280x1024, 24mmDP FD	\$419.00
Sony G220S 17" 1600x1200, 24 FD	\$519.00
Sony SDM581 18" LCD 1024x768 Screen	\$1649.00
Sony G420S 19" 1800x1440, 24mmDP FD	\$639.00
Sony E540P 21" 1920x1440, 24mmDP FD	\$999.00
Sony SDM-S51 16" LCD / 17" 1280x1024 LCD	\$1189/1279
Viewsonic E51E70 1280x1024	\$225/239
Viewsonic E70F/G70F 17" 1280x1024, 25mmDP F	\$259/299
Viewsonic E755E/P775 17" 1600x1200 25mm	\$299/475
Viewsonic E90 / E90F 19" 1600x1200 (Cash Only)	\$349/409
Viewsonic G90F 19" / G70F Flat Monitor 1600x1200	\$459.00
Viewsonic PF990 19" LCD Display 1280x1024	\$539.00
Viewsonic P220F 21" 1600x1200, 24mmDP FD	\$999.00
Viewsonic VE500/150M (speaker) 15" LCD	\$689/699
Viewsonic VG181 18" LCD Display 1280x1024	\$649/849
Viewsonic VE700 17" LCD Display 1280x1024	\$1139.00
Viewsonic VG171 17.4" LCD Display 1280x1024	\$1279.00
Viewsonic VX900TFT 1280x1024 18" LCD Display	\$1919.00
Viewsonic Plasma Monitor VPW500 50"	\$12499.00

CDRW/DVD/Sound

Adaptec 4 Firewire & 2 USB2.0 Controller PCI	\$129.00
Cmedia PCI 4 Channel Sound Card	\$18.00
Creative Labs Sound Blaster Ensoniq PCIPCI 128	\$29/35
Creative Labs SB Audigy MP3+X-Gamer	\$139.00
Creative Labs SB Live Value 5.1/Audigy (IEEE1394)	\$49/99
AOpen 52X / 56X IDE CD-ROM Drive	\$39/45
See upper right hand corner for CDRW Special	
Toshiba 16X IDE DVD Drive	\$69.00
Plextor 24x10x40/ 40x12x40x IDE Retail	\$199/219
Plextor 32x SCSI CDRW Drive Internal / External	\$369/499
Sony 32x / 40x CDRW Drive Internal	\$119/139
Yamaha 24x CDRW USB 2.0 / Firewire	\$279/349

Motherboards

Abit P4 845G BG7 w/ Video/Sd/Lan USB2.0	\$199.00
Abit P4-478 845 DDR ATA100/ RAID	\$139/149
ASUS i-Panel Basic	\$24.00
ASUS A7N 266C / 266 (Video) nVidia DDR Board	\$165/219
ASUS A7V266 RAID Via KT266A Athlon Board	\$215.00
ASUS A7V333 / A7V333-RAID K7 DDR with Audio	\$189/229
ASUS CUV266 s370 Pro/266 AGP Motherboard	\$59.00
ASUS P4B GL / P4B Video/Sd 478 DDR Board	\$155.00
ASUS P4B266C / 266WA 478 DDR MB	\$165/215

ASUS P4B 533EL/533VL Video Lan 478 DDR MB	\$289/269
ASUS P4T-E WOA / WA P4 478 RAMBUS MB	\$225/229
ASUS P4T533CL 850E Chipset with Lan	\$269.00
ASUS P4S333 WA 478 P4 DDR33	\$155.00
ASUS TUA 266 s370 P-III or Celeron All DDR or SD S 83.00	
ASUS SKT370 Dual SDRAM LAN SCSI MB	\$699.00
ECS K755A 3DDR SIS Chipset Socket A LAN	\$88.00
ECS K756A 3DDR SIS745 Chipset Socket A / Sound \$114.00	
ECS K756M SIS730S All-in-One/Lan Sock. A Bd. \$89.00	
ECS L7TVA3 Sock A KT333 DOR333/RAID LAN Sd \$109.00	
ECS L7VMM KM266 DDR All-in-One Sock A Board \$99.00	
ECS P455A/DX 478 533FSB SIS DDR w/ LAN	\$105.00
ECS P4VMM2 478 VGA/Lan/Sound SD and DDR	\$99.00
ECS P4VXAD2 V3.0 533FSB 478 RAID LAN MB	\$109.00
ECS P6EVM2 YigaPro CPU All-in-One MB	\$115.00
Intel 845 P4 478 SDRAM / DDR AGP Board	\$169/175
Intel KD850 P4 5PCI s478 RAMBUS Board	\$229.00
MicroStar MS-6309LEVIA 604T Socket 370 Bd	\$109.00
MicroStar MS-6368 Tualatin Video/Sd s370 LAN Bd	\$99.00
MicroStar MS-6378L Video/Sound/Lan Bd XP	\$95.00
MicroStar MS-6390L KM266, DDR Video/Sd/Lan	\$115.00
MicroStar MS-6396 P4 1845 478 AR/ ARU	\$145/185
MicroStar MS-6396 P4 1845e 533 LAN RAID USB2	\$205.00
MicroStar P4 1845e 533 LAN RAID USB2 BlueTooth	\$259.00
MicroStar 6533G SIS 478VGA/Lan/Sound	\$129.00
MicroStar MS-6545 850 Pro S Socket 478 RDRAM	\$205.00
MicroStar MS-6547E 478 SIS DDR333 Sound SPIC115/129	
MicroStar MS-6561 Socket A 745 DDR333 MB	\$99.00
MicroStar MS-6566 845e/845eLan 533 Sound USB2/149/159	
MicroStar MS-6580 845G 533 VGA/Lan/Sd USB2	\$169.00
MicroStar MS-9105LR-Pro266 Dual Socket A w/Lan	\$239.00
MicroStar K7T Turbo2 KT133A	\$109.00
MicroStar KT-3 Ultra/ARU KT333 ATA 133 AGP Md	\$125/175

HD/FD Controllers

ISA IDE HD/FD Controller with I/O UART 16550	\$25.00
Adaptec 2400A ATA100 RAID 0/1 Card 4 Channel	\$139.00
Adaptec 2400A ATA100 RAID 5 Card 4 Channel	\$545.00
Adaptec 2906/2930U PCI SCSI Controller	\$79/139
Adaptec 29160 PCI Ultra 160 SCSI	\$355.00
Adaptec 2940/2944 SCSI 3 PCI Controller	\$349/589
Adaptec 2100S/2105S RAID Ultra 160 SCSI	\$599/599
Adaptec 3210S/3410S RAID Ultra 160 SCSI 4 Channels	\$1129/1589
Adaptec 39160 Ultra 160 SCSI Kit with Cable	\$545.00
Promise Hot Swap Chassis removable kit for ATA	\$119.00
Promise ATA100 TX2/FastTrak 100 TX2 RAID	\$39/135
Promise ATA133 2 Channel PCI Controller	\$59.00
Promise ATA100 FastTrak TX4 / TX6 Channel RAID	\$225/445

Modem & Mice

AOpen 56K v.90 Hardware/Win Fax Modem	\$39/23
Genius NetMouse with Magic-Button Serial	\$12.00
Logitech FirstMouse+ OEM/Comdex Wheel	\$14/39
Logitech Mouse Optical (OEM)	\$22.00
Logitech Cordless Mouseman Optical	\$69.00
Logitech Cordless Trackman Wheel	\$79.00
Logitech iFeel Mouse Optical	\$59.00
Logitech Mouseman Dual Optical-Twin	\$66.00
Logitech Mouseman Traveler Optical	\$66.00
Logitech TrackMan Marble Wheel	\$55.00
Microsoft Wheel IntelliMouse	\$19.00
Microsoft Optical Wheel / Explorer OEM	\$24/45
Microsoft Trackball Explorer / Trackball Optical	\$75/55
Microsoft Compatible Mouse PS2	\$5.00
US Robotics 56K v.90 Int/Ext Fax Modem	\$35/144
GVC External Modem 56K USB	\$99.00

Keyboards & Cases

Redundant Power Supply 2x300W	\$279.00
P4 460W Power Supply 2 Fan Temperature Controller	\$145.00
Antec SX600/SX635 Mini Tower Case	\$119/139
Antec SX600/SX640 Workstation Case	\$89/205
Antec SX1000/SX1040 Workstation Case	\$159/225
Antec SX1400B 14 Bay Server Case 400W	\$699.00
1U/2U RackMount Case 150W Case	\$289/299
EnerMax 350W/431W ATX Power Supply	\$69/99
EnerMax Super Quiet 365 / 465 Power Supply	\$75/105
Fujitsu 4725/6725 Enhanced 104 Keys	\$65/118
M-Tek Windows 98/Internet Keyboard	\$9/16
Logitech Deluxe/Internet Navigator Keyboard	\$28/39
Logitech Cordless Freedom/Touch Keyboard & Mouse	\$79/99
Microsoft Natural Elite/Internet Keyboard	\$40/26
Microsoft Internet Pro/Natural Pro Keyboard	\$45/89
Microsoft Office Keyboard	\$45.00
1719 ATX Tower w/250W CSA Power Supply	\$39/49
25" ATX Tower with 250W CSA Power Supply	\$79.00

Jet Printers/Scanners

Canon S200 Color Inkjet	\$99.00
Canon S300 (\$20 Rebate) Colour Inkjet	\$119.00
S200/S750/S820 call for rebate detail with Canon Digital Camera	

Canon S520 Color Inkjet	\$189.00
Canon S750/S820 Color	\$289/479
Canon S820 D Duplex Colour Printer	\$579.00
Canon S9000 13x19" Color Printer	\$769.00
Epson Stylus C40 Inkjet Colour Printer	\$69.00
Epson Stylus C80 Inkjet Colour Printer	\$125.00
Epson Stylus C80 Inkjet Colour Printer	\$229.00
Epson Stylus photo 1280 12x44 Full Bleed Paper	\$719.00
Epson Photo 820/890 Inkjet Printer & Colour	\$149/439
Epson Stylus C80N Network Colour Inkjet Printer	\$509.00
Epson Photo 2000P USB IEEE B Size	\$1239.00
Epson 3000 16.5"x44" Color Printer	\$1399.00
Epson 1250U/Photo Scanner	\$139/189
Epson P2450 Professional Scanner 2400x4800	\$1579.00
HP 656C/845C Desktop Color Printer	\$95/135
HP 920CVR/940CVR Desktop Color Printer	\$165/239
HP 960CSE 15/12PPM 2400x1200dpi USB Color	\$295.00
HP 995 Desktop Color Printer with BLUE TOOTH	\$579.00
HP Photo Smart 100 / 1115 Color Printer	\$235/295
HP D135 Multifunction Inkjet w/ Scan Fax Copier	\$749.00
HP CP 1700D Color Duplex Printer BLUE TOOTH	\$879.00
HP G55/G85 Multifunction Color Printer	\$389/579
HP K80 12PPM Black Color Multifunction Printer	\$489.00
HP PSC 950 Multifunction Printer Color	\$589.00
HP OfficeJet V40 Fax Copy & Scan Color Printer	\$299.00
HP Photo Scanner 1000 300DPI 24Bit Scan	\$99.00
HP 2200C Flatbed Scanner	\$99.00
HP 5470/5490C Flatbed Scanner	\$439/549
HP 7400C Flatbed Scanner with Transparency	\$679.00
HP Scanjet 7490C Scanner Bilingual	\$1245.00
Lexmark Z25/Z33 JetPrinter	\$75/89
Lexmark Z35/Z55 JetPrinter	\$99/195
Lexmark Z65N Network Color JetPrinter	\$289.00
Viewsonic Onetouch 8550/8700 Flatbed Scanner	\$455/155
Viewsonic USB Flatbed Scanner 1200x4800 dpi	\$155.00
Viewsonic PhotoPro 7700U Flatbed Scanner 600x1200	\$185.00
Viewsonic Sheetfeed scanner Strob Pro	\$299.00

Laser Printers

MultiFunction HP 1220 \$779.00	
HP 3300 MFP 1200DPI Multifunction Laser Printer	\$1049.00
HP 1220/1220 w/ Scanner Laserjet 15 ppm	\$615/785
HP 2200/2200DT Laserjet 1200dpi, 19ppm	\$1059/1389
HP 2200D/2200DN Laserjet 1200dpi, 19 ppm	\$1169/1669
HP 4100/4100DTN Laserjet, 1200dpi, 25ppm	\$1729/3239
HP 4100MFP Laserjet 5GB 96MB, 25ppm Scan	\$4899.00
HP 8150 Laserjet, 1200dpi, 32ppm, Network	\$3359.00
HP 8150N Laserjet, 1200dpi, 32ppm, Network	\$3979.00
HP 8150DN/IN 1200dpi, 32ppm, Duplex/Network	\$4799/8359
HP 8150MFP Laserjet, 1200dpi, 64MB, High Volume	\$16399.00
HP 9000 /9000MFP Laserjet, 600dpi, 50ppm, 64MB/\$4869/1829	
HP 4550 Color Laserjet, 600dpi, 64MB	\$3309.00
HP 4550DN Color Laser, 600dpi, Network/Duplex N	\$6149.00
HP 8550 Color Laserjet, 600dpi, 64MB	\$6159.00
HP 8550DN(Duplex)/GN Color Laserjet, 600dpi, 64MB/\$6029/11690	
Lexmark Optra E320 / E322 Laser 600dpi, 16ppm	\$285.00
Lexmark Optra E320N / TN, 16ppm, 8MB 10/100	\$459/599
Lexmark Optra E322N / TN, 16ppm, 8MB 10/100	\$889/1069
Lexmark Optra C750/DTN, Color, 64MB, 1200, 10/100/\$3399/4999	
Lexmark Optra C720/DTN, Color, 64MB, 1200, 10/100/\$4899/3869	
Lexmark Optra T520/DTN 20ppm / Duplex Network \$1264/1759	
Lexmark Optra T522N 25ppm, 8MB 10/100	\$1939.00
Lexmark W810/DN, 35ppm, 1200, 32MB	\$3049/4359
Lexmark C720 / DN 45ppm, 1200dpi, 64MB, 10/100/\$2689/5509	
Lexmark C910 / C910DN 28ppm, 1200dpi, 64B	\$6099/9359

HomeNetwork/Wireless

See Next Page for 3com and D-link Wireless Network Products	
3Com 3CRWE83096A 11MB Wireless Workgroup Bridge	\$419.00
3Com 3CRWB0196 Wireless Bluetooth Printing Kit	\$299.00
3Com 3CRWE51196 Wireless Gateway Cable/ADSL	\$289.00
3Com 3CRSHPW696 OfficeConnect Wireless Cardbus	\$699.00
CISCO 350 AIR-AP352E2R-A-K9 Access Point	\$999.00
SMC 2735W EZ Connect Wireless Cardbus 802.11A	\$135.00
Netgear HA501NA 802.11A Wireless Cardbus	\$199.00
Netgear HE102NA 802.11A Access Point	\$379.00
Intel Pro/Wireless 5000 802.11A Access Point	\$589.00
Intel Pro/Wireless 5000 802.11A LAN Card Bus	\$239.00
Intel Pro/Wireless 5000 802.11A PCI Adaptor	\$299.00
Intel WPC2011BWW Wireless LAN Cardbus	\$145.00
Linksys WCF111 Wireless Compact Flash Card	\$179.00
Linksys Phoneline PCMCIA / USB Adapter	\$95/99
Linksys Phoneline PCI Adapter	\$55.00
Linksys WPS11 Wireless Print Server	\$205.00
SMC7004ABR 4 Port 10/100BT Router+Print Server	\$119.00
SMC7004AWBR Wireless 11Mbps Router 3 Port	\$239.00

Power Protection

APC BackUPS BK350		\$130.00
American Power		
BackUPS 350/500/650MC		\$129/189/239
BackUPS Pro 280S/350UC/420S		\$189/189/279
BackUPS Pro 500UC/650S		\$199/399
BackUPS Pro 1000/1400		\$560/719
SmartUPS SU420/SU620NET		\$329/449
SmartUPS SU700/SUA1000/SUA1500		\$519/659/849
SmartUPS SU2200/SU3000		\$1369/2099
SmartUPS 1000/1400 Rackmount		\$859/1079
Back UPS Office BF350U/BF500U		\$119/155
Matrix 3000XR Enhanced Solution Kit		\$3999.00
Cartridge for Matrix 3000/5000		\$135.00
Line Conditioner LR600/LR1250		\$139/179
Personal SurgeArrest 7/7 Outlets with Tel		\$29/36
Professional SurgeArrest 7/7 Outlets with Tel		\$45/55
Professional SurgeArrest 8/8 Outlets with Tel		\$49/60
Network SurgeArrest 7/7 Outlets with Tel		\$49/60
APC Notebook Surge Protector / Travel Power		\$49/99

ML-1210 Laser Printer SAMSUNG • 12 Pages Per Minute • 600DPI / 8MB RAM • USB & IEEE 1284 **\$319**

ML-1440 Laser Printer • 15 Pages Per Minute • 600DPI / 8MB RAM • USB & IEEE 1284 **\$449**

Lexmark Color LASER • 12 / 20 Pages Per Minute • 600 DPI • Low Per Page Cost **\$2639**

FREE!!!
INSTALLATION
Upgrade system for \$129
• 1GHz CPU 1Giga Pro
• All-in-one Motherboard
• Video AGP
• 3D Sound PCI
• 10/100 Network

INSTALLATION Included
Add Storage space from \$109!!! Only
• 20GB HardDrive \$94
• 40GB HardDrive \$105

acer
Optical in/out 5.1
AW850 Sound \$59
5.1 Sound PCI
AW850 \$49
1000W Subwoofer
Speakers MS810spk. \$45

100MB \$65
250MB \$119
100MB Disk \$14
250MB Disk \$18

brother
HL-1230 • Up to 600 x 600 dpi • 2MB RAM **\$319**
MFC-9700 5in1 • True 600 x 600 dpi output • 8MB RAM • 12 PPM • PC Fax • Colour Scanner **\$959**

HL-1440 • 1200 dpi • 15ppm, 2MB RAM **\$449**
HL-1450 • 1200 dpi • 15ppm, 8MB RAM **\$569**
HL-1470N • 1200 dpi, 15ppm • 10/100BT **\$759**
HL-1850 • 16ppm, 1200x600 dpi • 16MB RAM **\$859**
HL-1850N • 19ppm, 2400 x 600 dpi • 16MB, 10/100 BaseT **\$1099**

Soundman SR-30 **\$55**
xTruise DR-100 **\$95**
Wingman Action II Game Pad **\$29**

Logitech **\$24**
Wingman Attack Joystick **\$69**
Logitech **\$69**

Logitech **\$239**
Wingman Cordless Keyboard & Mouse **\$58**
Formalizer GP USB **\$65**

DAYTEK **\$519**
15" LCD Flat Monitor **\$829**
Impression **\$179**
17" LCD Flat Monitor

MSI 8850 GeForce3 Ti • 128MB DDR • TV-Out VIVO **\$199**
MSI 8872 GeForce4 Ti • 128MB DDR • DVI & VIVO **\$479**

acer **\$4300U Flatbed Scanner** • Ultra Slim Scanner • No adaptor required **\$79**
5000U Flatbed Scanner • Scan to Web Button **\$109**

ATI Radeon 7500 • Powered by Radeon 8500 GPU • 64MB DDR RAM • TV Tuner All-in-Wonder **\$269**

SB Live 512 PCI \$75
SB Live Audigy OEM \$99
SB Live Audigy MP3+ \$139
SB Live Extigy \$219
SB Live Platinum \$279

Optical Freedom • Keyboard and Mouse • Optical Wireless **\$119**

D-Link **\$99**
D-link 4 Port Router **\$99**
Instant Broadband EtherFast Cable/DSL Router

EPSON **\$69**
Epson C40UX • Colour Printer • USB

SMC **\$119**
SMC 1211TX PCI 10/100 PCI **\$119**
SMC PC Card 802.11A **\$129**

Disc Storage
Seagate
Cheetah
Barracuda
Maxtor
Fujitsu

Capacity	Model	Access	Cache	RPM	Interface	Price
18.4GB	ST318438LW	8.5ms	2MB	7200	ULTRA 160	\$239
18.4GB	ST318406LW	5.2ms	4MB	10000	ULTRA 160	\$289
18.4GB	ST318452LW	3.6ms	4MB	15000	ULTRA 160	\$389
36.9GB	ST336938LW	8.5ms	2MBs	7200	ULTRA 160	\$345
36.7GB	ST336706LW	5.2ms	4MB	10000	ULTRA 160	\$429
36.7GB	ST336752LW	3.6ms	4MB	15000	ULTRA 160	\$639
73.4GB	ST373405LW	4.9ms	4MB	10000	ULTRA 160	\$919
181.8GB	ST1181677LW	7.4ms	4MB	7200	ULTRA 160	\$2175
18.3GB	07N6350	4.1ms	4MB	10000	ULTRA 160	\$289
18.3GB	07N6800	3.4ms	4MB	15000	ULTRA 160	\$409
36.4GB	07N6340	4.2ms	4MB	10000	ULTRA 160	\$449
36.7GB	07N6801	3.4ms	4MB	15000	ULTRA 160	\$649
73.4GB	07N6300	4.9ms	4MB	10000	ULTRA 160	\$979
18.4GB	KW018L2	4.5ms	8MB	10000	ULTRA 320	\$269
36.7GB	KW036L4	4.5ms	4MB	10000	ULTRA 160	\$439
73.4GB	KW073L8	4.5ms	4MB	10000	ULTRA 160	\$929
18.4GB	MAN3184MC	4.7ms	4MB	10000	ULTRA 160	\$259
18.4GB	MAM3184MP	3.5ms	8MB	15000	ULTRA 160	\$379
36.7GB	MAM3367MP	3.5ms	8MB	15000	ULTRA 160	\$629
73.5GB	MAN3735MP	4.5ms	8MB	10000	ULTRA 160	\$929

3com Wireless Special
Blue Tooth PCMCIA \$189
3com Wireless Gateway \$289
3com PC Card Wireless \$99
3com PCI Wireless \$189

D-Link **\$105**
DWL-520 **\$138**
PCI Wireless 11Mbps Network Adaptor
Wireless 11Mbps Router & Access Point + 3 Port Switch **\$219**
D-Link Air **\$139**
DWL-120 **\$219**
DWL-1000AP **\$219**
11Mbps USB Wireless adapter **\$199**
DWL-5000AP **\$269**

intel. **\$239**
802.11A 44Mbps PCMCIA **\$239**
802.11A 44Mbps PCI **\$299**
PCI Wireless LAN PCI **\$189**
PCI Wireless Lan PCMCIA **\$145**

fido Business
GPS Wireless PCMCIA Card **\$499**
Access Internet On the road with your notebook - US & Canada
• Monthly Service Charge Applicable Call for Detail **\$499**
Wireless 5GHz 802.11 **\$499**
Wireless 2.4GHz 802.11 **\$269**
Wireless 11Mbps **\$199**

151S TFT LCD Display
• Full 15" Viewable **\$609**
• 1024x768 Res.
• 300:1 Contrast Ratio
Ivory / Silver

SyncMaster 150T
• 1024x768 @85Hz
• Digital Input
• Remote Control **\$749**

SyncMaster 171MP
• 1280x1024 @85Hz
• Remote Control **\$1749**
• TV

SyncMaster 171S
• 1280x1024 Res.
• 0.264mm Dot Pitch
• DDCI/2B PnP **\$979**

SyncMaster 170T
• 1280x1024 Res.
• 0.28mm Dot Pitch
• Digital Input **\$1349**

SyncMaster 240T
• 1600x1200 Res.
• Dual Input 450:1
• 24 inch Viewable **\$4199**

SAMSUNG **\$225**
SyncMaster 750s
• 17" (16" Viewable)
• 0.27mm Dot Pitch
• 1280x1024 @60Hz

SAMSUNG **\$259**
SyncMaster 753DF
• 17" (16" V) Dynal Flat Tube
• 0.20mm (H) Pitch
• 1280x1024 @65Hz

SAMSUNG **\$359**
SyncMaster 700IFT
• 17" (16" V) Natural Flat Tube
• 0.25mm AG Pitch
• 1600x1200 @68Hz

SAMSUNG **\$399**
SyncMaster 955DF
• 19" (18" V) Dynal Flat Tube
• 0.20mm (H) Pitch
• 1600x1200 @68Hz

SAMSUNG **\$699**
SyncMaster 1100P
• 19" (18" V)
• Natural Flat
• 1800x1440 @75Hz

SAMSUNG **\$1099**
SyncMaster 1200NF
• 22" (20" V) Natural Flat Tube
• 0.25mm AG Pitch
• 2048x1536 Res.

SyncMaster 750s
• 17" (16" Viewable)
• 0.27mm Dot Pitch
• 1280x1024 @60Hz **\$225**

SyncMaster 753DF
• 17" (16" V) Dynal Flat Tube
• 0.20mm (H) Pitch
• 1280x1024 @65Hz **\$259**

SyncMaster 700IFT
• 17" (16" V) Natural Flat Tube
• 0.25mm AG Pitch
• 1600x1200 @68Hz **\$359**

SyncMaster 955DF
• 19" (18" V) Dynal Flat Tube
• 0.20mm (H) Pitch
• 1600x1200 @68Hz **\$399**

SyncMaster 1100P
• 19" (18" V)
• Natural Flat
• 1800x1440 @75Hz **\$699**

SyncMaster 1200NF
• 22" (20" V) Natural Flat Tube
• 0.25mm AG Pitch
• 2048x1536 Res. **\$1099**

NEC
NEC 17" Flat AS75F **\$219**
NEC 19" Flat AS95F **\$329**
NEC 15" LCD 1550M **\$679**
NEC 15" LCD 1550M **\$569**
NEC 17" LCD **\$929**
NEC 20" LCD **\$2399**

MONSOGN **\$129**
Rear Stand
M502 Speakers **\$129**
MH505 Speakers **\$235**
\$129

ALTEC LANSING
MULTIMEDIA
AH-P 515 Headset \$19/19
ACS54 PowerPlay Plus 5 pcs. Speaker System \$88.00
ATP3 3 pcs. Speaker System with Thin Profile Design \$85.00
ATP4 5 pcs. Speaker System with Thin Profile Design \$175.00
AVS200 2 pcs. Speaker System \$26.00
AVS300 3 pcs. Speaker System \$46.00
AVS500 5 pcs. Speaker System \$65.00
ADA890 Dolby Digital & THX Certified Speaker System \$359.00
Altec 2100 2.1 3 pcs. Speaker System (\$30 Mail-in Rebate) \$119.00
Altec 4100CN 5 pcs. Speaker System Alloy and Charcoal \$179.00
Altec 621 2.1 3 pcs. Speaker System \$179.00
Altec 641 4.1 5 pcs. Speaker System \$239.00

YAMAHA
THE WAY YOUR COMPUTER SHOULD SOUND.
YST-M101 5 Watts/ch Multimedia Speaker (2 pcs) \$32.00
YST-MS201 Multimedia Speaker & Subwoofer (3 pcs) \$64.00
YST-M50 3 Multimedia Speaker & Subwoofer (3pcs) \$149.00
TSS-1 Multi-Channel Surround Sound System \$279.00

CREATIVE
audiotronics **\$56.00**
music lovers/gamers **\$73.00**
Sound Works **\$85.00**
PC Works **\$399.00**
Inspire 2.1 2400 3 pcs. Speaker System \$56.00
Inspire 2.1 2600 Slim 3 pcs. Speaker System \$73.00
Inspire 4.1 4400 Speaker System \$85.00
Inspire 5.1 5700 Speaker System \$399.00
MegaWork 5.1 Dolby 5 Speaker System 5100 \$429.00

COMPAQ **IBM** **Business Partner** **SONY** **Intel** **Processor Dealer** **acer** **MicroConcept**
Authorized Reseller **HEWLETT-PACKARD** **Authorized Retailer** **3Com** **netWorking Partners** **business** **CISCO SYSTEMS**
102 - 1245 West Broadway
Vancouver, B.C. V6H 1G7
All product names, trademarks and registered trademarks are properties of their respective owner

TOSHIBA intel.

Tecra 9100

Intel P4 1.7GHz CPU
256MB Memory/30GB HDD
14.1" TFT Display
10/100BaseT Ethernet LAN
Wireless, 56Kbps Mode
DVD ROM Drive
Built-in Sound System
Windows XP Pro / 2000

\$4199

Satellite Pro 6000

Intel P3 1GHz CPU
256MB Memory/20GB HDD
14.1" TFT Display
56Kbps V.90 Fax Modem
DVD ROM Drive
Built-in Sound System
Windows 2000

\$2129

Model	CPU	RAM	HDD	CD	Display	Price
6000	P3-1.13	256MB	30GB	DVD	15 TFT	\$2,699
6010	P4M1.5	256MB	30GB	DVD	15 TFT	\$2,999
4010	P3-933	256MB	30GB	DVD	12 TFT	\$3,539
5100	P4-1.7	512MB	40GB	DVD-CRW	15 TFT	\$3,499
9100	2.4kg P4-1.7	256MB	30GB	DVD-CRW	14.1 TFT	\$4,399
9000	2.4kg P3-1G	512MB	40GB	DVD-CRW	14.1 TFT	\$4,699

The above 4010, 6100, 9000, 9100 Come with Wireless

IBM

Think Pad A31

Intel M1.6GHz P4 CPU
128MB / 20GB HDD
14.1" TFT Display
DVD-ROM CDRW Drive
Network
Microsoft XP Pro
(2652J3U)

\$2699

Model	CPU	RAM	HDD	CD	Display	Ethernet	Price
A31P	P4M1.6G	128MB	20GB	DVD	14.1	WireLess	\$2,935
R32	P4M1.8G	256MB	40GB	DVD	14.1	WireLess	\$3,599
T23	P3-1.2G	256MB	40GB	DVD	14.1	WireLess	\$4,399
T30	P4-1.6G	256MB	20GB	DVD	14.1	10/100	\$3,699
X24	P3-1.13G	256MB	30GB	1.7Kg	12.1	10/100	\$3,699

COMPAQ

Model CPU RAM HDD CD Display Ethernet Price
A31P P4M1.6G 128MB 20GB DVD 14.1 WireLess \$2,935
R32 P4M1.8G 256MB 40GB DVD 14.1 WireLess \$3,599
T23 P3-1.2G 256MB 40GB DVD 14.1 WireLess \$4,399
T30 P4-1.6G 256MB 20GB DVD 14.1 10/100 \$3,699
X24 P3-1.13G 256MB 30GB 1.7Kg 12.1 10/100 \$3,699

ARMADA N400

PIII 850MHz
256MB Memory
20GB Hard Drive
12" TFT Display
10/100 NIC
CDRW Drive
Built-In Sound
Win2000

\$3229

Evo N600C

P3 1.2GHz CPU
256MB Memory
30GB HDD
14" TFT Display
56Kbps V.90
DVD-CRW
Built-in Sound
Win 2000

\$3999

EVO N800C

P-4 1.6GHz CPU
256MB Memory
20GB Hard Drive
15" TFT Display
56Kbps V.90
10/100 NIC
DVD-ROM Drive
Win 2000

\$3499

acer

Travelmate 223X

Intel 1.13GHz Cel CPU
128MB Memory 20GB HDD
14.1" TFT Display
10/100
24x CD-ROM Drive
Microsoft Windows

\$1499

Aspire P4 1.7GHz

Intel P4 1.7GHz CPU
128MB / 30GB HDD
14.1" TFT Display
DVD-ROM Drive
Network
Microsoft Windows

\$2099

Acer 633LCI

Intel P4 1.7GHz CPU
256MB / 30GB HDD
15.1" TFT Display
10/100 Network
DVD-CRW Drive
Windows XP Pro

\$3299

Model	CPU	RAM	HDD	CD	TFT	Price
1400XCP	P41.7G	128MB	20GB	DVD-com	14.1	\$2,399
623LCI	P3-1.13	256MB	30GB	DVD-com	15.1	\$3,199
630XCI	P4M1.4G	256MB	20GB	DVD-com	14.1	\$2,699
632XCI	P4M1.6G	256MB	20GB	DVD-com	14.1	\$2,699

623LCI Mail in Rebate \$315 Call for Detail

Acer 1 Year Extended Warranty for Notebook \$139

Acer 2 Year Extended Warranty for Notebook \$259




Leather Case \$59

Portable Keyboard \$59

Jornada 565 32MB Pocket 2002.....

Jornada 565 64MB Pocket 2002.....

Jornada 720 32MB Modem.....

623LCI Mail in Rebate \$315 Call for Detail
Acer 1 Year Extended Warranty for Notebook \$139
Acer 2 Year Extended Warranty for Notebook \$259
Leather Case \$59
Jornada 565 32MB Pocket 2002 \$629
Jornada 568 64MB Pocket 2002 \$739
Jornada 720 32MB, Modem \$1319

PAQ

Palm M515
Color TFT
8MB, OS v4.0
M130
8MB, OS v4.0
Colour
Palm M100
Faceplate Cover
Wireless
Modem

Portable
Keyboard
\$155
Blue Tooth
\$189
\$359
\$16

Palm M100 - Razor Sharp LCD, 2MB, OS
Palm M105 - Razor Sharp LCD, 8MB, OS
Palm M125 - Razor Sharp LCD, 8MB, OS
Palm M130 - Razor Sharp LCD, 8MB, OS
Palm M500 - Expansion Card Slot, 8MB, OS v4.0
Palm M515 - Color TFT, Expansion Card Slot, 16MB, OS v4.1

COMPAQ
iPAQ 3850
Pocket PC
\$869
iPAQ 3870
Pocket PC
\$969
PC Card
Expansion
\$59
Blue Tooth
Expansion Pack
\$155
\$220

FUJIFILM

DX4900 4MP
2x Zoom
2x Optical Zoom
3x Digital Zoom

DX3215 1.3
\$269
DX3500 2.2
\$299

CASIO

QV3000
- 3x Optical Zoom
- 4.1 Mega Pixel
QV4000CF
- 3.1 Mega Pixel
QV3500E

\$819
\$649

FUJIFILM

Digital Camera
Fuji C4800
2.4 Mega Pixel
Fuji 2600
2 Mega Pixel
Fuji F601
3 Mega Pixel

\$609
\$399
\$769

SONY

PhotoSmart 715
- 3.2 Mega Pixel
- 3x Digital Zoom
- Flash built-in
PhotoSmart 612
- 2x Optical Zoom
- 2.3 Mega Pixel
- Auto Flash

\$519
\$359

Clicksmart

Memory
- 352x288 pixels
- 160 pictures or
- 15 second Movie

\$310
\$109
\$205

Sony Digital Cybershot

DSC-P31 2.1
3x NA
\$399
DSC-P5 3.34
6x 3x
\$779
DSC-P71 3.2
2x 3x
\$590
DSC-S85 4.1
6x 3x
\$1029
DSC-F707 5.2
10x 5x
\$1599

F707
P5
P71

CompactFlash Memory

32/64/128/256MB Compact Flash
\$33/52/84/155

D-link Wireless Compact

Network for PDA with Compact
\$1495

Smart Media Card

32MB/64/128MB Smart Media Card
\$33/44/85

Portable Printer HP Canon

Canon BJC 55(w/Battery) \$485
HP 350c with Battery \$445

Notebook HDD Upgrade

2.5" IDE Notebook Hard Drive
10GB/20GB/30GB \$129/159/219

Zoltrix PCMCIA Modem

56Kbps V.90 PCMCIA Modem
\$78

*** Firewire ***

IEEE 1394 Firewire PCMCIA Card
\$109

Maxtor Ext. Hard Drive

Firewire External 40/80/160
\$279/429/569

PCMCIA / PC Cards

3Com 3C939C 155MB 10/100 56K Mini PCI Card	\$125.00
Adaptec APA-1460D Slim SCSI Kit	\$135.00
Adaptec APA-1480A Slim SCSI Kit (CardBus)	\$255.00
Adaptec 2x USB Controller PCMCIA	\$99.00
ATI TV-Wonder USB	\$119.00
Conex CardScan 600c Color Scanner	\$369.00
D-link E670 10/100 PCMCIA Network Card	\$49.00
D-link DE-660CT PCMCIA Combo Card	\$55.00
D-link DFE-690TXD PCMCIA Fast Ethernet Card	\$69.00
Intel Pro/100 Mobile LAN CardBus II RealPort	\$157.00
Intel Pro/100 LAN + 56K Modem CardBus II	\$159.00
Intel Bluetooth Card CBT	\$189.00
Intel CE3BNA 10/100 Mobile Network	\$65.00
Linksys PCMCIA 100 10/100 Ethernet Card	\$68.00
Linksys WCF11 Compact Flash Reader	\$179.00
Linksys PCMLM56 10/100 LAN + 56K Modem	\$219.00
Linksys Phentone + 10/100 NIC CardBus	\$115.00
Megahertz 3C939C 155MB 10/100 LAN + 56K Global	\$239.00
Micro Solutions 4X4X20X CD-Writer USB Port	\$309.00
Micro Solutions 4X8X20X CD-Writer Parallel Port	\$285.00
Micro Solutions 24X Bantam Ultra Light CD-ROM	\$199.00
Micro Solutions 20GB USB or Parallel Ext Hard Drive	\$329.00
Micro Solutions 24X Bantam CD w/Sound	\$235.00
Micro Solutions 32X10x40x USB2 Backpack CD-ROM	\$275.00
Micro Solutions 8X4X32X CDRW with CardBus	\$289.00
Micro Solutions Backpack Ext. 1.44MB Floppy	\$155.00
Netgear FA411 10/100BaseT Ethernet PCMCIA	\$68.00
Orange Micro USB 2.0 Hi-Speed Card for Laptop	\$139.00
Orange Micro USB to Ultra SCSI 3	\$89.00
Orange Micro FireWire to SCSI Adaptor	\$139.00
Orange Micro FireWire Web Cam	\$170.00
Targus PAUK001C USB Mobile Numeric Keypad	\$50.00
Xcom XEM5600 10/100 LAN + 56K Modem	\$163.00

78" Cabinet

\$2889

4U Rackount

Case with Power
Supply \$289

1U Rackount

Case with Power
Supply \$289

2U Rackount

Case with Power
Supply \$299

18" Metal Sliding

Rail \$39

Redundant Power

Supply 2x300W
\$279

460W Power

Supply dual Far
\$149

Slim CDROM for

1U Case \$89

Black CDRW for

Acer 24X \$129

Side Panel lock

detector \$145

MicroConcept Server & Service

Onsite Service available

- Home
- Internet sharing
- Problem solving
- Wiring
- Business
- Wiring
- Network Design
- Server setup
- Website Design
- Different operating system

Please call for details

!!!We support wireless networking!!!

Systems Inc.

Tel: (604) 730-8183
Fax: (604) 730-7983
Tech: (604) 738-8738

Visit our
Website: @

WWW.MCONCEPT.COM

Summer Hours:
Mon-Tue 09:30am - 6:30pm
Wed-Fri 09:30am - 9:00pm
Sat 10:00am - 5:00pm
Sun 12:00pm - 4:00pm

Call Today!
Notebooks Desktops
Monitors etc.
\$1.00

* Fax Orders And Bids Are Accepted
* All Prices Reflect 2% Cash Discount
* Government And Corporate Purchase Orders Welcome
* Leasing Available
* Prices Subject To Change Without Prior Notice

DVD & CD-RW Burners

LG 32x10x40x
IDE Burn Proof CDRW with Roxio Easy CD Creator
\$97

★ **New!** **Pioneer DVR-A04 DVD-RW**
DVD-RW CD-RW Writer with Nero (OEM)
\$538

LiteOn 32x12x48x
IDE Smart Burn CDRW with Nero
\$94



ABit Siluro

GeForce 4 Ti4400 Graphics Card
128 meg DDR w. VGA, DVI-I & SVideo



★ **Hot!** **\$359**

MSI GeForce 3 Ti500 **\$196**

Soltek GeForce 2 MX400 **\$77**

MSI GeForce 4 MX440 64meg DDR, TV out **\$134**

Xtasy GeForce 4 MX420 64meg SDR, TV out **\$129**

Seagate Hard Drives

Barracuda 7200RPM ATA100

Low noise, 9.5 ms performance, OEM



80GB **\$156**

60GB **\$138**

40GB **\$109**

IBM Deskstar 120GXP 80GB 7200RPM - **\$139**

ATI Radeon 8500

AGP 4x Graphics Card

All-in-Wonder Radeon 8500DV w. TV - 64 meg

\$408



All-in-Wonder 7500 w. TV

64 meg **\$289**

8500LE w. 128 meg Retail - **\$252**

8500 w. 64 meg OEM - **\$168**

AMD CPU Bundle

AMD Athlon XP 1800+ CPU, ECS K7S5A
Motherboard w. Audio and LAN, Thermaltake
Volcano 6 Copper Case HSF 4550 RPM

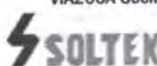


★ **Excellent Value!**

\$273

Soltek Motherboards

Hot! **Soltek SL-75DRV4 Purple Ray**
VIA266A Socket A, DDR Support, Audio, ATA133



\$129

Soltek SL-75DRV5 Purple Ray

VIA KT333 Socket A, 333DDR Support, Audio, ATA133

\$135

Soltek SL-85DIV-L / Pentium 4 DDR

Socket 478, 3DDR, Audio, LAN, ATA133

\$147

Athlon Processors



Socket A, 266 FSB

XP1800+ 1.53 GHz

OEM Version **\$167**

XP2100+ 1.73 GHz

Retail Version **\$330**

Visit NCIX.com for the
LATEST prices!

XP1900+ OEM **\$215** / XP2000+ OEM **\$263**

Intel Pentium 4

Socket 478 Processors (Retail Box)

P4 1.6 GHz/400FSB

Northwood **\$231**

P4 2.0 GHz/400FSB

Northwood **\$319**



Northwood **\$319**

P4 2.26 GHz/400FSB Northwood **\$407**

Internet Routers

Share & secure your Internet connection

USR 4 Port Router & Print Server - **\$98**

SMC 4 Port Router & Print Server - **\$118**

Palm Keyboard

for Palm III, VII and M100 Models



★ ★ **Hot!**

\$29

Motherboards



Asus P4S533

SIS645DX, FC-PGA2, 6 channel audio, LAN

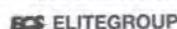
\$173



Gigabyte GA-7VRXP

VIA KT333 DDR, Socket A, RAID, USB 2, Audio, ATA133

\$166



Elite Group ECS K7S5A Socket A

DDR, ATA100 with Audio and LAN

\$90

Intel CPU Bundle

Pentium 4 1.6 GHz, Soltek SL-85DRS2
and 256 meg PC2100 RAM

Pre-tested @ 2.1GHz!

Includes 60
day warranty!



\$428

Olympus C4040

Digital Camera

4 Megapixel, 3x Optical Zoom,
7.5x Digital Zoom, Smart Media



★ **New!**

\$1087

Olympus D-520 2 megapixel 3x Zoom - **\$455**



Norton Anti-Virus

2002 (v8.0) Edition

\$69

WarCraft 3 **\$79**
Grand Theft Auto 3 **\$64**
Neverwinter Nights **\$85**
The Sims **\$60**

WE NOW STOCK PS2, XBOX,
Nintendo GameCube & Gameboy GAMES!



Computer Speakers

Logitech Z560 400 watts THX Surround Sound

5-piece Speaker Set **\$249**



Creative Inspire 5.1 5700

5 satellite speakers
& subwoofer **\$396**

Creative Inspire 5.1 - **\$133**

Logitech Z540 40 watt 5 piece surround sound - **\$93**

Computer Cases

Enermax FS-7100BB Blue Tower w.300 watt PSU

4 x 5.25 Bays, 2 x 3.5 Bays
& 4 x 3.5 Internal Bays **\$140**



Aspire SX1000 Black Aluminum

Side Window,
420 watt PSU **\$199**

Antec SX1030B Black w. 300 watt PSU - **\$158**

Lian-Li PC60 Aluminum w. Enermax 350 watt PSU - **\$249**

Creative Audigy

Sound Card

SB0092 24-bit sound card

with FireWire (OEM)

\$94



Audigy X-Gamer Retail **\$145**

Creative SoundBlaster LIVE! DE 5.1 OEM **\$56**

AudioExcel 6 Channel PCI Sound Card **\$25**

\$19 Domain Registration!

www.GOTOECOM.com

FREE Web Hosting

\$15 setup, 20 Meg Disk Storage, Unlimited
Email accounts & FTP, 100 meg web storage
BASIC VALUE PLAN - \$5.95/month
Same as above w. unlimited traffic, log file
access, CGI access, site stats & Frontpage 2k ext.

Toll Free: **1-888-NCI-9888**
Vancouver: **604-451-8682**
Fax: **604-451-8611**
Web: **www.ncix.com**

Sales Email: order@ncix.com
General Email: info@ncix.com
Support Email: support@ncix.com

Sign up to our weekly email list and SAVE!

Receive weekly specials right to your email by
registering @ www.ncix.com/canada/newsletter.php

Store, Support, Order Fulfillment and Shipping Hours (PST)
Mon to Fri: 9:30 AM to 6:30 PM, Sat: 10 AM to 5:30 PM. Closed Sundays and holidays.
Netlink Computer Inc., 5068 Kingsway, Burnaby, BC, V5H 2E7, Canada

All prices listed in Canadian funds. AUGUST 2002 The Computer Paper
Prices are subject to change without notice. Stock is subject to availability. © 2002 NCIX.com/Netlink Computer Inc.



NCIX.com
One Stop Internet Computer Store



PC Builder

ORDER 24 HOURS A DAY, 7 DAYS A WEEK

EXACTLY THE WAY YOU WANT

built by NCIX.com

Systems built with **SOLTEK** boards include a bonus \$286 USD worth of software!



The Slave Virtual Drive, Intel Micro PC-Clean, PowerQuest Partition Magic, PowerQuest Drive Image



Get **EXACTLY** what you want.
Introducing the **NEW PC Builder!**

Back to School specials starting from just \$498!



AMD VALUE SYSTEM

Duron 1.1 GHz

- ECS K755A ATX SIS 735
- AOpen PA3000 PLUS Nvidia TNT2 M64 32 meg
- 256 megabytes of PC2100 DDR RAM
- 10 GB 5400 RPM ATA100 Maxtor hard drive
- 3.5 Floppy
- Acer 52X CDROM
- Built in Audio and LAN
- Tsunami Keyboard, Mouse & Speakers
- 17" Tower Case w. 250 Watt PSU
- 3 Year Labour and 1 Year Parts Limited Warranty

\$531 Windows XP Home \$149
Windows XP Professional \$238



INTEL VALUE SYSTEM

Celeron 1.2 GHz

- Soltek SL65LIV-T w. Video & Sound
- 128 megabytes of Micron PC133 SDRAM
- 10 GB 5400RPM ATA100 Maxtor hard drive
- Acer 52X CDROM
- 3.5 Floppy
- Tsunami 3-in-1 Keyboard, Mouse & Speakers
- Surecom 10/100 Ethernet
- 17" Tower Case w. 250 Watt PSU
- 3 Year Labour and 1 Year Parts Limited Warranty
- Perfect for general office duties or a second PC!

\$498 Windows XP Home \$149
Windows XP Professional \$238

XP VIDEO EDITING WORKSTATION

Pentium 4 1.6 GHz

- Soltek SL-85DRS1 SIS 645A2
- ATI Radeon All-in-Wonder 7500DV w TV
- 256 megabytes of PC2100 DDR RAM
- Toshiba 16x DVD 48x CD
- 40 GB 7200 RPM ATA100 Seagate HD
- D-Link 10/100 Network, Creative Live! 5.1 Sound
- Tsunami Speakers
- Tsunami Mouse & Keyboard
- Antec SX1030 Performance Tower w. 300W ATX PSU
- 3 Year Labour and 1 Year Parts Limited Warranty

\$1200 Windows XP Home \$149
Windows XP Professional \$238

AMD PERFORMANCE SYSTEM

Athlon XP 1800+

- Soltek SL75DRV4 Purple Ray w. DDR & Sound (VIA)
- Xtasy GeForce4 MX420 w. 64 meg RAM & TV out
- 256 megabytes of PC2100 DDR RAM
- LiteOn 16X DVD with DVD Player Software
- 20 GB 7200 RPM ATA133 Maxtor hard drive
- 3.5 Floppy
- AOpen MS608 160 Watt 2 Speaker Sound
- Microsoft Keyboard & Logitech Mouse
- 18" Tower Case w. 300 Watt PSU
- 3 Year Labour and 1 Year Parts Limited Warranty

\$848 Windows XP Home \$149
Windows XP Professional \$238

INTEL PERFORMANCE SYSTEM

Pentium 4 1.8 GHz

- Soltek SL-85MIV-L ATA133 w. Video, Sound & LAN
- 256 megabytes of PC2100 DDR RAM
- **Daewoo 17 inch 17N7 .27mm flat screen monitor**
- 40 GB 7200RPM ATA100 Maxtor hard drive
- LiteOn 16X DVD with DVD Player Software
- Tsunami 3-in-1 Speakers
- Tsunami 3-in-1 Desk Manager
- 3.5 Floppy
- 18" Tower Case w. 300 Watt PSU
- 3 Year Labour and 1 Year Parts Limited Warranty

\$974 Windows XP Home \$149
Windows XP Professional \$238

VALUE SERVER

Intel Pentium 4 1.6 GHz

- Asus P4S333 SIS650 DDR with Audio & LAN
- 256 megabytes of PC2700 333 DDR RAM
- 40 GB Seagate Barracuda
- 3.5 Floppy
- LG 52X CDROM
- AOpen PA3000+ Nvidia TNT2 M64 32 meg RAM
- Intel EtherExpress Pro 100 PCI Network Card
- Keyboard & Mouse
- 18" Tower Case w. 300 Watt PSU
- 3 Year Labour and 1 Year Parts Limited Warranty

\$822 Windows 2000 Server (w. 5 CALs) \$1218

AMD EXTREME SYSTEM

Athlon XP 2000+

- Soltek SL75DRV5 KT333 w. DDR333 & Sound (VIA)
- Xtasy GeForce4 MX420 w. 64 meg & TV out
- 256 megabytes of **PC2700 DDR333 RAM**
- LiteOn 16X DVD with DVD Player Software
- 40 GB 7200 RPM ATA133 Maxtor hard drive
- 3.5 Floppy, D-Link 10/100 Network Card
- Altec Lansing AVS300 3 Piece Speakers
- Microsoft Keyboard & Microsoft Optical Mouse
- 18" Tower Case w. Front USB & 300 Watt PSU
- 3 Year Labour and 1 Year Parts Limited Warranty

\$1029 Windows XP Home \$149
Windows XP Professional \$238

INTEL EXTREME SYSTEM

Pentium 4 2.0 GHz

- Soltek SL85DRV3 w. DDR, ATA133 & Sound
- Xtasy GeForce4 MX420 w. 64 meg RAM & TV out
- 256 megabytes of PC2100 DDR RAM
- 80 GB 7200 RPM ATA100 Seagate hard drive
- DLink 10/100 LAN
- 3.5 Floppy, Acer 52x CD-ROM
- AOpen MS-810 3 Speakers & Subwoofer
- Microsoft Keyboard & Logitech Optical Mouse
- **ANTEC 20" Performance Case w. 300 Watt PSU**
- 3 Year Labour and 1 Year Parts Limited Warranty

\$1170 Windows XP Home \$149
Windows XP Professional \$238

NETWORK SERVER

Dual Athlon MP 1900+

- ASUS A7M-D Dual K7 w. Audio & 4 USB
- 256 megabytes of PC2100 DDR RAM
- **2 x 80 GB Seagate Barracuda 7200RPM HD**
- Accusys ACS-7500 IDE RAID 1, Hot Swappable
- 3.5 Floppy, LG 52X CDROM
- AOpen PA3000+ Nvidia TNT2 M64 32 meg RAM
- Intel EtherExpress Pro 100 PCI Network Card
- Tsunami 3-in-1 Keyboard, Mouse & Speakers
- Antec SX1030B black case w. 300 watt PSU
- 3 Year Labour and 1 Year Parts Limited Warranty

\$2068 Windows 2000 Server (w. 5 CALs) \$1218

POPULAR PC BUILDER UPGRADES

SPEAKERS

Logitech Z560 400 watt 5 piece THX speakers	\$249
Creative Inspire 5.1 5300	\$133
Creative Inspire 5.1 5700 Digital	\$396
Monsoon MM2000 340 watt 5 piece Flat Panel	\$365

17 INCH MONITORS

Samsung Syncmaster Dynafiat 17" .20/.25mm	\$250
Samsung Syncmaster 750s 17" .27mm	\$225
Samsung Natural Flat 700NF 17" .20mm	\$376
Daewoo 17PF 17" Perfect Flat .25mm	\$229
NEC AS70 Accusync .27mm	\$222
AOC 7ELR 17" .27mm	\$206

19 INCH & LARGER MONITORS

Samsung Dynafiat 955DF 19" .20mm	\$402
Samsung Natural Flat 900NF 19" .25mm	\$594
AOC 9GLR 19" .25mm	\$308
Samsung Syncmaster 21" 1100P+ .26mm	\$906
NEC AS125F 22" CRT .24mm	\$868

LCD FLAT PANELS

NEC MSync LCD 1700M+ 17" LCD *REFURBISHED*	\$800
Samsung 151S Silver 15" TFT LCD	\$639

CASES & POWER SUPPLIES

Lian-Li Aluminium PC60U w/o PSU	\$195
Lian-Li Aluminium PC61 USB Black w/o PSU	\$218
Lian-Li Aluminium PC68 USB w/o PSU	\$220
Antec Black SX1030B w. 300watt PSU	\$158
Antec SX1040 w. 400watt PSU (Beige or Black)	\$221
Antec SX830 20 inch Performance Tower 300watt PSU	\$143
Enermax EG365P-VE 350 watt PSU w. 2 fans	\$76
Enermax EG451P-VE 431 watt PSU w. 2 fans	\$105

COOLING DEVICES

Thermaltake A1124 Volcano 7	\$30
Thermaltake Volcano 6 - 4550 or 7000 RPM	\$20
Arctic Silver 3 Premium Silver Thermal Compound	\$15
Dr. Thermal TIV86-N 6800 PRM	\$41
Alpha PAL6035 w. Ball Bearing Fan	\$46
Alpha PAL8045 w. Ball Bearing Fan	\$78
Sunon 80mm Ball Bearing Chassis Fan	\$9

PRINTERS

Samsung ML-1250 12PPM 1200x600 Laser Printer	\$349
HP Laserjet 1000 10PPM 600x600 Laser Printer	\$378
Lexmark E210 12 PPM Laser Printer	\$325
HP Laserjet 1200 15PPM Laser Printer	\$625
HP Photosmart 1315 Ink Jet Printer 17PPM	\$589
Lexmark Z33 Color Ink Jet Printer 5/9PPM	\$99
HP Deskjet 940CVR 2400DPI Ink Jet Printer	\$248
Epson Stylus Photo 820 2880x720DPI Ink Jet Printer	\$150
Canon S300 Color Ink Jet Printer 11/7.5PPM	\$121
HP Deskjet 656C	\$99
Epson Stylus C60	\$134

NETWORKING

Intel Etherexpress Pro 100 PCI	\$50
3COM Etherlink XL 3C905CX PCI OEM	\$61
D-Link DE530DX 10/100 PCI	\$19
Surecom PCI 10/100 NIC	\$15
D-Link 8 port 10/100 Switch	\$91
Linksys Etherfast 5 port 10/100 Auto Sensing Switch	\$74
D-Link DSS-5+ Port 10/100 Switch	\$68

WIRELESS

Linksys Wireless 802.11B PC Card	\$145
Linksys Wireless 802.11B USB Network Adapter	\$146
Linksys WAP11 802.11B Wireless Access Point	\$263
D-Link DWL-905 802.11B Kit (2 PC Cards & WAP)	\$398
D-Link DWL-650 802.11B PC Card	\$129
D-Link DI-713P Wireless Router, 3 port switch	\$279
Orinoco 802.11B Gold PC Card	\$178
Orinoco 802.11B Silver PC Card	\$136

Visit www.NCIX.com for more PC Builder options!



www.icicomputer.com
(Visit our website for latest price, special & quotation) Email: ici@icicomputer.com
TEL: 273-1368 **SALES: (604) 303-0705** **TECH: (604) 273-9550** **FAX: (604) 278-5268**
1780-4311 Hazelbridge Way, Richmond, BC V6X 3L7 Business Hour: Mon-Sat: 10-6:30, Sun: 11-6

Supporting Better
Business through the **BBB**

P4/ Celeron 1.7G Upgrade

- ECS P4VMM2 Mainboard
- On-board Video + Audio + LAN
- 128MB DDR 266MHz RAM

\$318

Printer Special

- Samsung ML1210 Laser Printer \$278
- Brother TN460 Laser Toner \$98
- Canon S200 Color Printer (-\$20) \$78

Notebook Special

- Fujitsu C2111A P4-1.6G Notebook \$2468
- Fujitsu P2110A Crusoe-867M Notebook \$2388
- Toshiba 1400 C-1.3G Notebook \$2098

Intel P4 Dream Machine for Power User

P-4 Best Buy

ECS P4VXAD P4 Motherboard
256MB 266MHz DDR RAM
40GB 7200rpm HDD
Panasonic 1.44MB FDD
ATI Xpert2000 Pro 32M 4X AGP
ICI P4 Tower w/300W P/S
Acer 107 KB/ Wheel Mouse
LG 16x DVD Drive
AC-97 3D Audio (O/B)
10/100 Ethernet NIC (O/B)
180W Stereo Speakers
NEC AS75F 17" Flat Monitor +\$230

P4-1.7GHz
\$828
\$30/mo*

P-4 Dream Machine

Intel D850EMD2 533FSB USB 2.0 M/B
256MB 800MHz Rambus
40GB 7200rpm HDD
Panasonic 1.44MB FDD
ATI Radeon 7000 64M DH/TV
ICI P4 Tower + 300W P/S
Microsoft Internet Keyboard
Logitech Optical Mouse
LG 16x DVD Drive
LG 32x10x40 CD-RW
AC-97 Stereo Audio (O/B)
Altec AVS 300 Spkrs+Subwfr
Samsung 753DF 17" Flat Monitor +\$240

P4-1.8GHz
\$1160
\$40.80/mo*

P-4 DVD Creator

Intel D850EMD2 533FSB USB2.0 M/B
256MB 800MHz Rambus RAM
60GB 7200rpm HDD
Panasonic 1.44MB FDD
GeForce4 MX440 64M DDR/TV
ICI P4 Tower w/300W P/S
Microsoft Internet Keyboard
Logitech Optical Mouse
Pioneer DVD Writer + CD-RW
SB Audigy 5.1 w/Firewire
Altec AVS 500 5 Spkrs+Subwfr
NEC 1550V 15" LCD Panel +\$560

P4-2.0AGHz
\$1788
\$63/mo*

P-4 Power User

ECS P4VMM2 P4 Motherboard
128MB 266MHz DDR RAM
40GB 7200rpm HDD
Panasonic 1.44MB FDD
3D Video 4X AGP (O/B)
ICI P4 Tower w/300W P/S
LG 24x10x40 CD-RW
Acer 107 Keyboard/ Wheel Mouse
AC-97 Stereo Audio (O/B)
180W Stereo Speakers
10/100 Ethernet NIC (O/B)
NEC AS75F 17" Flat Monitor +\$230

P4-1.7GHz
\$698
\$25/mo*

P-4 X-Gamer

Asus P4S533-AL 533FSB M/B
256MB 333MHz DDR RAM
40GB 7200rpm HDD
Panasonic 1.44MB FDD
GeForce4 MX440 64M /TV
LG 16x DVD
LG 24x10x40 CD-RW
ICI P4 Tower w/300W P/S
Acer 107 KB/ Wheel Mouse
C-Media 6-Channels Audio (O/B)
Altec AVS 300 Spkrs + Subwfr
10/100 Ethernet NIC (O/B)
Samsung 753DF 17" Flat Monitor +\$240

P4-1.8GHz
\$1068
\$38/mo*

P-4 Video Studio

Asus P4S533-AL 533FSB M/B
256MB 333MHz DDR RAM
60GB 7200rpm HDD
ATI All-in-Wonder Radeon 7500 64M DDR
Panasonic 1.44MB FDD
ICI P4 Tower w/300W P/S
MS Internet Keyboard
Logitech Optical Mouse
LG 16x DVD Drive
LG 32x10x40 CD-RW
SB Audigy 5.1 w/Firewire
Altec AVS500 5 Spkrs+Subwoofer
NEC AS95F 19" Flat Monitor +\$350

P4-2.0AGHz
\$1428
\$50/mo*

Warranty: All P-4 systems come with 5-year service & 2-year parts limited depot warranty. All P-3/ Celeron & AMD systems come with 3-year service & 1-year parts limited depot warranty. Options: Windows XP Home/Pro +\$145/225 • MS Office XP SBE/Pro +\$238/448
AntiVirus: Norton Antivirus 2002 \$28 • Norton System Works 2002 \$38

AMD Dream Machine for Power Lover

AMD XP Dream Machine

Asus A7S333-WA M/B
256MB 266MHz DDR RAM
40GB 7200rpm HDD
Panasonic 1.44MB 3.5" FDD
ATI Radeon 7000 64M DH/TV
ATX Tower w/ 300W P/S
Acer 107 Keyboard
Acer Wheel Mouse
LG 16x DVD Drive
LG 24x10x40 CD-RW
C-Media 6 channels Audio (O/B)
850W Speakers + Subwoofer
NEC AS75F 17" Flat Monitor +\$230

XP-1700 (1.7G)
\$798
\$28/mo*

AMD XP X-Gamer

Asus A7S333-WA M/B
256MB 333MHz DDR RAM
40GB 7200rpm HDD
Panasonic 1.44MB FDD
GeForce4 MX440 64M DDR/TV
Acer 107 Keyboard
Acer Wheel Mouse
ATX Tower w/ 300W P/S
LG 16x DVD Drive
LG 32x10x40 CD-RW
SB Live 5.1
Altec AVS300 Spkrs + Subwfr
NEC AS95F 19" Flat Monitor +\$350

XP1800 (1.53G)
\$988
\$35/mo*

AMD XP X-Gamer Platinum

MSI KT3-ARU DDR333 M/B
w/ Promise IDE Raid + USB2.0
256MB 333MHz DDR RAM
60GB 7200rpm HDD
Panasonic 1.44MB FDD
GeForce4 Ti4400 128M VIVO/DVI
Microsoft Internet Keyboard
Logitech Optical Mouse
ATX Tower w/ 300W P/S
IDE Raid USB2.0 Firewire
DDR333
GeForce4 Ti4400 128M
XP2000 (1.67G) +\$110
XP2100 (1.73G) +\$180

XP1800 (1.53G)
\$1398
\$50/mo*

Office Workstation

Celeron Work Horse

ECS P6STMT/ P4VMM2 AGP M/B
128MB PC133MHz SDRAM
20GB ATA100 HDD
Panasonic 1.44MB FDD
3D Video 4X AGP (O/B)
Acer 107 Keyboard
Acer Wheel Mouse
ATX Tower w/ 250W P/S
52x CD-ROM
Stereo Audio (O/B)
10/100 Ethernet NIC (O/B)
180W Stereo Speakers
AOC 7ELR 17" Monitor +\$190

C-1.1GHz
\$498
\$18/mo*

Corporate Server Centre

Dual P4-Xeon SCSI Server

2X Intel P4-Xeon CPU's
Intel SE7500CW2S Dual P4-Xeon Server Board
2X 512MB DDR266 ECC Registered RAM
2X IBM 36GB 10Krpm U160 SCSI HDD
2X Intel Pro/100+ Server Adapter (O/B)
ATI Rage XL 8M Video (O/B)
Promise dual-channel ATA/100 RAID (O/B)
Intel SC5200 Server Chassis w/ 450W P/S
Panasonic 1.44MB FDD
Acer 52X CD ROM
Acer 107 Keyboard
Acer Wheel Mouse

\$3298
\$118/mo*

Intel Server Centre

- Dual Xeon CPU Server
- Dual P3 CPU Server
- 1U / 2U / 4U Rackmount Server
- IDE/SCSI Raid Server
- Thin Client/ Workstation

Please call 604-273-1368 or visit
www.icicomputer.com

Fido's Wireless Internet Access

- ~ Always On, even when you travel.
- ~ Unlimited Access, flat rate @ \$50/month

NoteBook Upgrade's

Kingston Notebook RAM \$Call
ATI TV-Wonder USB \$128
Adaptek 1460D/1480A SlimSCSI Kit \$138/260
BusLink 4 Port USB2.0/ 2 Port Firewire PCMCIA \$138/138
Orange Micro 1394 Firewire Cardbus \$128
SMC 10/100 NIC PCMCIA / USB \$48/50
Surecom 56K PCMCIA \$78
IBM / Toshiba 10 / 20GB Notebook HDD \$130/168
IBM / Toshiba 30 / 40GB Notebook HDD \$218/260

Wireless Networking (See next page)

We Carry Full Line of POS System

- Receipt & Bar Code Printers
- Bar Code Scanners & Data Collectors
- Card / IC Chip Reader & Writer
- Displays & Monitors
- Cash Drawers & POS Keyboards
- Scales, UPS & Supplies
- Custom POS System
- (Call or visit our store for details)

We Carry Web-based Network Camera

- View through any standard web browser
- Perfect solutions for Remote Monitoring, Security/ Surveillance, or web attraction



TELEPHONE:

273-1368

SALES: (604) 303-0705

TECH: (604) 273-9550

FAX: (604) 278-5268

Web: www.icicomputer.com

email: icip@icicomputer.com



CPU / RAM

Compact Flash 64 / 128 / 256M	\$55/88/168
Smartmedia Card 64 / 128M	\$48/85
MultiMedia Card 64M	\$90
Secure Digital 32 / 64 / 128M	\$55/78/138
Memory Stick for Sony 64 / 128M	\$78/120
128M PC133 SDRAM OEM / Major	\$35/43
256M PC133 SDRAM OEM / Major	\$70/78
DDR 256M 266MHz OEM / Major	\$90/95
DDR 512M 266MHz OEM / Major	\$160/178
DDR 256M 333MHz OEM / Major	\$NA/108
DDR 512M 333MHz OEM / Major	\$198/218
Rambus 128 / 256M PC800MHz	\$85/150
Rambus 128 / 256M 1066MHz	\$128/238

AMD CPU	\$Call
Intel CPU	\$Call

Motherboards

AMD CPU Motherboard	
Asus A7S333 / A7V333	\$110/188
Asus A7V333 Raid	\$225
MSI KT3 / KT3-ARU	\$128/178
Intel CPU's Motherboard	
Asus P4S 533-AL	\$170
Asus P4B 533 / P4B 533-EL	\$208/275
Asus P4T 533-CL	\$275
Intel D845 EBG2 / EBG2L	\$170/190
Intel D845 GBV / GBVL	\$178/198
Intel D850 EMD2 / EMD2L	\$220/240
Intel D850 EMV2 / EMV2L	\$238/260
MSI 6398-AR (Raid)	\$148
MSI 6398-ARU (Raid, USB2)	\$188

Drives / Controllers

BusLink 40 / 80G Ext. USB HDD	\$248/328
lomega 80 / 120G Ext. USB HDD	\$478/528
IBM 40 / 80 / 80G (7200rpm) IDE	\$115/138/148
IBM 120G (7200rpm) IDE	\$228
IBM 18 / 36G U160 SCSI 10K	\$250/368
IBM 73G U160 SCSI 10K	\$918
Maxtor	
80 / 160G Firewire HDD	\$438/578
20 / 40 / 60 / 80G (7200rpm)	\$98/115/140/160
40 / 80G (7200/L-Series)	\$118/165
Seagate (SCSI)	
18 / 36 / 73G U160 SCSI 7.2K	\$238/338/868
181G U160 SCSI 7.2K	\$2098
Western Digital	
20 / 40 / 60G 7200rpm	\$115/130/178
80 / 120G 7200rpm	\$190/298

Adaptec (SCSI Adapter)	
2930U / 29160N U160 Kit	\$138/438
2100S / 3200 SCSI Raid Kit	\$668/968
Promise (ATA100 IDE Raid Card)	
Fastrak 133 TX2000	\$148
TekRak 395U / 390U3W SCSI Kit	\$68/278

Tape Backup

HP 24G Int. / Ext. DAT Drive	\$1212/1380
HP 40G Int. / Ext. DAT Drive	\$1318/1848
Seagate 24G DAT SCSI Int. / Ext.	\$898/1238
Seagate 20/40G DAT DDS4 Drive Int.	\$1128
Seagate 120/240G DAT DDS4 Drive Int.	\$3498
Sony 24G DAT SCSI Int. / Ext.	\$978/1248

CD / DVD Writers

Acer 24x10x40/32x12x48/40x12x48	\$78/98/118
HP DVD 200i DVD-RW	\$718
HP DVD 200e Ext. DVD-RW	\$838
LG 12x8x32 CD-RW + 8x DVD	\$118
LG 24x10x40 / 32x10x40 CD-RW	\$78/98
Micro Solutions 40x12x40 CDRW Tri-port	\$338
MicroSolutions Bantam 16x10x24 Par/PCMCIA	\$350
Pioneer 104 / A04 DVD-RW	\$468/515
Plextor 24x10x40 (-\$30)	\$178
Plextor 40x12x40 (-\$30)	\$198
Plextor 40x12x40 Ext. USB2.0	\$318
Yamaha 24x10x40 IDE Kit	\$168
Yamaha 24x10x40 USB2.0 / Firewire	\$278/348
CD-R Media 80 min 50 pcs	\$20
DVD Media / Rewriteable	\$15/18

CD / DVD / Sound

Acer 52x / LG 52x CD-ROM	\$38/38
LG / Samsung 16x DVD	\$62/62
Panasonic / Sony 16x DVD	\$75/75
Pioneer / Toshiba 16x DVD	\$75/75
SB PCI 128 / Live Value 5.1	\$30/55
SB Audigy 5.1 w/ Firewire	\$99
SB Audigy MP3 / Xgamer	\$145/145
Sound Blaster Audigy Platinum	\$278
Sound Blaster Extigy External	\$228

ZIP / USB Drive

ZIP 100M IDE / USB	\$78/168
ZIP 250M IDE / Para / USB	\$148/238/238
ZIP 100M / 250M Disc	\$15/20
16 / 32 / 64M Flash USB Drive	\$45/60/88
128 / 256 / 512M Flash USB Dr	\$148/268/528

Modems / WebCam

Acer 56K V / F / Modem (SW) / (HW)	\$28/48
USR 56K V.90 Fax Modem SW / HW	\$38/88
Creative WebCam / Plus	\$48/78
Creative PC-Cam 350 Digital Camera	\$108
Logitech QuickCam / WebCam	\$48/78

Spkr/ Mice/ KB/ Cases

USB Adapter / Hub	
PCI to USB Card / USB 4 Port Hub	\$28/32
IEEE 1394 Firewire Card Kit	\$48
Linksys KVM Switch 2-way / 4-way	\$88/128
Speaker	
180W / 850W + Subwoofer	\$8/28
Altec AVS 300 / 500	\$45/68
Creative FPS 1600/ 2000	\$90/208
Creative Inspire 2.1 2400/ Slim2600	\$60/98
Creative Inspire 5.1 5300/ 5700	\$138/398
Yamaha M201 Speaker/Subwoofer	\$68

Mouse	
Acer Wheel Mouse	\$8
Logitech Optical / Cordless Mouse	\$20/68
MS Intellimouse / Optical	\$15/38
MS Optical Wheel / Explorer Mouse	\$28/60

Keyboard	
Acer 107 / Fujitsu 8725 Keyboard	\$10/18
Logitech Internet Keyboard	\$30
Logitech Cordless KB & Wheel Mouse	\$78
Logitech Cordless KB & Optical Mouse	\$128
MS Internet Keyboard	\$28
MS Natural Keyboard / USB	\$48/68

Case & Fan	
ATX Tower +250W / +300W (P4) P/S	\$45/68
Removable HDD Drawer	\$25
External HDD/CD-Rom Holder	\$88
Slot Fan / HDD Fan / Case Fan	\$10/15/10

Digital Camera

Canon A100 / A30 / A40	\$278/388/478
Canon S200 / S330	\$578/668
Canon S30 / S40 / G2	\$768/948/1238
Canon ZR40 / ZR50MC	\$788/1028
Canon Optura 100MC	\$1788
HP 612 / 715 / 812 Camera	\$368/548/718

Color Inkjet Printer

Canon S200 / S300 (-\$20/-\$20)	\$78/108
Canon S520 / S750	\$198/288
Canon S820 / S900	\$468/568
Canon F30 / F50 MFC	\$468/748
Epson C40UX / C60 / C80	\$78/128/235
Epson P820 / 890 / 1280	\$148/428/698
HP 940 / 960 / 990	\$238/288/428
HP 1115 / 1215 / 1315	\$298/448/568

Laser Printer

Brother 1230 / 1440	\$328/468
Brother 1450	\$555
Brother 1470N / 1850	\$748/848
Brother 4800 / 6800 MFC	\$548/718
Brother 8500 / 9700 MFC	\$638/938
HP 1000 / 1200 / 1220	\$368/598/768
HP 2200 / DN / DTN	\$1028/1638/1998
HP 4100 / N / TN	\$1648/2368/2698
HP 5100 / TN	\$2288/3468
HP 8150 / N / DN	\$3248/3888/4748
HP 4600 DN / DTN Color Laser	\$4098/5555
HP 3200 Ptn / Fax / Copier / Scanner	\$888
HP 3300 / 3320 / 3330 MFP	\$748/928/1028
Lexmark C720/C720N Color Laser	\$2598/3168
Minolta QMS 2200 Color Laser	\$1698
Minolta QMS 6100 Color Laser	\$3598
Samsung 1210 / 1250 Laser	\$298/348

Display / Scanning Centre

Video Card

Abit GeForce4 MX420 64M DDR / TV	\$128
Abit GeForce4 MX440 64M DDR / TV	\$145
Abit GeForce4 MX460 64M DDR / VIVO	\$210
Abit GeForce4 Ti4200 64M DDR / TV	\$250
Abit GeForce4 Ti4400 128M DDR DVI / TV	\$378
Abit GeForce4 Ti4600 128M DDR DVI / TV	\$520
Asus GeForce4 MX440 64M DDR / TV	\$160
Asus GeForce4 Ti4400 128M DDR DVI / TV	\$388
Asus GeForce4 Ti4600 128M DDR DVI / TV	\$520
ATI TV-Wonder / USB	\$98/128
ATI Radeon 7500 All-in-Wonder 64M DDR	\$260
ATI Radeon 8500 All-in-wonder 64 / 128M	\$388/478
(OEM) ATI Xpert 2000 Pro 32M	\$45
(OEM) ATI Radeon 7000 64M DH/TV	\$68
(OEM) ATI Radeon 7500 64 / 128M DDR/TV	\$108/138
(OEM) ATI Radeon 8500LE 64/128M DDR/TV	\$180/235
MSI GeForce3 Ti200 128M DDR VIVO	\$218
MSI GeForce4 MX420 64MB SD/TV	\$118
MSI GeForce4 MX440 64MB DDR/TV	\$138
MSI GeForce4 Ti4400 DDR VIVO	\$378
MSI GeForce4 Ti4600 128M DDR VIVO	\$520

Scanners

Acer 4300U / 1240UT	\$88/198
Canon N670U / N1240U	\$135/228
Canon D660U / D1230U	\$198/388
Canon FB1210U / D2400UF	\$218/468
Epson 1250U / Photo	\$145/190
Epson 1650 / 1650 Photo	\$268/298
Epson 1680 Art / Pro	\$1268/1598
Epson GT10000+ / 30000+	\$1728/6198
HP 1000 / 2200 / 4400 USB	\$98/108/148
HP 4470 / 5470 / 5490 USB	\$218/428/538
HP 7400 / 7450 / 7490 USB	\$668/918/1218
HP Photo Smart S20	\$648

Monitors

AOC 7ELR .27 17" / 9GLR .26 19"	\$198/288
LG 700S / 700B 17"	\$210/285
NEC AS70 / AS75F 17"	\$218/238
NEC AS90 / AS95F 19"	\$320/360
NEC 19" FE950+ / FE990 / FP955	\$478/408/578
NEC 22" FE1250+ / FP1355	\$988/1088
Samsung 750S / 753DF17"	\$208/245
Samsung 955DF / 900NF 19"	\$388/538
Samsung 1100P+ / 1200NF	\$750/1118
Sony E240 / G220R / G220S 17"	\$418/460/508
Sony G410R / G420S 19"	\$618/638
Sony E540 / G520P / F520	\$988/1248/2498
Viewsonic 17" E70 .27 / E70F .25	\$238/268
Viewsonic 17" E75F .25 / PF77 .25	\$288/510
Viewsonic 19" E90 .23 / G90F .25	\$368/448
Viewsonic 19" PF790 .25 / P95F .25	\$535/608

LCD Panel

NEC 1550V 15"	\$568
NEC 1550M / 1550X 15"	\$668/768
NEC 1700V / 1720M+ 17"	\$948/1048
NEC 1850E / 1850X 18"	\$1268/1548
NEC 1920NX 19"	\$1748
NEC 2010X 20" / 2110 21"	\$2248/5298
Samsung 151S / 151B	\$598/668
Samsung 151MP 15" / 171MP 17"	\$1068/1728
Samsung 171S / 171B	\$968/1118
Samsung 170T 17" / 181T 18"	\$1298/1528
Samsung 210T 21" / 240T 24"	\$4298/7388
Sony MS61 16" / MS81 18"	\$1198/1598
Viewsonic 15" VE155 / VG150	\$648/628
Viewsonic 15" VP150M / VX500	\$828/778
Viewsonic VE170 / VG 171 17"	\$1038/1238
Viewsonic VG191 / VX900 19"	\$2028/1548
Viewsonic VP201M 20" / VP230M 23"	\$2468/5388

Internet / Network Solution

We do on-site network setup and support, please call for a FREE on site consultation

Network Adapter

3COM 3C905B-TX 10/100 PCI Adapter	\$55
Acer 10/100 PCI Adapter	\$20
Intel 8460B 10/100 Management Adapter	\$50
Intel 8470B 10/100 Server Adapter	\$128
Intel 8472B 10/100 Dual-Port Server Adapter	\$360

100Mbps Hub / Switch

Surecom 5 Port 10M Hub	\$35
D-Link DSS5+ 5 Port 10/100 Switch	\$78
D-Link DSS8+ 8 Port 10/100 Switch	\$98
D-Link DSS16+ 16 Port 10/100 Switch	\$208
D-Link DES-1024R 24 Port 10/100 Switch	\$378

Microsoft Server

Windows 2000 Server 5 / 10 Clients	\$1228/1618
Windows 2000 Advanced Server 25 Clients	\$5298
MS Small Business Server 2000 5 Clients	\$2048
MS Back Office Server 2000 5 Clients	\$5555
MS Exchange 2000 Server 5 Clients	\$1798

APC Power Protection

BackUPS CS350 / CS500 / 650M	\$138/198/250
BackUPS Pro 350 / 500 / 650	\$188/228/408
BackUPS Pro 1000 / 1400	\$555/718
SmartUPS SU420 / SU620 / SUA1000	\$328/438/760
SmartUPS SU1500 / SU2200	\$968/1368

Network Cable / Accessories

10/100 BaseT Cable 10' / 15' / 25'	\$8/10/12
10/100 BaseT Cable 50' / 75' / 100'	\$20/25/30
10/100 BaseT Cable Bulk per ft. / per 1000 ft.	\$15/128
Crimping Tool: RJ45 / BNC	\$25/30
Multi-Network Cable Tester	\$75

Broadband Networking

Linksys HPro 200 Phoneline Router 10M	\$218
Linksys HPN200(sk) Phoneline PCI 10M / Kit	\$68/125
Linksys USB200HA Phoneline 10M USB	\$98
Linksys PCM200HA Phoneline 10M PCMCIA	\$98
Linksys PCM100HI Phoneline 10/100 PCMCIA	\$118
Linksys Cable/DSL Router 1 Port	\$105
Linksys Cable/DSL Router 4 / 8 Port	\$118/218
SMC Cable/DSL Router 4 Port / 8 Port	\$128/228
US Robotics Cable/DSL Router 4 Port	\$108

Wireless Networking

3Com Home Wireless Gateway	\$288
3Com AirConnect 11Mbps PCI / PCMCIA	\$318/198
3Com Wireless Bluetooth Cardbus	\$188
D-Link DWL900 AP 11M Access Point w/ Bridge	\$238
D-Link DI-713P Access Point + 3 Port Router	\$260
D-Link DWL520 11Mbps Wireless PCI	\$155
D-Link DWL650 11Mbps Wireless PCMCIA	\$135
D-Link DWL120 wireless USB	\$135
D-Link DCF-650W Wireless Compact Flash Card	\$168
D-Link DWL905 AP+ 2x11M PCMCIA	\$398
D-Link DWL920 AP+ 2xUSB Adapter	\$515
Linksys BEF W11S4 Wireless AP+ 4 Port Router	\$248
Linksys WMP11 Wireless PCI Card	\$148
Linksys WPC11 Wireless PCMCIA	\$128
Linksys WUSB11 Wireless USB	\$130
Linksys WCF11 Wireless Compact Flash Card	\$180
SMC 2632W Wireless PCMCIA	\$128
SMC 2642W Wireless Compact Flash Card	\$178
SMC 2655W Wireless AP	\$248
SMC 2662W Wireless USB Adapter	\$130
SMC 7004AWBR AP + 3 port Router	\$248

WHAT'S NEW

Continued from page 12

choose from a full range of processors, starting with the ARM 7 CPU and scaling to the highest-performance ARM chips from Intel, Motorola and Texas Instruments.

New features in Palm OS 5 include an enhanced user interface, according to PalmSource. Icons and fonts have been enhanced to support high-resolution displays and to provide greater readability. In addition, the user interface can now be personalized with colour themes.

Other new features in Palm OS 5 include: strong data-encryption services and Secure Socket Layer (SSL) services for more secure email, Web browsing and online transactions; higher-fidelity sound and support for high-density screens; and support of 802.11b for connections to wireless Local Area Networks.

With the introduction of the newest version, PalmSource has followed the lead of Apple and Microsoft and also introduced the PalmSource Compatibility Program, which allows developers to qualify their software for Palm OS 5 and receive permission to use the Palm Powered Compatible logo. According to PalmSource, this logo assures customers that the software runs well on current 68K products and future ARM-compliant products.

Devices utilizing the new operating system are expected this fall.

—TCP Staff

Printer tops home office 'must-haves'

The dream of the paperless office is still a myth, according to research by HP (www.hp.com). In a recent telephone survey conducted by International Communications Research in the U.S., printers topped the list of home office tools consumers "can't live without" (43 percent)—outranking additional phone lines (19 percent), fax machines (10 percent) and electronic calendars (8 percent).

Continued on page 26

Philips designs tiny optical drive for portable devices

Philips (www.research.philips.com) has demonstrated a fully functional miniature optical disc drive that can store up to 1 GB of data on a single-sided, 3-cm diameter optical disc—a size compatible with portable devices like digital cameras, cell phones, and PDAs.

The company says the small form factor is possible because of recent advances in blue laser technology, and its own innovations in optical storage media and miniaturized opto-mechanics.

Creating a drive to fit into small portable devices required miniaturizing all of the elements, Philips said. To that end, Philips developed the world's smallest objective lens for blue laser recording, which allowed it to reduce the height of the optical disc drive to 7.5 mm from the 12.5 mm or more typical in current drives.

Other key developments in shrinking the size of the drive include using a plastic lens instead of glass and creating an ultra-thin version of the actuator that positions and focuses the laser beam onto the optical disc, according to Philips.

The resulting fully functional prototype drive is just 5.6x3.4x0.75 cm. The demonstrator setup, with the driving electronics currently still on a separate board, successfully played back MP3 data from a 3-cm diameter optical disc, Philips said.

—TCP Staff



鴻圖電腦
Member of
BBB
since 1998

CRYSTAL COMPUTER LTD

4551A Kingsway, Burnaby, BC V5H 2A7
Tel: (604)436-4551 Fax: (604)436-4000
email: info@crystalcomp.bc.ca
web: http://www.crystalcomp.bc.ca

Store Hour:
Mon-Fri: 10am - 6:30pm
Sat: 10am - 5:30pm
Sun, Holidays: By appointment



CDRW 24x10x40	\$73	Aopen 1000W speaker	\$45	Ink refill blk / combo	\$25/40
Logitech optical mouse	\$20	Epson C60	\$129	GF2 Mx200 32M TV	\$69
10Base Sport hub	\$28	Maxtor 20g /5400rpm	\$95	Acer scanner 4300U	\$75
64M Compact flash	\$49	19" 0.20 flat monitor	\$333	CPU HOLDER	\$25

ACCESSORIES/CASE/CPU	
15"AT/15" ATX/18" ATX/P4 300W	\$27/32/39/45
P-FAN/Volcano 5/ Volcano 6/Volcano 7	\$8/15/22/30
ATA 100 mobile rack /ALUM Rack / CPUs	\$18/45/call
DISKS/DRIVES/CDROMS	
FDD/100ZIP/250ZIP	\$16/68/125
5400rpm:20 / 40/ 60	\$95/115 /150
5400rpm:80 /120/160G	\$189/285/400
7200rpm:20 / 40 / 60	\$110/125/145
7200rpm:80 / Aopen 52x/LG52x	\$170/40/40
LG16x DVD, LG DVD/CDRW COMBO	\$75/82/120
CDRW: LG 24x / LG 32x	\$95 /115
ZIP 250M EXT USB /100M EXT USB	\$218/140

KEYBOARD/MOUSE	
Win98 keyb / MS Internet keyb / Elite keyb	\$9/26/28
Logitech wheel mouse Ps2 / Logitech Optical	\$12/22
Logitech Cordless / Logitech Cordless Optical	\$58/75
MS Intellimouse Ps2 /MS Optical / basic mouse	\$25/30/5

MEMORY/MODEM/MONITOR	
16E/32E/PC-133-64/128/256/512	\$20/32/35/37/60/160
128-RIMM/256-RIMM /128DDR / 256DDR	\$79/135/180
Aopen PCI 56KSV / Aopen PCI PLM	\$22/38
USR PCI-SW-VOICE/HW VOICE	\$40/95
BENQ 17" 0.27/AOC 19" 9G/9K	\$188/285/333

KDS 7P/ Samsung 7505 / 7530F	\$220/220/245
Viewsonic PF790/NEC FE750 + /NEC1550V	\$565/350/569
Viewsonic Vg150/ Vg151	\$695/720

MOTHERBOARD/NETWORK

ASUS A7V333WA / A7V266C/QDI 7L	\$186/128/80
GIGA 81DX / QDI 10T / Iwill	\$145/110/call
INTEL: ASUS P4B533/P45533-WA-WL	\$225/170
ASUS P4B266-C/ P4T-E	\$230/279
MSI 850 PRO 2 LE /MSI845PRO2 LE	\$195/195
ECS P4VMN2/P4SSA	\$115/100
PCCHIPS 758 / 810 / 787	\$95/105/120
ECS K755A/K756A	\$95/110
10-100 NIC / 10BASE T HUB: 5 / 8P	\$12 / \$28 / 50
10-100 BASE T HUB: LINKSYS 5P/ 8P	\$70 / 98
4P-ROUTER: LINKSYS / DLINK / USR	\$125 / 120 / 113

PRINTER/SCANNER

CANON S200/S300/S520	\$80/145/200
EPSON C60 /C80	\$125/235
LEXMARK 225/233/243	\$80/129/159/157
LEXMARK 253/282/X83	\$199/265 /285
HP1200/HP 1000	\$575/365
Acer 1240UT/4300/EPSON 1250	\$177/92/195

EPSON 1250 / 1250PHOTO	\$140/195
EPSON 1650 / 1650PHOTO	\$285/365
HP 2200C / 3400C / 4400C USB	\$118/148/218

SOUND/VIDEO/SPEAKER

CREATIVE PCISb128	\$29
SB LIVE 5.1 /Audigy oem / Audigy gamer	\$49/100/145
ATI Radeon le 32M/ ve dual display 32M	\$129/145
ATI Radeon 7200 / 7500 / 8500	\$109/255/389
ATI AIWRadeon 7500 64M DDR w/remote/8500DV	\$265/509
TNT2-32M/GF2MX200 32M TV	\$49/69
GF2 Mx400 64M / GF2 Mx400 64M TV	\$69/79
MSI GF3 Ti200 128M/GF4 MX420/GF4 MX440	\$210/119/143
GF4 MX440VTP / GF4 MX460/GF4Ti4200	\$164/195/285
GF4 Ti4400/ G4 Ti4600	\$368/505
100W/180W/MLI 470A/747	\$8/18/30/40
ACS 33 /ATP3/AVS200/300/500	\$60/95/26/49/66

SOFTWARE

Norton antivirus 2002 oem/Winfax pro 10	\$25/30
Winfax pro 10.2 / PCanywhere 10.5	\$120/49
Simply accounting pro 8.5	\$139
Frontpage 2002/office xp pro /office xp sbe	\$239/475/280
WIN98SE / WINXP home/ xp pro	\$130 / 140 / 230

NOTEBOOK/FURNITURE CALL

AMD-VALUE

Mainboard, 128-PC133 max 64M AGP & 3D Audio 56K Modem, LAN, FDD, 20G/5400rpm HDD 15" ATX 250W, 52X CDROM 98 Keyb, Wheelmouse, Pad 100W Speaker	
Duron 950/16	\$429/439
Duron 1.1/1.26	\$459/469
TB 950/1.16	\$459/479
TB 1.3/1.4	\$479/509
XP-1600+/1700+/\$525/569	
XP-2000+/2100+/\$609/679	

INTEL-VALUE

Mainboard, 128-PC133 max 64M AGP & 3D Audio 56K Modem, LAN, FDD, 20G/5400rpm HDD 15" ATX 250W, 52X CDROM 98 Keyb, Wheelmouse, Pad 100W Speaker	
CEL 16(128K)	\$469
CEL 1.16	\$449
CEL 1.26/1.36	\$459/469
P3-1.16	\$529
P3-1.26	\$549

P4-VALUE

Mainboard w/sound 128MBDDR, onboard VGA 56K Modem, FDD, 20G/5400rpm HDD ATX 300W, 52X CDROM 98 Keyb, Wheelmouse, Pad 100W Speaker	
P4-CEL-1.7G	\$549
P4-1.6-512K	\$625
P4-1.8-512K	\$625
P4-1.8-512K	\$665
P4-1.9-256K	\$675
P4-2.0-512K	\$695
P4-2.2-512K	\$769

AMD-POWER

Mainboard, 256-PC133 TNT2 32M, PCI Sound, FDD 56K Modem, 20G/5400rpm 18" ATX 250W, 52X CDROM 98 Keyb, Wheelmouse, Pad 500W Subwoofer Speaker	
Duron 950/16	\$549/559
Duron 1.1/1.26	\$569/579
TB 950/1.16	\$569/599
TB 1.3/1.4	\$595/629
XP-1600+/1700+/\$619/639	
XP-1800+/1900+/\$649/699	
XP-2000+/2100+/\$739/799	

INTEL-POWER

Mainboard, 256-PC133 TNT2 32M, PCI Sound, FDD 56K Modem, 20G/5400rpm 18" ATX 250W, 52X CDROM 98 Keyb, Wheelmouse, Pad 500W Subwoofer Speaker	
CEL 16 (128K)	\$609
CEL 1.16/1.26	\$599/609
CEL 1.36	\$619
P3-1.13/1.26BX	\$669/689

P4-POWER

Mainboard, 256M DDR GF2MX200 32M AGP PCI Sound, 56K Modem, FDD, 20G/7200rpm HDD P4 ATX 300W, 50X CDROM 98 Keyb, Wheelmouse, Pad 500W Subwoofer Speaker	
P4-CEL-1.7G	\$739
P4-1.6	\$809
P4-1.7 / 1.8	\$809/839
P4-1.9 / 2.0	\$859/879
P4-2.2	\$949

VIA-1G PRO \$385

Mainboard with cpu, video, sound, lan, modem on board 128M pc133, FDD, 20G/5400rpm HDD, 52X CDROM 15" ATX 250W, 98 Keyb, Wheelmouse, Pad, 100W Speaker

LEASING AVAILABLE

More items and system prices on web site.

* 2% Surcharge on Master Card, 3% on Visa Card *

Monitor extra: 15" LCD: \$570; 17" LCD: \$870
17" 0.27: \$198; 17" 0.25FLAT: \$250; 19" 0.25: \$298

Open Your Eyes

— and see the difference. —

The combination of Gigabyte's ability to design and ATI's industry-leading graphics is very hard to beat.

KY Ho, Chairman and CEO,
ATI Technologies Inc.

RADEON MAYA Series



RADEON 9000 Pro MAYA 3D Graphics Accelerator- AF64DG

- Powered by ATI RADEON™ 9000PRO with 64MB DDR SDRAM
- 275MHz engine and memory clock speeds
- SMARTSHADER™ technology fully supports DirectX 8.1
- Sharper-looking 3D graphics with ATI SMOOTHVISION™ technology
- Dual display support with HYDRAVISION™
- Featuring ATI CATALYST™ industry-leading software suite
- DVI and TV-out Supported
- Supports Gigabyte V-Tuner for Hardware Monitor and Overclocking Utility

V-tuner Hardware Monitoring & Overclocking Utility



- Showing All Information of VGA Card by Single Step
- Easy To Speed Up Your Performance

6 Valuable Games Inside

Hardware Monitor

V-Tuner Over-clock Utility

2-View

DVI-I TV-out

DDR Memory



RADEON 8500 Deluxe AP128DG-H

- Powered by ATI RADEON™ 8500 Graphics Engine 128MB DDR SDRAM
- HYPER Z™ II technology increases memory bandwidth up to 11 GB/sec
- Supports high-speed double data rate DDR memory at 275 MHz, providing 8.8 GB/sec of memory bandwidth
- 165 MHz integrated TMD5 transmitter supports panels up to LXGA (1600x1200) resolution
- Improved RAMDAC speed of 400MHz
- Better visual quality with minimal performance degradation



RADEON 8500 Deluxe AP64D-H

- Powered by ATI RADEON™ 8500 Graphics Engine 64MB DDR SDRAM
- Advanced Cooling Feedback System and double side fansink
- ATI HYPER Z™ II technology increases memory bandwidth up to 11 GB/sec
- Supports DDR memory at 275 MHz
- Support V-Tuner For Hardware monitor / Overclocking
- 6 Games Inside
- Provides DVI-I and TV-out connectors
- Fully support Direct x 8.1



RADEON 7500 AR64DG

- Powered by the ATI RADEON™ 7500 GPU with 64MB DDR SDRAM
- ATI HYPER Z™ increases graphics memory bandwidth
- CHARISMA ENGINE™ supports full Transformation, Clipping and Lighting (T&L)
- Support V-Tuner For Overclocking
- 6 Games Inside
- Provides DVI-I and TV-out connector



* These speed settings are not guaranteed by GIGABYTE.
** The specifications and photos are subject to change without notice.
*** All trademarks and logos are the properties of their respective holders.
**** Any overclocking is at user's risk. Gigabyte Technology shall not be responsible for any damage or instability to user's system, hardware or any other component.

For more information, please call our distributors:



PE Toronto
Tel: 905-513-5777 Fax: 905-513-5770
PE Montreal
Tel: 514-956-1234 Fax: 514-956-1099
PE Vancouver
Tel: 604-273-8281 Fax: 604-273-4172
PE Calgary
Tel: 403-250-8281 Fax: 403-250-8325



Supercom Toronto
Tel: 905-415-1166 Fax: 905-415-1177
Supercom Montreal
Tel: 514-335-1166 Fax: 514-335-9326
Supercom Vancouver
Tel: 604-276-2677 Fax: 604-276-0807



www.gigabyte.com.tw

WHAT'S NEW

Continued from page 24

Colour printing is also becoming a mainstay according to the researchers who found that 94 percent of printer owners surveyed said they use printers for a variety of creative projects. In particular, 58 percent of those polled said they print colour photographs from email or digital cameras. Other creative printer uses include making greeting cards, invitations or announcements (72 percent), arts and crafts projects (53 percent), and CD and DVD labels and covers (23 percent).

—TCP Staff

Toshiba Pocket PC family goes wireless

Toshiba of Canada Information Systems Group (www.toshiba.ca) has introduced the e740 Pocket PC, which it says is Canada's first handheld with integrated 802.11b wireless LAN technology. The device is powered by Intel's 400 MHz PXA250 processor, which promises increased per-

formance without compromising battery life, according to Toshiba.

The e740 Pocket PC has expansion slots for both CompactFlash II and Secure Digital (SD) format cards and plug-ins. It weighs in at 185 g. It runs Microsoft Pocket PC 2002, which comes with Pocket versions of Outlook, Internet Explorer, Word, Excel, and Windows Media Player 8.0. The Toshiba e740 Pocket PC has a suggested list price of \$949.

—TCP Staff

ToTheTrash manages Mac trash

Mireth Technology (www.mireth.com) is offering Mac OS X users an alternative for handling trash. ToTheTrash! provides a place to put those files not ready for deletion yet, allowing users to specify how long to keep each one. Files can be retrieved if they're needed before the expiry date, when they're automatically deleted.

ToTheTrash! for Mac OS X costs US\$19.95 and can be ordered from Mireth's Web site, or downloaded (free demo included) from www.mireth.com/pub/download.html.

—TCP Staff

ViewSonic introduces UltraBrite displays



ViewSonic Corp. (www.viewsonic.com) has added four new displays to its line of monitors that, according to the company, provide enhanced viewing capabilities, including up to three times brighter images than current displays.

Two CRT displays, the P95f+ and the P75f+, and two LCD monitors, the VE510+ and the VX500+, feature UltraBrite technology. It allows users to increase screen brightness up to three times higher than normal, with the touch of a button.

Viewsonic says UltraBrite makes these displays ideal for professionals who require high-end performance when working on graphic or Web design, video or photo editing, desktop publishing, or gaming applications, for example.

The new monitors include the following specs:

Model	Size	Aperture grille	Max. res.	Price*
P95f+	19-in.	0.25-0.27 mm	1,920x1,440	\$539
P75f+	17-in.	0.25 mm	1,792 x1,344	\$369
VE510+	15-in.		1,024x768	\$789
VX500+	15-in.		1,024x768	\$849

*Suggested retail price

Both LCD models include integrated speakers. The VX500+ also comes with a microphone and analogue and digital inputs.

Standard with all four displays is a lock option to prevent accidental changes to personalized monitor settings. The monitors are backed by a limited, three-year warranty on parts, labour, and backlight.

—TCP Staff

SD card offers one-button backup

SanDisk Corp. (www.sandisk.com) has intro-

Continued on page 28



ADSL

fast & secure

high speed internet

FREE 3 MONTHS ADSL SERVICE
purchase ADSL modem

FREE DIGITAL WEBCAM
until stock last

FREE setup & installation



AlphaCam
DO NOT MISS THIS CHANCE!

\$34.88/month

- ★ FREE setup charge
- ★ FREE 10 hours dial-up
- ★ FREE 5Mb personal web space
- ★ unlimited hours of access

(conditions apply, check details)

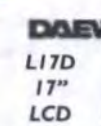
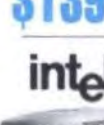
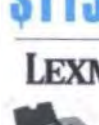
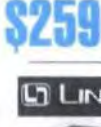
DIAL-UP
Unlimited \$19.88/month,
Special \$49.88/3 months

WEB HOSTING: \$12/month
SERVER PARKING: \$150/month



MDI INTERNET WWW.MEGANOW.NET WWW.MDI.CA 604.602.9168

Hot Summer Savings...it's time to make a deal!

 acer Acer 15" LCD Monitor Three-Year Warranty \$519	 acer Acer 17" LCD Monitor Three-Year Warranty \$838	 DAYTEK 17" Perfect Flat Monitor Three-Year Warranty \$209	 NEC Fe700+M w/Speakers 17" Flat Monitor Refurbished One-Year Warranty \$199	 KDS 15" RAD5X LCD Monitor Three-Year Warranty \$519	 Impression 17" 7LS Silver LCD Monitor Three-Year Warranty \$819	 NEC AS95F 19" Flat Monitor Refurbished One-Year Warranty \$269	 DAEWOO L17D 17" LCD First 2 Units \$949
 YAMAHA CDRW 3200EVK 24x10x40 with Software Retail Box \$165	 LG CDRW & DVD Combo Drive \$125 OEM	 AOpen CRW2440 24x10x40 2MB Buffer \$75 Retail Box	 LG Electronics DVD 16x IDE DVD-ROM \$69 OEM	 Pioneer DVR-104 DVD-R Burner \$499	 LITEON 40x12x48 INT IDE CDRW \$115 Retail Box	 LG Electronics 32x10x40 INT IDE CDRW 8MB Buffer \$99 OEM	 TOSHIBA DVD 16x IDE DVD Drive \$75 OEM
 Maxtor 60GB 7200rpm U133 3-Year Warranty \$139 OEM	 Western Digital 40GB 5400rpm U100 3-Year Warranty \$115 OEM	 Maxtor 40GB 7200rpm U133 3-Year Warranty \$109 OEM	 ABIT Geforce 4 Ti 4200 64M DDR w/TVOut & DVI \$249 Retail Box	 Nvidia TNT2 32MB AGP Video \$55 Retail Box	 CREATIVE Audigy PCI Sound w/Firewire \$99 OEM	 ECS Elite K7SSA Socket A AMD Mainboard \$89 Retail Box	 ASUS P4S333 Pentium 4 DDR MB Sound/NIC \$149 Retail Box
 intel Deluxe CCD WebCam \$49 Retail Box	 LEXMARK Z22 Colour Inkjet \$69 Retail Box	 CREATIVE Home Theater Experience 5300 6-Piece \$139	 tsunami XG-2100 Speakers \$39	 tsunami XX-117AA 3-Way Speakers \$19	 Taurus Tower Case 18" 300 Watt P4/AMD USB on front! \$49	 AMD Duron 1.1GHz CPU \$89 Retail Box	 intel Pentium 4 1.8GHz A 512k Cache \$259 Retail Box
 AOpen Cordless Keyboard & Mouse \$59 Retail Box	 Labtec Optical Mouse with Scroll Wheel \$19 Retail Box	 Logitech Cordless Keyboard & Optical Mouse \$129 Retail Box	 USB HUB 4-Port Powered USB Hub \$29	 D-Link Building Networks For People 538TX 10/100 NIC \$22 Retail Box	 LINKSYS DI-604 4-port Internet Router \$99 Retail Box	 3Com Internet Router With Print Server \$109	 LINKSYS Network Switch 8-Port 10/100 2x 10/100 NIC Free! \$109

COMPAQ

Presario 1200 Series with WindowsME



14.1" TFT Display
 AMD 1.1GHz, 196MB
 20GB HDD, 56k, 10/100 NIC
 DVD and MS WinME!
 Factory Refurbished

\$1499

AMD Duron 1.1GHz System



128MB, 20GB, AGP Video, 52x CD NIC, Sound, Keyboard & Mouse
 17" Monitor add: \$199

\$449

COMPAQ

Presario 715 with Windows XP



14.1" TFT Display
 AMD Athlon 1.2GHz, 256MB
 20GB HDD, 56k, 10/100 NIC
 DVD and CDRW Drive!
 Factory Refurbished

\$1795

Intel Pentium 4 1.6GHz System



256MB, 40GB, 32M GeForce Video, 52x CD NIC, Sound, Keyboard & Mouse
 17" Monitor add: \$199

\$749

VANCOUVER
 Phone: (604) 739-8060
 Toll Free: 1-888-678-4222
 105-1755 West Broadway

Email: sales_vancouver@frontierpc.com

www.frontierpc.com
Frontier Computer

* All prices reflect 2% cash discount.
 * Prices, specifications and availability are subject to change without notice.
 * All logos are trademarks of their respective owners.
 * LIMITED STOCK ON SOME ITEMS

BURNABY
 Phone: (604) 434-3800
 Toll Free: 1-877-434-3800
 6B - 4300 Kingsway

Email: sales_burnaby@frontierpc.com

WHAT'S NEW

Continued from page 26

duced its first combination software/memory card for Palm OS devices. The 32 MB Secure Digital (SD) card comes pre-loaded with Blue Nomad's BackupBuddy VFS software.

The new software/memory card will allow Palm OS devices with an SD slot to easily backup, store, and encrypt data on the SD card with the touch of one button.

The 32 MB SD Expansion Card has a suggested price of US\$49.99.

—TCP Staff

Visioneer releases slim-line USB scanner

Visioneer (www.visioneer.com) has introduced the first scanner in its new Slimline series, the OneTouch 7100 USB colour flatbed. At 43x28x6.5 cm (17x11.9x2.6 in.), the 7100 is 33 percent smaller than previous models, according to Visioneer.

The new model uses CCD (couple charged device) sensors and has a maxi-

mum scanning resolution of 1,200x4,800 dpi, 48-bit internal colour, and FlashBack Bi-directional AutoScan Technology.

Most slim-line scanners use CIS (contact image sensors), but Visioneer says CCD sensors produce better image quality and more accurate scanned documents.

All OneTouch scanners come with five buttons pre-configured to scan at the optimal settings for common tasks. The five buttons on the OneTouch 7100 USB are scan, copy, OCR, email, and custom.

The scanner comes bundled with ArcSoft PhotoImpression 3.0 and ScanSoft's PaperPort Deluxe 7.0. It also features Scan Manager Pro, an advanced TWAIN driver with tools normally found only in high-end image editing applications, according to Visioneer.

Minimum system requirements for the OneTouch 7100 USB are a Pentium or equivalent processor, running Windows 98, 2000, Me, or XP, with 64 MB RAM (128 MB for Windows XP), 200 MB available hard disk space, a CD-ROM drive, colour monitor, and USB port. It has a suggested retail price of US\$99.99.

—TCP Staff

DATA FORTRESS

World Class Data Centers

www.data-fortress.com/special.htm

Email sales@data-fortress.com

Toll Free 1.866.463.DATA

Tel 604.484.2088

Fax 604.484.2089

www.data-fortress.com

Basic Managed Server

\$129

/month (USD)*

QUANTITIES LIMITED, CALL NOW!

Hardware Includes:

Intel Celeron 1.0 GHz CPU
256 Mb RAM, 40 GB HDD
Plesk Management Interface

Setup Includes:

Red Hat Linux 7.x configured with
Web Services by Apache
Mail by Qmail
Webmail by Imp
Database by mySQL
Webstats by Webalyzer
FTP by ProFTP
DNS by Bind
Plesk Server Administrator 2.5

Optional:

Firewall and advanced security
Automated backups
Fully managed servers

400GB

per month **

Secure space for servers and other network gear
Seismic Zone 4 rated and mounted racks
Clean redundant UPS
Raised floors for air-flow and cable management
State-of-the-art climate controlled environment
Fire suppression, alarm, and video monitoring
Multiple layers of facility security
Network operations centre for monitoring
Fully secure easy access for customer personnel
Network support services

*Plus \$99 USD setup charges, OAC, taxes extra. ** No carry-forward permitted.

22022506

Philips HomeLab opens its doors

Philips (www.research.philips.com) has opened a prototype home to test technologies that react to its occupants' wishes and moods.

The research facility is a real house, located in Eindhoven, Netherlands, filled with state-of-the-art technology that will be tested by normal people in an everyday environment, says Philips.

The company says HomeLab is not like traditional product testing facilities; it's a live-in home linked through hidden cameras, microphones, and one-way mirrors to observation rooms, allowing researchers to observe the occupants around the clock.

The lab includes a range of technology prototypes Philips classifies as "ambient intelligent," which are sensitive, personalized, adaptive, and responsive. Among them: home entertainment systems that respond to voice commands or create digital fantasy environments for virtual reality games; biofeedback technology embedded into household objects such as a bathroom mirror; and an interactive user interface that consolidates multiple devices into a single system for managing activities such as voicemail, watching video, or listening to music.

Most of the connections in HomeLab are wireless, with systems controlled by handheld devices and large-area flat-panel displays.

Philips says traditional testing has relied upon volunteers testing new products for a limited time, often only a matter of hours. With HomeLab, "residents" stay between 24 hours and two months, depending on the research being conducted.

"To achieve a world in which Ambient Intelligence is pervasive, we need to teach technology to react to humans rather than forcing humans to 'program' technology," said Erkki Liikanen, a commissioner with the European Union, which has invested in HomeLab.

—TCP Staff



Logitech cuts cord on Optical Trackman



Following the release of wireless keyboards and mice, Logitech

(www.logitech.com) has cut the cord on its optical trackball peripheral.

The Cordless Optical TrackMan uses Logitech's optical Marble technology and transmits cursor commands to a PC via 27 MHz cordless digital radio technology that does not require a line of sight.

The TrackMan has forward and back buttons, scroll wheel, and drag-lock button. Users can also customize the button commands.

It's powered by AA batteries and comes

Continued on page 36

ROCK COMPUTER

Store Hours :

Mon - Fri 9:30 - 6:30
Sat. 9:30 - 6:00

#150 - 5172 Kingsway
Burnaby, B. C.

Fax: (604) 419-8898

Tel: (604) 419-8828

Tech: (604) 879-8640



Keyboard

Aopen 104 Win98 P/S2 Keyboard	\$15.00
Fujitsu F8729 P/S2 Keyboard	\$26.00
Logitech Cordless Freedom optical P/S2 Keyboard w/Mouse	\$129.00
MS Internet P/S2 Keyboard	\$28.00
MS Natural Elite Keyboard P/S2	\$38.00
MS Natural PRO P/S2/USB Keyboard	\$85.00

Mouse

Logitech Optical Mouse	\$22.00
Logitech Wheel Mouse P/S2	\$15.00
MS Optical Intimouse Wheel Mouse P/S2	\$35.00
MS Optical Wheel Mouse USB&P/S2	\$28.00
Wacom Graphics Tablet 4"x5" USB	\$139.00

Hub Repeat

3Com 8Port OfficeConnect 10/100 Dual Speed Hub	\$116.00
Acer 8 Port 10 Base Hub	\$46.00
D-Link 16Port Desktop 10/100 Nway Switch	\$199.00
D-Link 5Port Desktop 10/100 Nway Switch	\$66.00
D-Link 8Port Desktop 10/100 Nway Switch	\$86.00
Linksys 16Port 10/100 Switch	\$299.00
Linksys Etherfast Cable/DSL 4 Port Router	\$121.00
OEM 5Port Networking Hub 10 Base	\$33.00
SMC 4Port Router w/Print Server Port	\$119.00

Speakers/Microphone

Altec Lansing 2100 Speakers 2x40W 2xSub	\$128.00
Altec Lansing 4100 Speakers 4x70W w/Sub	\$239.00
Altec Lansing ATP3 Speakers White Box	\$85.00
Altec Lansing AVS300 Speakers	\$45.00
Altec Lansing AVS500 Speakers 5-pc w/Sub	\$66.00
Cambridge Inspire 5300 5.1 Speakers	\$128.00
Creative Labs Inspire 4400 4.1 Speakers	\$79.00
Creative Labs SW320 Speakers w/Subwoofer	\$66.00
Logitech Z-540 Speakers w/Subwoofer (5-Piece)	\$85.00
Logitech Z-560 Speakers	\$226.00
Yamaha MS201 Speakers w/Subwoofer	\$65.00

FREE on-site Network Package Estimation available Please Call

rock@rockcomputer.com

Motherboard

ABIT NV7133-Raid SocketA/266 ATA133 Motherboard w/V/A/L	\$208.00
ASUS A7V333-WA SocketA Motherboard	\$188.00
ASUS P4B266 C-WOA DDR Motherboard 6PCI 2DDR	\$159.00
ASUS P4B533-VML S478 i845 6PCI AGP 3DDR Motherboard ATX	\$188.00
ASUS P4S333 WA S478 SiS645PCI, 1AGP, 3DDR ATX	\$158.00
ASUS P4T-E -Socket478 RDRAM ATA100 Motherboard ATX	\$219.00
ASUS S478 i845E 6PCI/AGP/3DDR/ATA100/USB2.0 Motherboard ATX	\$229.00
Elite K755A SocketA DDR/SDR Motherboard w/Audio/LAN	\$96.00
Elite L750M SocketA3PCI/2DDR Motherboard Video/Audio/Lan	\$106.00
Elite P4VXAD S478 ATA133 FS8533 3xDDRAM Motherboard A & Lan	\$103.00
GIGABYTE GA-7VRX SocketA ATA133 3xDDR Motherboard AC97	\$136.00
GIGABYTE GA-8IEX S478 4xDDRAM ATA100 Motherboard AC97	\$178.00
Intel D845BG Socket478 DDR 6PCI Motherboard/Audio	\$159.00
Intel D850MVSE Socket478 RDRAM 5PCI Mob	\$229.00
MSI 845 Ultra-ARU S478 3xDDR RAID Motherboard	\$215.00

Hard Drive (IDE)

IBM 80GB ATA-100 7200RPM /2MB Hard Drive	\$146.00
Maxtor 20.0GB ATA-100 5400RPM/9ms/2MB Hard Drive	\$99.00
Maxtor 20.4GB ATA-133 7200rpm/8.7MS/2MB Hard Drive	\$109.00
Maxtor 40.9GB ATA-133 7200rpm/8.7MS/2MB Hard Drive	\$119.00
Maxtor 60.0GB ATA-133 7200rpm/8.5ms/2MB Hard Drive	\$139.00
Maxtor 80.0GB ATA-133 7200rpm/8.5ms/2MB Hard Drive	\$158.00
Seagate 40.0GB ATA-100, 7200RPM/2MB IDE Hard Drive	\$146.00
WD 100GB ATA100 7200rpm/8.9ms/2MB Hard Drive	\$286.00

Hard Drive (SCSI)

Fujitsu 18.4GB 10K/8MB Ultra160 SCSI LVD Hard Drive	\$288.00
Fujitsu 36.7GB 10K/8MB Ultra160 SCSI LVD Hard Drive	\$466.00
Fujitsu 73.5GB 10K/8MB Ultra160 SCSI LVD Hard Drive	\$949.00
Maxtor 18.4GB Atlas 10K/4.5ms/8MB 68pin U160 SCSI Hard Drive	\$279.00
Maxtor 36.7GB Atlas 10K/4.5ms/8MB 68pin U160 SCSI Hard Drive	\$466.00
Maxtor 73.4GB Atlas 10K/4.5ms/8MB 68pin U160 SCSI Hard Drive	\$966.00
Seagate Cheatech 36.7GB 10Krpm 68pin Hard Drive	\$488.00

NoteBook

Acer223r C1.13/128MB/20GB/CD/56K/Lan/14" TFT/WinXP/Notebook	\$1,598.00
ASUS M1300A P3-850/192MB/20GB/13.3TFT/8DVD/56K/WinME	\$1,998.00
IBM P1175064MB/20GB/56K/WinME/13.3TFT	\$1,599.00
Toshiba VFI C1.1/256MB/20GB/DVD/56K/Lan/XP/14" TFT	\$1,849.00
Toshiba Satellite6000 P11.6/256MB/20GB/DVD/56K/Lan/14.1TFT	\$2,398.00

Video Card

ABIT 64MB GeForce4 MX440 AGP Video Card w/TV-Out	\$139.00
AOpen 32MB TNT2 M64 AGPx4 Video	\$55.00
ASUS V8170DDR GeForce4 MX420 64 With tv Video Card (Retail)	\$149.00
ASUS V8200 Pure 64MB DDR GeForce3GTS AGP Video Card	\$366.00
ASUS V8200TI500 Pure 64MB DDR 4xAGP Video Card	\$446.00
ASUS V8460 GeForce4 64400 128mb DDR w/TVOUT AGP Video Card	\$439.00
ATI Radeon 64MB DDR 7500 All-In-Wonder AGPx4 Video Card	\$266.00
ATI Radeon 64MB DDR 7500 VGA+TVO +DVI AGPx4 Video Card	\$119.00
ATI Radeon 64MB DDR 8500DV A-I-W IEEE&Remote Video Card	\$396.00
ATI Radeon128 DDR 8500DV A-I-W IEEE&Remote Video Card Retail	\$546.00
Force 64MB Ge-Force2 MX400 AGP Video Card	\$76.00
Matrox Millennium G550 32MB DDR Dual Head Video Card	\$155.00
MSI 128MB GeForce4 TI4400 AGP Video Card With/TV Out	\$388.00
MSI 64MB GeForce4 MX440 DDR AGP Video Card w/TV out	\$149.00

Camcorder

Canon A30 Digital Camera	\$375.00
Creative WebCam Go ES Digital Camera 6MB	\$139.00
Intel PC Camera Deluxe USB	\$46.00
Kodak DX3215 Digital Camera	\$299.00
Zeca USB Digital Camera	\$69.00

Networking Card

3COM 3C905C-TXM 10/100 PCI Network Card	\$56.00
3Com 3C905CX-TXNM 10/100 Network Card	\$55.00
Aopen AON-325C 10/100 Ethernet Networking Card	\$16.00
Smart Link 10/100 Network Card	\$16.00
SMC 1244TX EZ Card 10/100 Fast Ethernet PCI Network Card	\$22.00

CD Write

AOpen 32x12x48 CD-Write	\$116.00
LG 24x10x40 Buffer Prevention CD Re-Write Drive	\$77.00
LG 32x10x40 Buffer Prevention CD Re-Write Drive	\$96.00
LiteOn 32x10x40 Int. IDE CD Re-Write Drive Retail	\$99.00
Plexor 24x10x40 Int. IDE CD Re-Write Drive	\$229.00
Yamaha 24x10x40 IDE CD Re-Write Drive Retail	\$249.00

Monitor

AOC 15" SVGA 0.28 1024x768 Color Monitor	\$176.00
AOC 17" SVGA 0.27 1280x1024 Color Monitor	\$206.00
LG 19" 915FT+ 0.24, 1600x1200@85Hz SVGA Color Monitor	\$479.00
NEC 15" 1560V FlatPanel Color Monitor	\$569.00
NEC 17" 1700V FlatPanel LCD 1280x1024	\$956.00
NEC 17" FE700+ SVGA Color Monitor	\$279.00
NEC 17" FE750+ SVGA Color Monitor	\$348.00
NEC 19" AS95F SVGA Color Monitor	\$379.00
Samsung 15" 151S LCD Panel	\$598.00
Samsung 15" 151S (Silver) LCD Panel	\$598.00
Samsung 17" 750S Color Monitor.24DPI 1280x1024	\$196.00
Samsung 17" 753DF SVGA Color Monitor	\$239.00
Samsung 17" 755DF 0.20 1600x1200@65Hz Color Monitor	\$299.00
Samsung 19" 955DF SVGA Color Monitor	\$376.00
Samsung 21" 1100P+ SVGA Color Monitor	\$798.00
SONY 15" S51 LCD Color Display	\$729.00
SONY 17" E200 SVGA Color Monitor	\$488.00
Viewsonic 15" VG150 LCD Color Display	\$688.00
Viewsonic 17" E70F SVGA Color Monitor	\$279.00

Printer

Brother LaserJet HL-1250DX Printer	\$458.00
Brother MFC-6800 Multi-Function Printer	\$698.00
Canon DeskJet S200 Color Printer	\$89.00
EPSON Deskjet 1280 Photo Printer	\$688.00
EPSON Deskjet C80 Color Printer	\$129.00
EPSON Stylus P820 Photo Printer	\$216.00
HP LaserJet 1000 Printer	\$359.00
HP LaserJet 1200N Printer	\$856.00
Lexmark DeskJet Z35Color Printer	\$118.00
Lexmark DeskJet Z53 Color Printer	\$189.00
Samsung Laserjet QL-5100A Printer	\$329.00

Scanner

Aopen P18a 4300U Scanner	\$75.00
Canon N640P Color Scanner	\$106.00
Canon N670U Flatbed USB Scanner	\$146.00
Epson 1250U Perfection Scanner	\$139.00
Epson 1250U Photo Perfection Scanner	\$186.00
Epson 1650 Perfection Scanner	\$269.00
Epson 1650SU Photo Perfection Scanner	\$299.00
Mirotek ScanMaker V6UPL FlatBed Scanner	\$188.00

DVD

Aopen 16x Int. IDE DVD Drive	\$68.00
LG 16x Int. IDE DVD 21600 kb/s, 512K, 120ms	\$66.00
LiteOn 16x IDE DVD 22160 kb/s, 100ms	\$88.00
Pioneer DVD -Writer A04	\$629.00
Pioneer 16x DVD 21600 kb/s, 512K, 95ms Tray	\$86.00
Pioneer 16x Int. IDE SlotLoad DVD Drive	\$86.00
Sony 16x Int. DVD Drive	\$78.00

CD ROM Drive

Acer 52X DE CD-ROM Drive Retail	\$45.00
Acer 56X IDE CD-ROM Drive Retail	\$46.00
LG 52X U-DMA IDE CD-ROM Drive	\$45.00

Sound Card

SoundBlaster Audigy MP3+ Sound Card Retail	\$139.00
SoundBlaster Audigy Platinum Sound Card EX Retail	\$349.00
SoundBlaster Audigy Platinum Sound Card Retail	\$279.00
SoundBlaster Audigy Sound Card	\$99.00
SoundBlaster Audigy X-Gamer Player Retail	\$149.00
SoundBlaster Exigy Sound Card	\$209.00
SoundBlaster Live Value VS 1 Sound Card	\$55.00

Controller Card

Adaptec 29160N Ultra160 SCSI Controller	\$398.00
Adapter 4300 Fire Wire pci Card	\$98.00
D-Link 3 Port IEEE 1394 FireWare Adapter	\$96.00
Promise Ultra 100 TX2 Controller Card	\$56.00
Tekram FireWire IEEE-1394 Controller Card	\$55.00
USB PCI Controller Card(1.0)	\$26.00

Caption Card

ASUS TV-Box w/ Remote Controller	\$108.00
ATI TV-Wonder PCI NTSC Caption card	\$96.00
Pinnacle Studio AV7 Caputre Card	\$179.00
PYRO DV 1394 Digital Caption Card Retail	\$113.00

Fax/Modem

Aopen 56K V.92 Int. PCI Win Voice Fax Modem Card	\$24.00
Eficient ADSL Fax Modem	\$296.00
USR 56K V.92 External Fax Modem	\$136.00

Acces-Disks,Tapes

50 piece CD Bin 80min/700MB	\$33.00
CD-R/OEM CD-R 650MB	\$2.50
CD-RW DISK OEM 650MB	\$2.60
ZIP Disk Iomega 100MB	\$15.00

ranite System

D K7 Duron 1.1GHz CPU Retail
e L750M SocketA3PCI/2DDR
Motherboard Video/Audio/Lan
128MB PC2100 DDR RAM
Panasonic 1.44MB 3 1/2" Floppy Drive
Maxtor 20.0GB ATA-100 5400RPM/9ms/2MB Hard Drive
Integrated 32MB SIS370 4xAGP Video
Tower Case with 300W Power Supply
Aopen 104 Win98 P/S2 Keyboard
Logitech 2B Mouse P/S2
Integrated Sound
52X U-DMA IDE CD-ROM Drive
Juster 691 Stereo Speakers
Integrated 10/100 Base Network
TWO month free SHAW cable package
Full Warranty

\$436

Ruby System

Intel Pentium4 1.6GHz Socket478 CPU & Fan
MSI 645Ultra Socket478 ATA100 3xDDR Motherboard
256MB PC2100 266MHz DDR RAM
Panasonic 1.44MB 3 1/2" Floppy Drive
Maxtor 20.4GB ATA-133 7200rpm/8.7MS/2MB Hard Drive
64MB Ge-force2 MX400 AGP Video Card
Tower Case with 300W P4 Power Supply
Aopen 104 Win98 P/S2 Keyboard
Logitech Wheel Mouse P/S2
Integrated Sound
52X U-DMA IDE CD-ROM Drive
Juster 3D-FX3 450W Speakers with Subwoofer
TWO month free SHAW cable package
Full Warranty

\$699

Emerald System

AMD Athlon XP1800 SocketA CPU & Fan
GIGABYTE GA-7VRX SocketA ATA133
3xDDR Motherboard
256MB PC2100 266MHz DDR RAM
Panasonic 1.44MB 3 1/2" Floppy Drive
Maxtor 40.9GB ATA-133 7200rpm/8.7MS/2MB Hard Drive
64MB Ge-force2 MX400 AGP Video Card
Tower Case with 300W Power Supply
Aopen 104 Win98 P/S2 Keyboard
Logitech Wheel Mouse P/S2
Integrated Sound
32x10x40 Buffer Prevention CD Re-Write Drive
Altec Lansing AVS300 Speakers
Integrated 10/100 Base Network
TWO month free SHAW cable package
Full Warranty

\$766

Diamond System

Intel Pentium4 1.7GHz Socket478 CPU & Fan
ASUS P4S333 WA S478, 6xPCI,1xAGP, 3xDDR Motherboard
256MB PC2100 266MHz DDR RAM
Panasonic 1.44MB 3 1/2" Floppy Drive
Maxtor 40.9GB ATA-133 7200rpm/8.7MS/2MB Hard Drive
64MB GeForce4 MX420 DDR AGP Video Card w/TV out
Tower Case with 300W P4 Power Supply
Aopen 104 Win98 P/S2 Keyboard
Logitech Optical Mouse
Integrated Sound
24x10x40 Buffer Prevention CD Re-Write Drive
Juster 2.1 3D-108 Speakers with Subwoofer
SMC 1244TX EZ Card 10/100 Fast Ethernet PCI Network Card
16X Int. IDE 21600 kb/s, 512K, 120ms DVD Drive
TWO month free SHAW cable package
Full Warranty

\$946

Monthly Special

Intel Celeron2 1.7GHz socket478 CPU & Fan
Elite P4VMM2 (VIA ALL-in -one) Motherboard
128MB PC2100 DDR RAM
Panasonic 1.44MB 3 1/2" Floppy Drive
Maxtor 20.4GB ATA-133 7200rpm/8.7MS/2MB Hard Drive
Integrated 32MB SIS370 4xAGP Video
Tower Case with 300W P4 Power Supply
Aopen 104 Win98 P/S2 Keyboard
Logitech Wheel Mouse P/S2
Integrated Sound
52X U-DMA IDE CD-ROM Drive
Juster 691 Stereo Speakers
Integrated 10/100 Base Network
TWO month free SHAW cable package
Full Warranty

\$496

Domain Names for Everyone



REAL PEOPLE REAL SERVICE

Register your Domain

- ✓ FREE web page
- ✓ FREE e-mail forwarding
- ✓ FREE domain forwarding
- ✓ Online domain manager

Resell Domains

- ✓ Pricing - as low as \$6.95/domain*
- ✓ Recurring revenue stream
- ✓ Branded registration process
- ✓ Dedicated account executive
- ✓ Online account manager



DomainPeople.com™

a NetNation® Company

DomainPeople is an ICANN-accredited domain name registrar. Backed by NetNation, a top-ranked web hosting company, we have helped customers and resellers in more than 130 countries register over 300,000 domains. Call us toll free or e-mail sales@domainpeople.com today!

Toll-FREE 24/7, live support!

www.domainpeople.com/cp 1.877.734.3667

*Some restrictions apply. Please call for details.

©2002 DomainPeople, Inc. All rights reserved. DomainPeople and the DomainPeople logo are a registered trademark of NetNation Communications, Inc.

< THE GADGETEER >

Gadgets to watch

Continued from page 14

longer you run. To make sure you're giving your all and running at the proper pace, you can either hire a trainer to watch you during your entire run, or you can pick up Timex's Speed + Distance System.

While it doesn't have the personal touch of a trainer, the two-piece Speed + Distance System is a pretty nice substitute. It includes what looks like a standard digital wristwatch and a reasonably small GPS module that you strap to your arm or clip to your belt. The GPS module connects to the wristwatch via radio signals. Using data it obtains from GPS satellites, it measures how far you've travelled, current, average, and maximum speed, pace, and more. You can set up alarms by time or distance. It's also a full-featured watch, so includes a chronograph, timer, and alarm.

We were initially skeptical about the system, but it seemed to work just fine. Before using it for the first time, you have to let it sit for about four to five minutes to get the proper satellite orientation, but as long as you stay within about 160 km (100 miles) of your first calibration, subsequent "boot-ups" should take less than a minute. After that, you turn the monitor on and start running. It uses the signals from the satellites to figure out your speed and how far you've gone. There is sometimes a small lag when you change pace or direction, but it generally corrects itself fairly quickly.

As you'd expect, the biggest problems with the unit are related to the GPS module. Though the arm strap keeps the module securely attached, the whole setup does add 175 g to your arm, which may be a problem if you're trying to run light. (If you strap it incorrectly it can also make your arm throb a bit.) Also, because GPS units always need a fairly clear view of the sky, you won't be able to use it indoors, and may have problems using it in urban areas with a number of tall buildings.

The Speed + Distance System comes in two models: the 50-lap version for \$360, and the 100-lap version for a cool \$400. Not cheap, but a lot less expensive than a full-time trainer. □

22006406

AMD Duron 1000 Family Model #D10008C

Gigabyte 7ZX AGP Motherboard
128MB PC133 SDRAM
40GB 7200rpm Hard Drive / 1.44MB FDD
ATI Rage128 Pro AGP Video, 32MB
Samsung 17" 750S SVGA Monitor .24(H)
Acer 52X Int. CD-ROM Drive
3D PCI Stereo Sound
107-key Windows Keyboard
Pair of 160W Speakers
17" ATX Tower w/300W Power Supply

FREE
2-Button
Mouse

\$699

AMD Athlon XP 1600+ Model #A16008C

ECS K7S5A AGP Motherboard
256MB PC2100 DDR / 1.44MB FDD
40GB 7200rpm Hard Drive / 160W Spkrs
nVidia GeForce2 MX400 AGP Video, 64MB
Samsung 17" 750S SVGA Monitor .24(H)
24x10x40 Int. CD-RW / 3D PCI Stereo Sound
16x Int. DVD-ROM / 107-key Wins K/B
17" ATX Tower w/300W Power Supply
FREE Canon S200 Color Printer
FREE BENQ 600x1200dpi Color Scanner

FREE
2-Button
Mouse

\$999

\$1029
before rebate

AMD Athlon 1700+ power Model #A17008C

Asus A7S 333 AGP Motherboard
256MB PC2100 DDR / 1.44MB FDD
Maxtor 60GB UTA133 7200rpm H.D.
Hercules 3D Prophet 4000XT w/TV out, 64MB
Samsung 17" 753DF Flat Monitor .20(H)
24x10x40 CD Rewriter / 160W Spkrs
16X DVD Drive / 3D PCI Stereo Sound
107-key Windows Keyboard
17" ATX Tower w/300W Power Supply
FREE Canon S200 Color Printer
FREE Logitech Digital USB Camera

FREE
2-Button
Mouse

\$1,099

\$1,129
before rebate

AMD Athlon XP 2000+ Model #A20008C

Asus A7V 333 AGP Motherboard
512MB PC2700 DDR
1.44MB Floppy Disk Drive
32x12x40 Internal CD-Rewriter
16X Internal DVD ROM Drive
Maxtor 80GB UTA133 7200rpm Hard Drive
MSI GeForce4 MX400-T, 64MB DDR w/ TV out
Samsung 17" 753DF Flat Monitor .20(H)
3D PCI Stereo Sound / 160W Speakers
107-key Windows Keyboard
17" ATX Tower w/300W Power Supply

FREE
2-Button
Mouse

\$1,399

Intel P4 1700MHz Value Model #BIP417008C

ECS Intel i845 chipset Motherboard
256MB PC133 SDRAM / 1.44MB FDD
20GB 7200rpm Hard Drive
ATI Rage 128 Pro AGP, 32MB
Samsung 17" 750S SVGA Monitor .24(H)
24x10x40 Internal CD-Rewriter
3D PCI Stereo Sound / 160W Speakers
17" ATX Tower w/300W Power Supply
107-keys Windows Keyboard
FREE Canon S200 Color Printer

FREE
2-Button
Mouse

\$899

\$929
before rebate

Intel P4 1800MHz Super Model #BIP418008C

Asus P4S 333MVL AGP Motherboard
256MB PC2100 DDR / 1.44MB FDD
40GB 7200rpm Hard Drive
nVidia GeForce2 MX-400 Video, 64MB
Samsung 17" 753DF Flat Monitor .20(H)
24x10x40 Internal CD-ReWriter
16x Internal DVD ROM Drive
10/100 Network Interface
3D PCI Stereo Sound
104-keyboard / 160W Speakers
17" ATX Tower w/300W Power Supply

FREE
2-Button
Mouse

\$1,099

Intel P4 1900MHz Power Model #BIP419008C

Asus P4S 533 AGP Motherboard
256MB PC2100 DDR / 1.44MB FDD
Maxtor 60GB UTA133 7200rpm Hard Drive
Hercules 3D Prophet 4000XT w/TV Out, 64MB
Samsung 17" 753DF Flat Monitor .20(H)
24x10x40 Internal CD-ReWriter
3D PCI Stereo Sound
104-keyboard / 160W Speakers
17" ATX Tower Case
FREE Canon S200 Color Printer

FREE
2-Button
Mouse

\$1,199

\$1,229
before rebate

Intel P4 2000MHz Screamer Model #BIP420008C

Asus P4B 533 AGP Motherboard
256MB PC2700 DDR / 1.44MB FDD
Maxtor 80GB UTA133 7200rpm Hard Drive
Pioneer 16x int. DVD / 3D PCI Stereo Sound
Plextor 40x10x40 Internal CD-ReWriter
MSI GeForce4 MX440-T, 64MB DDR TV out
Samsung 17" 753DF Flat Monitor .20(H)
Altec Lansing AVS300 Subwoofer Speakers
Microsoft Internet Keyboard/ MS Intellimouse
17" ATX Tower Case w/300W P/S

\$1,599

\$1,629
before rebate

AMD Athlon XP Performance Model #A18008C

• MSI SIS745 Ultra KT333 AGP Motherboard
• 256MB PC2100 DDR
• 1.44MB Floppy Disk Drive
• Maxtor 60G UTA133 7200rpm H.D.
• Hercules GeForce3 High Performance Video, w/DVI, TV out, 64MB DDR

FREE
2-Button
Mouse

• 24x10x40 Internet CD-Rewriter
• 16x Internet DVD Drive
• 3D PCI Stereo Sound / 160W Speakers
• 107-key Windows Keyboard
• 17" Deluxe ATX Tower w/300W P/S
• Monitor Extra

\$1,099

Intel P4 2200MHz 533FSB Model #BIP422008C

• Asus P4T 533 AGP Motherboard
• 512MB Rambus PC800MHz
• Maxtor 80GB UTA 133 7200rpm Hard Drive
• Plextor 40x10x40 Internal CD ReWriter
• Pioneer 16x Internal DVD ROM Drive
• ATI Radeon 7500 AGP Video, 128MB DDR, TVout

• Altec Lansing AVS500 Subwoofer Spkrs
• Microsoft CORDLESS Keyboard & Mouse
• 17" ATX Tower Case w/300W P/S
• USB 2.0, 10/100 LAN, 3D Audio
• Monitor Extra

\$1,699

\$1,729
before rebate

Monitor	
AOpen 15" LCD	\$529
Hercules 15" PV720 LCD	\$625
NEC 17" AS70, .27mm	\$209
NEC 17" FE700+, .25mm	\$275
NEC 17" FE750+, .25mm	\$339
NEC 19" FE950+, .25mm	\$459
NEC 21" AS120, .22 (H)	\$699
NEC 15" 1550V LCD	\$569
NEC 17" 1720M LCD	\$1049
Samsung 17" 750S, .24 (H)	\$205
Samsung 17" 753DF, .20 (H)	\$235
Samsung 17" 700IFT, .20 (H)	\$349
Samsung 19" 950B, .22 (H)	\$299
Samsung 19" 955DF, .20 (H)	\$379
Samsung 15" 151S LCD (Silver)	\$589
Samsung 17" 171S LCD	\$995

Scanner	
BENQ 4300BU	\$79
Canon 670U / 1240U	\$149/229
Epson 1250photo/1650photo	\$199/309
HP 2200C / 4470C	\$105/219
HP 5470C / 5490C	\$435/549

Hard Drive	
Maxtor 40G 7200rpm	\$115
Maxtor 60/ 80G 7200rpm	\$139/165
WD 40 / 60G 7200rpm	\$119/145
WD 80 / 100G 7200rpm	\$169/209
WD 120/120G 8M 7200rpm	\$280/340
Maxtor USB2.0 40G Ext.	\$299
Maxtor USB2.0 120G Ext.	\$429
Maxtor Firewire 40G Ext.	\$359
Maxtor Firewire 60G Ext.	\$459

Backup Device	
AOpen 24x10x40 CDRW	\$79
AOpen 32x12x48 CDRW	\$95
LG 32x10x40 CDRW	\$95
MSI 32x12x40 CDRW	\$95
MSI 40x12x48 CDRW	\$109
Plextor 40x12x40 CDRW	\$219
Pioneer DVR-A04 DVD Writer	\$699
Zip Drive Int. IDE 100/ 250M	\$79/139
Imega 250MB Zip Drive USB	\$245
Zip Disk 100 / 250MB	\$16/23

Printer	
Brother HL1230 Laser 12ppm	\$325
Brother HL1440 Laser 15ppm	\$459
Brother HL1450 Laser 15ppm	\$550
Brother HL1470N Laser 16ppm	\$749
Brother 1850 Laser 19ppm	\$849
Brother HL2460 Laser 24ppm	\$1475
Brother HL2460N Laser 24ppm	\$1625
Brother MFC 3100C 5-in-1	\$289
Brother MFC-4800 5-in-1	\$519
Brother MFC-6800	\$669
Brother MFC-8500/9700	\$629/939
Canon S200 / S300	\$59/129*
Canon S520 / S750	\$199/289
Canon S820 / S900	\$469/559
Epson C40U	\$75
Epson C60 / C80 Color	\$135/229
HP 845C / 920CVR	\$135/169
HP Photosmart P1115	\$295
HP 1000/1220 Laser	\$369/775
HP 2200 Laser Printer	\$1129
HP 2200DN Laser Printer	\$1650
HP 4600DN Color Laser	\$4099

* After Mail-in Rebate

Video Card	
ATI Radeon 7000 64MB DDR	\$85
ATI Radeon 7500LE, 64MB DDR	\$105
ATI 7500 All-in-wonder, 64MB	\$269
ATI 8500DV All-in-wonder, 64MB	\$389
MSI GeForce4 Ti4400, 128MB DDR	\$379
MSI GeForce4 Ti4600, 128MB DDR	\$519
Hercules	
3D Prophet 4000XT w/TV, 64M	\$89
3D Prophet III GeForce3, 64M	\$399

Multimedia	
Acer 56X/Creative 52X CD	\$45/49
LG/ AOpen 16X DVD ROM	\$65/68
Pioneer 16X DVD ROM	\$75
SB comp Sound card PCI	\$22
SB Ensoniq / 128 PCI	\$25/29
SoundBlaster Live 5.1 Dolby	\$52
SoundBlaster Audigy Xgamer	\$149
SB Audigy Platinum	\$289
Hercules Muse (LT)	\$19
Hercules Fortissimo II (OEM)	\$55
Altec Lansing AVS300 w/sbwf	\$55
Altec Lansing AVS500 w/sbwf	\$75

AOpen® #1 Computing Solution Provider

- Motherboards
- Monitors
- Fax/Modem
- CD-ROM/DVD/CD-RW
- VGA Cards
- Mice & Keyboards
- Housing &
- Networking NIC & Hub
- Bare Systems
- Speakers & Sound Cards

AOpen Monthly Specials:

15" LCD Monitor	\$529
52X CDROM Drive	\$42
10/100Ethernet Card	\$19
56K Int. voice/fax modem	\$25
24x10x40 CDRW w/ Just Link	\$79

Upgrade Specials

Intel Celeron 1GHz CPU, AOpen AX37 Pro Motherboard, 128MB DDR, Integrated Audio, 16" ATX Tower Case	\$265
--	--------------

Clié sets new standard for Palm devices



Sony Clie PEG-NR70V

From: Sony Canada, www.sony.ca
Estimated price: \$999

So, you want to buy a PDA but you're not sure which way you want to go. The Pocket PC world features a lot of wonderful multimedia devices, but the Palm universe is well established and has the operating system you want. Well, the new Clie may help you decide.

Sony's entry into the world of the Palm-based PDA was interesting but not ground-breaking: first-generation devices were very stylish and competent, but variations on a common design theme.

The newest model, however, is almost enough to make your jaw drop: it's exceptionally thin, has an amazing 320x480-pixel colour screen, plays MP3 files (which can be stored on MemoryStick modules, since the Clie includes a MemoryStick slot), and even has a built-in 100,000-pixel CMOS camera.

It's also a Clie with a twist—a twist

and swivel screen that is, which transforms it into a handheld unlike any other on the market.

The Clie is actually a clamshell design that opens up to reveal the screen on one side, and a QWERTY-style keyboard on the other, in addition to the usual Palm buttons. The screen portion is on a swivel that allows it to rotate through 180 degrees, so that when you close the clamshell, the screen can be facing out with the keyboard hidden away.

Whatever program is displayed on the screen then reorients itself for your new configuration (a neat trick made neater by the fact that the areas normally stenciled onto the plastic screen for Graffiti data entry are actually displayed in high-res by the TFT

screen itself).

The Clie comes preloaded with a ton of software, including an audio player, camera capture software, a paint program for editing images, gMovie software, and image management and display software. Hardware-wise, the bundle also ships with a USB sync cradle and headphones with a remote control.

—Sean Carruthers



Clié PEG-NR70V raises the bar for every other Palm-based device with its beautiful screen, wonderful multimedia features (audio and video), and the excellent flip-screen implementation.



XL

INTERNET

\$99

a Year

*** WEB HOSTING**

- Free Domain Name
- Unlimited POP3 Email
- Unlimited Traffic
- 500 Megs Storage & More!

Call 1-866-9 WE HOST & ask about our Agent 99 Plan

FEATURING

Web Control Panel - cgi-bin - Log Analysis - Front Page Extensions - ASP - JSP - Web Mail - POP Email - Perl -Python - PHP - mySQL - PHP MyAdmin and more!

Agent 99 Slays the Competition!
Featuring a fully loaded Web hosting plan and friendly, attentive support.
Visit www.xlinternet.com
or call 1-866-993-4678
for more details!

30 Day
Money Back
Guarantee

99.9%
Uptime
Guarantee

AGENT 99!
AT YOUR
SERVICE!



*All prices quoted in US\$. All accounts subject to \$25 Setup fee.



ATIC

Since 1989

www.atic.ca

#45 East Broadway
Vancouver, BC
Canada, V5T 1V4

Tel: (604) 875-8859
Fax: (604) 875-8611
Tech: (604) 879-6800
E-mail: Sales@atic.ca

2.53ghz Systems give you the landmark choice !!!

Business Hours: Mon.- Sat.: 9:30am - 6:00pm (Sun. & Holiday Closed)

Landmark RD Concept

- Intel® i850E chipset, Intel® D850EMV2
- Intel® Pentium® 4 processors
- 256M RDRAM Dual Channel
- 120GB 7200rpm HD
- 1.44MB Floppy
- CDRW 40x12x40 eide
- Sound Blaster Live Value 5.1
- 10/100 LAN, USB2.0
- Geforce4 Mx400 64M AGP4x
- Landmark ATX-299 w/P4-365W-Dual fan
- MicroSoft internet keyboard
- Logitech optical mouse and pad

• NEC AS95F 19" Flat-CRT 1600 free

With Intel® Celeron® P4 -1.7ghz	\$1530
With Intel® Celeron® P4 -1.8ghz	\$1570
With Intel® Pentium® 4 -1.6ghz/512k	\$1600
With Intel® Pentium® 4 -1.8ghz/512k	\$1650
With Intel® Pentium® 4 -2.0ghz/512k	\$1690
With Intel® Pentium® 4 -2.2ghz/512k	\$1760
With Intel® Pentium® 4 -2.26ghz/512k	\$1820
With Intel® Pentium® 4 -2.4Bghz/512k	\$2070
With Intel® Pentium® 4 -2.53ghz/512k	\$2470

MS Windows Millennium Ed.\$130
MS Windows 2000Pro\$215
MS Windows XP-Home/XP-Pro.....\$135/220

Landmark DDR Concept

- Intel® i845E chipset, D845EBG2
- Intel® Pentium® 4 processors
- 256M DDR RAM
- 80GB 7200rpm HD
- 1.44MB Floppy
- CDRW 40x12x40 eide
- Sound Blaster Live Value 5.1
- 10/100 LAN, USB2.0
- Geforce4 Mx400 64M AGP4x
- Landmark ATX-202 w/P4-365W-Dual fan
- MicroSoft internet keyboard
- Logitech optical mouse and pad

• NEC FE771-SB17" Flat, SuperBright

With Intel® Celeron® P4 -1.7ghz	\$1260
With Intel® Celeron® P4 -1.8ghz	\$1300
With Intel® Pentium® 4 -1.6ghz/512k	\$1350
With Intel® Pentium® 4 -1.8ghz/512k	\$1400
With Intel® Pentium® 4 -2.0ghz/512k	\$1440
With Intel® Pentium® 4 -2.2ghz/512k	\$1510
With Intel® Pentium® 4 -2.26ghz/512k	\$1570
With Intel® Pentium® 4 -2.4Bghz/512k	\$1820
With Intel® Pentium® 4 -2.53ghz/512k	\$2220

MS Windows Millennium Ed.\$130
MS Windows 2000Pro\$215
MS Windows XP-Home/XP-Pro.....\$135/220

ATIC P4-DDR System

- Intel® i845G chipset, D845GBVL
- Intel® Pentium® 4 processors
- 256M DDR RAM
- 60GB 7200rpm HD
- 1.44MB Floppy
- CDRW 32x10x40 eide
- Sound Ac97 built-in
- 10/100 LAN built-in, USB ports
- Video card built-in
- ATIC ATX-18" w/P4-300W, USB on front
- Logitech PS2 keyboard
- Logitech optical mouse and pad

• NEC AS75F 17" Flat-CDT, 1280

With Intel® Celeron® P4 -1.7ghz	\$950
With Intel® Celeron® P4 -1.8ghz	\$990
With Intel® Pentium® 4 -1.6ghz/512k	\$1030
With Intel® Pentium® 4 -1.8ghz/512k	\$1080
With Intel® Pentium® 4 -2.0ghz/512k	\$1120
With Intel® Pentium® 4 -2.2ghz/512k	\$1190
With Intel® Pentium® 4 -2.26ghz/512k	\$1250
With Intel® Pentium® 4 -2.4Bghz/512k	\$1500
With Intel® Pentium® 4 -2.53ghz/512k	\$1900

MS Windows Millennium Ed.\$130
MS Windows 2000Pro\$215
MS Windows XP-Home/XP-Pro.....\$135/220

ATIC iReady System

- Intel® P4 based ATX motherboard
- Intel® Pentium® 4 processors
- 256M DDR RAM
- 40GB 7200rpm HD
- 1.44MB Floppy
- CDRW 32x10x40 eide
- Sound Ac97 built-in
- 10/100 LAN built-in, USB ports
- Video card built-in
- ATIC ATX-18" w/P4-300W
- PS2 keyboard, Stereo Speakers
- MicroSoft Intellimouse and pad

With Intel® Celeron® P4 -1.7ghz	\$660
With Intel® Celeron® P4 -1.8ghz	\$690
With Intel® Pentium® 4 -1.6ghz/512k	\$730
With Intel® Pentium® 4 -1.8ghz/512k	\$780
With Intel® Pentium® 4 -2.0ghz/512k	\$920
With Intel® Pentium® 4 -2.2ghz/512k	\$970
With Intel® Pentium® 4 -2.4ghz/512k	\$1200

- Intel® P3 based ATX motherboard
- 256M DDR, • 40GB 7200rpm HD
- 1.44MB, • CDRW 32x10x40 eide
- Sound, 10/100 LAN, Video Built-in
- ATIC ATX-18" w/250W
- PS2KB, Speakers, Mouse and pad

Intel Celeron 1.1ghz \$570

Landmark Dual-Xeon ATA Pack

- Intel® e7500 board, SE7500CW2
- Dual Intel® Xeon® processors
- USB ports, ATA-Raid built-in
- 512M DDR ECC Registered
- Two x 60G 7200rpm Hard Drives
- 1.44MB Floppy,
- 16x DVD eide
- 32x10x40 CDRW eide
- Intel® Pro 10/100 LAN built-in
- Geforce4 MX Video 64M AGP4x
- Landmark Sc760 P4-400W for Xeon
- MicroSoft internet keyboard
- Logitech Optical mouse and pad

With Intel® Dual Xeon® 1.8ghz	\$2500
With Intel® Dual Xeon® 2.0ghz	\$2580
With Intel® Dual Xeon® 2.2ghz	\$2730
With Intel® Dual Xeon® 2.4ghz	\$3830

MS Windows 2000Pro\$215
MS Windows 2000Pro Server.....\$1080
MS Windows XP-home/XP-Pro.....\$135/225

Upgrade to Aluminum A62 case +\$150

IBM 40/60/80G/120G: 7200 ATA100.....\$110/130/140/215
Maxtor 40G/60G/80G: 7200 ATA13.....\$110/130/150
Seagate 40G/60G/80G: 7200rpm Hydraulic.....\$110/130/150
IBM SCSI 18G / 36G 68pin/80pin 10K.....\$215/345

Landmark Dual-Xeon SCSI Pack

- Intel® e7500 board, SE7500CW2S
- Dual Intel® Xeon® processors
- USB ports, SCSI built-in
- 512M DDR ECC Registered
- Two x 36G 10k rpm SCSI Hard Drives
- 1.44MB Floppy,
- 16x DVD eide
- 32x10x40 CDRW eide
- Intel® Pro 10/100 LAN built-in
- Geforce4 MX Video 64M AGP4x
- Landmark Sc760 P4-400W for Xeon
- MicroSoft internet keyboard
- Logitech Optical mouse and pad

With Intel® Dual Xeon® 1.8ghz	\$3150
With Intel® Dual Xeon® 2.0ghz	\$3240
With Intel® Dual Xeon® 2.2ghz	\$3490
With Intel® Dual Xeon® 2.4ghz	\$4590

MS Windows 2000Pro\$215
MS Windows 2000Pro Server.....\$1080
MS Windows XP-home/XP-Pro.....\$135/225

Upgrade to Aluminum A62 case +\$150

Lite-On CDRW: 40x12x40 / 48x12x48 CDRW.....\$110/155
Pioneer DVD: 16x / 16x Slot\$70/80
Pioneer DVR-A04: DVD-R/W (oem / retail).....\$440/490
Notebook hard drive: 20G/30G/40G.....\$150/185/230

ISP Rack-Mount Servers

ISP2300(2U rack): Dual P4-Xeon 1.8ghz CPUs / 10-100TX / CD-ROM / Dual U160 scsi / 512M DDR ECC / AGP 32M / 2 x 36G U2W hot swappable.....\$5050

ISP5200(4U rack): Dual P4-Xeon 1.8ghz CPUs / 10-100TX / CD-ROM / Dual U160 scsi / 512M DDR ECC / AGP 32M / 2 x 36G U2W hot swappable.....\$4980

ISP-P4DC6+(4U rack): Dual P4-Xeon 2.0ghz CPUs / 10-100TX / CD-ROM / Dual U2W raid / 1024M RDRAM ECC / AGP 32M / 4 x 36G U2W hot swappable\$5440

ISP-P4DCE+(4U rack): Dual P4-Xeon 2.0ghz CPUs / 10-100TX / CD-ROM / Dual U2W raid / 1024M RDRAM ECC / AGP 32M / 4 x 80G ATA swappable\$4280

ISP-P4DMS-6GM(4U rack): Dual P4-Xeon 2.0ghz CPUs / LAN / CD-ROM / Dual U2W raid / 1G DDR ECC Reg. / AGP 32M / 4 x 36G U160 SCSI Hot swappable\$4760

NEC SPECIAL CONNER

NEC 1550V: 15" TFT LEC 1024x768@75hz .30.....\$560
NEC AS75F: 17" Flat-CRT 1280x1024@75hz . 25.....\$230
NEC AS95F: 19" Flat-CRT 1600x1280@75hz . 25.....\$350
NEC FE-771-SB: 17" Flat 1280x1024@75hz . 25.....\$280
NEC FE-791-SB: 17" Flat 1280x1024@75hz . 25.....\$320
NEC FE-991-SB: 17" Flat 1600x1280@75hz . 25.....\$460
NEC 1700V: 17" TFT LEC 1024x768@75hz .30.....\$930
NEC 1850E: 18" TFT LEC 1280x71024@75hz .30.....\$1190

ATIC Quad-Xeon Serve

- Supermicro P4DH6 Quad Xeon M/B
- Intel® Xeon® MP version Processors
- 1024M DDR ECC Registered
- 4 x 36G U160 SCA scsi
- 1.44MB Floppy
- CD-ROM 56x EDIE
- LAN 10/100BT
- ATI 8M Video built-in
- Supermicro SC 8042-700W Case & power
- MicroSoft internet keyboard
- Logitech Optical mouse and pad

Quad Intel® Xeon® MP 1.4ghz..\$6690
Quad Intel® Xeon® MP 1.6ghz..\$6990



NEC

ON SPECIAL
WITH SYSTEM
PURCHASING

SUPERBRIGHT

NEC AS SERIES
NEC FE SERIES
NEC FP SERIES

All listed prices (reflect 3% cash discount), quantities and specifications are subject to change without notice.

USBTake USB Flash RAM disk: 32M\$40
USBTake USB Flash RAM disk: 64M\$70
USBTake USB Flash RAM disk: 128M\$110

OVER 5000 HIT PER DAY NOW

@

WWW.ATIC.CA

The
ComputerPAPER
Canada's Computer Information Source

Hands On

Lab Test • Hardware Evaluations • Software & CD-ROM Reviews

Flat, bright... getting affordable

TCP Lab checks out 17-inch-plus TFT monitors

By Dave Chappelle



These days, you can buy a 15-inch flat-panel monitor for about \$500. But if you're looking for something a little bigger, read on. For this Test Lab, we asked manufacturers for 17- and 18-inch analogue flat panels in the \$1,500 price range. We received a few that were closer to \$1,000, and evaluated them separately, since such a large price difference puts them into a different category for most consumers.

Of the advantages analogue LCDs have over CRTs, one of our favourites is the "Auto" button. When pressed, the image automatically centres on the screen. Most users will applaud this "one-touch" time-saving feature. It sure beats the often frustrating process of scrolling through on-screen display (OSD) controls trying to get a flat, straight, distortion-free image to appear on a curved tube.

As video signals begin and end digitally, digital LCDs don't require controls. It's the digital-to-analogue-to-digital conversion process that inflicts the distortion controls are designed to correct.

The other benefits of flat panels over CRTs are that they draw less power, operate cooler, and generate less radiation. And LCDs are easier to look at, so your eyes won't get tired as they can when staring intently at a CRT for an extended period.

On the down side: 17- and 19-inch flat-panel monitors are still two to four times the price of CRTs; a slower refresh rate of 60 Hz will discourage serious gamers and graphics pros; and while colour matching software is included with some pricier models, flat-panel still can't be fine-tuned as well as high-end CRTs.

Because flat panels are, well, flat, wall-mounting them on a wall is a real-

Continued on page 38

Pavilions move to Pentium 4

In the June issue, we looked at multimedia-savvy notebook computers, including Hewlett-Packard's Pavilion ZT1170 model. HP's update to this model, the ZT1175, incorporates a 1.4 GHz mobile Pentium 4 processor.

Like the previous model, the ZT1175 has a high-quality 15-inch TFT screen, Windows XP Home, a 30 GB hard drive and a DVD/CD-RW combo drive. It also features a lot of connectivity options, including Ethernet, a 56Kbps modem, one FireWire and two USB ports. It only has one PC Card slot onboard, but it features a slot for Multimedia Card/Secure Digital cards. This particular model comes with 256 MB of memory, 16 MB of which is set aside for use with the S3 graphics processor.

The system is pretty well set up for multimedia with a set of built-in Polk Audio speakers and CD player controls on the edge of the notebook, allowing you to play audio (CD or MP3) when the notebook itself is off. The DVD component is very good, and playback is smooth. While the 3D performance won't win any awards, it's certainly competent, and capable of handling everyday tasks and movie playback. The SD slot is a nice touch for those with SD-compatible devices (digital cameras, MP3 players, handhelds, and more).

The notebook comes with a nice software bundle, which includes a number of Microsoft titles (Works 6.0, Microsoft Money 2002, and more), Quicken Financial Centre, MusicMatch Jukebox,



Pavilion ZT1175

From: Hewlett-Packard Canada, www.hp.ca
Estimated price: \$2,899

WinDVD movie playback software, Lernout and Hauspie's TruVoice speech engine, and a few games.

While the Pavilion ZT1175 doesn't really break any new ground, it's a very nice update to an already impressive product line.

—Sean Carruthers

Norton suites a good upgrade for OS X users

By Justin Siemens

Norton SystemWorks 2.0 is the first complete suite of Norton products designed with OS X in mind, but in our opinion it doesn't quite live up to previous versions.



Norton SystemWorks 2.0

From: Symantec, www.symantec.com
Estimated price: \$199 (\$50 mail-in upgrade rebate)

Earlier versions of SystemWorks included Norton Utilities 6.0, Antivirus 7.0, as well as Retrospect Express 4.0 and Spring Cleaning. SystemWorks 2.0 includes Norton Utilities 7.0, Antivirus 8.0, Disk Warrior Recovery Edition, Aladdin Spring Cleaning, and Retrospect Express 5.0. The problem is that the new versions of Utilities and Antivirus are only available for use in Mac OS X. So, if you are still using Mac OS 9, you'll have to use the older versions, which are included on the CD.

If you aren't an OS X user, this means you gain no new functionality, but it gets worse. In order to run the OS X versions of Utilities and Antivirus they need to be installed on your hard drive, they can't be run from the CD. So if you have a serious problem that requires booting from the CD, you are back to the old versions again.

On our test systems, Norton Utilities could only fix very minor problems in OS

Continued on page 46

The Internet should always **look** this good!



Easy, reliable,
affordable Internet
access with one
of Canada's
largest
independent
ISPs!

Unbeatable Unlimited Internet Access Offers!

Buy-the-Month

\$19.95*
/mth for first 12 months

**+ Bonus Offer:
Extra Month Free!**

Sign-up online at
www.look.ca/home and
we'll include your 1st Month Free!

Buy-the-Year

\$199*
(save \$76)

**+ Bonus Offer:
FREE Knapsack**

Sign up to our annual plan
and we'll send you a knapsack FREE
(retail value of \$45)†



* Taxes not included. Offer ends August 31st, 2002. A credit card is required for a new account activation. The Buy-the-Month promotions automatically renew to Look's unlimited access plan at \$22.95 per month. Accounts may be cancelled within the first 15 days with no penalty. † "Buy-the-Month" accounts purchased on-line, which are cancelled after 30 days, will be billed the first month at \$22.95. Look's offers and services are subject to our terms and conditions which may be found at www.look.ca. Available in serviceable areas. Certain conditions may apply. Prices subject to change. † Allow 4 to 6 weeks for knapsack delivery.
© 2002 Look Communications Inc. All rights reserved.

All Look Unlimited Dial-up Accounts include:

- > Unlimited Internet access
- > Look Webmail access
- > 10 MB of Web space
- > Up to 5 e-mail addresses
- > Child Guard parental filters
- > Customer care 7 days/week



**Sign up Today at www.look.ca/home
or Call 1-800-356-5665. It's Super Easy!**
全新「中文華語服務熱線」請電 1-888-333-0903

WHAT'S NEW

Continued from page 28

with a limited five-year warranty. Also included are MouseWare and WebWheel software for smarter Internet browsing.

The TrackMan is compatible with Windows 95, 98, Me, NT 4.0, 2000, or XP (and 3.1/DOS for basic functionality), and Mac OS 8.6 to 9.x. An available PS/2 or USB port, CD-ROM drive, and Internet connection (to use WebWheel) are also required. It has suggested list price of US\$69.95.

—TCP Staff

Kyocera debuts new smartphone

Kyocera Wireless Corp. (www.kyocera-wireless.com) has unveiled a new version of its Palm OS-based smartphone, the 7135. Unlike its original QCP 6035 smartphone, the new model features a small, light-weight clamshell design and uses CDMA technology, which has a top data transfer speed of 153Kbps. The Kyocera 7135 has



a 65,000-colour high-resolution screen, an MMC/SD compatible expansion slot, and an onboard MP3 player.

The 7135 incorporates a speakerphone, voice-activated dialing, silent vibrating alert, two-way SMS text messaging, Eudora email, and three modes of Web access (HTML, Web Clipping, and WAP). It

is a tri-mode CDMA phone, that operates on 1,900 MHz, 800 MHz, and analogue cellular networks.

It runs Palm OS 4.1 and has the complete functionality of a Palm organizer. It has 16 MB of on-board memory. The phone can HotSync data with a desktop PC via a USB, infrared, or serial connection. The device measures approximately 10x6x3 cm (4x2.43x1.17 in.) and weighs approximately 186 g (6.6 oz.). A standard lithium ion (Li-Ion) battery provides up to 3.5 hours of talk time and up to 160 hours of standby time in digital mode.

The Kyocera 7135 smartphone is expected to ship by the end of the year. Kyocera had no details on which carriers would support the smartphone, but said they would include those that support CDMA 1X networks. In Canada, Bell Mobility and Telus Mobility operate such networks.

—TCP Staff

The integration will allow Oracle Small Business Suite users to simplify their business processes by streamlining order fulfillment, credit card processing, inventory management, and reporting, through Yahoo! Store. According to Net Ledger, Yahoo! Store has enabled more than 19,000 merchants and small businesses to establish an online presence and sell products and services online.

The tighter integration means merchants will now be able to move between the two applications without signing on and off, utilize bi-directional data exchange, and have the option of automating the credit card payment upon completion of order fulfillment within the Oracle Small Business Suite.

—TCP Staff

McAfee focuses on small biz security

McAfee Security (www.mcafeesecurity.com) has introduced a pair of security products for small and medium size businesses: McAfee Active Virus Defense (AVD) and Active VirusScan Small Business Editions.

The new security applications include the advanced management and reporting capabilities of McAfee ePolicy

Continued on page 58

www.A CRAZY Computer.com

Casio QV-2900UX	\$545
Fuji FinePix 2600	\$438
Fuji FinePix F601	\$838
Fuji FinePix S602	\$1,098
Canon PowerShot A30	\$374
Canon PowerShot S30	\$748
Canon PowerShot S200	\$558
Canon PowerShot S330	\$858
Epson PhotoPC3100Z	\$868

Digital Camera

More brand name
More model available
on our website

HP PhotoSmart 318	\$299
HP PhotoSmart 715	\$568
Kodak DX3215	\$268
Kodak DX3600	\$399
Olympus Brio D-370	\$308
Olympus C-3020	\$725
Olympus E-100RS	\$1,169
Sony CyberShot DSC P31	\$438
Sony CyberShot DSC-S75	\$838

Notebook

(more brand name and models on our website)

Acer Aspire 630VX P4-1.4/256M/20G/DVD/IEEE1394/14TFT/XPP	\$2,111*
Acer Aspire 632XCI P4-1.8/256M/20G/DVD-CDRW/IEEE1394/14TFT/XPP	\$2,680*
Acer Aspire 1400XV P4-1.7/128M/20G/DVD/S-Video/14TFT/XPP	\$2,055*
Acer Aspire 1400XC P4-1.7/128M/20G/DVD-CDRW/14TFT/XPP	\$2,355*
Fujitsu P2110A Crusoe-867Mhz 256M/20G/DVD/CDRW/10.6TFT/XPH	\$2,328
ECS DeskNote A901 Cel-1.1G/256M/10G/DVD/audio/56K/Lan/14TFT	\$1,268
ECS A928 P4-1.7G/256M/20G/DVD/56K/Lan/IEEE1394/USB2.0/14TFT	\$1,498
ECS A928 P4-1.7G/256M/20G/DVD-CDRW/IEEE1394/USB2.0/15TFT	\$1,748
ECS A929 XP-1600/256M/20G/DVD/56K/Lan/IEEE1394/USB2.0/14TFT	\$1,468

Find more on our website: www.A Crazy Computer.com

Monitor

CRT	
Acer AC701 / V772 / AC901	\$184 / 189 / 338
AOC 7E1r / 7F(flat) / 9G1r / 9K1r(flat)	\$184 / 208 / 278 / 328
Daytek DT77A/755DF/DT95P/953DF	\$188 / 218 / 274 / 358
Hansol 720E / 720DF / 920A / 920D	\$185 / 214 / 274 / 368
LG E700B / 795FT+ / 900B / 995FT	\$228 / 334 / 318 / 408
NEC AS70 / AS75F / AS90 / AS95F	\$218 / 248 / 338 / 374
Phillips 107T / 107B / 109S / 109B	\$219 / 254 / 344 / 384
Samsung 750S/753DF/950B/955DF	\$214 / 238 / 294 / 378
Sony E240/G220R/G220S/G410R LCD	\$405 / 445 / 488 / 595
Acer AL-501 / FP553 / AL-702	\$525 / 498 / 938
Samsung 151S / 151B / 171S	\$578 / 608 / 938
More brand and more model available on our website	

AOpen

#1 Computing Solution Provider

- Motherboards
- Fax/Modem
- VGA Cards
- Housing & Bare Systems
- Monitors
- CD-ROM/DVD/CD-RW
- Mice & Keyboards
- Networking NIC & Hub
- Speakers & Sound Cards

AOpen Monthly Specials:

AC701 17" monitor	\$184
FP553 15" LCD monitor	\$498
G4 MX420 64M TV-out	\$94
G4 Ti4200 128M VIVO	\$264
630VX P4-1.4G notebook	\$2,111*
1400XV P4-1.7 notebook	\$2,055*

Printer

InkJet Printer

Canon S200 / S300 / S520 / S750	\$68* / \$97* / \$184 / 276
Epson C60 / C80 / C80N / C1520	\$124 / 218 / 478 / 658
Lexmark Z22 / Z33 / Z35 / Z55	\$80 / \$92 / 104 / 194
HP DeskJet 845c / 920c / 940c / 960c	\$138 / 174 / 244 / 295

Laser Printer

Brother HL1230/HL1440/1450	\$314 / 445 / 534
Canon LBP1760/1760N/IC4000	\$635 / 928 / 1,228
HP LaserJet1000/1200/1200n	\$364 / 594 / 868
Lexmark Optra E210/320/322	\$285 / 448 / 578
Okidata 14i / 14in / 14e / 14ex	\$798/1,128/484/684
Samsung ML1210/1250/1440	\$288 / 338 / 348

*The price is after rebate; All Prices are subject to change without notice and reflect 3% cash discount

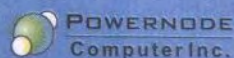
Looking for the Ultimate Performance for Your PC?

Leadtek and NVIDIA have designed the complete solution for you.



Whether for distributors, system builders or consumers, Leadtek is committed to meeting the needs of its customers with award-winning, top-to-bottom solutions derived from intensive R&D and quality manufacturing, yielding the most reliable performance based PC products on the planet.

We make dreams a reality.



Powernode
35 Riviera Dr.
Unit 11-13
Markham, ON
L3R 8N4
Tel: 905-474-1040
www.powernode.com



Humaneo Inc.
1200 Papineau Suite 40,
Montreal, QC
H2K 4R5
Tel: 514-906-2000
Ext. 227
www.humaneo.com

Leadtek reserves the right to change product specifications without notice. WinFast is a trademark of Leadtek Research Inc. All trade names referenced are the service marks, trademarks, or registered trademarks of their respective manufacturers. Copyright 2002 © Leadtek Research Inc.

© 2002 NVIDIA Corporation. All rights reserved. All company and product names may be trademarks or registered trademarks of the respective owners with which they are associated. Features, pricing, availability, and specifications are subject to change without notice.

Solutions Available

Graphics Cards

- Leadtek WinFast A250 Ultra TD (NVIDIA GeForce4 Ti 4600)
- Leadtek WinFast A250 TD (NVIDIA GeForce4 Ti 4400)
- Leadtek WinFast A250 LE TD (NVIDIA GeForce Ti 4200)

Motherboards

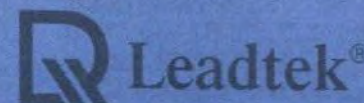
- Leadtek WinFast K7N415DA (NVIDIA nForce 415)
- Leadtek WinFast K7N420DA (NVIDIA nForce 420)

Multi-Media

- Leadtek WinFast TV 2000XP



NVIDIA
www.nvidia.com



We Make Dreams a Reality

Leadtek Research Inc.
46732 Lakeview Blvd. Fremont, CA 94538 U.S.A.
Tel: 510-490-8076 www.leadtek.com

Flat, bright... getting affordable*Continued from page 34*

istic alternative. Most manufacturers offer optional wall-mounting hardware with their flat panels. In tight areas like crowded home offices and student bedrooms, the space saving alone can be enough to justify the extra cost.

The testing

We've tested both analogue- and dual-input models because digital video cards aren't as popular as analogue versions (yet). Some of our test samples have both digital and analogue inputs. On these models the cleanliness of digital signals was quickly obvious.

We ran each through DisplayMate Technologies' (www.displaymate.com) Obstacle Course several times. This test puts monitors through a level of stress that practically nobody would put a monitor under in real-world conditions. It tests how well a monitor handles video signals sent from a video display adapter.

Initial tests were performed on an Athlon 1200 running Windows XP, with 256 MB DDRAM, a Gigabyte GA-7DX motherboard, GeForce3 display adapter with 64 MB RAM, set to 1,280x1,024 resolution at 60 Hz. Unless otherwise noted, the same analogue and digital monitor cables were used each time.

To see how well they handled different signals, we also connected each monitor to an old Pentium III system with an ATI Rage 128 adapter, running Windows 98.

If you're going to spend the extra dollars on a flat-panel monitor, you should have a quality video card. Connecting a

quality monitor to an inferior display adapter defeats the purpose. During our tests we noted improvements in visual quality when certain models were connected to the newer GeForce3 adapter. This was evident not only during the Obstacle Course, but also in text readability and image contrast with word processing, spreadsheet, and email applications.

Most LCD manufacturers now offer three-year warranties. Previously, the backlight was often only guaranteed for one year.

While several flat-panel display manufacturers are represented, only three actually tackle the complex and costly task of making the LCDs: NEC, LG, and Samsung.

Tilt and swivel specifications were supplied by manufacturers.

Apple Studio Display

From: Apple Canada, www.apple.ca

Size: 17 inches

Input: digital

Warranty: 1-year (complete)

Price: \$1,549



If you have a Mac, this is the monitor

you'll want. The modern, clear plastic design we first saw with Apple's Cube has replaced the Tupperware-like design of the company's older flat panels—one of which took home our Editor's Choice award two years ago.

On the back of this model are two USB ports, ostensibly for delivering power to Apple Pro speakers. Tilt is accomplished by positioning the spring-loaded support on the back, which will fold flat.

There are no OSD controls other than Brightness (digital signals shouldn't require any adjustment).

The Apple digital video connector differs from PC digital connectors, so we were forced to use a digital adapter. Made for PowerBook and G4 users who want to connect a second VGA monitor or projector, the adapter is digital only—we were unable to test this monitor on an analogue card.

If you want to attach the Studio Display to any non-Apple system, you'll need this \$30 adapter. It measures 12.5x12.5x3.7 cm and requires power and a USB port.

Performance, even through an adapter, was admirable.

Cornea Systems MP704

From: Cornea Systems, www.corneasystems.com

Size: 17 inches

Input: Analogue

Tilt: -2 degrees, +90 degrees

Warranty: 3 years (complete)

Price: US\$540 (first-year advance swap available)

The base of this display folds up and inside the back so flat that we wondered if they'd forgotten to send a base when



we opened the box.

The OSD controls are centered under the display and clearly labeled. Once invoked, they are simple to understand and can be easily manipulated. A 3.5-cm black bezel surrounds the display.

Like several of the analogue-only models, a significant amount of noise was apparent during full-resolution tests. Changing video cards offered little difference in performance.

Cornea gives buyers the opportunity to swap their monitor for a better one by just paying the difference during the first year after purchase.

IBM T750 SB

From: IBM Canada, www.ibm.ca

Size: 17 inches

Input: Analogue/digital

Tilt: -4 degrees, +41 degrees

Swivel: -230 degrees, +90 degrees

Warranty: 3 years (complete)

Price: \$1,449

Known for their quality, IBM components also have a reputation for costing a little more. Initially, we weren't going to include this display because of its price,

Continued on page 40

WIN!**XP 2100+****Enter Online****No Purchase Required****Dango.com****Canada's Leading Webstore****No P.S.T.**

factorydirect.ca

Canada's Computer Liquidators

WE SHIP CANADA WIDE EXPEDITED!

ORDER DIRECTLY
OFF THE WEB @
www.factorydirect.ca
OR CALL TOLL FREE
866-907-7788

\$\$ SIGN UP AND WIN CONTEST \$\$

JOIN OUR E-MAIL BLAST AND YOU COULD WIN

\$5,000.00

** SEE SIGN UP BOX IN STORE OR VISIT
www.factorydirect.ca FOR CONTEST DETAILS AND RULES **

USB PEN DRIVE USB FLASH MEMORY DRIVE 64MB 128MB \$79.99 \$99.99	128MB SODIMM NOTEBOOK MEMORY \$59.99 BRAND NEW	MOTHERBOARD & CPU COMBO AMD Athlon 500 Mhz 700 Mhz \$129.99 \$149.99	MOTHERBOARD & CPU COMBO Intel Celeron 500 Mhz 1.0 Ghz \$139.99 \$199.99	LG Electronics PORTABLE MP3 PLAYER WITH 32MB \$79.99 REFURBISHED	PHILIPS EXP103 MP3/CD PLAYER WITH 100SEC ANTI-SKIP \$99.99 REFURBISHED	PHILIPS SA107 MP3 PLAYER WITH 64MB \$139.99 REFURBISHED	IOMEGA 50 PACK CDR MEDIA 16x 80MIN 700MB \$19.99 BRAND NEW	CD-R MEDIA 100 CD SPINDLE 80MIN 700MB \$34.99 BRAND NEW	
MAJOR BRAND 17" SVGA .28DP MONITOR \$119.99 REFURBISHED	ViewSonic PERFECT FLAT MONITORS 17" 19" .25 DP .25 DP 16.0" VIEWABLE 18.5" VIEWABLE \$189.99 \$299.99	IVO MAGIC DIGITAL CAMERA WITH FLASH 640 x 480 1.3 MEGA PIXEL \$69.99 \$99.99	Kodak DC3200 MEGA PIXEL DIGITAL CAMERA 2x ZOOM FLASH LCD SCREEN 1 YEAR WARR \$189.99 REFURBISHED	HARD DRIVES REFURBISHED 6.4GB \$74.99 7.4GB \$79.99 10GB \$84.99	IBM 8.1GB PCMCIA HARD DRIVE \$149.99 BRAND NEW	CD-ROM REFURBISHED 24x 32x \$22.99 \$24.99	16x DVD-ROM RETAIL BOXED \$69.99 BRAND NEW	IOMEGA EXTERNAL CD-RW DRIVE 4x4x6 \$149.99 REFURBISHED	
ViewSonic 17" 19" .27 DP .27 DP 16.0" VIEWABLE 18.5" VIEWABLE \$179.99 \$249.99	PHILIPS 17" 19" .25 DP REAL FLAT MONITOR \$189.99 \$299.99	PHILIPS FLAT PANEL 15" 17" 1706 \$529.99 \$899.99	hp PHOTOSMART 315 DIGITAL CAMERA 2.1 MEGA PIXEL 2.5x ZOOM 1600 x 1200 LCD - FLASH \$299.99 REFURBISHED	HARD DRIVES BRAND NEW! 20GB 5400 RPM \$99.99 40GB 7200 RPM \$119.99 60GB 7200 RPM \$139.99	COMPAQ 4x4x24 CD-RW DRIVE \$59.99 REFURBISHED	32x10x40 CD-RW DRIVE \$79.99 BRAND NEW	hp 9100 CD-RW DRIVE 8x4x32 + FREE 10PK CD-R MEDIA \$84.99 BRAND NEW	LG Electronics CD-RW + DVD-ROM COMBO DRIVE 12x4x32 CDRW + 8x DVD \$109.99 BRAND NEW	
PCI VIDEO BRAND NEW! 4MB WITH TV 32MB GEFORCE2 64MB GEFORCE2 \$39.99 \$59.99 \$99.99	GFORCE-2 64MB AGP WITH TV-OUT MX SD-RAM TI DDR-RAM \$99.99 \$129.99	4 CHANNEL SOUND CARD 64 BIT \$19.99 BRAND NEW	CREATIVE SOUNDBLASTER 128 LIVE 5.1 \$24.99 \$49.99	56K FAX MODEM \$19.99 BRAND NEW	4 USB PORT PCI CARD VER 1.1 \$39.99 BRAND NEW	INTEL WIRELESS NETWORKING 1.6 MBPS USB \$59.99	SMC 4 PORT 10/100 BROADBAND ROUTER SMC7004BR \$99.99 REFURBISHED	SMC 4 PORT WIRELESS BROADBAND ROUTER SMC7004WBR \$199.99 REFURBISHED	
Logitech QUICK CAM EXPRESS USB 320 x 280 640 x 480 \$39.99 \$49.99	Logitech OPTICAL MOUSE PS/2 & USB \$24.99	Logitech CORDLESS OPTICAL MOUSE \$39.99	hp MULTIMEDIA KEYBOARDS PS/2 OR USB \$29.99 REFURBISHED	PHILIPS SUB-WOOFER SET 3 PIECE 5 PIECE \$29.99 \$39.99	SMARTKEY FLATBED SCANNER USB / PAR - 36 BIT 1200 x 600 \$79.99 BRAND NEW	hp DESKJET PRINTER DJ840C 600dpi 8PPM DJ940C 1200dpi 12PPM \$99.99 \$179.99	PSION 56K PCMCIA \$69.99 BRAND NEW	NETGEAR 10/100 PCMCIA 16 BIT 32 BIT \$59.99 \$49.99	10/100 ETHERNET CARD \$9.99 \$17.99

SDRAM 64MB-PC100 \$24.99 128MB-PC100 \$39.99 256MB-PC133 \$73.99 512MB-PC133 \$149.99	SMC 10/100 HUBS / SWITCHES 5 PORT HUB \$39.99 8 PORT SW \$69.99 16 PORT SW \$129.99 24 PORT SW \$199.99	ALTEC LANSING 3 PIECE SPEAKER SYSTEM WITH SUB-WOOFER 45.2 ATP3 \$49.99 \$79.99	DELL TRINITRON MONITORS 17" 19" REFURBISHED \$139.99 \$199.99	HITACHI 20" MONITOR REFURBISHED \$199.99	DELL 20" TRINITRON 21" REFURBISHED \$229.99 \$299.99
MAJOR BRAND P166 32 MB 2 GB CD-ROM REFURBISHED \$79.99	MAJOR BRAND P200 64 MB 3 GB CD DUAL CPU CAPABLE \$129.99	MAJOR BRAND P300 64 MB 4 GB CD-ROM REFURBISHED \$179.99	AMD 300 Mhz 64 MB 3 GB CD-ROM 10/100 REFURBISHED \$189.99	PANASONIC P166 TOUGHBOOK 64 MB RAM 4 GB CD-ROM 12.1 TFT REFURBISHED \$499.99	IBM ThinkPad 380XD P300 64 MB 4 GB CD 13.3 TFT REFURBISHED \$699.99
MAJOR BRAND P400 4 GB CD-ROM REFURBISHED WITH 64MB WITH 128MB \$279.99 \$299.99	INTEL NAME BRAND (OEM) INTEL 733Mhz 64MB 20GB CD 56K KEYBOARD & MOUSE BY HP REFURBISHED \$419.99 \$599.99	INTEL NAME BRAND (OEM) INTEL 800Mhz 128MB 30GB CDRW 56K KEYBOARD & MOUSE BY HP REFURBISHED \$499.99 \$649.99	INTEL NAME BRAND (OEM) INTEL P3 1Ghz 128MB 60GB CDRW + DVD 56K REFURBISHED \$729.99	DELL LATTITUDE P400 128 MB RAM 6 GB CD-ROM 13.3 TFT REFURBISHED \$849.99	TOSHIBA CEL 500 SATTELITE 4270 64 MB RAM 12 GB DVD / W98 15.1 TFT REFURBISHED \$1299.99
MINITOWER 1.0Ghz CEL 128MB 20GB DVD REFURBISHED \$499.99	MINITOWER P4 1.7Ghz 256MB 40GB CD-RW REFURBISHED \$699.99	MINITOWER P4 2.0Ghz 256MB 40GB (7200) 24x CD-RW REFURBISHED \$799.99	MINITOWER P4 2.0Ghz 256MB 60GB (7200) 24x CD-RW 64MB GEFORCE REFURBISHED \$899.99	hp OMNIBOOK P400 128 MB RAM 10 GB CD / 56K 14.1 TFT REFURBISHED \$1399.99	SONY VAIO CEL 900 128 MB RAM 15 GB DVD / CDRW 14.1 TFT REFURBISHED \$1799.99

Flat, bright... getting affordable*Continued from page 38***KDS RAD7C**From: KDS Canada, www.kdscanada.ca

Size: 17 inches

Input: Analogue

Tilt: -5 degrees, +20 degrees

Warranty: 3 years, 1 year (backlight)

Estimated street price: \$969



This model is an easy-to-assemble, two-piece unit, with blue side panels that hide the built-in speakers—allowing users to save even more desktop space. OSD controls are on the right, out of sight, yet easy to reach. Controls weren't

initially intuitive, but an experienced user could figure them out after some experimenting. Reading the manual eliminated guesswork.

We found some noise and interference evident in the bandwidth test at full resolution. Most users would probably never notice, though. When connected to the ATI Rage 128, text appeared slightly grainy. This was improved by fiddling with the controls via the OSD.

If you're used to quality (read: expensive) full-size speakers, the small built-ins will sound somewhat tinny. Still, you can enjoy listening to CDs or Internet radio without the bulk and expense of a separate speaker system. If, when mixing music, the results sound good on these speakers, they will sound spectacular on everything else.

A 17-inch LCD with speakers costing under \$1,000 seems like a lot of monitor for the money.

KDS RAD9From: KDS Canada, www.kdscanada.ca

Size: 19 inches

Input: Digital/analogue

Tilt: -5 degrees, +45 degrees

Swivel: 90 degrees

Warranty: 3 years, 1 year (backlight)

Estimated street price: \$1,599



The largest model we looked at, the RAD9 has a viewing area equal to that of a 21-inch CRT. It arrived in the box fully assembled, with a manual and all cables, including digital and analogue connectors. It swivels and tilts from the base.

The controls are hard to miss, planted squarely in the middle, just under the display. They are easy to adjust, with a menu, and plus and minus. In addition to the usual inputs, the RAD9 offers two

Continued on page 42

INTERTECH

O A Distribution Inc.

tel: (604) 872-7337

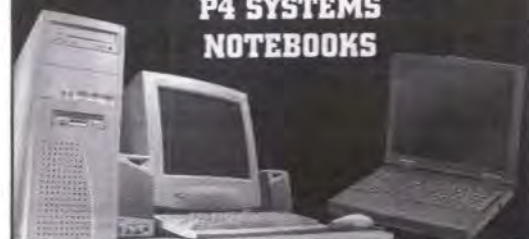
fax: (604) 872-2524

Our 13th Year!!

Member of
Barter Group Canada
Member of the
Better Business Bureau

www.intertechpc.com

**ATHLON XP, CELERON
P4 SYSTEMS
NOTEBOOKS**



Get Ready for School Sale !!

Fast Intel P4 System

Intel P4 1.6GHz 512K Cache
40G ATA-133 7200rpm Hdisk
256meg DDR Ram PC133
1.44mg Floppy Drive
52x CDROM
Savage4 32meg Cached AGP
AC97 3D Sound, 160w Spkrs
Win 98 Keyboard, NetMouse
Envision 17" SVGA Monitor
10/100mb/s Network Card

\$879**Value Starter System**

AMD XP1600, Cooljaq Fan
40G 7200rpm Hdisk
256meg SDRAM PC133
1.44mg Floppy Drive
52x CDROM
Built-in 3D Graphics Card
AC97 3D Sound, Stereo Spkrs
Win 98 Keyboard, NetMouse
Envision 17" SVGA Monitor
10/100mb/s Network Card

\$739**AMD Gamer's Systems**

40G Hdisk, 256meg DDR Ram
52x CD-ROM, 3D Sound, NIC
GeForce4 MX420 64meg
Samsung 750S 24 17" Monitor
Win 98 Keyboard, NetMouse
Floppy Drive, Cooljaq Fan
Windows XP with Manual
16" 300w Tower Case
Speakers w/Subwoofer
MSI KT3 Ultra 333 Board

Athlon 1800XP **\$1149**Athlon 2000XP **\$1249****Intel P4 Systems**

40G Hdisk, 256meg DDR Ram
52x CD-ROM, 3D Sound
Savage4 32meg Cached AGP
Samsung 750S 24 17" Monitor
Win 98 Keyboard, NetMouse
Floppy Drive, Network Card
Windows XP with Manual
16" 300w Tower Case
160w Speakers
VIA P4MA Board

P4 1.6GHz **\$1039**P4 2.0GHz **\$1129****Loaded P4 & AMD XP Systems**

- Windows XP Home with Manual
- Maxtor 60G ATA-133 7200rpm Hdisk
- 256meg DDR Ram, 16" 300w Tower Case
- Microsoft Internet Keyboard, Optical Mouse
- USB V.2, ATA-133 Hdisk Control
- 10/100mb/s PCI Network Card
- MSI GeForce-4 MX420 64meg, Fast 3D
- VIA P4PA for P4 / MSI KT3 w/Raid for AMD XP
- Liteon 40x/12x/48x CDRW Burner
- Philips 107T 17" Flat Screen Monitor
- Altec Lansing AV300 Speakers w/Subwoofer
- Built-in AC97 3D Sound

Less than Major Brand, Better Components

Intel Pentium 4	AMD Athlon
400MHz 1.80GHz \$1399	1800XP \$1369
2.00GHz \$1449	1900XP \$1409
533MHz 2.26GHz \$1539	2000XP \$1459
2.40GHz \$1789	2100XP \$1519
2.53GHz \$2229	2200XP \$1649

Upgrade Options:

- Maxtor 80G 7200rpm Hdisk **\$39**
- Windows XP Professional **\$89**
- NEC LCD 1550 15" Flat Panel **\$389**
- Samsung 955DF 19" Flat Screen **\$179**
- GeForce-4 460 64meg DDR AGP **\$69**
- GeForce-4 4200Ti 128meg DDR **\$189**
- Logitech Webcam 3000 Pro w/Mic **\$129**
- Upgrade to Sound Blaster Audigy **\$99**

Printers, CDRWs, Accessories

- 50 CDR Disks 32x Compatible .. **\$28**
- MS Optical Mouse PS/2 or USB **\$26**
- Logitech Optical Mouse ... **\$19.50**
- Epson Stylus C40 1440x720 ... **\$78**
- Canon S300 2400x1200 ... **\$119**
- HP 845C Color Inkjet **\$139**
- HP Laserjet 1000 10ppm ... **\$389**
- Toshiba 16x DVD-ROM Drive ... **\$79**
- Liteon 40x/12x/40x CDRW ... **\$109**
- LG DVD-CDRW Combo Drive. **\$129**
- Labtec 302 Headphone & Mic **\$24**
- Stylish Headphone w/Mic ... **\$14.50**
- SB Inspire 2.1 2x Spkrs w/Sub **\$65**
- SB Inspire 4.1 4x Spkrs w/Sub **\$86**
- SB Inspire 5.1 Surround
Speakers w/Subwoofer ... **\$139**
- APC B0attery Backups 350VA **\$126**

Custom Configuration Available

- Prices Subject to Change without Notice
- Cash Price Only, Credit Card Users +2.5%
- Lease Available from 12-65 Months

**2 Yrs Parts & Labour
Warranty**

22003206

CTS - CompuTrak System -

Quality products at low wholesale prices

Tel: (604) 270-6797

Fax: (604) 270-9161

Store Hours:

Mon-Fri 11:30 - 6:30
Saturday 12:00 - 5:00
Sunday Closed

Intel Terminator PC

Intel Celeron 1.1GHz processor
Asus TUSI-M ATA100 Socket 370
256MB SDRAM PC-133 memory
1.44MB floppy drive
20GB UATA-100 5400rpm
On-board 3D graphics accelerator
On-board 3D sound
52X CD-ROM drive
160W Stereo PC speakers
17" ATX tower case
Internet keyboard / scroll mouse
On-board 10/100 Ethernet

\$429

Intel P4 Workstation

Intel Pentium 4 - 1.6A S478 (512K)
ECS P4 UATA100 S478 board
256MB SDRAM PC-133 memory
1.44MB floppy drive
20GB UATA-100 5400rpm
On-board 3D graphics accelerator
On-board 3D sound
52X CD-ROM drive
180W Stereo PC speakers
17" ATX tower case w/ 300W
Internet keyboard / scroll mouse
10/100 Ethernet adapter

\$539

Intel P4 Power Station

Intel Pentium 4 - 1.7GHz S478
ECS P4VXAD2 VIA 533MHz FSB RAID
256MB DDR PC-2100 memory
1.44MB floppy drive
40GB UATA-133 7200rpm
ATI Xpert 2000 Pro AGP 32MB OEM
On-board 3D sound
52X CD-ROM drive
180W Stereo PC speakers
17" ATX tower case w/ 300W
Internet keyboard / scroll mouse
10/100 Ethernet adapter

\$619

P4 Ultimate X-Gamer

Intel Pentium 4 - 1.8A (512K) S478
MSI 6547 P4 Ultra 333 S478 board
256MB DDR PC-2100 memory
1.44MB floppy drive
40GB UATA133 7200rpm
GeForce4 MX440 64MB DDR
On-board 3D sound
52X CD-ROM drive
180W Stereo PC speaker
18" ATX case w/ 300W
Logitech keyboard & optical mouse
10/100 Ethernet adapter

\$739

P4 Dream Machine

Intel Pentium 4 - 2.0A S478 (512K)
Asus P4T 533MHz USB 2.0
256MB Rambus PC800 memory
1.44MB floppy drive
60GB UATA133 7200rpm
GeForce4 Ti 4200 64M DDR DVI
On-board 3D sound
Pioneer 16X DVD-ROM drive
Altec Lansing AVS500 speaker
18" ATX case w/ 300W & USB
Logitech keyboard & optical mouse
10/100 Ethernet

\$1039

AMD Starter System

AMD Duron 1.3GHz processor
Shuttle MK20 Socket A motherboard
256MB SDRAM PC-133 memory
1.44MB floppy drive
20GB UATA-133 5400rpm hard drive
On-board 3D graphics accelerator
On-board 3D Sound
52X CD-ROM drive
160W Stereo PC speakers
17" ATX tower case w/ 300W
Internet keyboard / scroll mouse
10/100 Ethernet

\$429

Athlon XP Performer

AMD Athlon XP-1800+ processor
ECS K7S5A UATA-100 Socket A board
256MB DDR PC-2100 memory
1.44MB floppy drive
40GB UATA-133 7200rpm
GeForce2 MX 400 64MB accelerator
On-board 3D sound
52X CD-ROM drive
160W Stereo PC speakers
17" ATX tower case w/ 300W
Windows keyboard / scroll mouse
10/100 Ethernet

\$559

AMD Athlon X-Gamer

AMD Athlon XP-1900+ processor
Gigabyte 7VRX+ ATA133 USB 2.0
256MB DDR PC-2100 memory
1.44MB floppy drive
60GB UATA-133 7200rpm
GeForce4 MX440 64MB DDR TV-Out
On-board 3D sound
52X CD-ROM drive
Altec Lansing AVS300 speakers
17" ATX tower case w/ 300W
Logitech keyboard & optical mouse
10/100 Ethernet

\$759

Specials with System Purchase

Samsung 753DF 17" 20dp flat-screen monitor.....\$240
KDS VS-190 19" 27dp 1600x1200 SVGA monitor.....\$310
Samsung 955DF 19" 24dp 1600x1200 flat-screen monitor.....\$373
NEC 1550V 15" LCD panel.....\$529
Intel Play Me 2 Webcam USB retail box w/ software.....\$23
Mustek 1200CU color flat-bed scanner 600x1200dpi.....\$59
Canon BJC 2130 color inkjet printer.....\$70
Canon S200 color inkjet printer (after rebate).....\$79
upgrade to AOpen Cordless Internet keyboard / mouse.....\$39
upgrade to Logitech Cordless Freedom Optical bundle.....\$110
MAX MP3/CD player (limited quantities).....\$85

CD Burners !!

LITEON SONY Panasonic
Lite-On 32x12x40 CDRW.....\$85
Lite-On 40x12x48 CDRW.....\$95
Lite-On 48x12x48 CDRW.....\$125
Panasonic 24x10x40.....\$95
Sony 24x10x40 CDRW.....\$78

LG Electronics

LG 24x10x40 CDRW.....\$69
LG 32x10x40 CDRW.....\$89
LG 40x12x40 CDRW.....\$115
LG 12X CDRW / 8X DVD.....\$99
Roxio EZ-CD Creator 5.0.....\$10

PLEXTOR

Plextor 20X CDRW/12X DVD.....\$295
Plextor 24x10x40 CDRW.....\$195
Plextor 40x12x40 CDRW.....\$225
Plextor 24x10x40 USB 2.0.....\$279
Yamaha 24x10x40 CDRW.....\$155

YAMAHA

max

Max MP3/CD Player
\$90!

Hard Drive Specials !!

20GB 5400/7200.....\$89/105
40GB 5400/7200.....\$92/99
60GB 5400/7200.....\$126/129
80GB 5400/7200.....\$136/139
120GB 5400/7200.....\$226/229
160GB 5400.....\$360

Memory Blow-Out !!

128MB SDRAM PC-133.....\$38
256MB SDRAM PC-133.....\$68
512MB SDRAM PC-133.....\$129
128MB DDR PC-2100.....\$39
256MB DDR PC-2100.....\$80
128MB Rambus 800MHz.....\$73
256MB Rambus 800MHz.....\$130

Only \$108!!
Linksys BEFSR41 Cable/DSL Router
w/ 4-port 10/100 switch & built-in firewall
BEFSR11 - 1 port model.....\$93
BEFSR81 - 8-port model.....\$195

Canon
PowerShot A40
3X optical zoom
2.1 megapixel
PowerShot S330
3X optical zoom
2.1 megapixel
PowerShot S40
4.0 megapixel
\$120 !!
Logitech Cordless
Freedom Optical
Keyboard & Mouse Combo

\$120 !!
Logitech Cordless
Freedom Optical
Keyboard & Mouse Combo

Compact Flash Smart Media
CF 64MB.....\$43
CF 128MB.....\$75
CF 256MB.....\$144
SM 64MB.....\$42
SM 128MB.....\$73
SM 32MB.....\$43

AOpen
Component Solutions
AOpen 56X CD-ROM drive.....40
AOpen 16X DVD-ROM drive.....63
AOpen 24x10x40 CD-RW drive.....70
AOpen 32x12x48 CD-RW drive.....88

\$16
AOpen 10/100 PCI
Ethernet adapter
\$65
8-port
10/100 switch
\$127
GeForce4
MX440 64MB
DDR TV-Out

Cases / Power Supplies

17"/19"/25" tower ATX case w/ 250W.....39/50/80
Sony 52X internal IDE CD-ROM drive.....49/88
Antec SX830 / SX1030 Server case.....135/150
In-Win 5500/A500/Q500 tower ATX case.....69/76/118
230W ATX 250, 300W ATX power supply.....26/30/40

CD/DVD

52X / 56X internal IDE CD-ROM drive.....35/40
Sony 52X internal IDE CD-ROM drive.....38
Samsung/Sony/Pioneer 16X DVD-ROM drive.....63/67/69

Controller Cards

Promise Ultra100 TX2 / Ultra133 TX2.....45/65

CPUs

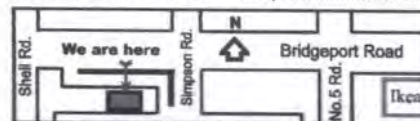
AMD Duron 850/950/1G/1.1/1.2/1.3G.....43/52/61/81/88/99
AMD TB 900/950/1.1G/1.33G/1.4G.....75/79/99/100/129
AMD XP 1600/1700/1800/1900/2000.....105/148/164/202/245
Celeron 1.1A/1.2A/1.3A/1.7.....95/105/115/133
Pentium III 1.13GHz/1.2/1.4GHz.....168/185/call
Pentium 4 - 1.6/1.7/1.9GHz 256K.....205/210/248
Pentium 4 - 1.6/1.8/2.0/2.2 (A) 512K.....209/245/290/355

Hard Drives / Floppy drive

1.44MB floppy disk drive.....15
20/40GB UATA100 5400rpm.....89/92
60/80GB UATA100 5400rpm.....126/136
120/160GB UATA133 5400rpm.....226/360
20/40GB UATA133 7200rpm.....105/100
60/80GB UATA133 7200rpm.....129/139
100/120GB UATA133 7200rpm.....227/229
20/30/40GB 2.5" notebook hard drive.....146/190/255

Keyboards

Windows / Internet keyboard PS2.....10/15
Fujitsu 8725/4725 PS/2 keyboard.....16/58
Logitech Deluxe/Internet keyboard.....22/25
Logitech Cordless Freedom / Navigator / Pro.....70/95/117
MS Natural Elite / Internet keyboard OEM.....30/27
MS Internet Pro / Natural Pro keyboard.....45/85



Authorized Reseller



#5 - 11240 Bridgeport Road, Richmond, B.C., V6X-1T2

* All systems - 1 year parts & 3 years labour warranty
* All Prices Reflect 2.5% Cash Discount
* Government And Corporate Purchase Orders Welcome
* Leasing Available OAC
* Prices Subject To Change Without Prior Notice
All product names, trademarks and registered trademarks are properties of their respective owner

Flat, bright... getting affordable

Continued from page 40

preset colour settings, one biased towards the blue spectrum, and the other towards green. These presets allow users to calibrate the screen based on what they think looks correct.

For such a large monitor, surprisingly little visual noise was apparent at full resolution on analogue, and none when connected digitally. Nor was there much difference in the images obtained from both the ATI and GeForce3 cards.

LG Flatron L1800PK

From: LG Canada, www.lg.ca

Size: 18.1 inches

Inputs: Digital/analogue

Tilt: -5 degrees, +30 degrees

Swivel: 90 degrees

Extras: Pivot, adjustable height

Warranty: 3 year (complete)

Estimated street price: \$1,599

This model sits on a wing-shaped base that can be includes an 8-cm height adjustment. Users can also change between landscape and portrait modes, making this display a good choice for multimedia professionals. It also has three USB ports in the rear of the base. A



1.8-cm bezel surrounds the display.

Another plus is the absence of any transformer in the middle of the power cord. A traditional PC power cord plugs into a traditional PC power cord input on the display. A 50Hz 220-volt supply cord was included. Pivot Pro and driver software are on CD, as is the Quick User's Guide.

OSD controls are in the centre bottom, and are labeled and easy to decipher. The L1800PK sailed through the DisplayMate Obstacle Course digitally, but encountered severe noise at full resolution when hooked to the ATI analogue adapter.

By the time you read this the L1810B will be in stores, with the same warranty. With a standard 2.3-cm silver bezel and lacking the height adjustment, pivot, and swivel of the premium L1800PK version, estimated street price is expected to be \$1,499. Both models come in ivory and black.

LG is one of three manufacturers of LCDs; it's possible other models we tested contained LG panels.

NEC MultiSync LCD1850E

From: NEC Canada, www.nec.ca

Size: 18.1 inches

Inputs: Dual analogue

Tilt: -5 degrees, +30 degrees

Swivel: 270 degrees

Warranty: 3 years (complete)

Estimated street price: \$1,349



Our model was beige (NEC company literature calls it white) but this unit is also available in black. The OSD controls are 7-mm buttons on the front bottom of the display that are easy to manipulate. The entire base swivels on a circular pad mounted on the bottom. While input is analogue only, there are two of them.

Test performance on the GeForce3 was excellent for an analogue-only monitor. However, on the ATI Rage we witnessed a lot of noise at full resolution—which won't be an issue for most users.

NEC includes a software bonus for those concerned about shrunken desktop icons when video resolution is at the highest setting. Portrait Displays LiquidView lets users scale icon size without affecting display resolution.

While this unit doesn't have a pivoting base, Pivot software is included, probably for wall mounting. Also included are standard power (no bulky transformer) and video cables, and print and CD versions of the manual.

NEC Mitsubishi is one of three manufacturers of LCDs; it's possible other models we tested contained NEC panels.

Samsung SyncMaster 181T

From: Samsung Canada, www.samsung.ca

Size: 18.1 inches

Inputs: Analogue/digital

Tilt: -5 degrees, +30 degrees

Swivel: 355 degrees

Extras: Pivot, adjustable height

Warranty: 3 years (complete)

Estimated street price: \$1,599



The latest 18-inch model from Samsung has an attractive 1.8 cm, silver border. Tiny (2x18 mm), yet functional display adjustment buttons are on the bottom centre of the panel. The compact black base adjusts 4 cm vertically, and the display tilts forward and back.

The Samsung driver's maximum resolution is 1,280x1,024 at 60 Hz, but the 181T seemed to enjoy the testing process. Without the drivers, we cranked up the resolution to 1,600x1,200. The results were a little stretched, though, like watching old movies on TV, where the characters appear taller and thinner.

The manual and software CD includes Natural Color for calibrating hues and shades. While the bulky transformer is noticeably absent, the power cord is a three-opening type, similar to those seen on other appliances.

Samsung is one of three manufacturers of LCDs; it's possible other models we tested contained Samsung panels.

TTX 9174

From: TTX Canada, www.ttx.ca

Size: 17 inches

Input: Analogue

Tilt: -5 degrees, +15 degrees

Warranty: 3 years (complete)

Estimated street price: \$1,039

TTX has been marketing monitors in Canada since 1985. Our 9174 version was beige with a large (6 cm) bezel. This model is also offered in black as a standard desktop monitor, and in open

Continued on page 44

Powerful Windows 2000 web-hosting plans from only \$34.95 a month

No extra charge for in-depth technical support, hand-holding, and friendly people with a strong commitment to customer service.

In addition to the latest hosting solutions, the lowest prices and our 30 day satisfaction and 99.9% uptime guarantee, we're committed to developing strong relationships with each and every customer.

[Hand holding optional, of course.]

pacific
online

Web Site: www.pacific.ca
Toll Free: 1-877-503-9870
Telephone: (604) 638-6010
Facsimile: (604) 638-6020



845 GIVE ME 533



Bluetooth

DDR

Intel LAN

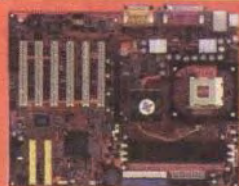
6 Channel

USB 2.0

Fuzzy Logic 4

845E Max2-BLR

Intel® 845E chipset Socket 478



- Supports Intel® 478-pin Pentium® E 4 1.4~ 2.4 GHz Processor and faster
- FSB 533MHz
- 3 184-pin DDR DIMM up to 2GB memory
- 6 PCI, 1 AGP, 1 CNR
- 6 USB ports
- Realtek AL C650 6-channel H/W audio
- Supports USB 2.0 & ATA 133 RAID 0/1
- Supports D-Bracket 2/ Live BIOS / PC Alert II/ Fuzzy Logic 4

845E Max-L

Intel® 845E chipset Socket 478



- Supports Intel® 478-pin Pentium® E 4 1.4~ 2.4 GHz Processor and faster
- FSB 533MHz
- 2 184-pin DDR DIMM up to 2GB memory
- 6 PCI, 1 AGP, 1 CNR
- 6 USB ports
- AC'97 Audio
- Integrated 10/100 Mb/s Fast Ethernet Controller
- Supports D-Bracket 2/ Live BIOS / Fuzzy Logic 4

845G Max-L

Intel® 845G chipset Socket 478



- Supports Intel® 478-pin Pentium® E 4 1.5~ 2.4 GHz Processor or up
- FSB 533MHz
- 3 DDR DIMM up to 2GB memory
- 6 PCI, 1 AGP, 1 CNR
- 6 USB 2.0 ports
- Supports Ultra ATA100
- Supports AC'97 Audio
- Integrated 10/100 Mb/s Fast Ethernet Controller
- Integrated Intel® Extreme Graphic Core

645E Max

SiS® 645G chipset Socket 478



- Supports Intel® Pentium® Processor to 2.4 GHz or up
- 3 DIMMs, up to 3GB of DDR 266(PC2100) and DDR 333(PC2700) Memory supported
- FSB 400/533 MHz clock
- USB 2.0 Technology
- AC'97 6-channel audio
- 6 PCI/1 CNR/1 AGP
- D-Bracket (Optional) Live BIOS/ Fuzzy Logic 3



Link to the Future

www.msicomputer.com

MSI Authorized Distributor in Canada



www.daiwa.net
Head office: 888-38-DAIWA
Montréal: 514-332-2889
Vancouver: 604-244-9912



www.eprom.com
Markham: 905-944-9000
Vancouver: 604-214-9828



www.samtack.com
Toronto: 905-940-1880



www.supercom.ca
Toronto: 905-415-1166
Vancouver: 604-276-2677
Montréal: 514-335-1166

All functions above are optional for all of MSI products. *MSI is a trademark of Micro-Star Intl Co., Ltd. *The specification is subject to change without notice. *All brand names are registered trademarks of their respective owner. *Any configuration other than original product specification is not guaranteed.

A printer that can keep up with you.

E210 Laser | 12 ppm | **\$299.00***



All of the robust features of an office laser printer now come with a stay-at-home price! Built for value and reliability, the E210 mono laser has a straight through paper path which means virtually jam-free printing on a wide variety of media – from thick business cards to overhead transparencies.

LEXMARK
Passion for printing ideas.™

CompuSmart



CompuSmart



CompuSmart
595 West Georgia Street
Vancouver
(604) 688-2662 x330

Frontier Computers
105-1755 West Broadway
Vancouver
(604) 739-8060

Evergreen Computers
1615 Lonsdale Ave.
North Vancouver
(604) 990-3960

CompuSmart
966 Yates St.
Victoria
(250) 382-3475

Kamloops Computer Centre
945 Notre Dame Drive
Kamloops
www.kamcc.com

*Limited time offer at participating dealers, street price may vary.

© Lexmark Canada, 2002. Lexmark and 'Passion for printing ideas' are trademarks of Lexmark International, Inc., registered in the U.S. and/or other countries.

< HANDS ON >

Flat, bright... getting affordable

Continued from page 42

frame versions for use in kiosks. Resistive and capacitive touch screen versions are also available.



A user's guide and cables accompanied our sample. Five 13-mm buttons on the front bottom right are the OSD controls. Testing revealed some visual noise at full resolution, particularly on the older ATI adapter. We lowered the brightness and played with the contrast to get readable text on the ATI system. On the GeForce3 this noise dissipated as brightness was increased.

Viewsonic VX800

From: Viewsonic, www.viewsonic.com

Size: 18.1 inches

Inputs: Analogue/digital

Tilt: 45 degrees

Warranty: 3 years (complete)

Price: US\$929



Our unit arrived with analogue, digital, and audio cables. The power cable is three-conductor type, with the transformer in the middle. A power cable for use in 50Hz 220-volt countries was also included, as was a Quick Start Guide and software.

A 4-cm silver bezel surrounds the display, with OSD controls measuring 2x7 mm at the bottom centre. Built-in

Continued on page 50

CRW-F1



... Sweet!

www.yamaha.ca/F1



Norton suites a good upgrade for OS X*Continued from page 34*

X before it told us to restart from the CD, although Norton Antivirus 8.0 did work well running in OS X. The included Retrospect Express 5.0 worked well in OS X and was a welcome addition to the suite, but the Disk Warrior Recovery Edition was not very useful (probably wise as the full version Disk Warrior is Norton's competition).

We also noted instability in OS X with systems on which we installed the SystemWorks suite. Symptoms ranged from Kernel Panics (the OS X equivalent Blue Screen of Death) to not waking from sleep. In all cases, removing the Symantec kernel extensions resolved the problems, but then we could not run Norton Utilities from the hard drive.

We had no problem with Antivirus on any of our Mac test systems. The real problem with this suite is not that the products are bad, just that they don't offer much for owners of previous versions.

The SystemWorks 2.0 suite retails for \$199 (there's a \$50 rebate for owners of previous versions). However, considering

you will end up running the old version of Norton Utilities much of the time, it seems it would be better to purchase just the Antivirus 8.0 upgrade, which is US\$39.95, then add on an upgrade to Retrospect Express 5.0 from Dantz (www.dantz.com) for US\$19.95. This would allow you to run backups and Antivirus in OS X, and when you need to do disk maintenance, just use your disc of the previous version to run Norton Utilities 6.0.

Hopefully, Symantec (www.symantec.com) will improve the stability problems in Norton Utilities and give us a way to run the OS X apps from the CD in the next version. Until then, it seems there is no compelling reason for SystemWorks 1.0 users to upgrade.

Upgrades to Norton Utilities 7.0 are US\$49.95, but if you already own version 6.0, we recommend hanging on to it and waiting until Norton Utilities 8.0.

Norton Internet Security 2.0

Norton Internet Security 2.0, much like its sibling SystemWorks, is the first version of the package to be designed exclusively for OS X. And, much like SystemWorks there seems little reason to

**Norton Internet Security 2.0**

From: Symantec, www.symantec.com

Estimated price: \$159 (\$50 mail-in upgrade rebate)

upgrade unless you are an OS X user.

The disc does include a version of Internet Security 1.0 for users of OS 8 and 9, which might be useful if you are looking for the previous version but have found it's out of print. Internet Security 2.0 includes several pieces of software that are normally sold separately: Antivirus 8.0, Personal Firewall 2.0, Norton Privacy Control, and Aladdin iClean.

Antivirus 8.0 works well, but as men-

tioned in the SystemWorks review, you can only run it with OS X. OS 8 or 9 users will be running Antivirus 7.0 (the version you can run from the included bootable CD).

Norton Personal Firewall is a simple-to-use software firewall that protects users of cable or DSL from external attack over the Internet. If you connect via modem, it's not as useful because you get a new IP every time you dial up. As well, because you're not connected around the clock, your system is less vulnerable to hacking.

Personal Firewall is ideally suited for one-computer households since it doesn't provide the NAT or DHCP functions hardware firewalls provide. If you do have multiple machines in your home, a hardware firewall is a good investment since it will allow you to share one high-speed connection with multiple machines. Hardware routers have fallen in price recently, with very good models available for less than \$150, and as an added bonus they don't take up CPU time or RAM on your computer.

Personal Firewall worked well in our tests, but it's worth noting that OS X does

Continued on page 62

www.3jtechnology.com

www.3jtechnology.com

www.3jtechnology.com

www.3jtechnology.com

**3J COMPUTERS**

Tel: (604)323-9859

(604)323-9815

Fax: (604)323-1157

Email: info.3jtechnology.com

5307 Victoria Drive, Vancouver, BC, V5P 3V6

3J TECHNOLOGY INTERNATIONAL (CANADA), INC.**Monthly Specials****MIC for Karaoke**

Professional Microphone

\$29**Spindle 25pk**

Up to 32X CDR media

\$14**DVD/VCD Karaoke CD(s)**

Karaoke VCD...from \$4.99

Karaoke DVD...from \$9.99

Karaoke CDs available in Chinese, Taiwanese, Japanese, English

AOpen® #1 Computing Solution Provider

- Motherboards
- Monitors
- Fax/Modem
- CD-ROM/DVD/CD-RW
- VGA Cards
- Mice & Keyboards
- Housing &
- Networking NIC & Hub
- Bare Systems
- Speakers & Sound Cards

AOpen Monthly Specials:**Building Your Home Network w/ Aopen**

Aopen 8 ports Ethernet Hub \$39
Aopen 10/100 Mbps Adaptor..... \$15

Aopen 56X cd rom \$49
Aopen 32X 12 X 48 \$109
Aopen 56k modem \$29
Aopen Cordless KB & Mouse..... \$59

Call for all other Aopen products

DESKNOTE SPECIAL Intel P4 1.9Ghz

For only

\$1999

Intel P4 1.9Ghz CPU
256MB DDR Ram
20GH Hard Drive
DVD Rom/ CD WRITER
56K Modem/ LAN
IEEE 1394/ USB 2.0
15.1" TFT

**Upgrade your computer to 1GHz**

For only

\$269

VIA CPU C3 1GHZ, VIA Vt133 Motherboard
128MB Pc133 Sdram
3D Video on Motherboard, 3D Sound Card
10/100 Network Card, 56K Modem
18" Tower w/ 250W Power Supply

BEST BUY**Digital Camera****Canon Digital**

Canon A100..... \$289
Canon A40 \$499
Canon S200 \$599
Canon S330 \$699
Canon G-2 \$1199

SONY Cyber-shot DSC P50

SONY Mavica FD200..... \$899
Kodak D3215 \$289
Kodak D3900 \$499
Fujifinepix 301 \$599
Fujifinepix A101 \$299
HP PhotoSmart 318 XI..... \$299

Pioneer**Ultra Slim**

DVD/ VCD/ Mp3

S-VCD/ CD Player

\$90 Upgrade to All Region

DV-353-K

\$219**DVD Karaoke Player**

DVD/MP3/SVCD/VCD/DVCD/CD/CDR/CDRW

\$249

- All Region DVD Karaoke Player
- Support Multi, NTSC & PAL TV
- Dolby Digital, DTS
- Macrovision disabled

All Prices Reflect 3% Cash Discount.
Prices Subject To Change Without Prior Notice

Check out our online store **www.3jtechnology.com**

www.3jtechnology.com

www.3jtechnology.com

www.3jtechnology.com

www.3jtechnology.com

TOPTECH

COMPUTER INC.

www.toptechcomputer.com

Shell Rd. Bridgeport Ave. Road No. 5 Rd.

Richmond
108-11500 Bridgeport Road
Tel: (604)-207-0086
Fax: (604) 207-0060

Kingsway Crystal Mall

Burnaby (Crystal Mall)
1683-4500 Kingsway
Tel: (604) 434-0018
Fax: (604) 438-0010

Henderson Place

Coquitlam (Henderson Place)
1106-1163 Pinetree Way
Tel: (604) 472-0828
(604) 472-0868

Monday ~ Sunday
10:00am-8:00pm

Downtown Branch
under construction

AMD All-In-One Value PCchips 810LMR MB PC133 128MB SDRAM Maxtor 20Gig 5400rpm HDD LG 52X CD-ROM 56K V.90 AMR Fax Modem Integrated 8M-64M Video Integrated 3D Sound Integrated 10/100MB Ethernet Samsung 1.44MB Floppy Drive Toptech Screwless Case ZTE 180Watt Speaker Win98 Keyboard Wheel Mouse Summer Special: Duron 1Ghz \$378	AMD Athlon Better ECS K7S5A SIS735 MB, or Pc2100 256MB DDR266 RAM Maxtor 40G 7200rpm HDD ATI Rage 128 Pro 32MB Video Card LG 52X CD-ROM Toptech 300W USB Case Integrated AC97 Sound 10/100Mbps Ethernet Samsung 1.44MB Floppy ZTE 180Watt Speaker Wheel Mouse Win98 Keyboard Athlon XP: Retail Box 3Yr Warranty 1700/ 1800 \$548 / \$568 1900/ 2000 \$618 / \$678	P4 Celeron S478 Special Gigabyte GA-8ILMT4 MB Pc2100 256MB DDR RAM Maxtor 40G 7200rpm HDD Intel Extreme Graphic GPU LG 52X CD-ROM Integrated 10/100Mbps Network Card Integrated AC97 Sound Card Samsung 1.44MB Floppy Drive ZTE 180Watt Speaker Toptech 300W Case Wheel Mouse Win98 Keyboard Celeron S478: Retail Box 3Yr Warranty Celeron 1.7G \$558 Celeron 1.8G \$599	AMD Athlon DDR Deluxe ASUS A7S333 KT 333 MB PC 2100 256MB DDR RAM Maxtor 60G 7200rpm HDD MSI Geforce3 Ti200 128Mb DDR Sony 16X DVD-ROM Realtek 10/100Mbps Network Card Integrated AC97 Sound Card Samsung 1.44MB Floppy Drive Creative Inspire 2.1 Speaker Toptech 350W USB Case Wheel Mouse Win98 Keyboard Athlon XP: Retail Box 3Yr Warranty 1700/ 1800 \$958 / \$978 1900/ 2000 \$998 / \$1068	AMD Athlon DDR Supreme Gigabyte TVRXP KT 333 Raid MB P C2700 256MB DDR RAM Maxtor 80G 7200rpm HDD ATI Radeon 7500 All-In-Wonder VC Sony 16X DVD-ROM LG 40X12X48 CD-RW Realtek 10/100Mbps Network Card Creative SB Audigy 1394 Creative Inspire 5.1 Speaker Toptech 350W USB Case Samsung 1.44MB Floppy Drive Microsoft Optical Mouse Microsoft Internet Keyboard Athlon XP: Retail Box 3Yr Warranty 1700/ 1800 \$1468 / \$1498 1900/ 2000 \$1528 / \$1598
INTEL P4 S478 Value ECS P4VMM2 P4 MB ASUS P4S333-VM MB (+\$50) Pc2100 256MB DDRAM Maxtor 40G 7200rpm HDD Integrated 64mb AGP Video Card LG 52X CD-ROM Integrated 10/100MB Network Card Toptech P4 Screwless Case Integrated AC97 Sound ZTE 180Watt Speaker Samsung 1.44MB Floppy Wheel Mouse Win98 Keyboard Great Deals: P4 1.6G \$558 P4 1.7G \$588 P4 1.8G \$618 P4 1.9G \$648	INTEL P4 SIS645 Better MSI MS6547 SIS645 MB P C2100 256MB DDR RAM Maxtor 40G 7200rpm HDD ATI Radeon 7000 64M TVOut Samsung 16X DVD-ROM Samsung 1.44MB Floppy Drive Realtek 10/100MB Ethernet 300Watt P4 Screwless Case Integrated AC97 Sound ZTE 180Watt Speaker Wheel Mouse Win98 Keyboard Great Deals: CPU W/ 512K L2 Cache P4 1.6G \$718 P4 1.7G \$748 P4 1.8G \$778 P4 1.9G \$808	INTEL Pentium IV Quality ASUS P4S533 533FSB MB, or Gigabyte GA-8IEX 533FSB MB PC 2100 256MB DDR RAM Maxtor 60G 7200rpm HDD ATI Radeon 7000 64Mb TV Out Sony 16X DVD Rom Realtek 10/100MB Network Card Integrated AC 97 Sound Card Aopen MS-805 Speaker Samsung 1.44MB Floppy Toptech 350Watt P4 USB Case Wheel Mouse Win98 Keyboard Great Deals: CPU W/ 512K L2 Cache P4 1.6G \$838 P4 1.7G \$868 P4 1.8G \$898 P4 1.9G \$928 P4 2.0G \$988	INTEL Pentium IV Deluxe MSI 845E Max2 533FSB MB PC2100 256MB DDR RAM Maxtor 60G 7200rpm HDD MSI Geforce4 Mx460 64M DDR VIVO Sony 16X DVD Rom Sony 24X10X40 CD-Rewriter Realtek 10/100MB Network Card SoundBlaster Live 5.1 SC Samsung 1.44MB Floppy Creative Inspire 4.1 Speaker 350Watt P4 Screwless Case Wheel Mouse Win98 Keyboard Great Deals: CPU W/ 512K L2 Cache P4 1.6G \$1218 P4 1.7G \$1248 P4 1.8G \$1278 P4 1.9G \$1308 P4 2.0G \$1368 P4 2.2G \$1468	INTEL Pentium IV Supreme ASUS P4T533-C 533FSB MB Samsung 256MB RAMBUS RAM Maxtor 80Gig 7200rpm HDD ATI Radeon 8500 All-In-Wonder Sony 16X DVD-ROM Sony 32X10X40 CD-RW Realtek 10/100MB Ethernet Toptech 350Watt P4 Screwless Case SoundBlaster Audigy 1394 SC Creative Inspire 5.1 Speaker Samsung 1.44MB Floppy Microsoft Optical Mouse Microsoft Internet Keyboard Great Deals: CPU W/ 512K L2 Cache P4 1.7G \$1799 P4 1.8G \$1838 P4 1.9G \$1868 P4 2.0G \$1928 P4 2.2G \$2048 P4 2.4G \$2348

We have parts and system specials every day. Pls contact us for details

Motherboards <table> <tr><td>ASUS P4T533</td><td>1850E S478</td><td>\$278</td></tr> <tr><td>P4S533</td><td>SIS645DX S478</td><td>\$198</td></tr> <tr><td>P4S333</td><td>SIS645 S478</td><td>\$165</td></tr> <tr><td>P4B533-E</td><td>1845E S478</td><td>\$295</td></tr> <tr><td>A7M266-D</td><td>AMD760MPX SA</td><td>\$379</td></tr> <tr><td>A7V333</td><td>KI333 SA</td><td>\$198</td></tr> <tr><td colspan="3">ECS</td></tr> <tr><td>K7S5A</td><td>735S SA</td><td>\$89</td></tr> <tr><td>K7S6A</td><td>745S SA</td><td>\$99</td></tr> <tr><td>K7SEM266</td><td>730S SA</td><td>\$99</td></tr> <tr><td>K7VTA3</td><td>KT266A SA</td><td>\$118</td></tr> <tr><td>L4S5M</td><td>SIS645 S478</td><td>\$128</td></tr> <tr><td>P4S5A</td><td>SIS645 S478</td><td>\$130</td></tr> <tr><td>P4VXAD DDR</td><td>P4X266 S478</td><td>\$139</td></tr> <tr><td colspan="3">GIGABYTE</td></tr> <tr><td>GA-8ITX-E</td><td>1850 S478</td><td>\$222</td></tr> <tr><td>GA-8IRX</td><td>1845 S478</td><td>\$212</td></tr> <tr><td>GA-7VRX</td><td>KI 333 SA</td><td>\$158</td></tr> <tr><td>GA-7VRXP Raid</td><td>KI 333 SA</td><td>\$188</td></tr> <tr><td>GA-7VTXP</td><td>KI 266A SA</td><td>\$138</td></tr> <tr><td colspan="3">MICROSTAR</td></tr> <tr><td>1845E Max2</td><td>1845E S478</td><td>\$228</td></tr> <tr><td>1845G Max</td><td>1845G S478</td><td>\$198</td></tr> <tr><td>KT 3 Ultra</td><td>KT 333 SA</td><td>\$178</td></tr> <tr><td>745 Ultra</td><td>SIS745 SA</td><td>\$168</td></tr> <tr><td>850PRO5</td><td>1850 S478</td><td>\$218</td></tr> <tr><td>845ULTRA-R</td><td>1845 S478</td><td>\$168</td></tr> <tr><td>845ULTRA-RU</td><td>1845 S478</td><td>\$218</td></tr> <tr><td>645ULTRA</td><td>SIS645 S478</td><td>\$118</td></tr> <tr><td>K7T266PRO-2</td><td>KT266A SA</td><td>\$138</td></tr> <tr><td>K7T266PRO-2 R</td><td>KT266A SA</td><td>\$168</td></tr> <tr><td colspan="3">PCCHIPS</td></tr> <tr><td>M930LR</td><td>SIS645 478</td><td>\$108</td></tr> <tr><td>M935LR</td><td>SIS650 478</td><td>\$110</td></tr> <tr><td>M841LR</td><td>SIS740 SA</td><td>\$109</td></tr> <tr><td>M810LMR</td><td>SIS730 SA</td><td>\$99</td></tr> <tr><td>M754LMR</td><td>ALI S370</td><td>\$92</td></tr> <tr><td>787CLR</td><td>VIA C3 1G Pro</td><td>\$125</td></tr> <tr><td colspan="3">Shuttle</td></tr> <tr><td>AK35GT</td><td>KI333 SA</td><td>\$149</td></tr> <tr><td>AV45GT</td><td>P4X266A S478</td><td>\$138</td></tr> <tr><td>AK31A</td><td>KT266A SA</td><td>\$128</td></tr> <tr><td>AV40A</td><td>P4X266 S478</td><td>\$128</td></tr> </table>	ASUS P4T533	1850E S478	\$278	P4S533	SIS645DX S478	\$198	P4S333	SIS645 S478	\$165	P4B533-E	1845E S478	\$295	A7M266-D	AMD760MPX SA	\$379	A7V333	KI333 SA	\$198	ECS			K7S5A	735S SA	\$89	K7S6A	745S SA	\$99	K7SEM266	730S SA	\$99	K7VTA3	KT266A SA	\$118	L4S5M	SIS645 S478	\$128	P4S5A	SIS645 S478	\$130	P4VXAD DDR	P4X266 S478	\$139	GIGABYTE			GA-8ITX-E	1850 S478	\$222	GA-8IRX	1845 S478	\$212	GA-7VRX	KI 333 SA	\$158	GA-7VRXP Raid	KI 333 SA	\$188	GA-7VTXP	KI 266A SA	\$138	MICROSTAR			1845E Max2	1845E S478	\$228	1845G Max	1845G S478	\$198	KT 3 Ultra	KT 333 SA	\$178	745 Ultra	SIS745 SA	\$168	850PRO5	1850 S478	\$218	845ULTRA-R	1845 S478	\$168	845ULTRA-RU	1845 S478	\$218	645ULTRA	SIS645 S478	\$118	K7T266PRO-2	KT266A SA	\$138	K7T266PRO-2 R	KT266A SA	\$168	PCCHIPS			M930LR	SIS645 478	\$108	M935LR	SIS650 478	\$110	M841LR	SIS740 SA	\$109	M810LMR	SIS730 SA	\$99	M754LMR	ALI S370	\$92	787CLR	VIA C3 1G Pro	\$125	Shuttle			AK35GT	KI333 SA	\$149	AV45GT	P4X266A S478	\$138	AK31A	KT266A SA	\$128	AV40A	P4X266 S478	\$128	INTEL <table> <tr><td>D845BGL</td><td>1845 S478</td><td>\$238</td></tr> <tr><td>D850EMV2</td><td>1850 S478</td><td>\$278</td></tr> <tr><td colspan="3">Abit</td></tr> <tr><td>ATT-E</td><td>KT 333 SA</td><td>\$199</td></tr> <tr><td>KX7-333</td><td>KT 333 SA</td><td>\$158</td></tr> <tr><td>KR7A-Raid</td><td>KT 266A SA</td><td>\$135</td></tr> <tr><td>BD7II</td><td>P4/S478</td><td>\$188</td></tr> <tr><td>BD7M</td><td>1845 S478</td><td>\$139</td></tr> <tr><td>VIA</td><td>DDR S478</td><td>\$108</td></tr> <tr><td>P4MA-L</td><td>DDR S478</td><td>\$148</td></tr> <tr><td>P4PA-UL</td><td>DDR S478</td><td>\$96</td></tr> <tr><td>P4XB-SA</td><td>DDR S478</td><td>\$96</td></tr> <tr><td colspan="3">Hard Drives</td></tr> <tr><td colspan="3">5400 RPM</td></tr> <tr><td>Maxtor 20 / 40</td><td>\$90 / \$95</td><td></td></tr> <tr><td>60 / 80</td><td>\$118 / \$148</td><td></td></tr> <tr><td colspan="3">Western Digital</td></tr> <tr><td>20 / 40 / 60</td><td>\$92 / \$97/\$120</td><td></td></tr> <tr><td>80/120/160</td><td>\$150/229/339</td><td></td></tr> <tr><td colspan="3">7200 RPM</td></tr> <tr><td>Maxtor 20 / 40</td><td>\$95 / \$99</td><td></td></tr> <tr><td>60 / 80</td><td>\$129 / \$158</td><td></td></tr> <tr><td colspan="3">Seagate</td></tr> <tr><td>20 / 40</td><td>\$95 / \$99</td><td></td></tr> <tr><td>60 / 80</td><td>\$129 / \$158</td><td></td></tr> <tr><td colspan="3">WD</td></tr> <tr><td>20 / 40</td><td>\$97 / \$101</td><td></td></tr> <tr><td>60 / 80 / 100</td><td>\$131 / \$161/ \$268</td><td></td></tr> <tr><td colspan="3">ROM Drives</td></tr> <tr><td colspan="3">CDROM</td></tr> <tr><td>AOpen 52X / 56X</td><td>\$36 / \$46</td><td></td></tr> <tr><td>Sony 52X</td><td>\$45</td><td></td></tr> <tr><td>Future Power 52X</td><td>\$44</td><td></td></tr> <tr><td>LG 52X</td><td>\$39</td><td></td></tr> <tr><td colspan="3">DVD-ROM</td></tr> <tr><td>AOPEN 16X</td><td>\$65</td><td></td></tr> <tr><td>LITEON 16x</td><td>\$66</td><td></td></tr> <tr><td>LG 16x</td><td>\$68</td><td></td></tr> <tr><td>Samsung 16x</td><td>\$68</td><td></td></tr> <tr><td>Sony 16X</td><td>\$78</td><td></td></tr> <tr><td>Toshiba 16X</td><td>\$78</td><td></td></tr> <tr><td>DVD-Software</td><td>\$13</td><td></td></tr> </table>	D845BGL	1845 S478	\$238	D850EMV2	1850 S478	\$278	Abit			ATT-E	KT 333 SA	\$199	KX7-333	KT 333 SA	\$158	KR7A-Raid	KT 266A SA	\$135	BD7II	P4/S478	\$188	BD7M	1845 S478	\$139	VIA	DDR S478	\$108	P4MA-L	DDR S478	\$148	P4PA-UL	DDR S478	\$96	P4XB-SA	DDR S478	\$96	Hard Drives			5400 RPM			Maxtor 20 / 40	\$90 / \$95		60 / 80	\$118 / \$148		Western Digital			20 / 40 / 60	\$92 / \$97/\$120		80/120/160	\$150/229/339		7200 RPM			Maxtor 20 / 40	\$95 / \$99		60 / 80	\$129 / \$158		Seagate			20 / 40	\$95 / \$99		60 / 80	\$129 / \$158		WD			20 / 40	\$97 / \$101		60 / 80 / 100	\$131 / \$161/ \$268		ROM Drives			CDROM			AOpen 52X / 56X	\$36 / \$46		Sony 52X	\$45		Future Power 52X	\$44		LG 52X	\$39		DVD-ROM			AOPEN 16X	\$65		LITEON 16x	\$66		LG 16x	\$68		Samsung 16x	\$68		Sony 16X	\$78		Toshiba 16X	\$78		DVD-Software	\$13		CD-RW <table> <tr><td>Oporite 16X12X40</td><td>\$68</td></tr> <tr><td>Aopen 24X10X40 Justlink</td><td>\$78</td></tr> <tr><td>LG 24X10X40 BurnProof</td><td>\$78</td></tr> <tr><td>LG 32X10X40 BurnProof</td><td>\$95</td></tr> <tr><td>LG 40X12X48 Burn Proof</td><td>\$105</td></tr> <tr><td>LITEON 24x10x40</td><td>\$78</td></tr> <tr><td>LITEON 32x10x40</td><td>\$95</td></tr> <tr><td>Mitsumi 24X10X40</td><td>\$78</td></tr> <tr><td>Sony 24x10x40</td><td>\$99</td></tr> <tr><td>Plextor 40X12X48</td><td>\$219</td></tr> <tr><td colspan="2">Video Cards</td></tr> <tr><td>TNT2 M64 32M</td><td>\$48</td></tr> <tr><td>Geforce2 MX200 64M</td><td>\$65</td></tr> <tr><td>Geforce2 MX400 64M</td><td>\$79</td></tr> <tr><td>Geforce2 MX400 64M TV-out</td><td>\$89</td></tr> <tr><td>Aopen GF2T200-V64</td><td>\$159</td></tr> <tr><td>Aopen Geforce4 Mx440 64M</td><td>\$149</td></tr> <tr><td>Abit Geforce2 Mx400 64M TVO</td><td>\$79</td></tr> <tr><td>Abit Geforce4 Mx440 64M</td><td>\$148</td></tr> <tr><td>Asus V7700TI GF2 64M</td><td>\$179</td></tr> <tr><td>Asus V8200 GF3 64M 3D Glass</td><td>\$418</td></tr> <tr><td>MSI 861 Gef4 Mx440 64M</td><td>\$148</td></tr> <tr><td>MSI 871 Gef4 Ti4400 128Mb</td><td>\$399</td></tr> <tr><td>MSI 863 Gef4 Mx460 64MVIVO</td><td>\$218</td></tr> <tr><td>MSI 872Geforce4Ti4600 128M</td><td>\$518</td></tr> <tr><td>MSI 850 Geforce3Ti 128M DDR</td><td>\$228</td></tr> <tr><td>Gigabyte R7500LE Pro 64m VO</td><td>\$139</td></tr> <tr><td>ATI Radeon 7000 64M</td><td>\$79</td></tr> <tr><td>ATI Radeon 7500 128M Tvout</td><td>\$129</td></tr> <tr><td>ATI Radeon 7500 AIW OEM</td><td>\$248</td></tr> <tr><td>ATI Radeon 7500 AIW Retail</td><td>\$268</td></tr> <tr><td>ATI Radeon 8500 64Mb OEM</td><td>\$238</td></tr> <tr><td>ATI Radeon 8500 /no DV</td><td>\$228</td></tr> <tr><td>ATI Radeon 8500 Retail 64Mb</td><td>\$248</td></tr> <tr><td>ATI Radeon 8500 AllinWonder</td><td>\$399</td></tr> <tr><td>ATI Radeon 8500 AIW 128Mb</td><td>\$528</td></tr> <tr><td>ATI XPERT 2000PRO 32M</td><td>\$58</td></tr> <tr><td>ATI Rage 128 Pro 32MB</td><td>\$43</td></tr> <tr><td colspan="2">Scanners</td></tr> <tr><td>Acer BenQ 4300U</td><td>\$89</td></tr> <tr><td>Mustek 1200CUB</td><td>\$85</td></tr> <tr><td>Mustek BearPaw 1200CU</td><td>\$99</td></tr> <tr><td>Mustek BearPaw 1200TA</td><td>\$155</td></tr> </table>	Oporite 16X12X40	\$68	Aopen 24X10X40 Justlink	\$78	LG 24X10X40 BurnProof	\$78	LG 32X10X40 BurnProof	\$95	LG 40X12X48 Burn Proof	\$105	LITEON 24x10x40	\$78	LITEON 32x10x40	\$95	Mitsumi 24X10X40	\$78	Sony 24x10x40	\$99	Plextor 40X12X48	\$219	Video Cards		TNT2 M64 32M	\$48	Geforce2 MX200 64M	\$65	Geforce2 MX400 64M	\$79	Geforce2 MX400 64M TV-out	\$89	Aopen GF2T200-V64	\$159	Aopen Geforce4 Mx440 64M	\$149	Abit Geforce2 Mx400 64M TVO	\$79	Abit Geforce4 Mx440 64M	\$148	Asus V7700TI GF2 64M	\$179	Asus V8200 GF3 64M 3D Glass	\$418	MSI 861 Gef4 Mx440 64M	\$148	MSI 871 Gef4 Ti4400 128Mb	\$399	MSI 863 Gef4 Mx460 64MVIVO	\$218	MSI 872Geforce4Ti4600 128M	\$518	MSI 850 Geforce3Ti 128M DDR	\$228	Gigabyte R7500LE Pro 64m VO	\$139	ATI Radeon 7000 64M	\$79	ATI Radeon 7500 128M Tvout	\$129	ATI Radeon 7500 AIW OEM	\$248	ATI Radeon 7500 AIW Retail	\$268	ATI Radeon 8500 64Mb OEM	\$238	ATI Radeon 8500 /no DV	\$228	ATI Radeon 8500 Retail 64Mb	\$248	ATI Radeon 8500 AllinWonder	\$399	ATI Radeon 8500 AIW 128Mb	\$528	ATI XPERT 2000PRO 32M	\$58	ATI Rage 128 Pro 32MB	\$43	Scanners		Acer BenQ 4300U	\$89	Mustek 1200CUB	\$85	Mustek BearPaw 1200CU	\$99	Mustek BearPaw 1200TA	\$155	Monitors <table> <tr><td>17" CRT</td><td>\$68</td></tr> <tr><td>Aopen A70E</td><td>\$78</td></tr> <tr><td>Acer AC 701</td><td>\$78</td></tr> <tr><td>NEC As70(Black)</td><td>\$95</td></tr> <tr><td>17" Flat CRT</td><td>\$105</td></tr> <tr><td>Hansol 702ED</td><td>\$78</td></tr> <tr><td>LG 775FT</td><td>\$95</td></tr> <tr><td>LG 777FN</td><td>\$78</td></tr> <tr><td>LG 776FM</td><td>\$99</td></tr> <tr><td>LG 795FT</td><td>\$219</td></tr> <tr><td>LG E700B</td><td>\$219</td></tr> <tr><td colspan="2">Printers</td></tr> <tr><td>Samsung 753DF</td><td>\$239</td></tr> <tr><td>Samsung 755DF</td><td>\$239</td></tr> <tr><td>NEC AS75F</td><td>\$299</td></tr> <tr><td>PHILIPS 107P</td><td>\$265</td></tr> <tr><td>Philips 107T</td><td>\$355</td></tr> <tr><td>19" CRT</td><td>\$239</td></tr> <tr><td>Aopen A90E</td><td>\$318</td></tr> <tr><td>NEC AS90</td><td>\$348</td></tr> <tr><td>Samsung 950B</td><td>\$348</td></tr> <tr><td>Samsung 955DF</td><td>\$398</td></tr> <tr><td>NEC AS95F</td><td>\$399</td></tr> <tr><td>Hansol 920D</td><td>\$389</td></tr> <tr><td>Hitachi CM772</td><td>\$659</td></tr> <tr><td>Hitachi CM721</td><td>\$499</td></tr> <tr><td>Philips 109P AG</td><td>\$578</td></tr> <tr><td>LG 995FT</td><td>\$439</td></tr> <tr><td>LG 915FT+ USB</td><td>\$489</td></tr> <tr><td>15" LCD</td><td>\$538</td></tr> <tr><td>Acer A501</td><td>\$528</td></tr> <tr><td>KDS RAD5X</td><td>\$568</td></tr> <tr><td>Aopen F50LS</td><td>\$588</td></tr> <tr><td>NEC 1550V</td><td>\$588</td></tr> <tr><td>Samsung 151S</td><td>\$575</td></tr> <tr><td>Hansol 530H</td><td>\$548</td></tr> <tr><td>Acer Fp563</td><td>\$589</td></tr> <tr><td>Philips 150S</td><td>\$750</td></tr> <tr><td>Sony M51</td><td>\$980</td></tr> <tr><td>17" LCD</td><td>\$990</td></tr> <tr><td>ACER FP757</td><td>\$999</td></tr> <tr><td>KDS RAD7</td><td>\$1850</td></tr> <tr><td>NEC 1700V</td><td></td></tr> <tr><td>Sony M81 18"</td><td></td></tr> </table>	17" CRT	\$68	Aopen A70E	\$78	Acer AC 701	\$78	NEC As70(Black)	\$95	17" Flat CRT	\$105	Hansol 702ED	\$78	LG 775FT	\$95	LG 777FN	\$78	LG 776FM	\$99	LG 795FT	\$219	LG E700B	\$219	Printers		Samsung 753DF	\$239	Samsung 755DF	\$239	NEC AS75F	\$299	PHILIPS 107P	\$265	Philips 107T	\$355	19" CRT	\$239	Aopen A90E	\$318	NEC AS90	\$348	Samsung 950B	\$348	Samsung 955DF	\$398	NEC AS95F	\$399	Hansol 920D	\$389	Hitachi CM772	\$659	Hitachi CM721	\$499	Philips 109P AG	\$578	LG 995FT	\$439	LG 915FT+ USB	\$489	15" LCD	\$538	Acer A501	\$528	KDS RAD5X	\$568	Aopen F50LS	\$588	NEC 1550V	\$588	Samsung 151S	\$575	Hansol 530H	\$548	Acer Fp563	\$589	Philips 150S	\$750	Sony M51	\$980	17" LCD	\$990	ACER FP757	\$999	KDS RAD7	\$1850	NEC 1700V		Sony M81 18"		CPU Fan <table> <tr><td>Duron Fan</td><td>\$8</td></tr> <tr><td>Thunderbird Fan</td><td>\$12</td></tr> <tr><td>XP Fan (Recommend!!)</td><td>\$22</td></tr> <tr><td>Pentium IV Fan</td><td>\$22</td></tr> <tr><td>Artic Silver II (3gm)</td><td>\$17</td></tr> <tr><td colspan="2">Modem</td></tr> <tr><td>ESS PctTel 56K PCI</td><td>\$18</td></tr> <tr><td>Aopen 56K PCI</td><td>\$25</td></tr> <tr><td>Diamond 56K SSL</td><td>\$22</td></tr> <tr><td>Diamond Supra 56K</td><td>\$38</td></tr> <tr><td colspan="2">Printer</td></tr> <tr><td>Epson C40UX</td><td>\$75</td></tr> <tr><td>Canon S200 (After Rebate)</td><td>\$58</td></tr> <tr><td>Canon S300 (aft. Rebate)</td><td>\$109</td></tr> <tr><td>HP Laserjet 1000</td><td>\$378</td></tr> <tr><td>Lexmark E210 Laser</td><td>\$289</td></tr> <tr><td>Samsung ML-1450</td><td>\$399</td></tr> <tr><td colspan="2">Sound Cards</td></tr> <tr><td>AudioExcel AV512</td><td>\$19</td></tr> <tr><td>Thundering 5.1 SC</td><td>\$25</td></tr> <tr><td>Creative SB Live! Value</td><td>\$52</td></tr> <tr><td>Creative SB Live! 5.1</td><td>\$55</td></tr> <tr><td>Creative SB Audigy oem</td><td>\$99</td></tr> <tr><td>Creative SB Audigy MP3</td><td>\$145</td></tr> <tr><td>Creative SB Live! Plat5.1</td><td>\$299</td></tr> <tr><td colspan="2">Accessories</td></tr> <tr><td>LianLi Mobile Rack</td><td>\$19</td></tr> <tr><td>Headphone + Mic.</td><td>\$15</td></tr> <tr><td>Microphone</td><td>\$10</td></tr> <tr><td>Blank CDR 50 pcs 32X</td><td>\$20</td></tr> <tr><td>250MB Zip Drive</td><td>\$148</td></tr> <tr><td>250MB Zip Disk</td><td>\$25</td></tr> <tr><td>Samsung 1.44 Floppy</td><td>\$17</td></tr> <tr><td>Panasonic 1.44 Floppy</td><td>\$15</td></tr> <tr><td colspan="2">Networking</td></tr> <tr><td>Aopen AON325 10/100</td><td>\$19</td></tr> <tr><td>Dlink 538TX 10/100</td><td>\$19</td></tr> <tr><td>Dlink 530TX 10/100</td><td>\$19</td></tr> <tr><td>SMC 1244TX 10/100</td><td>\$19</td></tr> <tr><td>Asound 10/100</td><td>\$15</td></tr> <tr><td>Linksys 4P Router</td><td>\$128</td></tr> <tr><td>SMC 4P Router</td><td>\$128</td></tr> <tr><td>SMC 8P Router</td><td>\$225</td></tr> </table>	Duron Fan	\$8	Thunderbird Fan	\$12	XP Fan (Recommend!!)	\$22	Pentium IV Fan	\$22	Artic Silver II (3gm)	\$17	Modem		ESS PctTel 56K PCI	\$18	Aopen 56K PCI	\$25	Diamond 56K SSL	\$22	Diamond Supra 56K	\$38	Printer		Epson C40UX	\$75	Canon S200 (After Rebate)	\$58	Canon S300 (aft. Rebate)	\$109	HP Laserjet 1000	\$378	Lexmark E210 Laser	\$289	Samsung ML-1450	\$399	Sound Cards		AudioExcel AV512	\$19	Thundering 5.1 SC	\$25	Creative SB Live! Value	\$52	Creative SB Live! 5.1	\$55	Creative SB Audigy oem	\$99	Creative SB Audigy MP3	\$145	Creative SB Live! Plat5.1	\$299	Accessories		LianLi Mobile Rack	\$19	Headphone + Mic.	\$15	Microphone	\$10	Blank CDR 50 pcs 32X	\$20	250MB Zip Drive	\$148	250MB Zip Disk	\$25	Samsung 1.44 Floppy	\$17	Panasonic 1.44 Floppy	\$15	Networking		Aopen AON325 10/100	\$19	Dlink 538TX 10/100	\$19	Dlink 530TX 10/100	\$19	SMC 1244TX 10/100	\$19	Asound 10/100	\$15	Linksys 4P Router	\$128	SMC 4P Router	\$128	SMC 8P Router	\$225	Notebook Special P4 1.6GA 512K CPU 256MB DDR Ram IBM 20G HD 64M Video Card+TVOut 56K Modem + 10/100M Lan 4X USB + IEEE1394 DVD Rom 15 TFT LCD Panel Upg: 1.8GA +\$60 2.0GA +\$120 Celeron DeskNote Intel Celeron 1.2G CPU 256MB SD Ram IBM 10G HD 64M Video Card 56K Modem + 10/100M Lan DVD Rom 14 TFT LCD Panel Nideo Cam Smallest Digital Cam 64Mb Ram 26 Pics Web Digital Cam \$118 Aopen F50LS 1024x768@75Hz 0.297dpi 350:1 3Yr Warranty \$568 NEC 1550V 1024x768@75Hz 0.297dpi 3Yr Warranty \$588 Samsung 151S 1024x768@75Hz 0.297dpi 3Yr Warranty \$588
ASUS P4T533	1850E S478	\$278																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
P4S533	SIS645DX S478	\$198																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
P4S333	SIS645 S478	\$165																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
P4B533-E	1845E S478	\$295																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
A7M266-D	AMD760MPX SA	\$379																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
A7V333	KI333 SA	\$198																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
ECS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
K7S5A	735S SA	\$89																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
K7S6A	745S SA	\$99																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
K7SEM266	730S SA	\$99																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
K7VTA3	KT266A SA	\$118																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
L4S5M	SIS645 S478	\$128																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
P4S5A	SIS645 S478	\$130																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
P4VXAD DDR	P4X266 S478	\$139																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
GIGABYTE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
GA-8ITX-E	1850 S478	\$222																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
GA-8IRX	1845 S478	\$212																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
GA-7VRX	KI 333 SA	\$158																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
GA-7VRXP Raid	KI 333 SA	\$188																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
GA-7VTXP	KI 266A SA	\$138																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
MICROSTAR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
1845E Max2	1845E S478	\$228																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
1845G Max	1845G S478	\$198																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
KT 3 Ultra	KT 333 SA	\$178																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
745 Ultra	SIS745 SA	\$168																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
850PRO5	1850 S478	\$218																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
845ULTRA-R	1845 S478	\$168																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
845ULTRA-RU	1845 S478	\$218																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
645ULTRA	SIS645 S478	\$118																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
K7T266PRO-2	KT266A SA	\$138																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
K7T266PRO-2 R	KT266A SA	\$168																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
PCCHIPS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
M930LR	SIS645 478	\$108																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
M935LR	SIS650 478	\$110																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
M841LR	SIS740 SA	\$109																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
M810LMR	SIS730 SA	\$99																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
M754LMR	ALI S370	\$92																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
787CLR	VIA C3 1G Pro	\$125																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Shuttle																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
AK35GT	KI333 SA	\$149																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
AV45GT	P4X266A S478	\$138																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
AK31A	KT266A SA	\$128																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
AV40A	P4X266 S478	\$128																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
D845BGL	1845 S478	\$238																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
D850EMV2	1850 S478	\$278																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Abit																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
ATT-E	KT 333 SA	\$199																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
KX7-333	KT 333 SA	\$158																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
KR7A-Raid	KT 266A SA	\$135																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
BD7II	P4/S478	\$188																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
BD7M	1845 S478	\$139																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
VIA	DDR S478	\$108																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
P4MA-L	DDR S478	\$148																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
P4PA-UL	DDR S478	\$96																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
P4XB-SA	DDR S478	\$96																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Hard Drives																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
5400 RPM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Maxtor 20 / 40	\$90 / \$95																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
60 / 80	\$118 / \$148																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Western Digital																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
20 / 40 / 60	\$92 / \$97/\$120																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
80/120/160	\$150/229/339																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
7200 RPM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Maxtor 20 / 40	\$95 / \$99																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
60 / 80	\$129 / \$158																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Seagate																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
20 / 40	\$95 / \$99																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
60 / 80	\$129 / \$158																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
WD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
20 / 40	\$97 / \$101																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
60 / 80 / 100	\$131 / \$161/ \$268																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ROM Drives																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
CDROM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
AOpen 52X / 56X	\$36 / \$46																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Sony 52X	\$45																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Future Power 52X	\$44																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LG 52X	\$39																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
DVD-ROM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
AOPEN 16X	\$65																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LITEON 16x	\$66																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LG 16x	\$68																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Samsung 16x	\$68																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Sony 16X	\$78																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Toshiba 16X	\$78																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
DVD-Software	\$13																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Oporite 16X12X40	\$68																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Aopen 24X10X40 Justlink	\$78																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LG 24X10X40 BurnProof	\$78																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LG 32X10X40 BurnProof	\$95																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LG 40X12X48 Burn Proof	\$105																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LITEON 24x10x40	\$78																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LITEON 32x10x40	\$95																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Mitsumi 24X10X40	\$78																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Sony 24x10x40	\$99																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Plextor 40X12X48	\$219																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Video Cards																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
TNT2 M64 32M	\$48																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Geforce2 MX200 64M	\$65																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Geforce2 MX400 64M	\$79																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Geforce2 MX400 64M TV-out	\$89																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Aopen GF2T200-V64	\$159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Aopen Geforce4 Mx440 64M	\$149																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Abit Geforce2 Mx400 64M TVO	\$79																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Abit Geforce4 Mx440 64M	\$148																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Asus V7700TI GF2 64M	\$179																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Asus V8200 GF3 64M 3D Glass	\$418																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
MSI 861 Gef4 Mx440 64M	\$148																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
MSI 871 Gef4 Ti4400 128Mb	\$399																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
MSI 863 Gef4 Mx460 64MVIVO	\$218																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
MSI 872Geforce4Ti4600 128M	\$518																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
MSI 850 Geforce3Ti 128M DDR	\$228																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Gigabyte R7500LE Pro 64m VO	\$139																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ATI Radeon 7000 64M	\$79																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ATI Radeon 7500 128M Tvout	\$129																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ATI Radeon 7500 AIW OEM	\$248																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ATI Radeon 7500 AIW Retail	\$268																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ATI Radeon 8500 64Mb OEM	\$238																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ATI Radeon 8500 /no DV	\$228																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ATI Radeon 8500 Retail 64Mb	\$248																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ATI Radeon 8500 AllinWonder	\$399																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ATI Radeon 8500 AIW 128Mb	\$528																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ATI XPERT 2000PRO 32M	\$58																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ATI Rage 128 Pro 32MB	\$43																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Scanners																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Acer BenQ 4300U	\$89																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Mustek 1200CUB	\$85																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Mustek BearPaw 1200CU	\$99																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Mustek BearPaw 1200TA	\$155																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
17" CRT	\$68																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Aopen A70E	\$78																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Acer AC 701	\$78																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
NEC As70(Black)	\$95																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
17" Flat CRT	\$105																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Hansol 702ED	\$78																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LG 775FT	\$95																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LG 777FN	\$78																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LG 776FM	\$99																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LG 795FT	\$219																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LG E700B	\$219																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Printers																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Samsung 753DF	\$239																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Samsung 755DF	\$239																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
NEC AS75F	\$299																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
PHILIPS 107P	\$265																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Philips 107T	\$355																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
19" CRT	\$239																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Aopen A90E	\$318																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
NEC AS90	\$348																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Samsung 950B	\$348																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Samsung 955DF	\$398																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
NEC AS95F	\$399																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Hansol 920D	\$389																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Hitachi CM772	\$659																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Hitachi CM721	\$499																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Philips 109P AG	\$578																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LG 995FT	\$439																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
LG 915FT+ USB	\$489																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
15" LCD	\$538																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Acer A501	\$528																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
KDS RAD5X	\$568																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Aopen F50LS	\$588																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
NEC 1550V	\$588																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Samsung 151S	\$575																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Hansol 530H	\$548																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Acer Fp563	\$589																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Philips 150S	\$750																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Sony M51	\$980																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
17" LCD	\$990																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ACER FP757	\$999																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
KDS RAD7	\$1850																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
NEC 1700V																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Sony M81 18"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Duron Fan	\$8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Thunderbird Fan	\$12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
XP Fan (Recommend!!)	\$22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Pentium IV Fan	\$22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Artic Silver II (3gm)	\$17																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Modem																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
ESS PctTel 56K PCI	\$18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Aopen 56K PCI	\$25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Diamond 56K SSL	\$22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Diamond Supra 56K	\$38																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Printer																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Epson C40UX	\$75																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Canon S200 (After Rebate)	\$58																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Canon S300 (aft. Rebate)	\$109																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
HP Laserjet 1000	\$378																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Lexmark E210 Laser	\$289																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Samsung ML-1450	\$399																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Sound Cards																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
AudioExcel AV512	\$19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Thundering 5.1 SC	\$25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Creative SB Live! Value	\$52																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Creative SB Live! 5.1	\$55																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Creative SB Audigy oem	\$99																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Creative SB Audigy MP3	\$145																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Creative SB Live! Plat5.1	\$299																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Accessories																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
LianLi Mobile Rack	\$19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Headphone + Mic.	\$15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Microphone	\$10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Blank CDR 50 pcs 32X	\$20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
250MB Zip Drive	\$148																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
250MB Zip Disk	\$25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Samsung 1.44 Floppy	\$17																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Panasonic 1.44 Floppy	\$15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Networking																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Aopen AON325 10/100	\$19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Dlink 538TX 10/100	\$19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Dlink 530TX 10/100	\$19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
SMC 1244TX 10/100	\$19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Asound 10/100	\$15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Linksys 4P Router	\$128																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
SMC 4P Router	\$128																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
SMC 8P Router	\$225																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

All Prices subject to change without notice. Please contact us for the latest prices. All systems have 1 yr parts and 3yr labour warranty.

Sony MD offers alternative to MP3

By Emru Townsend

It was 10 years ago that Sony launched the 7 cm magneto-optical MiniDisc (MD) format in Japan. In 1994, there were three brand-new MD products on the North American market: a portable music player/recorder, the MD Electronic Book, and the small MD Data removable media drive, all of which sold for around \$800 each.

Sony Net MD Walkman MZ-S1

From: Sony, www.sony.ca

Requirements: Windows 98/2000/Me/XP

Street price: \$329

Much as I liked the idea of e-books, I thought the MD unit had too small a screen, and I didn't like the ATRAC 5:1 compressed audio on the MiniDisc recorder/player. My thought was that if any of these products would survive, it would be the MD Data drive, once the price went down.

However, neither the MD Data drive or the MD e-book survived the year. But a curious thing happened with the MiniDisc as an audio format: the com-

pression technology improved, or maybe we just got used to hearing compressed audio by way of a little something called MP3. Either way, the result is that the MiniDisc audio format has been quietly gaining in popularity, as it combines the best aspects of CDs (durability, random access) and MP3 players (rewritability, selective track deletion, small player, and media size) while adding a few of its own (track split/combination functions, permanent track reordering). Best of all, the media is stunningly cheap: a blank 80-minute MD can be had for as little as \$3, compared to \$55 for the 64 MB SmartMedia card required to hold a little over an hour's worth of decent audio in many solid state MP3 players.

MD recorders only suffered from one long-standing problem: while you could record from any audio source using an optical cable or a standard audio connection, you had to do so in real-time. That was just so, well, analogue.

Sony's solution is Net MD, a method whereby audio is downloaded from a PC to a disc through a USB cable. Unlike an MP3 player, the actual file isn't trans-

ferred; the audio is encoded on the MD like any other recording. The upshot is still the same, though: rather than waiting over an hour to transfer Massive Attack's *Mezzanine*, I can get it done in 37 minutes. That's not as fast as transferring to an MP3 player—thank the MD's slower write speed and the need to convert to ATRAC first—but it's definitely an improvement.

Recording in one of the two available MiniDisc long-play (MDLP) modes drops the total convert/record time down to just under 11 minutes, though some audio quality is sacrificed.

Sorry, let me back up a little here: MDs can be recorded in one of three speeds: standard play (SP) and two long-play modes, LP2 and LP4 (not all MD players recognize the LP modes; trying to play an LP track on a non-MDLP unit just gives you silence). SP, LP2, and LP4 are 132Kbps, 105Kbps, and 66Kbps respectively, though those values aren't really analogous to MP3 as they use a different algorithm.

The particular MiniDisc player/recorder model that I received



was the MD Walkman MS-Z1, Sony's first sports model. Naturally, it has the usual sports-Walkman waterproof coverings and anti-skip protection. But in terms of audio transfer functions, there's no difference between the MS-Z1 and the other MiniDisc players that use Net MD or MDLP. (Other models include the MZN707 at \$399 and MZN1 at \$599.)

The Sony models use two pieces of bundled software for audio transfer: OpenMG Jukebox 2.2 and Net MD

Continued on page 88

Computers, Electronics, Housewares and Hardwares Auction!

Start Bid \$1 - Save up to 70% off Retail

Auction4it.com

Yamaha CD-RW Kit
24x10x40 IDE/SCSI/FireWire
Internal/External
Start Bid \$1

Networking/Modem

8Port 10/100Mbps Switching Hub \$1
Linksys 10/100 USB EtherFast \$1
Motorola 56K PCI FaxModem \$1

Mass Storage

Firewire + USB External HDD \$1
Maxtor 20GB 7200RPM 2MB \$1
Maxtor 60GB 7200RPM 2MB \$1
USB 3264Mb Keychain Drive \$1

Video/Audio Cards/Printers

AOpen 6 Channel PCI Sound Card \$1
ATI Xpert 2000 32MB AGP Video Card \$1
Creative Live 5.1 PCI/AWE64 ISA \$1
EPSON C40UX USB Color Printer \$1
GeForce2 MX400 64MB 128bit w/TV \$1

Electronics

Cobra FRS220 microTALK Radios w/14 Ch and 38 Sub Ch \$1
ConairPhone Digital Tapeless Answering System \$1
Earphones with Microphone for Nokia Phone \$1
OSI Cable Free Thermometer w/Clock and Cable Free Sensor \$1
Panasonic Shockwave CD Player w/Anti-Shock + S-XBS \$1
Panasonic SL-S262 Portable CD Player w/40 Sec Anti-Shock \$1
Pine Portable MP3/CD Player SM300T \$1
Pine Portable Mp3 w/FM Radio+Voice Recording 32MB \$1
Samsung DVD / VCD / MP3 Player DVD-S221 \$1
Toshiba 4 Head HiFi VCR w/181 Ch Ready + Remote Control \$1
TIMEX 22153 TMX Watch w/Mystery Answer Function \$1
Uniden 2.4GHz Cordless w/Answering System + CallerID \$1
Uniden 900MHz Cordless with Call Waiting Caller ID EX17960 \$1
Uniden 900MHz DigitalSpreadSpectrum 2-Line/Speakersphone \$1
Xerox Color All-in-One Fax, Copier, Printer, and Scanner \$1

\$1

Upgrades/Accessories

4-Port USB Mini Hub \$1
ATX P4 300W MidTower ProCase \$1
ASUS/ECS/MSI Motherboard \$1
IBM Firewire PCMCIA/PCI Card \$1
Logitech Quickcam Web + Mic \$1
Logitech Cordless Desktop/Mice \$1

Multi Media/Media

42-bit USB Flatbed Scanner \$1
Artec 16X IDE Internal DVD-ROM \$1
CD-R 80Min 700MB 100 Packs 32X \$1
Creative Labs Inspire 5.1 System \$1
Opt 40x12x40 CDRW Drive+Software \$1
Yamaha MS201 3Pcs Sound System \$1

Housewares/Hardwares

3 Piece Wheeled Luggage \$1
AudioLogic AM/FM Digital Clock Radio \$1
Moulinex CH7 Maxichef Toaster Oven w/Non-stick Interior \$1
Philips Deluxe Wafflemaker HL5360 \$1
Philips Philipsave Cordless Beard Trimmer HQT360 \$1
Philips Philipsave Double Action Rechargeable Shaver \$1
Philips Philipsave Hair Trimmer \$1
Philips Ladyshave HP2710 \$1
Philips Toaster Oven HL5390 \$1
Philips Twister HR1730 \$1
Proctor Silex 4 Slice Bagel Smart Toaster \$1
T-FAL Ingenio 15 pcs Space Saving + Versatile Cookware \$1
T-FAL Ultraglide Turbo Iron w/Durilium Soleplate \$1
Wagner 3/8" Variable Speed Cordless 9.6V Drill/Driver Kit \$1

Visit us @ <http://www.Auction4it.com>

Check Online for New Stock Listings - Open 24h 7 Days
New End of Line Factory Refurbished Products Arriving Daily!
New & Refurbished products backed by minimum 30-day warranty!

Email: sales@auction4it.com
Toll Free: 1-877-808-8352
Fax: 416-754-4284



Compaq 17" 0.25mm Trinitron
Compaq 21" USB Trinitron
Dell 19" 0.25mm Trinitron
Dell 21" Flat Screen Trinitron
Sony 17" 200PS 0.25mm
Start Bid \$1



Save up to 70% off
Inkjet/Toner Cartridges for
Canon/Epson/HP/Lexmark
Panafax/Pitney Bowes/Xerox



Yamaha CD-RW Kit
24x10x40 IDE/SCSI/FireWire
Internal/External
Start Bid \$1

Auction4it.com



Intel P4 2.0GHz 256MB/40GB/DVD/LAN/Snd
Intel P4 1.8GHz 256MB/20GB/CDRW/LAN/Snd
AMD XP 1700MHz 128MB/20GB/CDRW/LAN/Snd
AMD Althon 1.4GHz 128MB/20GB/DVD/LAN
Start Bid \$1



Samsung DVD/VCD/MP3
Plays CD-R/CD-RW + 5.1 Ch
Start Bid \$1



Sunbeam Twin Unit
Rotisserie Oven
Start Bid \$1



MP3/CD/VCD Portable
Player w/Remote + NiMH
Support CDR + CDRW
Start Bid \$1



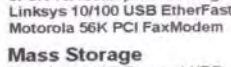
Sunbeam/Oster
2lb Express Bake
Breadmaker
Start Bid \$1



LG 52x CD-ROM
LG 16x DVD-ROM
LG 32x10x40 CD-RW
Start Bid \$1



Polaroid P500 Portable
Digital Photo Printer
Compact Flash+Smart Media
Start Bid \$1



Firewire + USB External HDD \$1
Maxtor 20GB 7200RPM 2MB \$1
Maxtor 60GB 7200RPM 2MB \$1
USB 3264Mb Keychain Drive \$1

Networking/Modem

8Port 10/100Mbps Switching Hub \$1
Linksys 10/100 USB EtherFast \$1
Motorola 56K PCI FaxModem \$1



ECS 14.1" TFT/VIA 1GPro/128M
10G/CD/LAN/56K/TV
Dell PII266/13.3" TFT/128M/4G/CD
Start Bid \$1



Uniden 2.4GHz DSS Digital
Answering System & Call
Waiting/Caller ID/Spk Ph.
Start Bid \$1



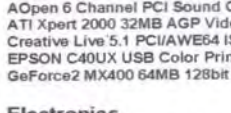
Hamilton Beach
Meal Maker Express
Indoor Electric Grill
Start Bid \$1



Intel Pocket PC
Digital Camera + Webcam
8MB USB
Start Bid \$1



Yamaha 6 Pcs DSS
Dolby 5.1 Surround System
Start Bid \$1



AOpen 6 Channel PCI Sound Card \$1
ATI Xpert 2000 32MB AGP Video Card \$1
Creative Live 5.1 PCI/AWE64 ISA \$1
EPSON C40UX USB Color Printer \$1
GeForce2 MX400 64MB 128bit w/TV \$1

Electronics

Cobra FRS220 microTALK Radios w/14 Ch and 38 Sub Ch \$1
ConairPhone Digital Tapeless Answering System \$1
Earphones with Microphone for Nokia Phone \$1
OSI Cable Free Thermometer w/Clock and Cable Free Sensor \$1
Panasonic Shockwave CD Player w/Anti-Shock + S-XBS \$1
Panasonic SL-S262 Portable CD Player w/40 Sec Anti-Shock \$1
Pine Portable MP3/CD Player SM300T \$1
Pine Portable Mp3 w/FM Radio+Voice Recording 32MB \$1
Samsung DVD / VCD / MP3 Player DVD-S221 \$1
Toshiba 4 Head HiFi VCR w/181 Ch Ready + Remote Control \$1
TIMEX 22153 TMX Watch w/Mystery Answer Function \$1
Uniden 2.4GHz Cordless w/Answering System + CallerID \$1
Uniden 900MHz Cordless with Call Waiting Caller ID EX17960 \$1
Uniden 900MHz DigitalSpreadSpectrum 2-Line/Speakersphone \$1
Xerox Color All-in-One Fax, Copier, Printer, and Scanner \$1

Housewares/Hardwares

3 Piece Wheeled Luggage \$1
AudioLogic AM/FM Digital Clock Radio \$1
Moulinex CH7 Maxichef Toaster Oven w/Non-stick Interior \$1
Philips Deluxe Wafflemaker HL5360 \$1
Philips Philipsave Cordless Beard Trimmer HQT360 \$1
Philips Philipsave Double Action Rechargeable Shaver \$1
Philips Philipsave Hair Trimmer \$1
Philips Ladyshave HP2710 \$1
Philips Toaster Oven HL5390 \$1
Philips Twister HR1730 \$1
Proctor Silex 4 Slice Bagel Smart Toaster \$1
T-FAL Ingenio 15 pcs Space Saving + Versatile Cookware \$1
T-FAL Ultraglide Turbo Iron w/Durilium Soleplate \$1
Wagner 3/8" Variable Speed Cordless 9.6V Drill/Driver Kit \$1



Cobra Microtalk2
2-way FRS Radio
w/14 Ch + 38 Sub-Ch
Start Bid \$1



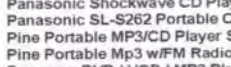
Yamaha 4 Pad
Digital Drum System
DD-20 (New)
Start Bid \$1



Canon BJC-80 Color
Portable Bubble Jet
Start Bid \$1



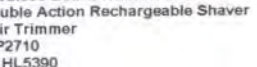
M787CLR VIA 1GigaPro
LAN/Sound/Video board
Start Bid \$1



Firewire + USB External HDD \$1
Maxtor 20GB 7200RPM 2MB \$1
Maxtor 60GB 7200RPM 2MB \$1
USB 3264Mb Keychain Drive \$1

Upgrades/Accessories

4-Port USB Mini Hub \$1
ATX P4 300W MidTower ProCase \$1
ASUS/ECS/MSI Motherboard \$1
IBM Firewire PCMCIA/PCI Card \$1
Logitech Quickcam Web + Mic \$1
Logitech Cordless Desktop/Mice \$1



ECS 14.1" TFT/VIA 1GPro/128M
10G/CD/LAN/56K/TV
Dell PII266/13.3" TFT/128M/4G/CD
Start Bid \$1



TIMEX Ironman Triathlon
Watch w/Data Link
Start Bid \$1



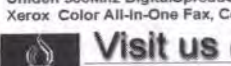
Yamaha 49-Key
Portatone Electronic
Full Size Keys Keyboard
Start Bid \$1



CD-R/CDRW 80Min 700MB
50 Packs Spindle 4-32X Speed
Start Bid \$1



USB 2.5" External Portable
HDD Enclosure
Start Bid \$1



Firewire + USB External HDD \$1
Maxtor 20GB 7200RPM 2MB \$1
Maxtor 60GB 7200RPM 2MB \$1
USB 3264Mb Keychain Drive \$1

Upgrades/Accessories

4-Port USB Mini Hub \$1
ATX P4 300W MidTower ProCase \$1
ASUS/ECS/MSI Motherboard \$1
IBM Firewire PCMCIA/PCI Card \$1
Logitech Quickcam Web + Mic \$1
Logitech Cordless Desktop/Mice \$1



ECS 14.1" TFT/VIA 1GPro/128M
10G/CD/LAN/56K/TV
Dell PII266/13.3" TFT/128M/4G/CD
Start Bid \$1



Polaroid OneStep Express
Instant Camera w/Flash
Start Bid \$1



3-Piece Luggage Bag
On Wheels
Start Bid \$1

Quality products at lowest wholesale prices

The CANADIAN Computer Store

Surf: <http://www.cancomputer.com/> for latest products & prices

Linux Mandrake OS with KOffice Suite available for system packages: add \$29.00 only for installation

***** The Legend lives on ***** The Legend lives on ***** The Legend lives on ***** The Legend lives on ***** The Legend lives on ***** The Legend lives on ***** The Legend lives on *****

Gigapro System	Elite System	XP System	Power WorkStation	Palomino System	Professional System
VIA Gigapro CPU	AMD XP 1600+ CPU	Athlon XP CPU 1800+	Intel Pentium4 1.8GHz CPU	Athlon XP CPU 2000+	Intel Pentium4 2.0GHz CPU
VIA VT133 Motherboard	ECS SEM(266) Motherboard	ECS K7VTA3 Motherboard	ECS L4S5M P4 Motherboard	MSI KT3 Ultra Motherboard	MSI 6547E Max-E motherboard
128MB (PC133) RAM	256MB PC133 RAM	256MB DDR266 RAM	256MB DDR266 RAM	256MB DDR333 RAM	256MB DDR333 RAM
3D Video onboard	3D Video onboard 32MB shared	GeForce2 MX400 64M Video	ATI Radeon 7500(OEM) 64M Video	MSI GeForce4 MX440 64M TV	MSI GF4 Ti4200 128M Video
Maxtor 40G(5400)Hard Drive	IBM 40G(7200)Hard Drive	Maxtor 40GB(7200)Hard drive	Maxtor 40G(7200)Hard drive	Maxtor 60GB(7200)Hard drive	Maxtor 60G(7200)Hard drive
Panasonic Floppy Drive	Panasonic Floppy Drive	Panasonic Floppy Drive	Panasonic Floppy Drive	Panasonic Floppy Drive	Panasonic Floppy Drive
10/100 network onboard	10/100 network onboard	10/100 network onboard	10/100 Ethernet onboard	LiteOn 16x DVD	Sony 16x DVD
56K modem	AOpen 52x CD Drive	AOpen 52x CD Drive	AOpen 52x CD Drive	6-channel Audio onboard	SB Live 5.1 Sound Card
AOpen 48x CD Drive	3D AC97 Audio onboard	3D AC97 Audio onboard	3D AC97 Audio onboard	Altec Lancing AVS300 speakers	Altec Lancing AVS500 speakers
3D Audio, Speakers 180W	3D Speakers 180W	3D Speakers 180W	3D Speakers 180W	Alpha 17" Case(w/front USB)	Alpha 17" Case(w/front USB)
Alpha 17" Case 300W	Alpha 17" Case 300W	Alpha 17" ATX Case 300W	Alpha 17" P4 Case 300W	Internet Keyboard	Logitech/MS Internet Keyboard
Keyboard & Mouse	Keyboard & Scroll Mouse	Internet Keyboard, Scroll Mouse	Internet Keyboard, Scroll Mouse	Optical Scroll Mouse	Logitech Optical Mouse
\$348.00	\$468.00	\$558.00	\$678.00	\$878.00	\$1238.00

System Upgrades:

128MB SDRAM -> 256MB SDRAM	\$31	20G(5400) -> 40G(7200rpm) hard drive	\$10
256MB DDR266 Ram -> 512MB(256x2)	\$68	40G(7200) -> 60G(7200rpm) hard drive	\$37

System Options:

Add: 56K Faxmodem	\$19	LG 24x10x40 CDRW (w/SW)	\$68
Realtek Ethernet card	\$12	Linux Mandrake OS & Office	\$29(installation)

***** The Legend lives on ***** The Legend lives on ***** The Legend lives on ***** The Legend lives on ***** The Legend lives on ***** The Legend lives on ***** The Legend lives on *****

HARD DRIVE Specials

Maxtor 40GB(7200rpm)	\$98
IBM 80GB(7200rpm)	\$139

Video Card Specials

ATI(OEM) Radeon7500 128M Dual	125
MSI GF4 64M MX440+TV	123

MONITORS Specials

17" AOC 7F 0.25dp Flat screen	\$208
17" Impression FST 0.27dp	\$178

DVD/CDRW Specials

LiteOn 16x DVD w/Software	\$55
LG 24x10x40 CDRW w/Software	\$68

HARD DRIVE & Storage Drive

IBM 40/60/80/120G(7200rpm)	98/135/139/239
Maxtor(5400rpm)20/40/120/160G	87/95/239/379
Maxtor(7200rpm) 40/60/80G	98/135/158
Seagate Barracuda (7200rpm) 20/40G	93/105
USB Handy drive 64M/128/256M	69/135/225

Controller Cards

ATA100 IDE RAID Card, Tekram/Promise	45/119
ATA133 IDE Card, Promise	69
ATA133 IDE RAID Card SiliconImage	55
ATA133 IDE RAID Card Promise	139
Firewire: ATI/Aver/DLink/Tekram	75/69/69/45
SCSI Adaptor TecRam 395U/395UW	56/76
PCI USB Adaptor Ver1.1/Ver2.0	19/39

VIDEO Card

Abit GeForce4 MX440 64MB TV	129
Aopen GeForce4 MX420/440/460	99/129/189
Aopen GeForce4 Ti4200 VIVO	275
Asus V7100 2V1D	135
Asus V8460 GeForce4 128MB Pure/Deluxe	559/599
ATI All-in-wonder Radeon7500 64M(OEM)	259
ATI All-in-wonder Radeon8500 128M(Retail)	479
ATI Radeon 8500 128M(Retail)	285
ATI (OEM) Rage128 Pro 32M	42
ATI (OEM) Radeon7000 64M SDR Dual head	63
ATI (OEM) Radeon7000 64M DDR Dual, DVI	79
ATI(OEM) Radeon7500 128M DDR Dual, DVI	125
Forsa GF2 MX400 64M/64M+TV	56/68
Forsa GF4 64M DDR+TV MX420/MX440	89/109
Leadtek GF4 Ti4200/4400/4600	259/425/525
MSI GeForce3 Ti200 128M DDR VIVO	208
MSI GeForce4 64M MX440+TV/MX460+VIVO	123/159
MSI GeForce4 Ti 4200/4400 128M	289/375
PCI: ATI Xpert128 16M/TNT2 32M	73/65

WebCam & TV Adaptor

Logitech QuickCam Express	39
Creative WebCam Plus	79
ATI TV Wonder PCI/USB edition	95/125
TV Tuner with remote PCI/USB	73/99

FAX/MODEMS

56K FaxModem	18
Acer 56K FaxModem SV/PLM	21/36
Hardware FaxModem: SmartLink/USR	59/79
External FaxModem AOpen(hardware)	99

CPU

(Below are Retail CPUs with Heatsink/fan)	
Intel P4 1.6/1.8/2.0/2.2/2.4G	219/259/299/385/589
Intel P4(533FSB) 2.26/2.4/2.53G	385/619/999
Intel PIII 850E/1.2G	209/215
Celeron 1.1/1.2/1.3G	99/109/119
AMD Duron 950/1.1/1.2/1.3G	66/89/99/109
XP 1800/1900/2000/2100	165/215/265/315
(Below are OEM CPUs, Heatsink/fan extra)	
AMD Duron 1.0/1.1/1.2/1.3G	66/79/89/105
AMD TB 950/1.1/1.33/1.4G	85/109/109/139
XP 1600/1800/1900	109/149/195

MEMORY

DDR(266) 256/512M(OEM)	77/145
DDR(266)128/256/512M(NameBrand)	41/79/155
DDR(333) 256/512M	95/185
SDRAM(100)128/256(NameBrand)	42/75
SDRAM(133)128/256/512M(OEM)	37/68/129
SDRAM(133)128/256/512M(NameBrand)	39/75/149
Rambus(800MHz) 128/256M	79/149

NETWORKING

Ethernet card: Intel8460C/DLink538	42/18
Ethernet card: AOpen/Surecom	14/11
PCMCIA Ethernet: Surecom 10/100M 16bit/32bit	45/35
PCMCIA Ethernet: DLink 10/100M 16bit/32bit	49/59
Hub: Surecom 10M 5 ports/8 ports	25/35
Switch: Surecom 5ports/8 ports	39/52
Switch: DLink 5ports/8ports	65/89
Printer Server DLink 301P	89
Router 4port: DLink/USR	109/109
Ethernet cable 6/25/50/100/1000'	5/9/12/19/65

Keyboard/Mouse

Keyboard: Win98/Internet/Multimedia	8/11/16
Keyboard: Fujitsu PS2/LiteOn Internet USB	17/17
Keyboard: MS Natural/Internet/Pro	38/26/49
Keyboard: Logitech Internet/Chinese	24/28
Keyboard: French/Japanese/Korean	19/19/19
Mouse: 2 button/Scroll/Optical/4D Optical	5/7/15/18
Mouse: Trackball/Finger	26/23
Logitech Mouse: scroll/Optical	12/22
M.S. Optical Mouse: Wheel/IntelliMouse	32/45
Wireless Mouse: A4 Scroll/Optical Rechargeable	18/49
Wireless Logitech Mouse: Mechanical/Optical	27/75
Cordless Keyboard & Mouse: AOpen/Wisotech	56/53
Cordless Keyboard & Mouse: Logitech/M.S.	75/75
Cordless Optical Mouse & Keyboard: Logitech	125

MOTHERBOARDS

Abit KX7-133/KX7-133Raid for XP	159/185
Abit AT7E/AT7Max for XP	209/249
ASUS P4B533/P4S533 for P4	225/169
ASUS P4T533 w/Lan for P4	259
ASUS A7V333/A7S333 for XP	185/108
ECS K7S5A/K7SEM for XP	86/86
ECS L4S5M/L4S5MG for P4	93/109
ECS P6STMT for P3 w/video, audio, Lan	93
Epos 8K3A/8K3A+RAID for XP	139/195
Gigabyte 8IR533/8IEX/8IEXP	129/175/229
Gigabyte 7VTXE+/7VTXH+/7VRX	129/149/138
Gigapro with CPU, video, sound, Lan, modem	115
Matsonic 1810e Slot/Socket CPU, video & audio	89
MSI KT3 Ultra/KT3 Ultra-ARU	126/185
MSI SiS64SDX Max-E for P4	139
Shuttle AV18ET for P3 w/audio	89
Shuttle MV42N for P4 w/video, audio, LAN	98
VIA P4PA/P4PB for Pentium IV	139/169

MONITORS

LCD Acer 15"/BenQ 17" Speaker, USB	529/879
LCD NEC1550V 15"	569
LCD Samsung 151S 15"/171S 17"	579/938
17" AOC/Envision/Impression	183/183/178
17" Hansol 720ED Flat 0.25dp	217
17" AOC 7F Flat 0.25dp	208
17" LG F700B/795FT	275/335
17" NEC AS70/AS75F	213/235
17" Samsung 753DF/700NF	229/339
19" AOC 9Gtr/9Klr 0.25dp	289/349
19" LG 995FT/915FT	415/475
19" NEC AS95F	379
19" Samsung 950B/955DF	315/389

Inkjet Printers

Canon S200	69(after \$30 rebate)
Canon S300	89(after \$20 rebate)
Epson C40/C60/C80	67/119/225
Lexmark Z25/Z35/Z45 All after \$30 rebate:	49/89/125

Laser Printers

Brother HL1230	328
Lexmark E210	285
Samsung ML1250/ML1450	329/449

Scanner

Acer4300/5000U/5300U	73/99/115
Epson 1250/1650P/2450P	145/299/575

CD-ROM

56x AcerBenQ/54x Mitsumi	36/35
52x Sony/LG/Aopen	39/35/34
CDRW with Software: -	
Aopen 24x10x40/32x12x48	68/83
Liteon 32x12x48/40x12x48	83/95
LG 24x10x40/32x10x40	69/88
Plexor 40x12x40/Yamaha 24x10x40	199/139
DVD/CDRW Combo LG 4120B	99
DVD 16x LG/Pioneer/Sony/Toshiba	59/69/67/69
DVD 16x AOpen/LiteOn	55/55
DVD-RW Pioneer DVR-A04SPK	529

Sound

16bit sound card/AOpen AW840	15/18
SB Live5.1	48
SB Audigy(OEM)/MP3/XGamer	96/137/137

Speakers:

Tsunami 180W Stereo	7
Altec Lancing AVS300/500/ATP3	45/63/83
Creative FPS1000/Inspire2.1/Inspire5.1	65/57/133
Juster Silver LED with Wood Sub	55
AOpen 805/810/900 5.1/Titanium GT	28/48/119/88
Telex Microphone/Stereo Headphone	7/14
Dynamic Headphone XBase-vibration	26

Floppy/Reader/USB Hubs

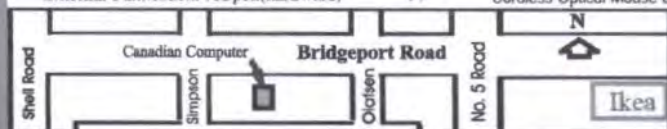
1.44MB Floppy Drive/Zip Drive 250MB	15/125
USB Multi-Slot Card Reader	79
USB 4Port Hub bus-powered/external powered	17/24

CASES/Power Supply

4" Booksize case for P3 & P4 Beige/Black	66/78
ATX Tower 15" 250W/17"300W	30/32
ATX Tower for P4: 17"/19"/24"/27"	33/69/99/199
ATX Tower for P4 17" w/front USB	38
Aluminum Case 17"/18"	105/169
with USB, Firewire, audio ports(PS extra)	
19" Rackmount Case 4U (PS extra)	169
Power Supply for P3: 250/300W	30/35
Power Supply for P4:300/400/450W	36/75/99
Enermax PS 301P-VE/365P-VE(FMA)	52/75

Accessories

External CD Hard Drive kit Parallel/USB	99/129
H.D.mobile rack ATA133 1 fan/3 fan	17/25
KVM Intelligent Switch Box 2/4 ways	69/135
Push-button Switch Box(w/cables) 2/4 ways	59/99
CDR48x(50pc)/CDRW(10pc)	22/15
DVD-R(5pc)/ZipDisk	36/14.9
CPU Fan: DP5-6131C/CoolJag352A	13.5/18.9

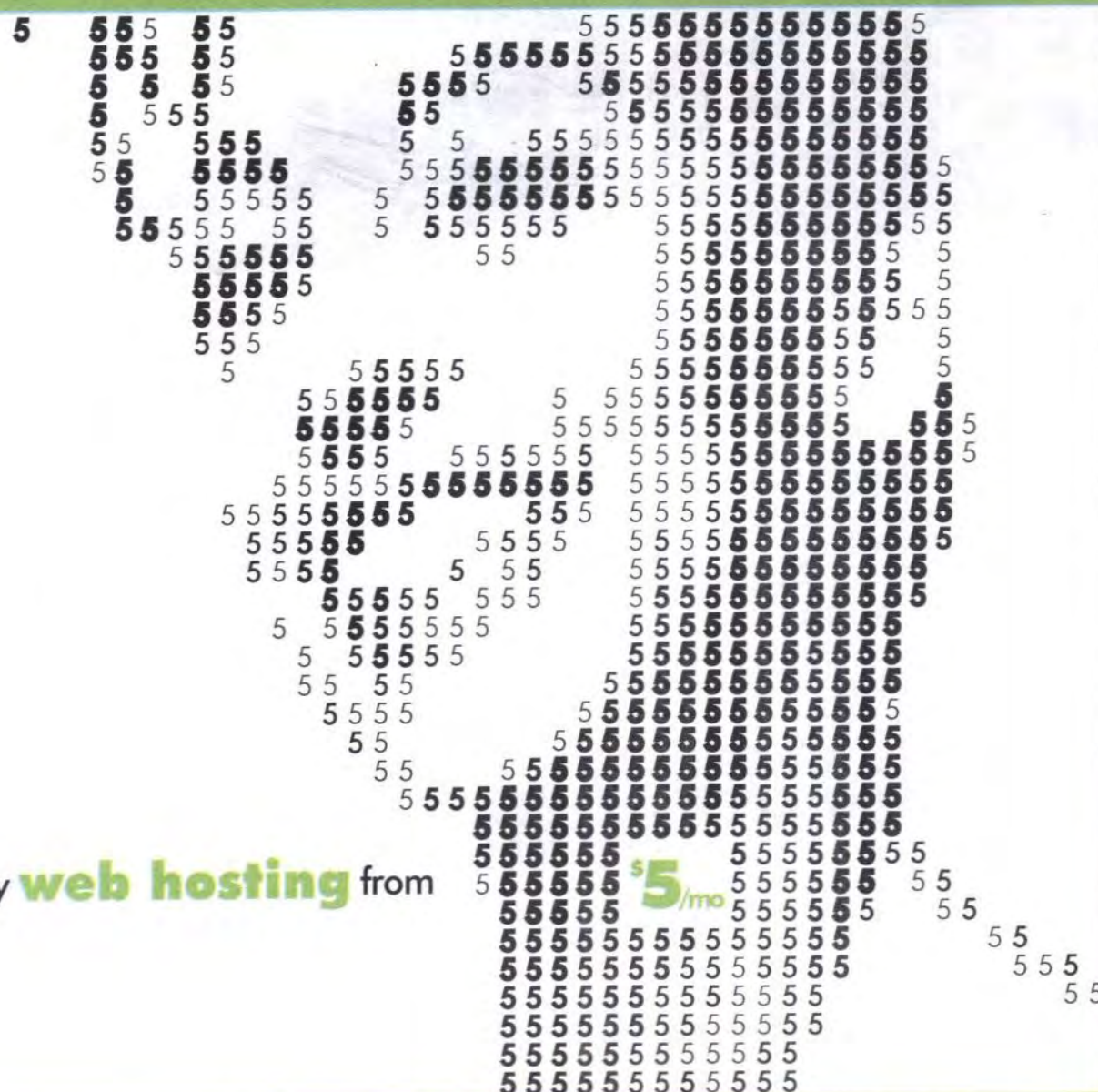


#107-11400 Bridgeport Road, Richmond, B.C. V6X 1T2

Tel:(604)303-2488 Fax:(604)303-2497

Business hours: 11:00 am to 6:00 pm (Monday to Friday) 12:00 noon to 5:00 pm (Saturday)
Warranty: 1 year parts & 3 years labour
Advertised prices are cash discounted already.

Prices are subject to change without notice



friendly **web hosting** from

Making Web Hosting Affordable!

DollarHost has hosting solutions for all businesses and individuals.

We offer hosting for many popular applications

CGI-Perl, ASP, PHP and ColdFusion.

DollarHost hosting provides you with fast, reliable web servers, **shared or dedicated**, that are efficiently configured to perform strong and priced affordably.

Our company has helped thousands of businesses and individuals establish their web presence since 1996.

Visit www.dollarhost.com today for more details of our pricing and services to find a hosting solution.

Web Hosting (from \$5/mo.)

- + Linux and NT Hosting
- + POP/IMAP Email Accounts
- + Web-based Email Access
- + PHP/CGI/SSI
- + Web Site Statistics
- + MS Frontpage Extensions
- + Active Server Pages
- + ColdFusion
- + Database Support

Dedicated Hosting (from \$125/mo.)

- + Secured Data Center
- + Intel Server
- + Linux or NT Platform
- + Raid Redundancy
- + UPS Power Backup
- + Flexible Options

Domain Registration (from US\$15/yr.)

- + .com, .net, .org, .uk
- + free domain parking
- + free "under construction" page
- + .ca now available

dollarhost
Making Web Hosting Affordable

- www.dollarhost.com
- info@dollarhost.com
- 604.608.6868

< HANDS ON >

Flat, bright... getting affordable

Continued from page 44

speakers emitted a short beep tone when controls were pressed.

Even at full volume, the speakers weren't very loud; probably a good thing when working in close proximity to folks with different listening tastes. A mute button at the far left of the OSD controls is handy when the telephone rings.

Every time the unit came on, either on initial startup or from standby, it auto-adjusted the display. This is a nice feature, unless you're in a hurry.

A small amount of visual noise at full resolution all but disappeared when connected digitally.

Editor's choices



Samsung SyncMaster 181T LG Flatron L1800PK

We're giving the Editor's Choice award to these two entries: both are 18-inch displays that gave excellent performance in testing. Pivot and swivel are great added features.

We also are awarding two honourable mentions: at the same price point as the winners, the 19-inch KDS RAD9 serves up an extra inch of quality viewing space, but without a pivot feature. And we can't overlook the 17-inch KDS RAD7c, which includes speakers for under \$1,000. □



NOVA SERIES



NOVA 9

INTEL P4 2.2GHz PROCESSOR
ASUS ATX MOTHERBOARD P4S533
512MB RAM PC2700 DDR
80GB IBM 7200 RPM HARD DRIVE
MSI GEFORCE 4 Ti4400 128MB DDR
CREATIVE SOUNDBLASTER AUDIGY SOUND CARD
CREATIVE 5.1 5300 5 SPEAKERS + SUBWOOFER
16x PIONEER DVD ROM
1.44MB PANASONIC FLOPPY DRIVE
D-LINK 530TXS 10/100 NETWORK CARD
MICROSOFT INTERNET KEYBOARD
LOGITECH OPTICAL WHEEL MOUSE
17" ATX CASE WITH 300W POWER SUPPLY

\$1599

NOVA 6

INTEL P4 1.9GHz PROCESSOR
MSI 6580 MAX L ATX MOTHERBOARD
256MB SDRAM
60GB MAXTOR 7200 RPM HARD DRIVE
MSI GEFORCE 3 Ti200 PRO 128MB VIVO
CREATIVE SOUNDBLASTER 5.1 DOLBY DIGITAL
CREATIVE 4.1 4400 4 SPEAKERS + SUBWOOFER
16x SONY DVD ROM
1.44MB PANASONIC FLOPPY DRIVE
D-LINK 530TXS 10/100 NETWORK CARD
MICROSOFT INTERNET KEYBOARD
LOGITECH OPTICAL WHEEL MOUSE
17" ATX CASE WITH 300W POWER SUPPLY

\$1119

NOVA 3

INTEL CELERON 1.3GHz PROCESSOR
MSI 6337 MOTHERBOARD
256MB SDRAM
40GB MAXTOR 5400 RPM HARD DRIVE
MSI 8878 G4MX420 64MB DDR WITH TV OUT
CREATIVE SOUNDBLASTER 5.1 DOLBY DIGITAL
CREATIVE 2.1 2400 2 SPEAKERS + SUBWOOFER
16x SONY DVD ROM
1.44MB PANASONIC FLOPPY DRIVE
D-LINK 530TXS 10/100 NETWORK CARD
MICROSOFT INTERNET KEYBOARD
LOGITECH OPTICAL WHEEL MOUSE
17" ATX CASE WITH 300W POWER SUPPLY

\$799

NOVA 1

AMD K7 1.3 PGA266
ECS K7SEM2 MOTHERBOARD
256MB MEMORY
20GB MAXTOR 5400RPM HARD DRIVE
ONBOARD VIDEO
ONBOARD SOUND
52x LG CD ROM
1.44MB PANASONIC FLOPPY DRIVE
ONBOARD NETWORK CARD
SAMSUNG KEYBOARD
LOGITECH 3 BUTTON MOUSE
17" ATX CASE WITH 300W POWER SUPPLY

\$459

MOTHERBOARDS

SOCKET 478 (P4) ASUS P4B 845 CHIPSET; 3DIMM, 6PCI, AGP ATA-100	\$155
SOCKET 478 (P4) ASUS P4B266 845 CHIPSET; 3DDR, 6PCI, AGP, USB2 ATA-100	\$205
SOCKET 478 (P4) ECS P6STMT SiS 630ET CHIPSET; 2DIMM, 3PCI, AGP	\$86
SOCKET 478 (P4) ECS P4IBMS 845 CHIPSET; 3DIMM, 3PCI, AGP, ATA-100	\$140
SOCKET 478 (P4) GIGABYTE GA-BIDX 845 CHIPSET; 3DIMM, 5PCI, AGP, ATA-100	\$122
SOCKET 478 (P4) GIGABYTE GA-BIRX 845 CHIPSET; 3DDR, 5PCI, AGP, ATA-100	\$145
SOCKET 478 (P4) MSI MS-6545 850 PRO5 CHIPSET; 4RIMM, 4PCI, AGP	\$195
SOCKET 478 (P4) MSI MS-6398-010 845 CHIPSET; 3DDR, 5PCI, AGP, ATA-133	\$175
SOCKET 478 (P4) MSI MS-6398-030 845 ULTRA CHIPSET; 3DDR, 5PCI, AGP, ATA-133	\$135
SOCKET 478 (P4) SHUTTLE MS51N SiS 650 CHIPSET; 2DDR, 3PCI, AGP	\$125
SOCKET 478 (P4) SHUTTLE AV-41 VIA P4X266 CHIPSET; 2DDR, 5PCI, AGP, ATA-133	\$100
SOCKET A (AMD) ABIT KG7-RAID AMD761 CHIPSET; 4DIMM, 6PCI, AGP	\$145
SOCKET A (AMD) ASUS A7S333 SiS 745 CHIPSET; 3DDR, 5PCI, AGP	\$175
SOCKET A (AMD) ASUS A7V266-E VIA KT266A CHIPSET; 3DDR, 5PCI, AGP, ATA-100	\$103
SOCKET A (AMD) GIGABYTE GA-7DX+ AMD761 CHIPSET; 3DDR, 5PCI, AGP	\$122
SOCKET A (AMD) MSI KT3 ULTRA VIA KT333 CHIPSET; 3DDR, 5PCI, AGP	\$115
SOCKET A (AMD) MSI MS-6390 VIA KM266 CHIPSET; 2DIMM, 3PCI, AGP, ATA-133	\$130

PROCESSORS

INTEL P4 SOCKET 478		AMD ATHLON XP SOCKET 462	
INTEL P4 2.53GHz 533MHz	\$970	AMD ATHLON XP 2200 RETAIL BOX	\$390
INTEL P4 2.40GHz 533MHz	\$590	AMD ATHLON XP 2100 RETAIL BOX	\$295
INTEL P4 2.26GHz 533MHz	\$370	AMD ATHLON XP 2000 RETAIL BOX	\$240
INTEL P4 2.4GHz 400MHz	\$560	AMD ATHLON XP 1900 RETAIL BOX	\$200
INTEL P4 2.2GHz 400MHz	\$350	AMD ATHLON XP 1800 RETAIL BOX	\$160
INTEL P4 2.0GHz 400MHz	\$280	AMD ATHLON XP 1700 RETAIL BOX	\$145
INTEL P4 1.9GHz 400MHz	\$250	AMD THUNDERBIRD K7 SOCKET 462 A	
INTEL P4 1.8GHz 400MHz	\$240	AMD K7 1.4 266MHz/200MHz	\$135/\$158
INTEL P4 1.7GHz 400MHz	\$210	AMD K7 1.3 266MHz	\$110
INTEL P4 1.6GHz 400MHz	\$205	AMD K7 1.1 200MHz	\$105
INTEL CELERON SOCKET 478		AMD DURON SOCKET A	
INTEL CELERON 1.8GHz 128k CACHE	\$170	AMD DURON 1.3GHz OEM	\$95
INTEL CELERON 1.7GHz 128k CACHE	\$135	AMD DURON 1.2GHz OEM	\$75
		AMD DURON 1.1GHz OEM	\$65
		AMD DURON 1.0GHz OEM	\$63

HARD DRIVES

MAXTOR 18.4GB SCSI 10k RPM 8MB	\$265	IBM 40GB 7200RPM 2MB	\$108
MAXTOR 36.7GB SCSI 10k RPM 8MB	\$445	IBM 60GB 7200RPM 2MB	\$127
MAXTOR 73.4GB SCSI 10k RPM 8MB	\$940	IBM 80GB 7200RPM 2MB	\$142
		IBM 120GB 7200RPM 2MB	\$230
MAXTOR 20GB 5400/7200RPM	\$95/\$101	SEAGATE 20GB 7200RPM 2MB	\$105
MAXTOR 40GB 5400/7200RPM	\$100/\$105	SEAGATE 40GB 7200RPM 2MB	\$108
MAXTOR 60GB 5400/7200RPM	\$129/\$130	SEAGATE 60GB 7200RPM 2MB	\$138
MAXTOR 80GB 5400/7200RPM	\$157/\$155	SEAGATE 80GB 7200RPM 2MB	\$160
MAXTOR 120GB 5400/7200RPM	\$230/CALL		
MAXTOR 160GB 5400/7200RPM	\$350/CALL		
WESTERN DIGITAL 20GB 7200RPM 2MB	\$103		
WESTERN DIGITAL 40GB 7200RPM 2MB	\$114		
WESTERN DIGITAL 60GB 7200RPM 2MB	\$150		
WESTERN DIGITAL 80GB 7200RPM 2/8MB	\$169/\$195		
WESTERN DIGITAL 100GB 7200RPM 2/8MB	\$233/\$285		
WESTERN DIGITAL 120GB 7200RPM 2/8MB	\$273/\$326		

MONITORS

17" NEC MULTISYNC FE700+ \$280	17" SAMSUNG 750S \$212	17" SONY CPD-G220R \$445	17" VIEWSONIC E70 \$235
17" NEC ACCUSYNC 75F \$228	17" SAMSUNG 755DF \$302	17" SONY CPD-G220S \$490	17" VIEWSONIC E75F \$255
19" NEC ACCUSYNC 90 \$326	19" SAMSUNG 950P \$337	19" SONY CPD-G410R \$589	19" VIEWSONIC E90 \$365
LCD 15" NEC MS LCD1550V \$550	LCD 17" SAMSUNG 1715 \$975	LCD 15" SONY SDM-S51B \$705	LCD 17" VIEWSONIC VE170 \$1126

DIGITAL CAMERAS

CANON POWERSHOT S30 \$720	CANON POWERSHOT S40 \$895	CANON POWERSHOT S330 \$649	CANON POWERSHOT G2 \$1195
SONY CYBERSHOT DSCP31 \$375	SONY CYBERSHOT DSCP51 \$449	SONY CYBERSHOT DSCP5 \$799	SONY CYBERSHOT DSCS85 \$975

VIDEO / SOUND CARDS

AOPEN GEFORCE4 MX460 64MB DDR	\$196	ATI AIW RADEON 7500 64MB DDR AGP	\$259
AOPEN GEFORCE4 Ti4200 128MB DDR	\$260	ATI AIW RADEON 8500DV 64MB DDR AGP	\$399
ASUS MAGIC GEFORCE2 MX200 32MB	\$70	ATI RADEON 7500 64MB SDR AGP	\$99
ASUS GEFORCE4 Ti4200 128MB	\$315	ATI RADEON 7500 64MB DDR AGP	\$179
MSI GEFORCE4 MX420 64MB	\$105	ATI RADEON 8500 128MB DDR AGP	\$279
MSI GEFORCE4 MX440-T 64MB	\$140	ATI RADEON 8500LE 128MB DDR AGP	\$235
MSI GEFORCE4 MX460-VTP 64MB	\$190		
MSI GEFORCE4 Ti4400-VTD 128MB	\$360		
MSI GEFORCE4 Ti4600-VTD 128MB	\$485		
CREATIVE LABS SOUNDBLASTER 5.1 DOLBY DIGITAL	\$47		
CREATIVE LABS SOUNDBLASTER AUDIGY DIGITAL 5.1	\$85		
CREATIVE LABS SOUNDBLASTER AUDIGY X-GAMER 5.1	\$135		
CREATIVE LABS SOUNDBLASTER AUDIGY MP3+ 5.1	\$135		
CREATIVE LABS SOUNDBLASTER AUDIGY PLATINUM 5.1	\$249		
CREATIVE LABS SOUNDBLASTER AUDIGY PLATINUM eX 5.1	\$345		
CREATIVE LABS SOUNDBLASTER EXTIGY 5.1	\$219		
HERCULES GAME THEATRE XP 6.1	CALL		

MICE / KEYBOARDS / PRINTERS

LOGITECH MOUSEMAN DUAL OPTICAL	\$65
LOGITECH CORDLESS MOUSEMAN OPTICAL	\$79
LOGITECH iFEEL MOUSE	\$52
LOGITECH CORDLESS FREEDOM KEYBOARD AND MOUSE	\$75
LOGITECH CORDLESS FREEDOM TOUCH KEYBOARD AND MOUSE	\$99
LOGITECH CORDLESS FREEDOM OPTICAL KEYBOARD AND MOUSE	\$123
LOGITECH CORDLESS FREEDOM PRO KEYBOARD AND MOUSE	\$123
MICROSOFT INTERNET KEYBOARD	\$26
MICROSOFT INTERNET PRO KEYBOARD	\$51
MICROSOFT NATURAL ELITE KEYBOARD	\$79
MICROSOFT NATURAL PRO KEYBOARD	\$55
MICROSOFT OFFICE KEYBOARD	\$70
EPSON STYLUS C60 COLOR INK JET PRINTER 2800DPI 8PPM	\$125
HP 940CVR COLOR INKJET PRINTER	\$235
LEXMARK Z22 COLOR INK JET PRINTER 1200 DPI, 3.5PPM	\$80

CD / DVD ROMS

16x ASUS DVD ROM RETAIL	\$81	52x CREATIVE LABS IDE CD ROM	\$49
16x LG DVD ROM	\$63	52x LG IDE CD ROM	\$39
16x LITEON DVD-ROM	\$65	52x SAMSUNG IDE CD ROM	\$39
16x PIONEER DVD ROM	\$70	52x SONY IDE CD ROM	\$42
16x SAMSUNG DVD ROM	\$63	56x AOPEN IDE CD ROM	\$41
16x SONY DVD ROM	\$69		
16x TOSHIBA DVD-ROM	\$69		
24x10x40 LG CD-WRITER WITH BURNING SOFTWARE	\$77		
32x10x40 LG CD-WRITER WITH BURNING SOFTWARE	\$87		
12x08x42 LG CD-WRITER, 8x DVD COMBO DRIVE W/ SOFTWARE	\$104		
32x10x40 MICROSTAR CD-WRITER WITH BURNING SOFTWARE	\$85		
24x10x40 PANASONIC CD-WRITER WITH BURNING SOFTWARE	\$68		
40x10x40 PLEXTOR CD-WRITER WITH BURNING SOFTWARE (REBATE)	\$180		
24x10x40 SONY CD-WRITER WITH BURNING SOFTWARE	\$98		
24x10x40 SONY CD-WRITER WITH BURNING SOFTWARE	\$101		
DVD-WRITER PIONEER WITH BURNING SOFTWARE	\$475		

contact:

604 . 765 . 3058

website url:

www.staticCORE.com

email:

questions@staticCORE.com

Shooting Gallery

Browse through our screenshot gallery of today's most popular games on our website

Fast, Free Delivery Service

Buyers from the Greater Vancouver Area receive same day delivery on their orders -- delivery only, no pick ups

Monthly Prize Draws

Each purchase at StaticCORE qualifies you to win our monthly prizes; check our website for details



StaticCORE

CD recorder puts end to 'mystery' discs

By David Tanaka

If you're tired of using felt-tipped markers or those hard-to-print sticky labels to ID your custom CDs, check out Yamaha's latest CD-RW recorder, the CRW-F1. It has a utility called Disc T@2 (tattoo, get it?) that etches text and images directly on the reflective mylar layer of a CD-R, creating a permanent record resembling a holographic image.

CDW-F1 CD recorder

From: Yamaha Canada Music, www.yamaha.ca/F1
Prices: \$229 (internal), \$349 (external USB 2.0), \$399 (external USB2/FireWire)

Yamaha says Disc T@2 will allow companies to brand—and individuals to monogram—CDs by etching custom text and graphics directly onto the disc. The technology has a more mundane but practical use too, namely permanently recording a description of the disc's contents on its surface.

The cost of monogramming is reduced disc capacity. Any space Disc T@2 uses for graphics and text is not be available for data, so the actual reduction

in capacity is variable, and depends on how much of the disc surface you use for graphics. Generally, you would put your graphics on the outer portion of the CD, leaving the inner rings for data.

Another minor detraction is that the image is only visible from the lower surface—the one you don't normally see—so users have to flip it over to see the graphics. The image shows up best on Azo-coated (dark blue) discs. The effect is less visible on cyanin (light blue, light green, or light yellow) discs, and all but invisible on gold-coloured discs.

Drive features

While the Disc T@2 feature may be the splashiest aspect of this new product, the hardware also represents the latest in Yamaha technology. The rewriteable function has a rated speed of 24X, which Yamaha claims is 50 percent faster than the competition. The platter motor spins at 8,700 rpm. To dampen the vibrations that may be created by CD blanks—which, because they are mass produced, are not perfectly balanced—the recording assembly sits on a separate sub-plat-form that is isolated from the drive chas-

sis by dampers.

The drive supports the Mt. Rainer CD-RW specification, originally proposed by Compaq, Microsoft, Philips, and Sony. The aim of Mt. Rainer is to make rewritable CDs as easy to use as floppies by providing support at the operating system level. Presently, a CD-RW must first be formatted to a UDF format using a separate application.

Given Yamaha's prominence in music, it stands to reason that it would apply some of that expertise to audio recording, and in fact the CRW-F1 includes what Yamaha calls Advanced Audio Master Quality Recording. To increase the capacity of a CD, recorders typically increase the density of the pits they burn onto the CD's recording surface by making them smaller and closer together. However, the read heads of some cheaper CD playback devices aren't precise enough to discriminate the finer pattern,

so can't play the CD, or exhibit playback errors (which is why a given CD may work in one playback device but not another).

The Advanced Audio Master Quality Recording technology maxes out the burn areas, in effect making a bigger target that even cheapo playback devices would be able to discriminate. The net effect is a CD with slightly lower record capacity, but usability across a wider range of playback devices without errors.

To help reduce coaster production, the new drive comes with an 8 MB buffer and SafeBurn, which Yamaha says eliminates buffer under-run errors. The CRW-F1 ships with a full version of Ahead Nero software for PCs (a favourite at TCP) and Adaptec Toast for Mac. The internal model will be available in late August, and the external models in September. □



Now serving: 75 CDs

When the KDS PC Controlled CD Organizer arrived, we didn't know quite what to make of it. A 75-CD storage unit is always useful, but having each tray motorized seemed a little over the top. However, once we hooked it up to a PC and loaded the CD library software, its usefulness in a number of situations became clearer.

Like many others who have discovered the convenience of CD recording, over the past couple of years, I've burned a few dozen CDs worth of photos and data, which are haphazardly labelled and equally haphazardly stored. I could see how this unit could help me keep better track of these.

The CD Organizer software is a database application that offers a manual or automatic method of cataloguing CDs. With the automatic method, you put a CD in your computer's CD-ROM drive. The software reads the disc's header



PC Controlled CD Organizer

From KDS USA, www.kdscanada.ca
Price: \$169

information and file structure, assigns it to the next available tray in the stor-

age unit, fills in the database record, opens the correct tray, then prompts you to insert the CD. In the manual method, you choose the tray and fill in the database fields yourself.

There is a check-out procedure, and any disc you've removed from the storage unit shows up in italicized type in the master CD list. Included with the check-out system is a lending menu, so you can keep track of your favourite music CDs—you type in the name of the borrower and can assign a due date. CDs on loan show up in blue type in the master list.

When you return a disc to the cabinet, the software asks you if it matches the database record, making sure you're putting back the correct CD in the tray. This, of course, is the device's ultimate weakness: the trays are just a passive storage system because the software has no way of verifying that the data-

base record matches the CD. If you misfile a CD, it won't catch the error. All it can do is prompt you beforehand.

In auto mode, the software does a complete job of reading all of the content on the CD, which it shows in a Windows Explorer-style split window. It shows detail right down to the file level. (You might even be tempted to double-click on the file name to open it, but that would be futile since it is just a listing, not a shortcut to the file.)

Now, if in the next revision, the organizer software would prompt you to put the appropriate CD in the CD drive—something image-cataloguing programs already do—it would up the usefulness of the system considerably.

At \$169, it seems pricey, but nevertheless the KDS CD Organizer is turning out to be a useful gadget—even with its limitations.

—David Tanaka

eglobal

24 hrs. online computer shopping centre
www.eglobalci.com

Tel: (604) **872-8276** Fax: (604) **872-8256**
Tech Support: (604) **872-8476** eMail: info@eglobalci.com



Hours: Mon.- Fri. 9:30am - 6:30pm
Sat. 10:00am - 6:00pm

Sales • Service • Repair • Leasing & Financing Available



#16 - 2949 Main Street,
Vancouver BC, V5T 3G4

Mr. Michael Chiang welcomes all his associates for competitive pricing.
Please call or visit him at Eglobal Computers Inc.
We welcome government and schools' P.O.
Computer consultants are most welcome.

Super Deal Systems

Internet Starting Station \$368.00

M/B ECS P6VEM2 w/VIA 16Hz A
Pro Onboard w/V/L/A
Memory Generic PC133 128MB SDRAM
168pin 133MHz
Floppy Panasonic 1.44 MB High
Density Floppy Drive
Hard Dr Maxtor 20.4GB Diamondmax
541DX UDMA100 5400rpm 512K
CDROM Samsung 52x CDROM128K
Buffer EIDE/ ATA PI UDMA OEM
Case Eglobal 8000K 18" 250W ATX
Keyboard Asound 3-in-1 Speaker/Mouse/
Keyboard

Warranty 1 Year Parts & 3 Years Labour
on System OEM Components

Economy Office Station (P4 1.6GHz) \$628.98

CPU Intel P-4 1.6AGHz P4 512K
400FSB 5478 Northwood Retail Box
M/B ECS P4S5A P4 5478 ATX AGP 5PCI
AMR DDR/SDRAM ATA100 w/S/L
Memory Generic PC2100 128MB DDR 266
Floppy Panasonic 1.44MB High Density
Hard Dr Maxtor 20.4GB Diamondmax
541DX UDMA100 5400rpm 512K
CDROM Acer/ AOpen 52x Int. IDE
Video HIS Arcade RIVA TNT2 M64
Video Card 32M, 4X AGP
Case Eglobal P4 8008K 18" w/300W
Keyboard Keystar Windows PS/2
Mouse A4tech Wheel 3D Mouse PS/2

Warranty 1 Year Parts & 3 Years Labour
on System OEM Components

Home Play Station (Athlon XP2000+) \$1605.70

CPU AMD Athlon XP 2000+ 266FSB
M/B Asus A7V333 KT333 3DDR
AGP Pro ATA133 Raid w/Sound
Memory Generic PC2700 512MB DDR
Floppy Panasonic 1.44 MB High Density
Hard Dr Maxtor D740X-6L 80G 7200rpm
CD-RW Sony 24x10x40 Int. EIDE w/SW
DVD Samsung 16X Int. EIDE OEM
Video MSI G4MX440-T GeForce4 64MB
Case Lian-Li Aluminum PC60 18" 350W
Fan Generic 80mm Chassis Fan
Network D-Link DFE-530TXS PCI 10/100
Speaker Altec Lansing ATP3 3 pcs w/Sbwf
Keyboard MS Internet Keyboard PS/2 OEM
Mouse Logitech 2B WheelMouse Optical

Warranty 2 Year Parts & 3 Years Labour
on System OEM Components

Multimedia Intel Station \$1,024.96

CPU Intel P-4 2.0AGHz 400FSB P4
512K 5478 Northwood Retail Box
M/B MSI 6566E 845E Max 5478
533FSB 2DDR USB2.0 w/Sound
Memory Generic PC2100 256MB DDR
Floppy Panasonic 1.44MB High Density
Hard Dr Maxtor D740X-6L 20G 7200rpm
DVD Dr Samsung 16X Int. EIDE OEM
Video MSI G4MX440-T (8866) GeForce4
MX440 64MB DDR w/TVD/Games
Case Eglobal 18" w/300W ATX 3688
Network D-Link DFE530TXS Fast PCI 10/100
Speaker AOpen MS-810 3 pcs w/Sbw
Keyboard MS Internet Keyboard PS/2 OEM
Mouse MS 2B WheelMouse Optical

Warranty 2 Year Parts & 3 Years Labour
on System OEM components

Entertainment Station (AMD 1700+) \$949.68

CPU AMD Athlon XP1700+ 1.4GHz
M/B Microstar KT3 Ultra w/A/DVD
Memory Generic PC2100 256MB DDR
Floppy Panasonic 1.44 MB High Density
Hard Dr WD CAVIAR 30GB 7200rpm
CD-RW Sony 24X10X40 Int. EIDE w/SW
DVD Sony 16X DDU1621 Int. EIDE w/o SW
Video MSI GeForce2 MX-400 64MB DDR
AGP w/ Video Out & DVD SW
Case Eglobal 8008K 18" w/300W
Fan Generic 80mm Chassis Fan
Network Smartlink 10/100 Ethernet PCI
Speaker 3D-FX2 500W w/Subwoofer
Keyboard MS Internet Keyboard PS/2 OEM
Mouse Logitech Optical Wheelmouse USB

Warranty 1 Year Parts & 3 Years Labour
on System OEM Components



CASE
Black
\$212
Blue/Silver
\$225

Eglobe Turbo Gamer
20" Aluminum Case
w/window/350w
Enermax/2 Chassis fan



24x/12x/40x \$70



Generic blank CDR
32X 80min 700MB
\$22



64MB
USB Handy Drive
\$80.00



SAMSUNG - 750S
17" 16VIS 0.27mm
1280x1024 75Hz

\$205



\$60

All
Popular Games.
Call for
Prices.



17in case P4 ready
300w Power supply
Side window, Neon light
\$80



\$180.00



\$2052



\$720
MFC6800 Multifunction
Laser Flat bed MFC



CPU	
AMD Duron 1000/ 1200/ 1300 OEM	\$69/85/112
AMD XP 1600+(1.4G/1700+(1.47G) OEM	\$130/145
Intel Celeron 1.2G (Box)	\$115
Intel Pentium 4 1.6G/1.8G A (512K) (Box)	\$212/275
Case	
ATX 17" 300W/ 18" 300W	\$45/51
ATX 18" 300W P4/ 20" 420W Black	\$54/160
P4 Aluminum 20" Case w/Windows/350W Enermax	\$225
Eglobe 19" hydraulic 300W P4 Silver/Black case	\$60/65
Monitor	
AOC 17" 27 7ELR 1280x1024	\$195
Samsung 17" 750S 27 1280x1024	\$202.98
Samsung 17" 753DF 20 1280x1024	\$242
Samsung 19" 950B 26 1600x1200	\$329

Hard Drive	
Maxtor 20GB 5400/ 7200rpm	\$99/114
Maxtor 40GB 2MB 5400/ 7200rpm	\$102/112
Maxtor 60GB 2MB 5400/ 7200rpm	\$143/155
Maxtor 80GB 2MB 7200rpm	\$165
WD 20/ 40GB 7200rpm	\$119/125
WD 100GB 2MB 7200rpm	\$289
WD 120GB 2MB 7200rpm	\$315
WD 120GB 8MB 7200rpm	\$340
PC Games	
Half-Life Generation 3	\$60
Hong Kong Mahjong for Windows OEM	\$20
Microsoft Flight Simulator 2002 Professional	\$90
Monopoly Casino Vegas Edition	\$27
Harry Potter and the Sorcerer's Stone	\$40
Ultima Online™ Lord Blackthorn's Revenge	\$30

Memory	
Compact Flash 64M/ 128M/ 256M	\$50/77/151
PC2100 256/ 512MB DDR	\$65/126
PC2700 256/ 512MB DDR	\$85/165
PC133 256MB	\$67
Video Card	
Abit Siluro/AOpen GeForce2 MX200 32MB	\$70/72
AOpen GeForce2 MX400 64MB	\$89
ATI Radeon 7000 SDR 64MB OEM	\$82
ATI All-in-Wonder Radeon7500 64MB (Box)	\$279
MSI G4MX460-VT DDR 64MB (8861)	\$102
MSI G4MX460-VT DDR 64MB (8863)	\$170
MSI G4MX460-VTD DDR 128MB (8871)	\$383
MSI G3Ti200 Pro VT128 128MB DDR	\$218
MSI MX400 (8826) 64MB SDRAM	\$96
His GeForce2 MX200 32M/ M64 32M	\$65/51

Network	
Acer 56K v90 PCI Modem	\$25
3Com 3C905CX-TXNM 10/100 PCI NIC	\$53
D-link 538TX PCI / Smartlink 10/100 NIC	\$19/15
D-Link Dss+ 8 Port Switch	\$85
Linksys BEFSR 4 Port Router	\$115
CD/DVD ROM Drives	
Acer 52x/ 56x/ Samsung 52x CDROM	\$42/45/42
LG/ Samsung/ Toshiba 16x DVD	\$65/78/65/70
LG 32x10x40 CD-RW	\$92
Sound Card/Speaker/Headset	
SB Live! 5.1	\$53
Altec Lansing ATP3 B	\$96
Altec Lansing 2100/ 4100	\$125/179
Altec Lansing AVS200	\$27

All listed prices reflect 3% cash discount. Quantities & specifications are subject to change without prior notice. Stock is subject to availability. Please contact us for the latest prices. We reserve the right to correct typographical errors.

Palm: the original groovy gadget

Though Palm pretty much started the handheld category, and has dominated it ever since, it has had some harder times lately: part of its enormous market share has been eroded away by the Pocket PC devices, as well as by other Palm-based handhelds made by companies like Handspring and Sony. With the introduction of two new Palm devices incorporating a colour screen, Palm hopes to turn things around.

Both the m130 and m515 units are based on previous designs in Palm's m series: the m130 adds a colour screen to the m125, as well as updating the operating system from Palm OS 4.0 to 4.1. The m515 is an updated version of the thinner m500, adding a colour screen and updating the OS to 4.1, but also bumping the internal memory up from 8 MB to 16 MB.

The new devices ship with a 65,536-colour TFT screen, with a built-in backlight in for better visibility. They also both come with built-in infrared ports and a Lithium Ion battery that recharges



Palm m515, m130

From: Palm Inc., www.palm.com
Estimated prices: \$649 (m515), \$449 (m130)

when you drop the handheld into the USB synchronization cradle.

Both come with a MultiMedia Card/Secure Digital expansion slot, allowing you to store data or run additional applications—there is a fairly extensive line of plug-and-play applications available on MMC/SD for the Palm, including a

games pack, e-books, dictionary/the-saurus, travel applications (road atlases, travel books), and translation software. The expansion slot can also be used for hardware, such as Palm's own Bluetooth card (US\$129).

The two devices differ in a few key ways. The most notable is size, with the m130 checking in at 12x7.9x2.3cm and 153 g, and the m515 at a more compact 11.4x7.9x1.3cm and 139 g. As stated above, the m515 has double the onboard memory of the m130, but it also comes with an upgradable flash ROM, allowing you to update the OS down the road. And while both have protective screen covers, the m130's flips up and the m515's opens up like a book.

Both come with a software bundle that includes: AvantGo Web Channel Manager, DataViz Documents to Go, MGI PhotoSuite Mobile, and Palm Reader (for e-books). Out of the box, both are compatible with both PC (Windows 98, 2000, Me, and XP) and Macintosh (OS 8.6 through 9.x).

Palm also offers a full range of accessories for the new handhelds, including a portable keyboard (\$159), which folds up into a hardshell container only slightly bigger than a Palm device. The company also offers a number of SD cards with applications pre-loaded, such as the games bundle (\$50), one of the Travel Cards series (\$60 each, including Rand-McNally's atlas), one of the e-book series of cards (\$50 to \$60 each), the Language Translator card (English, French, Italian, German, and Spanish, all for \$60), the 8 MB Memory Backup card (\$60) or the 16 MB Expansion card (\$80).

There's also a Bluetooth card, currently available from Palm's U.S. Web site for US\$130, which allows communication with the outside world through several Bluetooth-compatible phones, and which comes with a driver for use with the HP DeskJet 955c printer.

—Sean Carruthers

HIGH SPEED INTERNET for BUSINESS

Make it fast ... Make it simple !

- Always Connected
- No More Busy Signals
- No login Names or Passwords
- Hook Up Every Machine In Your Office To "High SPEED Internet"

Includes ADSL Modem

\$64.95/mo.

Call 482-1190

E-Commerce solutions and Website hosting
Server parking **\$200.00 / mo.**
Networking service technicians available

From Now On Download In Seconds Not Minutes

Type Of File	File Size	56 K	128 K ISDN	ADSL 1.5 MB
20 Second Video	8 MB	18 MIN	8 MIN	43 SECONDS
Graphics File	2.5 MB	8 MIN	2 MIN	13 SECONDS

RESIDENTIAL ADSL - \$34.95/mo.
"CALL FOR MONTHLY SPECIALS"

INTERNET

56K dialup from \$9.95/mo.

LIGHTSPEED www.lightspeed.ca

Proven Performance Since 1994

High speed internet using ADSL technology

Downloads speeds may vary depending on conditions



BC Mainland

21443506

Intel Pentium 4 1800MHz System

ECS P4S5ADX 533 AGP Motherboard
256MB Double Data Ram
40GB 7200rpm Hard Drive
ATI Radeon7000 Dual Video, 64MB TV out
Panasonic 1.44 MB Floppy Drive
Window 98 Keyboard, A4 2-B Mouse
Samsung 17" 753DF Flat Monitor .20(H)
17" ATX Tower Case w/ 300W P/S
Integrated 10/100 Network
24x10x40 Int. CD-Rewriter
160W Amplified Speakers
PCI 3D Stereo Sound

\$999

Option: Motorola 56K Int. Voice Modem +\$19

Intel Pentium 4 1900MHz System

Asus P4S 333 MWL AGP Motherboard
256MB Double Data Ram
Maxtor 60GB UTA133 7200rpm H.D.
nVidia GeForce2 MX400 Video, 64MB
Samsung 17" 753DF Flat Monitor .20(H)
Panasonic 1.44 MB FDD
17" ATX 300W Tower Case
24x10x40 Int. CD-Rewriter
LG 16X DVD Drive
10/100 Network Interface
3D PCI Stereo Sound/ 160W Speakers
Windows 98 Keyboard / A4 2B Mouse

\$1099

Options: Norton Antivirus 2002 +\$29
Microsoft wireless Keyboard & Mouse +\$69
Canon S200 Color Printer (after rebate) +\$49

Intel P-4 2000MHz Deluxe System

Asus P4S 533 DDR AGP Motherboard
256MB Double Data Ram
Maxtor 60GB UTA133 7200rpm H.D.
Hercules 3D Prophet 4000XT 64MB w/ TV-out
Samsung 17" 753DF Flat Monitor .20(H)
Panasonic 1.44 MB Floppy Drive
24x10x40 CD-Rewriter
16X Int. DVD Drive
Pairs of 160W Speakers
Integrated 3D Stereo Sound
17" ATX 300W Tower Case
Windows 98 Keyboard, A4 2-B Mouse
Canon S200 Color Printer
56K Int. Voice Fax Modem

\$1299

after rebate

\$1329

before rebate

Intel P4 2400MHz Top Performer

Asus P4B 533 DDR AGP Motherboard
512MB PC2100 DDR/Panasonic 1.44 FDD
Maxtor 80GB UTA133 7200rpm H.D.
MSI GeForce4 MX440 64MB DDR w/TV out
107-key Win KB/2-Button Wheel Mouse
AOpen 24x10x40 Int. CD-Rewriter
17" ATX 300W Tower Case
LG 16X DVD Drive
Sound Blaster Stereo Sound
Altec Lansing AVS300 Subwfer Spkrs
Samsung 17" 753 Flat Monitor .20(H)

\$1799

Options:
Logitech Cordless Freedom Keyboard &
Optical Mouse +\$109

ComCanada COMPUTERS

3090-8888 Odlin Crescent, Richmond B.C. V6X 3Z8
Mon-Sat 10:00-6:00 Sunday Closed

e-mail:salesrep@infinet.net

www.comcanada.bc.ca

Tel.: 604-273-5618

Fax: 604-273-7218

AMD Duron 850MHz System Special

- AMD Duron 850MHz CPU
- ECS K7VTA3 AGP M/B
- 256MB PC2100 DDR
- 24x10x40 Int. CDROM Drive
- 16x DVD Drive, 1.44MB FDD
- 40GB UTA133 7200rpm Hard Drive
- nVidia TNT2 AGP Video, 32MB
- Samsung 17" 750S SVGA Monitor, .24(H)
- Windows Keyboard
- A-4 2Button Mouse
- 17" Tower Case w/ P/S (9114)
- 3D PCI Sound / 160W Spkrs

\$799

after rebate

\$829

before rebate

FREE Canon
S200
Color Printer

Intel Pentium 4 1700MHz System Special

- ECS P4IBMS i845, S478 Motherboard
- 256MB PC133 SDRAM
- Panasonic 1.44MB FDD
- Acer 52x CDROM Drive
- Maxtor 40G UTA133 7200rpm HD
- ATI Rage128 Pro AGP Video, 32MB
- Samsung 17" 753DF Flat Monitor .20(H)
- 3D PCI Sound Card, 160W Speakers
- 17" ATX Tower Case w/300W P/S
- 104-key Windows Keyboard
- A-4 2-Button Mouse
- 10/100 Network Interface

\$849

Monitor

Samsung 17" 750S .20mm(H)	\$199
Samsung 17" 753 DF .20mm(H)	\$235
Samsung 17" 700 IFT.20mm(H)	\$345
Samsung 19" 950B .22mm(H)	\$295
Samsung 19" 955 DF .22mm(H)	\$375
Samsung 15" 151S LCD Silver	\$585
Samsung 17" 171S LCD	\$985
NEC 17" AS70, .27mm	\$209
NEC 19" AS95F, .25mm	\$355
NEC 21" AS120, .22mm(H)	\$729
NEC FE700+ / FE750+	\$269/335
NEC 15" 1550V LCD	\$569
NEC 17" 1720M LCD	\$959

Scanner

BENQ 4300BU	\$77
Canon 670U / 1240U	\$145/225
HP 2200C / 4470C	\$99/215
HP 5470 / 5490	\$429/545
Epson 1250U / Photo	\$145/195
Epson 1650 Photo	\$305

Printer

Brother HL 1230 Laser	\$322
Brother HL 1440DX	\$455
Brother HL 1450 Laser	\$545
Brother HL 1470N Laser	\$745
Brother HL 1850 Laser	\$845
Brother HL 2460 Laser	\$1469
Brother HL 2460N Laser	\$1615
Brother MFC 4800 Laser	\$515
Brother BJC 6800 Laser	\$665
Canon MFC S200 / S300	\$55*/125*
Canon BJC S520 / S750	\$195/285
Canon BJC S820 / S900	\$469/555
Epson C40U	\$69
Epson C60 / C80	\$129/225
HP 845 / 920 CVR	\$132/165
HP 1220CXI	\$579
HP Laserjet 1000/1220	\$365/769
HP Laserjet 2200, 19ppm	\$1125

* After Mail-in Rebate

Hard Drive

Maxtor 20GB 7200rpm	\$102
Maxtor 40GB 7200rpm	\$109
Maxtor 60GB 7200rpm	\$135
Maxtor 80GB 7200rpm	\$159
WD 40GB 7200rpm	\$115
WD 60 / 80GB 7200rpm	\$139/159
WD 100 / 120GB 7200rpm	\$205/275
Maxtor USB 2.0 40GB Ext.	\$295
Maxtor USB 2.0 120GB Ext.	\$425
Maxtor i1394 40GB Ext.	\$355
Maxtor i1394 60GB Ext.	\$455

Motherboard

Asus P4T 533 w/USB 2.0, Lan, Audio	\$255
Asus P4B 533E w/USB 2.0, Lan, Audio	\$275
ECS K755A	\$89

Modem

56K PCI Voice/Fax V90	\$22
Acer 56K V90 PCI Int. Voice/Fax	\$25
Acer 56K ISA V90	\$65
Acer 56K EXT. Voice/Fax	\$97
USR 56K V90 Int. PCI (Win)	\$39
USR 56K V90 Ext. Fax	\$165

Multimedia

Acer 52X CDROM Drive	\$39
Creative 52X CDROM Drive	\$49
LG / AOpen 16X DVD Drive	\$62/65
Pioneer 16X DVD Drive	\$73
SB Compatible Sound Card	\$19
SB 128PCI Sound Card	\$27
Sound Blaster Live Value 5.1	\$49
SoundBlaster Audigy MP3+	\$139
SoundBlaster Audigy Platinum	\$285
Hercules Muse (LT)	\$19
Hercules Fortissimo II (OEM)	\$55
Altec Lansing AVS 300 w/Sbwf	\$49
Altec AVS500 4 point w/Sbwf	\$69
Pair of 120W Speakers	\$12

BackupStorage

AOpen 24x10x40 CD-RW	\$75
AOpen 32x10x40 CD-RW	\$89
LG 24x10x40 CD-RW	\$79
LG 32x10x40 CD-RW	\$89
Panasonic 24x10x40 CD-RW	\$69
Plextor 40x12x40 CD-RW	\$215
MSI 32x12x40 CD-RW	\$89
MSI 40x12x40 CD-RW	\$105
CDR Media 50 pcs.	\$25
ZIP Drive 100MB Int. IDE	\$75
ZIP Drive 250MB Int. IDE	\$130
ZIP Drive 100MB External USB	\$155
ZIP Drive 250MB Ext. Parallel	\$199
ZIP Drive 250MB Ext. USB	\$239
ZIP Disk 100 / 250MB	\$16/23

Network

ASound 10/100NIC	\$15
D-Link 10/100 NIC	\$22
3COM 3C905	\$55
Intel 10/100NIC	\$59

Video Card

ATI Radeon 7000, 64MB DDR	\$82
ATI Radeon 7500LE, 64MB DDR	\$102
ATI Radeon 8500LE, 64MB DDR	\$235
ATI All-in-wonder 7500, 64MB	\$265
ATI All-in-wonder 8500DV, 64MB	\$385
MSI GeForce4 Ti4600, 128MB DDR	\$515
Hercules	
3D Prophet 4000 XT w/TV 64MB	\$87

3D Prophet III, GeForce3, 64MB (Retail)	\$399
---	--------------

Limited quantity. Prices are cash discounted and subject to change without notice. Call for the current prices.



AOpen #1 Computing Solution Provider

- Motherboards
- Fax/Modem
- VGA Cards
- Housing & Bare Systems
- Monitors
- CD-ROM/DVD/CD-RW
- Mice & Keyboards
- Networking NIC & Hub
- Speakers & Sound Cards

AOpen Monthly Specials:

15" LCD Monitor		\$529
52X CDROM Drive		\$39
10/100 Ethernet Card		\$17
56K Int. Voice/Fax Modem		\$25
16X Int. DVD Drive		\$62
24x10x40 CDRW w/Just Link		\$75

AMD Athlon XP1800+ Super Deal

MSI 6561 SIS745 Ultra Motherboard
256MB PC2100 DDR
40GB 7200rpm Hard Drive
Hercules Prophet 4000XT Video, 64MB w/TV-out
Panasonic 1.44MB Floppy Drive
107-key Wins K/B, A4 2 Button Mouse
Samsung 17" 753DF Flat Monitor .20(H)
17" ATX Tower Case w/300W P/S
24x10x40 Internal CD-Rewriter
16X Internal DVD Drive
3D PCI Stereo Sound
160W Amplified Stereo Speakers
FREE Canon S200 Color Printer

\$999

after rebate

\$1029

before rebate

AMD Athlon 1900+ Performance System

ASUS A7V 333 AGP Motherboard
256MB PC2700 Double Data RAM
Maxtor 60G ATA133 7200rpm Hard Drive
MSI GeForce4 MX440 Video, 64MB w/TV-out
Panasonic 1.44MB Floppy Drive
Samsung 17" 753DF Flat Monitor .20(H)
17" ATX Tower Case w/300W P/S
24x10x40 Int. CD-Rewriter
3D PCI Stereo Sound
16X Int. DVD Drive
Windows 98 Keyboard
A4 2 Button Mouse
160W Amplified Stereo Speakers

\$1199

Upgrade Special

AMD Duron 950MHz CPU • 128MB SDRAM
QDI Q7L AGP Motherboard
Built-in video • Built-in Sound
17" ATX Tower Case

\$215

Wish you were here

Tools to help you provide support remotely

By Emru Townsend

Stop me if you've heard something along this line over the phone before: "I have to reformat this document so that it has a red frilly border. I'm using PowerGizmo 3.0. Could you tell me how?"

Telephone support staff and consultants are no doubt nodding in recognition, as are those of you who've had to help out friends and family with little to go on but a mental picture and faith in the other person's communication skills. The best thing would be to go over there and demonstrate the procedure in person. (That's why smart IT support staff wear sneakers.) But that isn't always an option, leading to interesting exchanges like this one:

"OK, down near the left corner there's an icon that looks like a wrench. Click on it."

"The toolbar disappeared."

"You clicked the screwdriver! I said the wrench!"

"OK, I'll click the wrench now."

"Wait, you have to bring the toolbar back first..."

"Hey, where did my work go?"

Unless you have a fondness for Tylenol, you can see why remote control software is so attractive. Symantec's pcAnywhere and Laplink's LapLink Gold are the latest iterations of old standbys in PC file transfer and remote control; the relative newcomers are Microsoft's Remote Desktop and Remote Assistance (both are part of the Windows XP operating system) and Expertcity's Web-based GoToMyPC.

All of these do essentially the same thing: they let you see and navigate another person's desktop directly on your computer—instead of hiking down to a different part of the building or trying to explain a complicated task over the phone.

The look and feel of the remote-control procedure, and even the terminology, is generally the same.

The computer being controlled is called the host and the controlling computer is the client or, logically enough, the remote computer. The remote user sees the host desktop either in full-screen or as a resizable window.

Mouse movements and keyboard activity are passed to the host computer,

though special key combinations like Ctrl+Alt+Del, Alt+Tab, and anything involving the Windows keys has to be handled specially. For instance, pcAnywhere asks if you want the keystrokes to go to the local or host computer, while GoToMyPC blocks them outright, but provides a menu option to activate the host's Task Manager. Otherwise, it's like being in front of the computer yourself. (However, the remote user's control isn't necessarily absolute. By default, the person on the host computer can still do whatever they want, which can lead to some amusing onscreen antics if the two aren't careful.)

All of these programs also include the ability to chat between the two computers.

The devil is in the details

The biggest differences between these applications lie mostly in setup, flexibility, and other included functions. LapLink and pcAnywhere are the two programs with the most features, including file transfer, voice chat, shared clipboards, the ability to reboot the host computer, and a plethora of connection options (modem, direct cable, network, and Internet). They work the same way: run the program on the host computer, then run the program on the remote computer to connect.

Both programs also have security features such as encryption, customizable file-sharing rights, and keyboard and mouse locking. LapLink, the Methuselah of the group (it started life 15 years ago as a DOS file-transfer utility), comes out on top by including a synchronizing utility, printer redirection, and the ability to connect to or from a computer that isn't running LapLink.

LapLink has a pretty good balance between features and ease of setup. Although configuration can be a little tedious, the various options are very straightforward. The manual is clearly written and diagrammed, though it doesn't tell you how to turn off the omnipresent online help (the big question mark on the toolbar kills the automatic popups).

In comparison, pcAnywhere lags a little in features and ease of setup—there are just a few more hoops to jump through, and the manual isn't quite as user-friendly—but is otherwise almost

identical in practical terms (even in its flaws: although you can customize the bit depth of the host desktop image to speed up screen updates, the image isn't antialiased—making some of the text hard to read if the window isn't full-screen). PcAnywhere's biggest advantage is its pricing scheme for one-time jobs: a 30-day licence can be had for peanuts (and fully refundable peanuts, at that—if you later decide to upgrade to the full package, you get the 30-day licence fee back).

If you're just looking for remote control and don't need the other bells and whistles, you might consider Windows XP's Remote Desktop. Although it's free (it's part of XP Professional, though the remote computer only needs Terminal Services installed, available in any post-Windows 95 Microsoft operating system), there is a price to pay: setup requires you to be familiar with setting up Web services. If you're not, the convoluted online help makes you long for the old days of tree-killing paper manuals.

Return to the simple life

Remote Assistance setup, part of Windows XP (Home or Professional) is the exact opposite of Remote Desktop's infuriating complexity. In fact, Remote Assistance was easily the simplest and quickest of the programs to get up and running. Both parties set up a chat in Windows Messenger; the person on the host computer chooses the Ask for Remote Assistance option, which sends an invitation to the remote user; upon acceptance and confirmation from the host, the remote user controls host.

That's it. For quick and dirty connections it's hard to beat. The host desktop appears in a window (which, curiously, is anamorphic—if you resize it to a long, thin rectangle the desktop image is stretched like taffy) with a chat window on the left side. But again, there's a price to pay. Some things are too simplified: during a surprise disconnection Remote Assistance informed me that I should contact the person on the other end for more information. The trouble was, the person on the other end got the same message. Neither of us got any clue as to what happened. I also couldn't find anything to reassure me of Remote Assistance's security.

Marginally less easy to install, but far

LapLink Gold 11.0

From: Lap Link, www.laplink.com
For: Windows 95/98/NT 4/2000/Me/XP
Street price: \$199 (up to three computers)

Symantec pcAnywhere 10.5

From: Symantec Canada, www.symantec.ca
For: Windows 95/98/NT 4/2000/Me/XP
Estimated street price: \$149 (host only); \$249 (host and remote); \$29 (30-day licence)

Expertcity GoToMyPC

From: Expertcity, www.gotomypc.com
For: Windows 95/98/NT 4/2000/Me/XP
Personal plan (1 host PC) fee: \$19.95/mo., US\$14.95/mo. (paid annually).
Corporate plan fee (per PC): \$24.95/mo., \$18.95/mo. (10-19 PCs)

Remote Desktop, Remote Assistance

From: Microsoft, www.microsoft.com/windows
Price: Included with Windows XP

more satisfying to use, was GoToMyPC, a Web-based program. After signing up for an individual or corporate account, you download a small installer to the host computer, which puts a tiny GoToMyPC icon in your system tray. A remote user can then log in to your account from any computer via the gotomypc.com Web site, download a small application (Windows, Mac, UNIX, and Linux remote users are all welcome), and after providing the password they can take control of the host.

GoToMyPC is very well thought out; I never once had to consult the PDF documentation. Better still, it doesn't sacrifice capability for its simplicity. It includes many of LapLink's features, such as file transfer (though not as sophisticated), printer redirection, clipboard sharing, and lockout functions. Expertcity also uses AES 128-bit encryption for all data passing between its computers, and SSL encryption for its Web site. Another nice touch: the image of the host desktop is antialiased so well, my Microsoft Word screen was perfectly legible at 37 percent of its original size.

The choice is yours

Generally speaking, the world of remote-access software is consistent enough that you know what to expect, yet diverse enough that you can make your choice based on which extra features suit your needs. One caveat: if possible, I would recommend testing these programs out on your systems. □

Emru Townsend (emru@pobox.com) based the sample dialogue at the beginning on true events.

A-POWER

OPERATING HOURS

OPEN FROM
MON TO FRI 10AM - 6:30PM
SATURDAYS 10AM - 6:00PM

CLOSED
SUNDAY & HOLIDAYS

TECH: PROBLEM@A-POWER.COM
EMAIL: POWER@A-POWER.COM

NOW WITH TWO LOCATIONS TO SERVE YOU

BURNABY RICHMOND

PHONE: 604.570.0766
FAX: 604.299.2544

PHONE: 604.273.8868
FAX: 604.273.8280

TECHNICAL SUPPORT CALL 604.273.8792

www.a-power.com

adaptec

ATI

3dfx

ASUS

VIDIA

LEXMARK

metron

Microsoft

21328506

Quantum

AP07-SOHO SYSTEM \$429.00

AMD® DURON™ 1.1GHz SOCKET A
256MB PC133 SDRAM
ECS K75EM266 ATX MAINBOARD
MAXTOR OR SEAGATE 40GB 7200RPM HD
ADOPEN 52x IDE INT CDROM DRIVE
1.44 SAMSUNG FLOPPY DRIVE
INTEGRATED 4x AGP VIDEO
INTEGRATED 64BIT PCI SOUND
INTEGRATED 10/100 NIC
WINDOWS 98 107 KEY PS2 KEYBOARD
160 WATT MULTIMEDIA SPEAKERS
17" (811) ATX CASE w/300W PS

AP07-ULTRA SYSTEM \$1,169.00

INTEL® P4™ 2.0GHz SOCKET 478 400MHz
256MB PC2100 DDR RAM
ASUS P45533 ATX W/UDMA-133
MATROX OR SEAGATE 80GB 7200RPM HD
LG 40x24x10x CDRW W/SOFTWARE
1.44 SAMSUNG FLOPPY DRIVE
MSI GEFORCE 3 TI200 128MB DDR AGP
INTEGRATED 5.1 3D SURROUND SOUND
INTEGRATED 10/100 NIC
MS PS2 INTERNET KEYBOARD
MS OPTICAL MOUSE W/WHEEL
CREATIVE INSPIRE 4400 4.1 SPK W/SUB
18" (850K) ATX CASE W/300W POWER

AP07-CELERON SYSTEM \$529.00

INTEL® CELERON™ 1.7GHz 400MHz FSB
256MB PC2100 DDR RAM
ECS P4VM22 W/UDMA-100
MATROX OR SEAGATE 40GB 7200RPM HD
ADOPEN 52x IDE INT CDROM DRIVE
1.44 SAMSUNG FLOPPY DRIVE
INTEGRATED 4x AGP VIDEO
INTEGRATED AC97 SOUND
INTEGRATED 10/100 NIC
WINDOWS 98 107 KEY PS2 KEYBOARD
ADOPEN PS2 WHEEL MOUSE
580 WATT SPEAKERS W/SUBWOOFER
17" (811) ATX CASE W/300W POWER

AP07-EXTREME SYSTEM \$2,599.00

INTEL® P4™ 2.0GHz SOCKET 478 400MHz
512MB (2X256) PC1066 RAMBUS
ASUS P4T533-C-L W/5.1 SOUND & USB 2.0
WD 120GB 7200RPM W/8MB CACHE HD
PLEXTOR 40x40x12x IDE INT CDRW
1.44 SAMSUNG FLOPPY DRIVE
ASUS V8460 GF4 TI4600 128MB AGP
INTEGRATED 5.1 3D SURROUND SOUND
INTEGRATED 10/100 NIC
LOGITECH FREEDOM OPTICAL KEYBOARD
LOGITECH FREEDOM OPTICAL MOUSE
CREATIVE INSPIRE 5300 5.1 SPK W/SUB
18" (950UL) ATX CASE W/300W POWER

AP07-XP SYSTEM \$629.00

AMD® ATHLON™ XP 1800 266MHz FSB
256MB PC2100 DDR RAM
ECS K755A ATX W/UDMA-100
MAXTOR OR SEAGATE 40GB 7200RPM HD
LG 16x IDE INT DVD ROM DRIVE
1.44 SAMSUNG FLOPPY DRIVE
GEFORCE 2 MX-200 32MB AGP
INTEGRATED AC97 SOUND
INTEGRATED 10/100 NIC
WINDOWS 98 107 KEY PS2 KEYBOARD
WINDOWS 2 BUTTON PS2 MOUSE W/WHEEL
580 WATT SPEAKERS W/SUBWOOFER
18" (320K) ATX CASE W/300W POWER

AP07-PRO SYSTEM \$829.00

INTEL® P4™ 1.8GHz 512K SOCKET 478
256MB PC2100 DDR RAM
MSI 645 ULTRA 333(MS-6547) W/UDMA-100
MAXTOR OR SEAGATE 60GB 7200RPM HD
PANASONIC OR LG 40x24x10x CDRW
1.44 SAMSUNG FLOPPY DRIVE
ATI RADEON 7000 64MB AGP
INTEGRATED AC97 SOUND
ACER 56K HD OR D-LINK 10/100 NIC
FUJITSU 8725 PS2 KEYBOARD
MICROSOFT INTELLI MOUSE W/WHEEL
580 WATT SPEAKERS W/SUBWOOFER
18" (850K) ATX CASE W/P4 300W POWER

AP07-GAMER SYSTEM \$869.00

AMD® ATHLON™ XP 2000+ 266MHz FSB
256MB PC2100 DDR RAM
GIGABYTE GA-7VRXP W/UDMA-133 RAID
MAXTOR OR SEAGATE 60GB 7200RPM HD
PANASONIC OR LG 40x24x10x CDRW
1.44 SAMSUNG FLOPPY DRIVE
ADOPEN GEFORCE 4 MX-420 64MB DDR
INTEGRATED SOUNDBLASTER SOUND
INTEGRATED 10/100 NIC
FUJITSU 8725 PS2 KEYBOARD
MICROSOFT INTELLI MOUSE W/WHEEL
580 WATT SPEAKERS W/SUBWOOFER
18" (850K) ATX CASE W/P4 300W POWER



IBM

A-POWER COMPUTER IS AN AUTHORIZED
RESELLER OF IBM PRODUCTS AND SERVERS

IBM CANADA: 864651x xSERIES 220 SERVER
PROCESSOR TYPE: INTEL PENTIUM III 1.4GHz
MEMORY STD/MAX: 128MB - 4096MB
CONTROLLER: ULTRA 160 SCSI (ON PLANAR)
NETWORK: INTEGRATED ETHERNET
DRIVES: 48x SCSI CDROM
WARRANTY: 3 YEARS OF IBM ONSITE SERVICE

\$1,489.00



NETWORKING
LINKSYS BEFSR FOUR PORT
ROUTER 24-HOUR LINKSYS
INSTALLATION
SUPPORT!

\$115

ACER 56K V90 PCI MODEM	\$25
3COM 3C905CX-TXNM 10/100 PCI NIC	\$52
USR USR8000 4 PORT ROUTER	\$105
ACER 8 PORT HUB	\$39
D-LINK 10/100 530TX PCI NIC	\$19
D-LINK DI-704P ROUTER	\$109
D-LINK DSS+ 5 PORT SWITCH	\$62
D-LINK DSS+ 8 PORT SWITCH	\$89
D-LINK DFE-690TXD 32BIT PCMCIA	\$65
D-LINK DWL-1000AP ACCESS POINT	\$239
D-LINK DWL-500 WIRELESS COMBO CARD	\$149
INTEL 10/100 PCI NIC	\$49
LINKSYS BEFSR 1 PORT ROUTER	\$95
LINKSYS PC200 32BIT PCMCIA	\$85
LINKSYS WAPI WIRELESS ACCESS POINT	\$205
LINKSYS WDT1 WIRELESS PCI CARD	\$79
35' RJ45 (STRAIGHT OR XLINK)	\$15
50' RJ45 (STRAIGHT OR XLINK)	\$19



LAPTOPS

ON THE ROAD AND NEED A SYSTEM TO MANAGE YOUR
WORK? A-POWER CARRIES A LARGE SELECTION OF
LAPTOP BRANDS, MODELS, AND ACCESSORIES. BROWSER
OR WEBSITE AT [HTTP://WWW.A-POWER.COM/](http://www.a-power.com/)

ACER ASPIRE 1400XV P4-1.7GHz / 128MB / 20GB HD / DVD-ROM / 14.1" TFT / NIC \$2,069
FUJITSU C211A P4-1.6GHz / 256MB / 20GB HD / DVD-CRW / 15.0" TFT \$2,349
IBM A31P P4-1.7GHz / 256MB / 60GB HD / DVD-CRW / 15.0" TFT / NIC \$5,049
TOSHIBA SAT PRO 2400 P4-1.6GHz / 256MB / 30GB HD / DVD-CRW / 14.1" TFT / NIC \$2,449
TOSHIBA TECRA 9100 P4-1.7GHz / 256MB / 30GB HD / DVD-ROM / 14.1" TFT / NIC \$4,389



MAINBOARDS

GIGABYTE GA-7VRXP DDR333,
SOCKET-A, USB 2.0, &
RAID SUPPORT MB **\$155**

ABIT IT7 SOCKET 478 ATA-133 RAID	\$249
ASUS A7M266-D-W/DUAL SOCKET A	\$349
ASUS A7V333 KT333 ATA-133	\$185
ASUS P4B533 SOCKET 478 w/USB 2.0	\$225
ASUS P45533 SOCKET 478 w/NIC	\$169
ECS K755A SOCKET A ATX	\$89
INTEL DR50-EMV2 w/533FSB USB 2.0	\$235
GIGABYTE GA-8IHX P4/ATA-133 RAID USB 2.0	\$249
MSI KT3 ULTRA (MS6380E) ATA-133	\$125
MSI 845E MAX (MS6566E) w/USB 2.0	\$149

FOR LATEST PRICES CHECK OUT OUR WEBSITE
AT [HTTP://WWW.A-POWER.COM/](http://www.a-power.com/)



IDE HARD DRIVES
MAXTOR 40GB 7200RPM
2MB CACHE, 8.5MS,
ATA-133 **\$99**

IBM 40GB 2M 7200RPM	\$99
IBM 60GB 2M 7200RPM	\$119
IBM 80GB 2M 7200RPM	\$135
IBM 120GB 2M 7200RPM	\$229
MAXTOR 60GB 2M 7200RPM	\$125
MAXTOR 80GB 2M 7200RPM	\$145
SEAGATE 40GB 2M 7200RPM	\$99
SEAGATE 60GB 2M 7200RPM	\$125
SEAGATE 80GB 2M 7200RPM	\$145
WD 40GB 2M 7200RPM	\$119
WD 60GB 2M 7200RPM	\$155
WD 80GB 2M 7200RPM	\$175



ROM DRIVES

LG 40x32x10x CDRW W/BURN-
PROOF TECHNOLOGY
INCLUDES SOFTWARE **\$85**

ACER 52x INT IDE CDROM	\$39
SONY 52x INT IDE CDROM	\$42
LG 16x INT IDE DVD ROM	\$59
PIONEER 16x INT IDE DVD ROM	\$69
ASUS 40x24x10x IDE RETAIL CDRW	\$75
PANASONIC 40x24x10x IDE CDRW	\$65
LITEON 48x40x12x IDE RETAIL CDRW	\$105
PLEXTOR 40x40x12x IDE CDRW**	\$179



MULTIMEDIA

CREATIVE INSPIRE 4400 FOUR
6-WATT SUR-SOUND SPK
W/17-WATT SUBWOOFER **\$79**

SB LIVE! DE 5.1	\$49
SB AUDIGY 5.1 OEM	\$89
SB AUDIGY X-GAMER/MP3+ 5.1	\$145
SB AUDIGY PLATINUM 5.1	\$275
CREATIVE 2.1 INSPIRE 2400 4SPK w/SUB	\$59
CREATIVE 5.1 INSPIRE 5700 DIGITAL	\$375
ALTEC LANSING AVS300/AVS500	\$49/\$69
ALTEC LANSING 2100/4100	\$125/\$175

SCSI-BASED DEVICES

ATLAS 10K III 18/36GB U160	\$239/\$375
ATLAS 10K III 73GB U160	\$805
SEAGATE CHEETAH 18/36GB U160	\$255/\$379
SEAGATE CHEETAH 73GB U160	\$785
SEAGATE CHEETAH 18/36GB 15KRPM	\$349/\$549
TEKRAM 395U SCSI CARD	\$55
ADAPTEC 2100S RAID CONTROLLER	\$649
ADAPTEC 3200S RAID CONTROLLER	\$959



MONITORS

LG 17" MONITOR MODEL 7005
.27 1280x1024 LOW
RADIATION! **\$189**

LG 17" E700B .25 1280x1024 FLAT	\$225
LG 19" E900B .25 1600x1200 FLAT	\$359
NEC 17" AS75F .25 1280x1024	\$245
NEC 19" AS95F .25 1600x1200	\$375
NEC 19" FE9915B .25 1792x1344	\$465
NEC 18" LCD 1850E .28 1280x1024	\$1,199
SAMSUNG 15" 1515 1024x768 LCD	\$569
SAMSUNG 17" 753DF .20 1280x1024	\$239
SAMSUNG 19" 950B .26 1600x1200	\$309
SONY 19" CPD-G410R .24 1800x1440	\$589
SONY SDM-S51 15" 1024x768 LCD	\$689
VIEWSONIC 15" VE155 1024x768 LCD	\$619
VIEWSONIC 19" G90F .25 1600x1200	\$449
VIEWSONIC 19" PF790 .25 1600x1200	\$509



VIDEO CARDS

ADOPEN GEFORCE 4 MX420
NVIDIA CARD W/64MB DDR
W/TV OUT **\$99**

ABIT GEFORCE 4 MX440 64MB AGP	\$115
ABIT GEFORCE 4 TI4600 128MB AGP	\$349
ADOPEN GF4 MX440/460 64MB DDR	\$135/\$199
ASUS V8440 GEFORCE 4 TI4400 128MB DDR	\$419
ASUS V8460 GEFORCE 4 TI4600 128MB DDR	\$559
ATI DV WONDER (PCI FIREWIRE W/CABLE)	\$75
ATI RADEON 7000 64MB SDR AGP	\$75
ATI ALL-IN-WON RAD 7500 64MB BOX	\$275
MATROX G550 32MB AGP	\$1,129
MSI GF4 MX-440 64MB DDR w/TV(8861)	\$155
MSI GF4Ti 4200-TD 64MB DDR w/TV(8870)	\$149
MSI GF4Ti4400-VTD 128MB DDR w/TV(8871)	\$365



ACCESSORIES
LOGITECH FREEDOM OPTICAL
KEYBOARD WIRELESS
OPTICAL M05 & KB **\$125**

FUJITSU 8725 PS2 KEYBOARD	\$19
WIN98 STANDARD PS2 KEYBOARD	\$9
LOGITECH USB&PS2 OPTICAL MOUSE	\$25
ADOPEN PS2 MOUSE W/WHEEL	\$15
ENERMAX 350W P4 POWER SUPPLY	\$69
18" PC7 ALUMINUM CASE W/USB (NO PS)	\$175
INWIN 5506 18" ATX CASE 350W P4 PS	\$99
SAMSUNG 144MB INT FLOPPY DRIVE	\$17
10MEGA 250MB ZIP DRIVE	\$125
MS WINDOWS XP HOME/PRO OEM	\$159/\$239
MS OFFICE XP SBE	\$259



PRINT & SCAN
HP LASERJET 1000 HP'S HIGH
QUALITY B&W 600x600
DPI & 10PPM! **\$349**

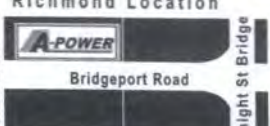
CANON S200/S300 (AFTER REBATE)	\$69/\$99
EPSON C60/C80 2880x720 DPI	\$129/\$229
EPSON PHOTO 820/890	\$155/\$255
LEXMARK Z25/Z35	\$85/\$105
LEXMARK Z45/Z55	\$149/\$195
HP 845C/940CVR	\$139/\$235
HP 1200 1200DPI 15PPM	\$579
HP 2200D 1200x1200 19PPM	\$1,099
BROTHER 1230 600 DPI 2MB 12PPM	\$335
BROTHER 1440 1200x600 2MB 15PPM	\$465
BENQ (ACER) 4300U SCANNER	\$79
CANON N670U SCANNER	\$135
EPSON 1250/1650 SCANNER	\$149/\$269
EPSON 2450 PHOTO SCANNER	\$559
HP 2200C/5400C SCANNER	\$99/\$275

Burnaby Location



3764 East Hastings St
Burnaby, BC V5C 2H5

Richmond Location



#101-11211 Bridgeport Rd
Richmond, BC V6X 1T3



Break the image of thermal-world Unique Super Micro-Fins Technology

COOLING JAC352A SOCKET-462 FAN (UP TO XP2100+ AMD APPROVED)	\$17
COOLING JAC152A SOCKET-462 FAN (UP TO XP2100+ AMD APPROVED)	\$23
COOLING JAC656A SOCKET-462 FAN (QUIET MODE W/70x70x15mm FAN)	\$29
COOLING JAC556A SOCKET-462 FAN (70x70x25mm 5000RPM FAN)	\$35

VISA WE ACCEPT
INTERAC | VISA | MASTERCARD

Copyright © 2000 Registered trademark of A-POWER COMPUTER LTD. All Rights Reserved. All product names & trademarks are properties of their respective owners. Product images are not exactly as shown. All prices are in CAD dollars and reflect a 3% pre-cash discounted price. All prices are subject to change without notice or obligation. Shipping and applicable taxes are not included in prices shown. Mail-in-rebates are offered by the manufacturer and have no affiliation with A-Power. Leasing available for systems \$1000 or greater OAC. Final rates are set by the leasing agent. A-Power assumes no liability or responsibility for any errors or omissions in the content.

*Sold with system only
**Price reflect an after
mail-in rebate

WHAT'S NEW

Continued from page 36

Orchestrator, which is used by some of the world's largest businesses, according to McAfee. The programs target companies with up to 250 employees.

Active VirusScan Small Business Edition includes VirusScan for desktop protection, NetShield for file server protection, and ePolicy Orchestrator for advanced anti-virus policy enforcement.

The Active Virus Defense Small Business Edition is more comprehensive. In addition to VirusScan, NetShield, and ePolicy Orchestrator, it includes GroupShield for email servers and WebShield for Internet gateway protection.

Pricing was not available at press time.

—TCP Staff

SpeedSite eases content management

North Vancouver, B.C.-based eBusiness Applications has launched a new service that it says will allow non-technical mar-

keting staff to manage large Web sites—a task that previously required the skills of graphic designers and programmers.

The service, SpeedSite (www.speedsite.ca), was developed to provide a more efficient system of developing and maintaining corporate Web sites. It automates many manual, behind-the-scenes processes, allowing non-technical staff to easily update text, add pages and insert images on corporate Web sites, says eBusiness Applications.

Targeted industries include: graphic design, high tech, and the outdoor and sporting goods industries. Companies can contact eBusiness Applications (604-985-9287 or demo@speedsite.ca) for a demo of the software.

—TCP Staff

Fujitsu upgrades touch-screen portables

Fujitsu Canada (www.fujitsu.ca/) has upgraded two of its touch-screen ultra-portable lines: the LifeBook B Series and the LifeBook P1000.

The newest models in the B Series are powered by an 800-MHz Pentium III processor-M, which runs faster, cooler, and extends battery life. They have a 10.4-inch XGA TFT touch-screen display



with anti-reflective coating, and measure 25x21.5x4 cm (9.92x8.5x1.26 in.) and weigh 1.35 kg (3 lb.) with the installed lithium ion battery.

The latest LifeBook P1000 is powered by a 733 MHz Crusoe TM5800 processor with LongRun power management. Models in this line measure 23x15.75x3.4 cm (9.1x6.2x1.36 in.) and weigh under 1 kg (2.2 lb.). They have an 8.9-inch wide-format XGA TFT touch-screen display with anti-reflective coating.

Both LifeBooks are single-spindle designs, but come with an external floppy drive (an optional CD-ROM drive is available). Each has a built-in modem and choice of either integrated WiFi-compliant wireless LAN or 10/100 Base-Tx Ethernet connectivity. Users have a choice of Windows XP Pro or 2000 Pro.

The new LifeBooks have a three-year limited warranty. The LifeBook B-2610 has a suggested list price of \$3,889, and \$2,649 for the LifeBook P-1110.

—TCP Staff

Corel previews Tablet PC application

Corel Corp. (www.corel.com) demo'd a prototype for a new application it has developed for systems running Microsoft's Tablet PC platform, at TechXNY in June.

According to Corel, the software, called Project Coligo, is designed for workers in an enterprise setting who do most of their tasks away from their desktops.

In combination with a Tablet PC device, the software will allow them to transform sketches into precise graphical images with annotations from multiple users, via a collaborative workflow. The software can be navigated with pen-based interactions, or via mouse and keyboard.

—TCP Staff

Apple acquires Emagic music tools

In early July, Apple (www.apple.com) announced its acquisition of Emagic, a developer of professional computer-based

Continued on page 92

any color any cartridge

for any printer

NEW PRODUCT
For Epson Stylus
C60 & C80 printers

SAVE
up to **70%**

Specialize in
high quality compatible
Inkjet Cartridge,
Inkjet Refill Kit,
Cash Register Ribbon,
Typewriter Ribbon &
Laser Toner.

15% Off Coupon

Pacific Plaza Unit 1265, 8888 Odlin Crescent,
Richmond, B.C. V6X 3Z8 Tel: 604-232-0373
4855 Main Street, Vancouver B.C.
V5V 3R9 (Main Street & 32-33 Ave)
Tel: 604-708-8320
www.inkjetmart.com

inkjetmart

One good reason to choose Alentus.

Rated #1 Windows Web Host in the world.*

ASP.NET • XML • SSL • SQL 2000 • WAP • VisualStudio.NET
Alentus – the support you need to deploy sophisticated web applications!

1.877.922.9903
www.alentus.com

Alentus
internet applications and site hosting

*According to Web Host Magazine & Buyer's Guide™



Sales, Service, Repair, Network, Web Design

Tel: (604)732-5691
Fax: (604)732-4608

www.vanocomputers.com(new)

vanco@vanocomputers.com

Tue - Fri : 11 to 7

Sat & Sun : 11 to 5

Monday closed



Lower Mainland B.C.



1884 West Broadway
Vancouver, BC V6J 1Y9

BEST DEAL IN B.C.

◆ All Systems have 3 years labor & 1 year part warranty plus 1 month free Internet.
Full Financing or Lease Available. ◆
* lease based on 36 months, 10% buyout.
Finance from 3 to 36 months (3% to 16%)

AMD Athlon Socket-A 266MHz	AMD Athlon Socket-A 266MHz	AMD Duron 850 \$429	Intel P-4 (\$478)	Celeron 1.1 / 1.3GH \$469/489
TB 1.3 / 1.4 / XP1700 \$609/649/659 XP1800/1900/2000/2100 \$669/699/729/789 PC Chips M830LR ATX M/B 256MB DDR PC266 40GB ATA133 7200rpm HDD 1.44 Floppy Drive GeForce2 MX400 64M Video 500W Speakers + Subwoofer 56K CDROM IDE Drive 56K V.90 Fax/Voice Modem 32Bit 3D Sound 10/100 Ethernet ATX 300W AMD Tower Case Internet Keyboard & 2B+ Wheel Mouse 6 Months Shaw@Home (\$29.95/Month)	TB 1.3 / 1.4 / XP1800 \$759/789/799 XP1900/2000/2100/2200 \$849/899/949/1049 Asus A7V333 Socket-A 256MB DDR PC-2700 333MHz 40GB ATA133 7200rpm HDD 1.44 Floppy Drive GeForce4 MX440 64M-TV 500W Speakers + Subwoofer 16X DVD ROM Drive 6-Channel 3D Sound 10/100 Ethernet ATX 300W Case w/ USB Internet Keyboard PS2 2B+ Wheel Mouse 6 Months Shaw@Home (\$29.95/Month)	Duron 1.1 / 1.2 / 1.3 \$459/469/479 XP 1700 / 1800 / 1900 \$509/529/569 PC Chips M841-LMR M/B 128MB DDR PC-266 40GB ATA133 7200rpm HDD Integrated 64MB Graphics 52X CDROM IDE Drive 1.44 Floppy Drive 32Bit 3D Sound 140W Speakers 10/100 Built-in Ethernet ATX 300W AMD Tower Case Win98 Keyboard 2B+ Wheel Mouse 6 Months Shaw@Home (\$29.95/Month)	1.7 / 1.8 / 2.0 / 2.2 / 2.26 / 2.4 / 2.53 \$919/ 959/ 999/ 1059/ 1079/ 1269/ 1679 Asus P4S533 S-478 SIS645DX 256MB DDR PC-2700 333MHz 40GB ATA133 7200rpm HDD 1.44 Floppy Drive GeForce4 MX440 64M-TV Altec Lansing AVS300 w/Sub 16X DVD-ROM 32Bit 3D Built-in Sound 10/100 Ethernet P-4 300W w/ USB Tower Case Internet Keyboard MS Intelli Wheel PS/2 6 Months Shaw@Home (\$29.95/Month)	Intel Tualatin PIII 1.13 / 1.2GHz \$539/559 PC Chips M758+ DELR M/B 128MB SD-RAM PC-133 40GB ATA133 7200rpm 1.44 Floppy Drive Integrated 64MB Graphics 180W Speakers 52X CDROM IDE Drive 32Bit 3D Built-in Sound 10/100 Built-in Ethernet ATX 300W Tower Case Win98 Keyboard 2B+ Wheel Mouse 6 Months Shaw@Home (\$29.95/Month)
Bring your lowest quotation on any configuration & get it even lower Lease \$35/mth* Finance \$25/36/69 (36/24/12 months)	Lease \$39/mth* Finance \$38/40/74 (36/24/12 months)	Get Vanco Express Warranty for only \$50 Lease \$28/mth* Finance \$19/27/51 (36/24/12 months)	Lease \$49/mth* Finance \$36/53/99 (36/24/12 months)	Check our new web-site for more details & today's price & items not listed Lease \$29/mth* Finance \$20/28/52 (36/24/12 months)

System Options (Hardware)

40 → 60 → 80GB 7200rpm	\$30 → \$50
128 → 256 → 512MB SDRAM	\$30 → \$60
128 → 256 → 512MB DDR PC2100	\$35 → \$75
52X CDROM → 16X DVD/Combo	\$25 → \$70
Canon S200 / Epson C40	\$99/79
17" 25mm RealFlat Monitor	\$225
17" SVGA Monitor	\$199
LG Cordless Keyboard & Mouse	\$35
Acer 4300U 48Bit Scanner	\$89
CDRW 24x10x40 / 32x10x40	\$75/99
CDRW 40x12x48 / Intel PC Camera	\$109/59

System Options (Software)

Windows 98 SE/Me/2000Pro	\$139/135/239
Windows XP Home / Pro	\$145/239
Norton System Works/ Anti Virus	\$39/23
Norton Internet Security 2002	\$35
MS Office XP Pro/ 2000Pro OEM*	\$449/435
MS Office XP Small Business	\$249
MS Word 2000 / 2002	\$59/75
Works Suite 2002 (6 Program)	\$139
WP Office 2002Pro/ MS Word 2000	\$39/59
PC Anywhere 10.5 Host & Rem	\$35
Publisher 2002	\$189
Corel Draw 8.0 / 9.0 / 10	\$39/79/59

Important Read & Save

- Prices are Cash/ Interac 3% discounted.
- We will try to match or beat any competitor's price*. Just ask for it.
- Ask for new items with Best Price.
- Some parts are only special order.
- Phone order and shipping available for outside Lower Mainland (C.O.D. and Money Order Only).

Guaranteed Lowest Prices

NOTEBOOK

ACER TM222X-C1.06/10G/128/24X/14.1/XP Pro	\$1589
ACER TM1400XV-P4-1.7/20G/128/DVD/14.1/XP Pro	\$2179
ACER TM632XCi-P4-M-1.6/20G/256/DVD-RW/14.1/XP Pro	\$3099
ASUS L2000B-P4-M-1.6/20G/128/DVD/14.1/XP Home	\$2059
TOSHIBA S1000-C1.06/15G/256/DVD/14.1/XP Pro	\$1889
TOSHIBA S1400-P4-1.6/30G/256/DVD-RW/14.1/XP	\$2569
TOSHIBA S1900-P4-1.6/30G/256/DVD-RW/15.1/XP	\$2749
TOSHIBA S6100-P4-1.6/40G/256/DVD-RW/15.1/XP	\$3399
TOSHIBA S5100-P4-1.7/40G/512/DVD-RW/15.1/XP	\$3699

(CALL FOR IBM, FUJITSU, SMARTBOOK, GATEWAY)

UPGRADE

Celeron 1.2GHz \$319
ATX Case, 128M PC133, M758+ 64M Video, 3D Sound, 10/100 LAN w/ Hardware Installation
Duron 1.2GHz \$319
ATX Case, 128M DDR, M841M/B + 32MB Video, 3D Sound, 10/100 LAN w/ Hardware Installation

OEM CPU • RAM

Call for Today's Update Prices

AMD TB (PC266) 1.3 / 1.4G	\$109/139
XP 1700/ 1800/ 1900/ 2000/ 2100	\$159/175/209/255/309
MP (for Dual) 1800 / 1900 / 2000	\$259/299/339
Duron 850 / 1.0 / 1.1 / 1.2 / 1.3G	\$55/69/75/85/99
Intel PIII-EB 1.0G / Tualatin 1.13 / 1.2G	\$209/179/199
Celeron 533/ 1.0*/ 1.1 / 1.2 / 1.3G	\$65/115/105/115/125
P4 (478) 1.7 / 1.9 / 2.0 / 2.2 / 2.4G	\$219/259/299/359/389
P4 (478) New 333MHz 2.26 / 2.4 / 2.53	\$379/599/569
DDR (PC2100) 128 / 256 / 512MB	\$45/79/149
DDR (PC2700-333MHz) 256 / 512MB	\$95/179
SDRAM PC133 64 / 128 / 256 / 512MB	\$35/45/75/139
RIMM RamBus 64 / 128 / 256MB	\$42/85/145
144pin SDRAM (Notebook) 128 / 256MB	\$49/89
Compact Flash 64 / 128 / 256M	\$55/85/155
SmartMedia 64 / 128 / Multimedia 32 / 64M	\$45/79/149/89

HARD DRIVE • FLOPPY • ZIP • JAZZ

Maxtor ATA133 (7200) 20 / 40 / 60 / 80	\$105/109/135/159
Maxtor ATA133 (5400) 20 / 40 / 60	\$97/102/132
Maxtor ATA133 (5400) 80 / 120 / 160	\$159/235/369
Seagate 7200 (ATA100) 40 / 60 / 80	\$115/138/155
WD 5400 (ATA100) 20 / 40 / 80 / 120	\$105/114/175/255
WD 7200 (100) 20 / 40 / 60	\$115/127/163
WD 7200 (100) 80 / 100 / 120	\$185/255/289
Toshiba Notebook IDE 10 / 20 / 30 / 40	\$125/159/199/245
Ext. USB & Firewire Enclosure for 2.5" Hard Drive	\$199
Ext. USB 2.0 Enclosure for 3.5" Hard Drive (New)	\$139
Zip Drive 250M Int / Ext P / U / Disk	\$119/229/235/29

VIDEO • CAPTURE CARD

Matrox G450DH32M / Marvel ETV32M / G550 DH32M	\$139/299/159
ATI Radeon DDR 32M VE Dual / 32M SDR AGP	\$109/155
ATI Radeon 7000 AGP SDR TVO 32 / 64M	\$69/79
ATI Radeon 7500 All-in-Wonder 64M AGP DDR	\$259
ATI Radeon 7500LE 64M SDR / 7500DH 64M TV	\$105/119
ATI Radeon 8500E-DH 64M DDR TV / 128M	\$225/245
ATI Radeon 8500DV All-in-Wonder w/IEEE & Remote	\$379
ATI All-in-Wonder 128 AGP Pro 32M	\$189
ATI TV Wonder & Capture Card / VE / USB	\$109/79/119
GeForce2 MX400 64M / TV / DDR / DDR-TV	\$65/75/79/89
Asus V7100 2V1D / Magic / Pro GF2 MX400 64M TV	\$129/75/119
Asus V7700 GF2 Ti 32MB DDR TV-Video-In 3D	\$149
Asus V8170 GF4 MX420, DDR 64MB TV / MX440	\$145/169
Asus V8200 GeForce3 64M Pure / DL	\$239/345
Asus V8200 GeForce3 75 64M Pure / DL	\$455/489
Asus V8420 GF4 Ti4200, DDR 128MB TV-Out DVI	\$309
Asus V8440 GF4 Ti4400, DDR 128MB TV-Out DVI	\$389
Asus V8460 GF4 Ti4600, DDR 128MB TV-Out / DL	\$529/589
MSI 8808 Riva TNT2 M64 32M / 8826 GF2 MX400 64M	\$59/99
MSI 8860 GF4 MX420 64M-TV / 8866 GF4 MX440-T109/145	
MSI 8863 GF4 MX460 64M DDR VIVO SH/ 8867 DH\$159/199	
MSI 8850 GF3 Ti200 128M DDR VIVO/ 8851 TV-DV\$209/205	
MSI 8870 GF4 Ti4200 64M / 128M DDR TV-DVI	\$249/289
MSI 8871 GF4 Ti4400 / 8872 128M DDR VIVO-DVI	\$369/499

MODEM

USR 56K PCI Vader SoftModem V.90 / Voice	\$35/39
USR 56K V.90 PCI Controller SR / Voice	\$85/99
ADOpen PCI V90 SV / PLM / PM / External	\$29/43/48/79
PC Tel 56K / ESS / AMR 56K	\$22/25/15
PCMCIA 56K V90 Voice	\$69
D-Link DSL-3001 External ADSL Modem	\$259

NETWORK

AOpen 10/100 AON-325 / 325F / 315 Intel Chip	\$23/25/45
Suercom 10 Base-T Hub 5 / 8 / 16 Port	\$35/47/85
Suercom PCMCIA Ethernet 10-100 32Bit / 16 Bit	\$45/55
Intel 8400B / 3Com 905TXM / TX / 980CTX	\$55/55/63/99
D-Link 10/100 Hub DSH 5 / 8 / 16	\$95/115/259
D-Link DE-805 / 808 / 809 / 816 / 824	\$52/57/69/195/155/229
D-Link 500 / 538 / PCMCIA 10/100	\$25/27/85
D-Link Router DI-704P / 707 / 713P	\$159/209/335

Cables, Adaptors, Accessories, Switches, Tools

USB

USB 4 / 7 Port Hub / 2P-1.1 / 5P-2.0 Card	\$35/55/29/69
PCMCIA to USB / Ext. USB 2.0 Kit for 3.5" HDD	\$89/139
10/100 RJ45 Lan / File Transfer Cable	\$79/49
A/DB25F Parallel / DB9 Serial Adaptor	\$49/69
USB 10 / 20 / 30 / 40G Storage (Ext. H.D.)	\$209/239/279/329

MOTHERBOARD

Pentium III & P4 Motherboards

Asus TUA266 / TUSL2-C / TUSI-M / CUV266	\$89/139/105/69
Asus P4T-E / P4B / P4B266 / P4S333	\$225/165/215/159
Asus P4 S533 / PC Chips 935LR / M758+DEL	\$175/129/95
Gigabyte 8IXD / 8IMDL / 8IRML / 8IRX / 8IRXP	\$119/117/129/155/219
Gigabyte 8S1ML / 8S1ML / 8VEM / 8VTXE	\$119/129/99/95
MSI 6398-ARU / 6566 / 6580 / 6547E / 6534	\$199/129/159/135/155

AMD Socket-A Motherboards

Asus A7M266-D / A7V333 / R / A7V266-E	\$349/189/215/189
Gigabyte 7DXRP / 7VXP / 7VXP	\$109/159/119
MSI 6373 / 6380 KT266 Pro2-RU / 6380E-020	\$215/129/179
PC Chips M810-LMR / M830-LR266 / M841	\$99/105/115

SOUND CARD • SPEAKERS • MIC

S-Blaster PCI 128 / Value Digital / Live 5.1	\$35/54/57
S-Blaster MP3 5.1 / Audigy Platinum OEM	\$129/105
S-Blaster Audigy Platinum / EX / MP3+ or X-Gamer	\$285/349/149
Audio Excel 6CH / EZ Media 4-Channel PCI	\$27/22
Creative FPS1000 / 1600 / 2000	\$69/95/179
Creative Inspire 2.1 / 4.1 / 5.1	\$59/85/135
Altec Lansing AVS 200 / 300 / 500	\$35/51/75
Altec Lansing ACS 56 / ATP3 / ATP4	\$179/99/185
Altec Lansing 2100 / 4100 / 621 / 641	\$125/189/185/239
Yamaha M101 / MS201 / M40 / TSS1B	\$32/65/72/279
Jazz J1104 / J7904 (3-pc 2X3.6W+12W)	\$19/49
Mic / Headphone with Mic / Casonic	\$9/14/29

MISC • CASES • SCSI

Cable, switch, networking supply, battery & accessory at lowest prices

17" 300W / 17" 300

#103-13423, 78 Ave.

Surrey, BC, V3W 0R8

WEB
www.eversource.com

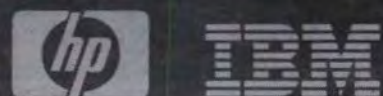
E-MAIL
source@eversource.com

TEL
(604) 502-7688

FAX
(604) 502-7686

TOLL FREE
1-888-303-9988

TOSHIBA

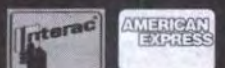
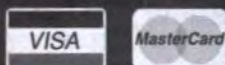


COMPAQ

Dealers Welcome

HOURS
Mon.- Fri.: 9:30 - 5:30

Sat.- Sun.: Closed



We buy
& sell
used
notebooks

Please call and check our website for all models and price updated!

EverSOURCE™



from
\$499.99

Refurbished

Notebooks Center

REFURBISHED NOTEBOOKS SPECIAL

COMPAQ ARMADA 7730MT	\$ 499.99	P-166 / 32M / 2.1G / CDROM / 33.6K / 12.1" TFT
COMPAQ ARMADA 7730MT	\$ 529.99	P-166 / 64M / 2.1G / CDROM / 33.6K / 12.1" TFT
COMPAQ ARMADA 7730MT	\$ 559.99	P-166 / 80M / 2.1G / CDROM / 33.6K / 12.1" TFT
COMPAQ ARMADA 7800	\$ 799.99	PII-266 / 64M / 5.0G / CDROM / 13.3" TFT
COMPAQ ARMADA 7400	\$ 969.99	PII-366 / 128M / 10.0G / DVD / 56K / 14.1" TFT
DELL LAT CPI	\$ 899.99	PII-300 / 128M / 4.8G / CDROM / 13.3" TFT
DELL LAT CPI	\$ 969.99	PII-366 / 128M / 6.0G / CDROM / 13.3" TFT
GATEWAY SOLO 5300	\$ 1599.99	PIII-800 / 256M / 10.0G / CDROM / 56K / 14.1" TFT
HP OMNIBOOK 4100	\$ 799.99	PII-266 / 64M / 4.0G / CDROM / 14.1" TFT
IBM THINKPAD 380Z	\$ 749.99	PII-233 / 64M / 4.0G / CDROM / 13.3" TFT
IBM THINKPAD 380Z	\$ 779.99	PII-233 / 98M / 4.0G / CDROM / 13.3" TFT
IBM DVD THINKPAD 770X	\$ 949.99	PII-300 / 128M / 8.0G / DVD / 56K / 13.3" TFT
IBM DVD THINKPAD 600E	\$ 969.99	PII-366 / 128M / 6.0G / DVD / 56K / 13.3" TFT
IBM THINKPAD 600	\$ 899.99	PII-300 / 128M / 4.0G / CDROM / 56K / 14.1" TFT
IBM THINKPAD 390X	\$ 969.99	Cel-400 / 64M / 4.5G / CDROM / 56K / 12.1" TFT
NEC VERSA SX	\$ 779.99	PII-233 / 96M / 3.2G / CDROM / 14.1" TFT
NEC VERSA SX	\$ 899.99	PII-300 / 128M / 4.3G / CDROM / 14.1" TFT
TOSHIBA TECRA 550CDT	\$ 699.99	P-266 / 64M / 4.0G / CDROM / 33.6K / 12.1" TFT
TOSHIBA SAT 4020CDT	\$ 899.99	PII-300 / 64M / 6.4G / CDROM / 13.3" TFT

- Quantity and price are subject to change without prior notice.
- Limited Warranty for all refurbished notebooks, please call for details.
- All product names or registered trademarks are properties of their respective owners.

Technology Inc.

A member of Tai Hsin Group established in Taiwan since 1962



P4 1.7G \$1199.99 1.8G \$1299.99

CPU	Intel P4 1.7G / P4 1.8G
RAM	256MB DDR / 128 RAMBUS
HDD	40G 7200rpm
CDRW	16x10x40 / 12x8x32
DVD	16X DVD-ROM
VGA	GeForce2 200 32M / TNT 16M
SOUND	On board / SB PCI 128D
SPEAKER	Regular
NET CARD	10/100
MONITOR	17" Color
SOFTWARE	MS WIN XP / WIN ME

Systems from

\$399.99

(Color Monitor incl.)

Limited warranty,
please ask for details.

All refurbished systems include:

- Micro ATX Case
- 1.44MB Floppy
- Speaker
- 56K Fax/Modem
- PS2 Keyboard
- Windows OS Original CD
- PS2 Mouse
- One year Parts & Labour Warranty
- Limited Warranty for 15"LCD

P4 1.4G \$999.99

CPU	INTEL P4 1.4G
RAM	128MB RAMBUS
HDD	40GB 7200rpm
CDRW	12x8x32
DVD	16X40X DVD-ROM
VGA	nVidia TNT2 M64 32M
SOUND	SB Live! Digital Output
SPEAKER	Digital with Sub
NET CARD	10/100
MONITOR	17" Color
SOFTWARE	MS WIN ME

Athlon 1.3G \$999.99 HP XT-938 \$1149.99

CPU	Athlon 1.3G
RAM	256MB / 128MB
HDD	60GB 7200rpm
CDRW	8x4x32
DVD	16X40X
VGA	TNT2 M64 32M / On board
SOUND	SB Live! D / On board
SPEAKER	Digital with Sub / Regular
NET CARD	10/100
MONITOR	17" Color
SOFTWARE	MS WIN ME / WIN XP

A-Open 900 \$1349.99 B-750 \$1299.99

CPU	Duron 900 / Duron 750MHz
RAM	128MB / 64MB
HDD	40GB / 20GB
CDRW	12X10X32 / 8X4X
CDROM	No / 52X
VGA	TNT2 Pro 32MB
NET CARD	No
SOUND	On board
MONITOR	HP Pavilion f50 15"LCD w/digital
SOFTWARE	MS WIN ME



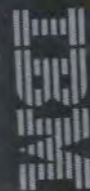
IBM 48U \$1449.99 EM DVD-700K \$1349.99

CPU	Duron 850 / Athlon 700MHz
RAM	64MB / 128MB
HDD	30G
CDRW	8X4X / No
DVD-ROM	No / 8X DVD
VGA	S3 Savage4 8M / TNT2 8M
SOUND	On board
NET CARD	10/100 / No
MONITOR	HP Pavilion f50 15"LCD w/digital
SOFTWARE	MS WIN ME / MS WIN 98



- All prices and products availability subject to change without notice
- Not responsible for typographical errors
- All logos and trademarks are properties of respective owners.

TOSHIBA



COMPAQ

DELL

Ever

SOURCE

Technology Inc.



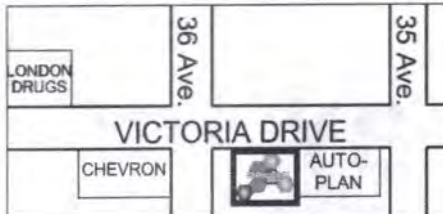
COMPUGEAR SYSTEMS

5144 Victoria Drive, Vancouver, BC V5P 2V2

Tel.: 604.323.1211 Fax: 604.323.1211

Store Hours: Mon-Fri 10am-7pm Sat 10am-5:30pm Sun 12pm-4pm

Product Availability/Prices are subject to change without notice. All prices reflect to cash discount.
All product names, trademarks are properties of their respective owners.



AMD DURON 1.1 GHz

Elite K7SEM SiS730S ATX Motherboard
128 MB SDRAM
Panasonic 1.44 Floppy Drive
Integrated Video (up to 64MB)
Maxtor 40GB IDE Hard Drive
52x CD-ROM
10/100 Ethernet LAN (O/B)
AC'97 Sound Card (O/B)
PS2 Keyboard & Mouse
240W Power Speakers
17" ATX 300W Tower Case (w/ USB)

\$429

AMD XP 1800+

MSI6378L ATX Motherboard
256MB PC2100 DDRAM
Panasonic 1.44 Floppy Drive
Integrated Video (up to 64MB)
Maxtor 40GB IDE Hard Drive
16x DVD-ROM
10/100 Ethernet LAN (O/B)
AC'97 Sound Card (O/B)
PS2 Keyboard & Mouse
240W Power Speakers
17" ATX 300W CSA Approved Case

\$589

AMD XP 2000+

ASUS nVidia NForce 220D Motherboard
256MB PC2100 DDRAM
Panasonic 1.44 Floppy Drive
Integrated Video (up to 64MB)
Maxtor 40GB IDE Hard Drive
16x DVD-ROM
10/100 Ethernet LAN (O/B)
AC'97 Sound Card (O/B)
PS2 Keyboard & Mouse
240W Power Speakers
17" ATX 300W CSA Approved Case

\$779

PENTIUM4 1.6 GHz

M7-SXE (DDR266) ATX Mboard
256MB PC2100 DDRAM
Panasonic 1.44 Floppy Drive
Integrated Video (up to 64MB)
Maxtor 40GB IDE Hard Drive
16x DVD-ROM
10/100 Ethernet LAN (O/B)
AC'97 Sound Card (O/B)
PS2 Keyboard & Mouse
240W Amplified Speakers
17" ATX 300W Tower Case (w/ USB)

\$609

PENTIUM4 1.8 GHz

GA-81LMT4 DDR266 i845GL 400FSB
MB
256MB PC2100 DDRAM
Panasonic 1.44 Floppy Drive
Integrated Video (up to 64MB)
Maxtor 40GB IDE Hard Drive
16x DVD-ROM
10/100 Ethernet LAN (O/B)
PS2 Keyboard & Mouse
240W Powered Speakers
17" ATX 300W CSA Approved Case

\$779

PENTIUM4 2.0 GHz

Asus P4B533 i845G 533 FSB Mboard
256MB PC2100 DDRAM
Panasonic 1.44 Floppy Drive
Maxtor 40GB 7200 rpm Hard Drive
32x CD Writer
GeForce4 MX 420 64MB w/ TV out
10/100 Ethernet LAN (O/B)
On-Board Sound
PS2 Keyboard & Mouse
240W Power Speakers
17" ATX 300W CSA Approved Case

\$995

MEMORY

128/256/512 MB PC133SDR	35/69/149
128/256/512 MB PC2100 DDR	45/65/159
256/512 MB PC2700	call

HARD DRIVE & STORAGE

Maxtor 40 GB 5400 rpm / 7200 rpm	105/109
Maxtor 60 GB 7200 rpm / 80 GB 7200 rpm	139/159

CDROM/CD-RW/DVD-ROM DRIVES

LG / SONY 52x CD-ROM EIDE	39/39
LG 24x CD-RW w/ SW	79
Optiwrite CD-RW 32x w/ NERO SW (boxed)	99
LG 16x DVD-ROM	65

NETWORK / MODEM

Smartlink 10/100 Ethernet PCI LAN	15
Motorola V.90 56K Modem	22

VIDEO CARD

ATI Radeon 7000 64MB DDR (w/ TV-out; Multi-Monitor Display)	95
ATI Radeon 7500LE 64MB DDR (w/ TV-out)	125
ATI Radeon 8500LE 128MB DDR (w/TV-out; Multi-Monitor Display)	219
MSI 8866 G4MX440 64MB DDR (VIVO;Dual VGA)	169
MSI 8867 G4MX460 64MB DDR (VIVO;Dual VGA)	199

CPU (Processors)

AMD Duron 1.2/1.3 G (retail)	105/119
AMD XP 1800/2000/2100 (retail)	169/259/309
Intel Celeron 1.2/1.3 FGA2	115/125
Intel P4 1.6/1.8/2.0/2.2/2.4 (512K)	219/259/289/359/599

SOUND CARD

SB Audigy w/ Firewire (IEEE)	97
SB Audigy MP3+ (retail)	139
SB Labs Extigy (retail)/SB Audigy Platinum EX (retail)	209/339

MONITORS

Acer Acerview 701 17"	199
Samsung Syncmaster 750S 17"	229
Samsung Syncmaster 950B 19"	319
Samsung 151S 15" LCD	579
NEC 1550V 15" LCD	585

PRINTER

Samsung ML-1210 Laser Printer	295
-------------------------------	-----

MOTHERBOARDS

ASUS A7N266	129
ASUS A7V333	189
ASUS P45533-EL (i845E, DDR, 533FSB)	279
BIOSTAR M7VKQ VIA 266 A/V/L AMD	99
GA-7VRXP (KT333, DDR, USB 2.0)	159
GA-7VKML (KM266A, DDR, A/V/L O/B)	109
GA-8IEXP (i845E, DDR, RAID)	225
GA-8ILMT4 (i845GL, DDR, A/V/L O/B)	135
MSI KT3 Ultra KT333 (w/ Audio)	129
MSI KT3 ARU Ultra 333 (DDR, USB 2.0)	185
MSI KT7PRO2 VIA KT266 (DDR, w/ Audio)	129
MSI 6547E (SiS545DX, DDR, 533FSB, w/ Audio)	155

ACCESSORIES / SOFTWARE

EZONICS USB Webcam XP Compatible	45
Logitech Internet Keyboard	29
Office Smart XP Internet Keyboard	35
Altec Lansing AVS300W	47
Microsoft Windows XP Home/Professional	145/225
Norton Anti-Virus 2002	25

< HANDS ON >

Wish you were here

Continued from page 46

include a built-in software firewall as part of the UNIX underpinnings. There are also freeware/shareware utilities available on Version Tracker (www.versiontracker.com/macosx/) that allow you to set up and configure the built-in firewall, and it works just as well as Personal Firewall.

We did have one issue with Personal Firewall: the default configuration prevented us from reading Web discussion boards running on the vBulletin server software. For some reason it filtered out all the text in the posts, leaving only the date and the subject line. However, it is possible to correct this by changing some of the settings in the program. The user interface is very friendly and should be no problem for novices to learn quickly.

The other piece of software included in the suite is Norton Privacy Control, which can be set up to alert you when any important information is being transmitted to the Internet from your computer. You input any information you want it to look for—such as credit card numbers or phone numbers—and it then scans all outgoing data and alerts you if any of the entries you have made are found in the outgoing packets. Norton Privacy Control is a new feature, so there is no OS 8 or 9 version.

While we had no technical problems with the Internet Security suite we feel that for many people the best solution is a combination of Norton Antivirus 8.0 and either a hardware router or the built-in OS X firewall. The Internet Security 2.0 is \$159 Canadian (upgrades are \$50 less, via mail-in rebate).

Since you must purchase a copy of the program for each computer in your house, if you have two or more machines on a high-speed connection, a hardware router is actually cheaper. Also, if you own previous versions of Antivirus, the upgrade to 8.0 is only US\$39.95. The full version of Antivirus is \$119. □

Express yourself
Send your opinions, ideas, rants, and raves to:
letters@tcp.ca

FLY COMPUTERS

Visit www.flycomputers.com for updated prices

Store Monthly Sales

17" SVGA .27 1280x1024 Monitor	\$189
Samsung 753DF 17" .20mm(H) Flat Monitor	\$245
32X 80min 50pcs Blank CD	\$25
Maxtor 40/60/80G 7200rpm ATA133	\$100/130/150
LG 32x10x40 / Liteon 40x12x48 CDRW	\$89/\$105
LG/Liteon 16X DVD ROM	\$62
Surecom PCMCIA 10M Ethernet	\$39
SuperSlim 600x1200dpi 48bit Scanner	\$75
10/100 PCI Network Card	\$14
GF2 MX400 64MB / MX400 64M TV	\$69/\$79

AOpen #1 Computing Solution Provider

- Motherboards
- Fax/Modem &
- Communications
- VGA Cards
- Housing &
- Bare Systems
- Monitors
- CD-ROM/DVD/CD-RW
- Mouse & Keyboards
- Networking NICE & Hub
- Speakers & Sound Cards

AOpen Monthly Specials:

52X CDROM	\$42
16X DVD	\$69
56K V.90 Modem	\$24

Special Sales!

Vancouver

We are here
RoyaBank
W. 57th Ave.
Cambie St.

521 W. 57th Ave.,
Vancouver, BC, V6P 1R8
Tel: 321-8795 Fax: 321-6516
Open 6days a week exp. Sun
From 10:00 am - 6:30 pm
E-mail: sales@flycomputers.com
tech@flycomputers.com

Burnaby

We are here
E. Hastings St.
Safeway
Willingdon Ave.

4463 E. Hastings St.,
Burnaby, BC, V5C 2K1
Tel: 298-0299 Tech: 298-0295 Fax: 298-0265
Open 6days a week exp. Sun
From 10:00am - 6:30pm
E-mail: salesburnaby@flycomputers.com
techburnaby@flycomputers.com

Student Special

AMD Duron 1GHz CPU
ECS K7 SEM all in one Motherboard
128M SDRAM / 20GB HDD / 1.44MB FDD
64M AGP 3D & DVD Ready Video /
32bit Audio / 10/100NIC, 52X CDROM
17" 300W ATX Tower Case
Windows KB / 2B Mouse / 180W Speaker
ARTEC 48bit 1200x600dpi scanner
+ Canon S200 2880x720 dpi printer **Only \$179**

The CPU and motherboard can also be replaced by Intel CPU and suitable motherboard
All Systems come with 1 year parts and 3 years labour warranty 1 month free internet access

Advance System

Intel P4 Celeron 1.7GHz
ECS L4S5MG all in one MB
256MB PC2100 DDR
40GB 7200rpm HDD
1.44M FDD
On board AC97 Sound
52XCDROM, KB, Mouse, Speakers
17" P4 300W ATX Tower Case
\$549
P4 Celeron 1.8GHz \$589
P4 1.6G/1.7G/1.8GHz \$629/639/659

Economical System

AMD Duron 1GHz CPU
Elite K7 SEM Motherboard
128MB PC133 SDRAM
20GB UDMA Hard Drive
1.44MB Floppy Drive
Max. 64M AGP Video
AC97 Sound, 10/100 NIC
52X CD-ROM, KB, Mouse, Speakers
17" 300W ATX Power Supply
Duron 1.1/1.2G/1.3G \$409/419/449

Player System

AMD XP 1700+ CPU
ECS K7 S5A Mainboard
256M PC2100 DDR
40G 7200rpm ATA133 Hard Drive
1.44MB Floppy Drive
Geforce2 MX400 64M Video Card
3D Sound - 10/100 NIC
52X CDROM
17" AMD proofed 300W Tower Case
Windows Internet Key board
PS/2 wheel Mouse
180W Multimedia Speakers, Microphone
AMD XP1800/1900/2000/2100+ \$609/669/719/779

Intel P4 1.6GHz CPU

MSI 6547E S33FSB Socket478 Motherboard
256M PC2100 DDR
40G 7200rpm ATA133 Hard Drive
Geforce2 MX400 64M Video Card
1.44M Floppy Drive
52X CDROM
3D Sound, 10/100 NIC
17" P4 300W ATX Tower Case
Windows Internet KB
PS/2 Wheel Mouse
180W Speakers, Microphone
P4 1.7/1.8/1.9/2.0GHz \$739/759/779/799

Power Player System

AMD XP 1800+ CPU
MSI KT3 Ultra DDR333 ATA133 Motherboard
256MB PC2700 DDR333
40GB 7200rpm ATA133 Hard Drive
1.44MB Floppy Drive, 52X CDROM
Geforce4 MX440 64M DDR Video Card
3D Sound Card
10/100 NIC
17" 300W ATX Tower Case
Windows Internet KB
Windows PS/2 Wheel Mouse
1000W Multimedia Speakers
AMD XP1900/2000/2100+ \$799/849/899

Intel P4 1.6GHz CPU

ASUS P4S533 DDR333 Motherboard
256M PC2700 DDR333
40G 7200rpm ATA133 Hard Drive
1.44M FDD, 52X CDROM
Geforce4 MX440 64M DDR Video Card
3D Sound Card
10/100 NIC
17" P4 300W ATX Tower Case
Windows Internet KB
Windows PS/2 Wheel Mouse
1000W Multimedia Speakers
1.7/1.8/1.9/2.0/2.2G \$869/889/909/929/999

Super Pentium 4

AMD XP2000+ CPU
ASUS A7V333 KT333 USB2.0 Motherboard
512MB PC2700 DDR333
80GB ATA133 7200rpm Hard Drive, 1.44M FDD
16X DVD, 32x10x40 CDRW
Geforce4 Ti4400 128M DDR VIVO
On Board 5.1 Sound Card
D-Link 10/100 NIC
Logitech Internet KB
Logitech Optical Wheel Mouse
1000W Speakers With Subwoofer
18" P4 enermax 350W Tower Case
XP 2100+ \$1659

Intel P4 2.0GHz CPU

ASUS P4B533-E-L i845D USB2.0 Motherboard
512M PC2700 DDR333
80GB ATA133 7200rpm Hard Drive, 1.44M FDD
16X DVD, 32x10x40 CDRW
Geforce4 Ti4400 128M DDR VIVO
On Board 5.1 Sound Card
10/100 NIC
Logitech Internet KB
Logitech Optical Wheel Mouse
1000W Speakers with Subwoofer
18" P4 enermax 350W ATX Tower Case
P4 2.2G/2.4G \$1779/\$2019

Upgrade Package

Include New:
AMD Duron 1GHz, CPU Fan
Elite K7 SEM all in 1 main board
128MB PC133 SDRAM
AGP 4X Video & 3D Audio
10/100 NIC, 56K Modem(optional)
17" 300W ATX Tower Case
Only \$239
+\$40 for Installation

Upgrade Options for New System

15"/17"/19" MONITOR	\$179/189/299
20 to 40 to 60GB	\$20/60
128 to 256M SDRAM	\$30
Printer & Scanner	\$179
Corel WP office/MS Work suite	\$39/139
Windows 98SE	\$32
Anti Virus/NT CD MANUAL	\$29
Windows XP Home/ Pro	\$145/\$235

CPU

Cele 1G/1.1G/1.2G/1.3G Box	\$119/109/119/129
PIII 1.13G/1.26GHz Tualatin	\$189/209
Socket 478 P4 Celeron 1.7GHz/1.8GHz	\$149/185
P4 478 1.6G/1.7G/1.8G/1.9G/2G/512K	\$219/225/259/279/299
Duron 1G/1.1G/1.2G/1.3G OEM	\$75/79/85/105
TB 950/1.1G/1.2G/1.3G OEM	\$89/119/145
TB 1.3G/1.4G 266MHz OEM	\$119/145
AMD XP 1700/1800/1900/2000/2100+ BOX	\$159/175/215/259/315
AMD MP 1800/1900/2000(Fox dual)	\$269/299/349
AMD K6 II 450/500	\$45/\$49

Please call for updated CPU price

MOTHERBOARD

ECS P68TMT S370 all in one	\$95
ECS K755A SIS735/K756ASIS745 SocketA DDR	\$92/\$109
ECS K75EM SIS735 All-In-One SocketA	\$92
ECS P455A SIS645 478 /P4VXAD 478 DDR MB	\$105/109
Abit TH711 P4 RDRAM/BD7 DDR	\$209/139
Asus A7V266-C-WA/A7V333-Raid/A7N266-WA	\$129/225/\$219
Asus P4T-E 478 WGA/P4T533-C-L	\$225/259
Asus P4S333/P4S533 WA/P4B533	\$155/189/\$235
Abit KC733R KT333 ATA133 / BD7 Raid P4 845	\$199/169
Gigabyte GA-7VRX/GA-7VRXP	\$129/160
Gigabyte GA-R18X+ 478 ATA133	\$219
MSI KT3 Ultra333 ATA133/KT3-ARU Ultra333 Raid	\$129/175
MSI 654E Max-C/K838E Max-LR	\$139/199
Tyan Tiger(2460)	\$319

Visit www.flycomputers.com for More Types & Models

MEMORY

64M/128M/256M/512M PC133 oem	\$25/35/59/119
64M/128M/256M/512M PC133	\$29/35/59/139
RAMBUS 128M/256M	\$85/149
PC2100 DDR 128M/256M/512M Major Brand	\$35/65/139
Notebook RAM Module	Call for price

HARD DRIVES

IBM Model 20G/30G/40G	\$155/189/225
Toshiba Notebook 30G	\$215
Max 20/40/120/160G/400rpm	\$95/105/219/349
Max 40/60/80G 7200rpm	\$100/130/150
Exo Firewire USB2.0 HDD	Call for price
Seagate 40/60/80G 7200rpm	\$109/135/159
TB 20/40/60/80/100/120G 7200rpm	\$109/115/149/229/289
IBM 40/60/80/120G 7200rpm	\$109/129/139/215

VIDEO CARDS

Radeon 7500 DDR 64M DVI TV / 8500 64M LE DDR	\$129/209
TNT2 M64 32M PCI/GP2 MX400 64M TV OUT PCI	\$75/145
Geforce4 MX420 64M DDR TV / MX440 64M DDR TV	\$75/115
ATI Xpert2KPro 32M oem	\$69/79
ATI DV-Wonder Firewire	\$49
ATI 7500 64M DDR / 8500LE 128M DDR Box	\$75
ATI Radeon 8500 A1W 64M DDR / 8500 A1W 128M DDR	\$209/319
Asus V8170 GF4 MX440 64M / V8200 T5000 64M Pure	\$399/519
Asus V8460 Delux GF4 T4600 128M	\$145/299
MSI GF4 T5400 V1 128MDDR/T4600 TD 128M DDR	\$369/499
MSI GF4 MX440 64M DDR / MX460-VT 64M VIVO	\$345/499

SOUND CARDS

Aopen AW200/AW840/AW850	\$25/29/35
CL Ensoniq PCI 128/Level 5.1 / Audigy digital 5.1	\$27/30/50/99
CL SB Exigy 5.1/MP3+ 5.1/X-Game 5.1	\$219/145/145
CL SB Audigy Platinum 5.1/ Platinum EX 5.1	\$285/359

MODEMS

Store special 56K V.90 PCI	\$19
Aopen 56K SV	\$25
GVC 56K ISA	\$69
USC 56K PCI	\$45
PCMCIA 56K V.90 Modem	\$78

MONITORS

15"/17"/19" SVGA	\$179/185/279
AOC 5E/7E/9E/9G/9K/9L	\$179/189/219/289/339
LG 775PT/775FT Plus/995E/900B/E900B	\$209/339/329/325/369
LG 563LE Led	\$589
ViewSonic E70/E70F/G75F/E75F	\$239/269/315/299
ViewSonic E90/E90F	\$365/399
ViewSonic VE150 LCD 15" / VE170 LCD 17"	\$589/1259
Sam 750S/753DF/700NF	\$219/245/379
Sam 950B/955DF/900NF	\$309/399/539
Sam LCD 15" 151S/17" 171S TFT	\$589/1019
KDS 17"VSTP/17" TP Flat/17" VSP/19" 9P Flat	\$229/249/325/359
Impression 17" 1280x1024/19" 1600x1200 SVGA Monitor	\$199/359
Sony E240/G220/G400/E340	\$429/449/649/979
Sony 15" SDM S51 LCD 15" / SDM S81 LCD	\$709/1659
NEC AS70/AS75F/AS90/AS95F	\$219/239/315/359
NEC FE700+/750+/950+/1550V LCD 15"	\$379/349/489/569
Philips 107S/107B /107T/107P/109B/109P	\$225/229/239/359/389/389
Philips 150s LCD	\$569

Visit www.FLYcomputers.com for More Types & Models

PRINTERS

Canon S200/S300/S800	\$99/135/475
Epson C40/C60/C80/Photo 820/890/1280	\$75/135/229/159/389/679
Lexmark Z25/33/35/45/53/55/65	\$85/95/125/159/169/195/289
HP656C/845C/920C/940	\$289/1049
HP 1000/1200/2200DLaser	\$105/145/169/239
Brother 1230/1440/1450/1650 Laser	\$365/589/1119
Samsung ML1210/1250/1450	\$335/459/549/825
Visit our website for Cartridges, Refill Toners, More Printer Types & Models, rebate program	\$299/349/449

SCANNERS

Artec 48U 1200x600dpi Slim USB	\$75
Acer 4300U/1200x600/5300U 2400x1200	\$79/145
HP 2200C/4400C/5400C/6350C	\$129/155/279/619
Epson P1250/P1250 Photo/P1650 photo	\$145/189/299
Canon 640P/6650U/D670U/N1240U	\$119/139/139/229
Muutek 1200UB Plus/1200CU	\$79/95
Agfa Snapscan E20/E40/E50	\$99/188/259
Visioneer 8700/8900	\$159/159

CD/DVD

52X CDROM LG/Liteon/Aopen	\$42/39/39
52X CDROM Creative/Sony	\$49/42
16X DVD Aopen	\$69
16X DVD Pioneer Tray / Slot	\$72/79
16X DVD Black Liteon	\$79
16X DVD Samsung	\$65
16X DVD LG/Liteon	\$62/65
16X DVD Sony/Toshiba	\$75/72

CD-RW

Aopen 32x12x48 CDRW Justink	\$99
Asus 24x10x40/32x10x40 CDRW	\$85/105
Sony 24x10x40 CDRW	\$99
LG 24x10x40/LG 32x10x40	\$75/89
Pioneer 40x12x40 Box	\$219
Panasonic 24x10x40	\$69
Liteon 32x10x40/40x12x48	\$95/115
Yamaha 24x10x40 Value Kit	\$165
Intel SC35 Pioneer 12x10x32	\$369
Pioneer 24x10x40 USB2.0 Ext	\$289
LG Combo Drive(12x24x32 40X DVD)	\$105
Pioneer DVR A04/Pioneer 104/HP DVD 200	\$515/545/569
Liteon 32x10x40 CDRW Black Front	\$119

BACKUP DEVICE

Zip Drive 100MB Int/USB	\$72/155
Zip Drive 250MB Int. / Ext. P / Ext. USB	\$125/229/249
Jaz 1GB EXT/2GB SCSI Int/EXT/w media	\$269/359/475
HP Surestore DAT40 External	\$1795
Seagate 10/20G TR5 USB Tape drive	\$549
Zip 100M/Jaz 1G SCSI/SL120 disk	\$13/115/14

ACCESSORIES

250W ATX/300W ATX PS	\$35/40
15"/17"/19" ATXcase with 250w power supply	\$30/40/45/58
Win98/MS Internet/MS Natural Keyboard	\$9/30/45
2B/Wheel/MS wheel/Logitech mouse	\$5/10/25/15
Logitech Cordless Optical Mouse&KB Combo	\$125

Call for all kinds of cables and adaptors

Network Products

Hub	
Dlink 5/8 port 10/100BT Dual	\$69/99
Dlink 4/7port USB	\$49/88
Aopen 5/8port 10BT	\$35/45
Acer 5/8port 10/100BT Dual	\$95/115
Surecom 5/9/17port 10BT	\$32/42/85
Surecom 4P USB/7PUSB selfpowered	\$36/52
Ethernet Card	
Dlink BEFSR11/41/81 Router	\$22/24/59/62
Dlink DHN910 10M phone Network Kit PCI*2	\$189
Surecom 10/100 Ethernet	\$14
Surecom PCMCIA 10M/10,100M	\$45/65
Router	
Linksys BEFSR11/41/81 Router	\$99/119/209
Dlink DI 704 4P/707 7P Router	\$115/209
Wireless stuff	
Linksys BEFW1154 Router/WAP11 Network Access Point	\$279/249
Linksys WPC11 NIC / WDT11 NIC	\$139/79
Switch	
Surecom 8/16/24port	\$75/185/325
3Com 4/8/16port 10/100	\$139/199/379
Dlink 5/8/16/24port 10/100	\$65/89/199/419
Intel ProSwitch 4/8port 10/100	\$152/185
Netsys 5/8 port 10/100	\$89/155
Linksys EZXS88R/88W 10/100	\$215/139

All Customized Systems are Available
Please Call for best solution

GREAT QUALITY, BEST SERVICE, LOW PRICE

ALL PRICES REFLECT 3% CASH DISCOUNT AND SUBJECT TO CHANGE WITHOUT NOTICE

Is that a GameBoy in your Palm?

By Geof Wheelwright

The idea behind software emulation is not new. Getting one computer to act like another has been common practice since the days of the IBM "plug compatible" Amdahl mainframe systems of the early 1970s.

What is new is that emulators are becoming commonplace on handheld computers. It is now possible to emulate the operation of handheld games systems such as the Nintendo Game Boy or the Sega Game Gear on a Pocket PC or Palm-based handheld. In addition, you can play classic games written for the home computers of yesteryear with Apple II and Commodore 64 emulators written for handhelds.

These emulators are designed to let you to take full advantage of the sound, colour and processing power of the latest handheld systems to play classic games. They are available from a wide variety of Web sites and come with cheeky names such as GnuBoy (which emulates the GameBoy on a Pocket PC) or ComeBack 64.

Emulators were given a rare official boost late last year with the news that Synovial Inc's Virtual Game Gear software (which allows a Pocket PC to emu-

late a Sega Game Gear) would be bundled with the Compaq iPaq along with three classic Sega games. Unlike most emulators, this one is actually blessed by the company that is the target of the emulation. Synovial has a partnership with Sega and sells other Sega Game Gear titles for iPaq users from its Web site for \$15 to \$20 per three-game set.

Emulators were given a rare official boost late last year with the news that Synovial Inc's Virtual Game Gear software would be bundled with the Compaq iPaq along with three classic Sega games.

This emulator works well, is relatively stable and provides iPaq users with three highly entertaining classic games. It's hard to say, however, whether or not those games will prove attractive enough to get users to actually spend money downloading further emulated games.

Most emulators, however, have no such official relationship with the products they are emulating and still exist in the more buccaneering "Wild West" parts of the Web. They tend to either be

freeware or shareware—and can be prone to crashing or freezing up.

They fall into two categories: those built by real aficionados of classic videogame and home computer systems (such as the Atari 2600, Commodore 64 or Apple II emulators) and those that exist solely to let people rip off games from existing current handheld games systems (such as the Nintendo GameBoy and GameBoy Advance emulators).

If you just want to be able to play some of the old games you enjoyed in your youth, then the first breed of emulator will appeal to you—and you should have no problem finding software, as a good deal of older software is now in the public domain. There are lots of card games, chess games, strategy and adventure games available on the Web that were originally written for the Commodore 64 or Apple II, systems that are technologically stone-aged compared to the power you find in the average handheld system of today. So when you run these games using an emulator on your handheld, they tend to perform well and do not put any real strain on the resources of the system.

The latter category of emulator, however, is more resource intensive and of



greater moral questionability. While you can find these emulators all over the Web, if you want to find copies of current GameBoy titles for use with them you will typically have to look for them on file and swapping services such as Morpheus. And you can be quite sure that these titles are not in the public domain and use of these downloaded copies does represent piracy.

For most users, use of an emulator on the handheld computer is likely to be a bit of fun, and maybe a way to relive fond memories of all the games played on their first home computer. □

Backpack Bantam burner gains USB 2.0

The "Triple Play" in the product name stems from the fact that this device can connect to a computer via three interfaces: parallel port, PC Card, or USB 2.0 (it's backward compatible to USB 1.0). Everything required to make these connections is in the box.

Microsolutions has been making inno-

Backpack Bantam Triple Play

From: Microsolutions, www.micro-solutions.com
Estimated retail price: \$399

vative portable products for some time and this CD-RW drive is distinguished from previous generations not only by the addition of USB 2.0, but by its rated write speed of 24X. It has the same light, slim form factor as other Backpack Bantam drives, and the same quality.

The company claims the following throughput speeds for each mode of con-

nection supported: 1 Mbps for USB 1.0, 1.2 Mbps for parallel port, 2.5 Mbps for PC Card, and 3.6 Mbps for USB 2.0.

With these throughputs, the write/rewrite/read speeds will be 6X/6X/6X for the slowest connection (USB 1.0) and up to 16X/10X/24X via USB 2.0.

I had a chance to compare this drive with an older Bantam model that connected via PCMCIA. I connected it to a 600 MHz system with 128 MB RAM, while the Triple Play drive was connected via USB 2.0 to a 700 MHz Pentium III with 128 MB RAM.

Formatting a blank CD-RW for UDF took 48 minutes on the older drive and just eight minutes on the Triple Play—dramatic, even considering the difference in processor power.

Less dramatic, but notable, was the time it took to master a CD with 10 MB worth of text files (not in UDF, but as a

true data disc): just under three minutes on the older machine, but so fast with the Triple Play that I had to double-check the disc to make sure it contained the data, which it did. The Triple Play was undeniably faster than the older drive.

On the down side, however, the bundled proprietary backpack UDF software was somewhat less than instinctive to use and proved troublesome in its dictatorial demands over the whole computer system. I was told by Microsolutions' technical department that an upgrade to improve some the shortcomings is already available at the company's Web site.

It is only fair to point out, though, that the cock-ups are apparently more attributable to how UDF works than to the approach taken by any particular developer. I have had similar problems with other UDF utilities (Adaptec DirectCD, for example).

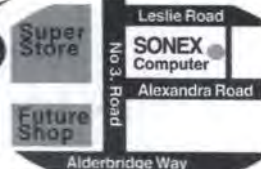
One minor detraction to portability is the fact that the Triple Play requires a separate AC adapter, which necessitates carrying a second little block and associated cables along with the one for your computer. Some portable drives relieve us of this burden by drawing power from the computer (which, granted, can significantly reduce battery life).

That said, the Backpack Bantam Triple Play is the most attractive portable CD-RW drive I've encountered—even without the impressive USB 2.0 capabilities. It's slim (2.54x15.2x21.6 cm), light (560 g), and works exactly as advertised. The estimated street price is slightly higher than other drives, but the connectivity and completeness of the package more than compensate for the extra dollars. Definitely a serious contender for portable users looking for an external optical drive.

—Ross MacDonald

SONEX COMPUTER INC.

UNIT 140, 4800 NO 3 ROAD, RICHMOND, BC V6X 3A6
FAX : 604.303.1880 TECH : 604.717.6110 CORP : 604.717.6108
TEL: 604.717.6111 Email : info@sonexcomputer.com
MON - SAT 10:00AM - 6:30PM
http://www.sonexcomputer.com
For Daily Price Update!



AMD XP 1800+ GAMER EXTREME

\$999

- AMD Athlon XP 1800+ CPU
- MSI KT333-Ultra AMD Main Board
- 256MB PC2700 DDR333 Memory
- nVIDIA GeForce4 MX440 64MB + TVO
- Panasonic 1.44MB Floppy Drive
- On-board ATA133 Controller
- 40GB ATA133 7200RPM Hard Drive
- 16X DVD-ROM w/ 48X CD-ROM
- 40X24X10 CD-RW w/BurnProof
- Sound Blaster Audigy
- One IEEE1394 Firewire Port
- 10/100 Ethernet
- SONEX 18" CASE w/300W PS & USB
- Altec Lansing AVS300 2.1 Subwoofer
- 107 W98 Keyboard & Wheel Mouse

***Free Upgrade to
60GB ATA133 HD
& 48X32X10 CD-RW

KT333
DDR333
nVIDIA
GeForce4
MX440
AUDIGY
AVS300
2.1
Speaker System
10/100
Ethernet
USB
IEEE1394

Maxtor
60GB-\$129
ATA133 7200 RPM 2MB Buffer
40GB ATA133 7200RPM \$105
80GB ATA133 7200RPM \$155
Promise ATA133 Card \$59

PC2100 DDR Memory
256MB - \$69
512MB - \$148
(DDR333 PC2700)
256MB/512MB \$89/\$179
(COMACT FLASH)
64MB/128MB \$47/\$79

CPU + /ASUS Sale
XP1800+ Volcano 6 Fan
+ Asus A7S333 ME
\$265 / \$459
P4 2.0GHz Retail Box CPU
+ Asus P4S533 MB

XP@GameStation AMD XP1900+

\$888

- Asus / MSI S1745 DDR333 Board
- 256MB PC2100 DDR (3GB Max.)
- nVIDIA GF4 MX400 64MB 4XAGP
- Panasonic 1.44MB Floppy Drive
- 40GB ATA133 7200RPM Hard Drive
- 16X DVD-ROM or 24X CD-RW
- Sound Blaster Live 5.1 Sound
- 10/100BT Ethernet
- 18" CASE w/300W PS & USB
- Altec Lansing AVS300 2.1 Speaker
- 107 W98 Keyboard & Wheel Mouse
- 3 Years System Limited Warranty

***Summer Special Free Upgrade to
AMD XP 2000+ CPU &
60GB 7200RPM ATA133 HD
***Ask Sales for free upgrade condition!

XP@WorkStation Intel P4 2.0GHz

\$888

- 1.6GHz - \$788
- 1.8GHz - \$848
- 2.2GHz - \$958
- 2.4GHz - \$1188
- Open/Gigabyte/MSI S1845 Board
- 256MB PC2100 DDR (3GB Max.)
- nVIDIA GF4 MX400 64MB 4XAGP
- Panasonic 1.44MB Floppy Drive
- 40GB ATA100 Hard Drive
- 40X24X10 CD-RW w/BurnProof
- On-board AC97 Sound Codec
- 10/100BT Ethernet
- 18" P4 CASE w/300W PS & USB
- 160W PMPO Speaker
- 107 W98 Keyboard & Wheel Mouse
- 3 Years System Limited Warranty

***Free Upgrade to 512K Cache
& 60GB 7200RPM HD
& 48X32X10 CD-RW
***Ask Sales for free upgrade condition!

Space2000
Water
Cooling
KIT
AMD XP
Intel P4 478
\$259

Aspire Turbo Gamer
Aluminum
\$159

Large See-Through Window
280mm Rear Exhaust Fans
10 Drive Bay / Slide Handle
Available in 5 Colors:
Black/Silver/Blue/Green/Yellow
with Enermax 350W PS + \$55

P4 GRAPHIC STATION - PC1066 RAMBUS

\$1699

Intel P4 2.26GHz

- Asus P4T533-CL 1850E
- PC1066 512MB RAMBUS
- Radeon 7500 128MB DDR Twin
- 60GB 7200RPM HD / 1.44MB FD
- 48X32X10 CD-RW w/ BurnProof
- 10/100BT LAN / 4 USB 2.0 / Sound
- 160W PMPO Multimedia Speaker
- 18" CASE w/ Enermax 3500W PS
- Microsoft Wireless Keyboard
- Microsoft Wireless Mouse
- 3 Years System Limited Warranty

***Summer Special Free Upgrade to
80GB 7200RPM ATA133 HD
3 Years System Limited Warranty

GameMaxPC \$1699

***Complete System with
7 Best Selling Games

- Athlon XP 2100+...\$1849
- Athlon XP 2000+...\$1799
- Athlon XP 1900+...\$1749
- 3 Years System Limited Warranty

OPTICAL DEVICES Special

- 16X DVD ROM.....\$59
- 32x12x40 CDRW.....\$82
- 40x12x48 CDRW.....\$99
- 48x16x48 CDRW.....\$179
- 32XCDR Disk(50).....\$19
- Plexor 40X CD-RW.....\$205
- Pioneer A04 DVD-RW.....\$39

"Hansol"
17" 720ED .2mm
DynaFlat
1280x1024
\$219

Samsung 750S 17".....\$215
Samsung 753DF 17".....\$239
Samsung 955DF 19".....\$375

BUDGET VALUE HOME PERFORMANCE+ WORK PERFORMANCE+ 120GB Video RAID Station

Bare-Bone System!
AMD Duron 1GHz Upgrade

ECS K7SEM-266 SIS730 Main Board
128MB PC133 168 Pin Memory
Onboard 32MB (Max) Video
AC 97 Onboard Sound
Onboard 10/100BT LAN
18" Case w/ 300W PS

\$239

P4 Celeron 1.7GHz Upgrade

SIS 650 All-in-one Mainboard
256MB PC2100 DDR Memory
Onboard 32MB (Max) Video
AC 97 Onboard Sound
Onboard 10/100BT LAN
18" Case w/ 300W P4 PS

\$359

P4 1.6GHz w/512K Upgrade

SIS 645 P4 Full Size Main Board
256MB PC2100 DDR Memory
GeForce2 MX400 64MB 4XAGP
AC 97 Onboard Sound
2XUSB / 2XFront USB
18" Case w/ 300W P4 PS

\$499

AMD Duron 1GHz System

ECS K7SEM-266 SIS730 Mainboard
128MB PC133 168 Pin Memory
Onboard 32MB (Max) Share Video
Paniconic 1.44MB Floppy Drive
20GB 5400RPM ATA 100 HD
AC 97 Onboard Sound
52X IDE CD-ROM
Onboard 10/100BT Ethernet
18" 6 Bays ATX Tower w/ 300W PS
140W PMPO Speaker System
W98 107 KB & Wheel PS2 Mouse
1 Year Limited Warranty

\$389

***Call for Celeron
Configuration
***Ask Sales For 3 Year Extended Warranty Plan

XP1600+ (1.4GHz).....\$469
Duron 1.3GHz.....\$449
Duron 1.2GHz.....\$419
To DVD/CDRW.....\$79

AMD Athlon XP 1800+

ECS K7S5A SIS735 AMD Main Board
256MB PC2100 DDR MEMORY
nVIDIA GF2 MX400 64MB Video
Paniconic 1.44MB Floppy Drive
40GB 7200RPM ATA 133 HD
AC 97 Onboard Sound
40X24X10 Ultra Fast CD-Rewriter
Onboard 10/100BT Ethernet
18" 6 Bays ATX Tower w/ 300W PS
140W PMPO Speaker System
W98 107 KB & Wheel PS2 Mouse
1 Year Limited Warranty

\$629

***Call for Pentium
Configuration
***Ask Sales For 3 Year Extended Warranty Plan

Athlon XP 2100+...\$809
Athlon XP 2000+...\$759
Athlon XP 1900+...\$699
Athlon XP 1600+...\$619

Intel P4 1.7GHz Celeron

VIAP4M266 / SIS650 P4 Main Board
256MB PC2100 DDR (MAX 2GB)
32MB Max. 3D Video w/Open AGP Slot
Paniconic 1.44MB Floppy Drive
40GB 7200 RPM Hard Drive
Onboard AC97 Sound
40X24X10 Ultra Fast CD-Rewriter
Onboard 10/100BT Ethernet
18" 6 Bays ATX Tower w/ 300W PS
140W PMPO Speaker System
W98 107 KB & Wheel PS2 Mouse
1 Year Limited Warranty

\$559

***Call for AMD XP
Configuration
***Ask Sales For 3 Year Extended Warranty Plan

P4 2.2GHz 512K.....\$839
P4 2.0GHz 512K.....\$769
P4 1.8GHz 512K.....\$699
P4 1.6GHz 512K.....\$669

Intel Pentium 4 1.6GHz 512K

ECS P4VXAD VIAP4X266 Main Board
512MB PC2100 DDR (Max 3GB)
Radeon 7500LE 64MB DDR + Twin
ATI PCI TV Tuner VE for Video Capture
Onboard ATA 100 RAID
2x60GB 7200 RPM ATA100 HD on RAID 0
Onboard AC97 Sound
48X32X10 CD-RW / 1.44MB Floppy
18" 6 Bays ATX Tower w/ 300W PS
Onboard 10/100BT Ethernet
140W PMPO Speaker System
W98 107 KB & Wheel PS2 Mouse
3 Years Limited Warranty

\$1155

***Ask Sales For Free Upgrade To 2x80GB HD Details

P4 2.4GHz 512K...\$1575
P4 2.2GHz 512K...\$1315
P4 2.0GHz 512K...\$1255
P4 1.8GHz 512K...\$1195

AOpen #1 Computing Solution Provider

- Motherboards
- Monitors
- Fax/Modem
- CD-ROM/DVD/CD-RW
- VGA Cards
- Mouse & Keyboards
- Housing & Networking NIC & Hub
- Bare Systems
- Speakers & Sound Cards

AOpen Monthly Specials:

P4 1.6GHz SlimPC - DVD/CDRW

Intel P4 1.6GHz w/512K
AOpen MX46 SIS650
256MB DDR (512MB)
Max 64MB Video / 20GB HD
DVD / CD-RW / AC97 Sound
Onboard LAN / 1.44MB FD
P4 Slim case / 107 KB / Wheel Mouse
or - \$29.90 / Month (36 Month Lease)
(Available In Black Color)

AcerF50LS
15.0" TFT / 1024x768 29
350 / 1200cd/m2
Silver Color
Speaker Built In
\$555

Aspire Series - TM1400XC

P4 1.7GHz / 20GB / 128MB
DVD/CDRW / 16MB DDR Video
14.1" TFT / 56K / LAN / MS XP PRO
\$2449 \$50 Discount
w/ ANY STUDENT ID

TM223X Cel 1.3GHz/10GB/128MB/CD/14.1".....\$1529
TM630XCI P4 1.4G/20GB/256MB/DVD-RW/14.1".....\$2679
TM1400XV P4 1.7/20GB/128MB/DVD/14.1".....\$2125
TM633XCI P4M 1.7/30GB/256MB/DVD-RW/15".....\$3669
TM270XV P4M 1.4/20GB/256MB/DVD/14.1".....\$2299

MEMBER Special Discount!

nVIDIA GeForce4 MX440 64MB.....\$109
Radeon 7500 128MB Dual/DVI/TV.....\$129
ECS K7S5A SIS735 Main Board.....\$79
ECS K7SEM All-in-One.....\$85
PIONEER A04 DVD-R/W.....\$569
Ext IEEE 32X CDRW.....\$239
Ext USB 20GB Hard Drive.....\$249
MSI GF4 T14200 128MB + VIVO.....\$279
Sound Blaster Audigy OEM.....\$89
Logitech Wire. KB & Optical Mice.....\$119
Tekram ATA100 RAID PCI Card.....\$55

**MOST ITEMS ORDERED BEFORE
1:00PM CAN BE PICK UP SAME DAY
AFTER 4:00PM. SPECIAL ITEMS RE-
QUIRE DEPOSIT IN ADVANCE.**

[P4 Motherboard]

AOpen AX45 SIS645 DDR / ATA100 / AUDIO.....\$119
Asus P4T-E533 1850E P4 Main Board RAMBUS.....\$259
Asus P4B533-VM 1845G DDR / S / V / LAN.....\$179
Asus P4S533 SIS645DDR / AUDIO / LAN.....\$169
ECS P4VXAD2 VIA 533FSB w/ RAID & LAN.....\$139
Gigabyte 8SR533 SIS645 + SIS961A MB.....\$115
MSI 845E MAX-LR 1845E DDR / RAID / AUDIO.....\$199
MSI 845E MAX-LR 1845E DDR / 533FSB / USB2.0.....\$149
MSI 645DX MAX-E DDR333 / ATA133 / AUDIO.....\$139
MSI 645ULTRA SIS645 DDR / ATA100 / AUDIO.....\$116

[AMD Motherboard]

Asus A7S333-RAID KT333 / RAID ATA133.....\$109
Asus A7V333-RAID KT333 / RAID ATA133.....\$129
ECS K7VTA3 KT333 / DDR333 / ATA133 / RAID.....\$139
ECS K7S5A SIS735 / DDR / SD / AUDIO / LAN.....\$89
ECS K7SEM SIS 6730 SD VIDEO / AUDIO / LAN.....\$89
MSI KT333 ULTRA-ARU DDR 133RAID USB 2.0.....\$169
MSI KT333 ULTRA DDR / ATA133 / AUDIO.....\$129

[Sound Card & Speaker]

SB Live 5.1 / SB Audigy (OEM).....\$49 / \$93
SB Audigy MP3+ / X-Gamer Retail Box.....\$135
SB Audigy Platinum / Platinum EX.....\$285 / \$355
AOpen AW840 4.1 / AW850 5.1.....\$222/\$335
Aopen AW850-D w/Optical / AW540 DIDO.....\$65/\$55
Creative Inspire 5300 5.1 / 5700 Digital.....\$135/\$399
Creative Inspire 4400 4.1 / 2400 2.1.....\$79 / \$59
Altec Lansing AVS300 / AVS500.....\$49 / \$69
Altec Lansing 2100 2.1 / 4100 4.1.....\$129 / \$179

[DVD / CDRW / DVD-RW]

AOpen / LG / LiteOn 16X DVD ROM.....\$62
Pioneer / Sony / Toshiba 16X DVD ROM.....\$69
AOpen / LG 24X / 32X IDE CDRW.....\$75 / \$89
Optorwrite 32X CD-RW w/ Burnproof.....\$79
HP DVD2001 DVD & RW WRITER.....\$739
LG 12X8X32 DVD/CDRW Combo Drive.....\$99
Plexor 24X / 40X Internal CDRW.....\$185 / \$205

[nVIDIA Video Card]

MSI GF4 T14600 128MB DDR+VIVO+DVI.....\$489
MSI GF4 T14400 128MB DDR+VIVO+DVI.....\$359
MSI GF3 T14200 128MB DDR+VIVO+DVI.....\$275
MSI GF3 T14200 64MB DDR+VIVO+DVI.....\$232
MSI GF4 MX460 64MB DDR+VIVO+VIVO.....\$169
MSI GF4 MX440 64MB DDR+VIVO.....\$139
MSI GF4 MX420 64MB DDR+VIVO.....\$109
nVIDIA GeForce2 MX 400 / TVO.....\$69 / \$79
nVIDIA TNT2 M64 32MB 4X AGP.....\$49

[ATI Video Card]

ATI Radeon 8500 128MB DDR.....\$279
ATI Radeon 8500LE 64MB DDR Basic Version.....\$185
ATI Radeon AIW 8500DV 64 / 128 MB.....\$379/\$479
ATI Radeon AIW 7500 64MB DDR.....\$259
Radeon 7500 128MB DDR DVI / Dual / TVO.....\$139
Radeon 7500LE 64MB DDR DVI / Dual / TVO.....\$109
Radeon 7000 64MB DDR DVI / Dual / TVO.....\$89
Radeon VE 64MB SD / Dual / TVO.....\$69
Xpert2000 Pro AGP 32MB SD.....\$49

[Networking / Modem Products]

10/100BT PCI Ethernet Card.....\$16
3COM 3C960C / Intel 10/100 Pro Ethernet.....\$53
5 Ports / 8 Ports 10MPS HUB.....\$29 / \$39
Linksys 14/8 Ports Router.....\$99/\$119/\$199
Linksys BEFW11P4 Wireless 4 Port Router.....\$249
Linksys WUSB11 Wireless USB Adapter 2.5.....\$119
USR 4 PORT ROUTER w/ PRINT SERVER.....\$109
PCMICA 10/100 LAN Card.....\$49
USB Uplink Cable transfer data between 2 PC.....\$49
AOpen 816/24 Port 10/100 Switch.....\$79/\$249/\$439
Multi-Network Tester / RJ45 Crimping Tool.....\$75/\$29
Connector RJ45.....\$0.35
Assembly, Cat5 Cable 15/25/50/100 ft.....\$9/\$11/\$19/\$29
Cable, Cat 5E 10/100BT Cable, Per 100ft.....\$99
56K PCI V/F/D Modem / AOPEN 56K PLM.....\$24 / \$39
USR 56K V.90 PCI Fax / Voice Win Modem.....\$39
USR 56K V.90 Hardware Modem w/o Voice.....\$79

[Case / Power Supply]

Antec Plus660 / Plus880 / Plus1080.....\$189/\$229/\$249
Antec SX800 / SX1000 / SX1200 Bare.....\$99/\$109/\$139
Lian-Li Aluminum PC800USB / Black.....\$215 / \$229
Enermax EG365P-PM / EG465P-VE.....\$75 / \$109

[CRT / LCD Display]

15" / 17" / 19" CRT 27 MONITOR.....\$189/\$199/\$289
LG E700B 17" / E900B 19" Flat.....\$225/\$359
LG Flatron 17" 775T / 19" 995FT.....\$289/\$429
NEC 17" AS75F / 19" AS95F 25.....\$239/\$359
NEC 17" FE7504 / 19" FE9504 25.....\$339/\$459
NEC 1550V 15" 1024x768 3mm / BK.....\$569
NEC 1720V 17" 1280x1024 26mm / BK.....\$1039
Samsung 17" 753DF / 19" 955DF 24.....\$249/\$389
Samsung 17" 763MB Magic Bright.....\$269
Samsung 19" 900NF / 21" 1200NF.....\$529/\$1159
Samsung 150T / 170T / 180T.....\$733 / \$1228 / \$1499
Samsung 151MP / 171MP.....\$1069 / \$1699
Sony 17" G220P / 19" G410R 24.....\$449 / \$589

[Controller Card & Misc]

Promise Ultra 133 TX2 2Channel PCI Card.....\$59
Promise Ultra 100 TX2 2Channel PCI Card.....\$43
Tekram DC395U PCI SCSI Controller.....\$65
USB To Infra Red Converter NEW!!.....\$59
External 5.25" Bay Firewall Rack.....\$129
External 3.5" Bay USB 2.0 Rack for NB HD.....\$89
3Port IEEE 1394 Firewire / USB 2.0 PCI Card.....\$45
2Port USB PCI CARD / Bi-Direct Printer Card.....\$29

[Printer & Scanner]

Brother 1230 / 1440 Laser Printer.....\$329 / \$459
Epson C60 / C80 2880x720.....\$129/\$229
Epson PHOTO 820 2880x720 6 col.....\$149
Epson P1280 2880x720 13"x44".....\$729
HP 1200 15ppm / 1220 Multifunction.....\$553/\$799
HP PSC 700 / PSC950 Officejet Multi.....\$319 / \$489
Samsung ML1210 600dpi / ML1250 1200dpi.....\$289/\$339
Acer 4300U 600dpi / 1240UT 1200dpi.....\$79 / \$189
Acer 5000 U 1200x2400 dpi Scan to Web Scanner.....\$109

Treo nicely integrates PDA, phone

By Sean Carruthers

Since it introduced the first Visor handheld, Handspring has been Palm's major competitor in the Palm-based handheld space, and has snatched up a fair portion of the market just on innovation: Handspring introduced the Springboard slot for hardware/software expansion, causing Palm to counter with Multimedia Card/Secure Digital expansion slots.

Handspring Treo 180

From: Handspring, www.handspring.com
Estimated price: \$850 (less with service plan)

Handspring also introduced value-oriented models of the Visor, forcing Palm to introduce its own low-priced version. The Visor was also Mac-friendly right out of the box, and Palm had to do a bit of catch-up there, too.

Now, Handspring has incorporated a cellular phone component into its new Palm-based device, the Treo. It's worth

noting that it wasn't even the first to do so (previously, we have looked at Kyocera's SmartPhone series, which accomplished the same feat), but the remarkable thing about the Treo is its size and functionality. It is a fully-functional cell phone/PDA that is as small as the smallest Visor or Palm units, and not a lot bigger than a cellular phone (something that couldn't be said for the bulky SmartPhone). In fact, the Treo even squeezes in a BlackBerry-like keyboard, so you don't have to learn Graffiti to make the Treo work.

The Treo is a dual-band GSM/GPRS phone, operating on the 900 MHz and 1,900 MHz bands in North America. (The Asian and European versions use 1,800 MHz instead of 1,900 MHz, which means if you're traveling abroad, you will only be able to use the North American version on the lower-quality 900 MHz band.)

Your identity is stored on a little SIM card, accessible through a little door on the back of the device—the advantage of

this card, which is required by the GSM/GPRS protocol, is that when you upgrade your cellular phone, you just move the card, instead of having to reprogram everything.

So, how does it work? Well, the tiny keyboard is fairly easy to pick up if you have nimble thumbs, much like the BlackBerry (though it should be noted that this one has a slightly different layout for the non-alphabetic characters). The Treo defaults to phone mode, but you can get it into PDA mode fairly quickly using a control sequence on the keyboard, or by assigning one of the programmable keys. It also has a stylus, which you can use as you would with any other Palm.

We received our Treo from Rogers AT&T Wireless, Handspring's exclusive service partner in Canada. At present, Handspring hasn't completed the software that allows the Treo to take full advantage of the Rogers GPRS network, which means the Treo does not yet have full Web functionality. What it does have is SMS messaging already built in, allowing you to exchange short emails with other subscribers or email addresses in the outside world.

The key letter in SMS (short messaging service) is that first S. Longer messages may be truncated or lost. Until full POP3 email is available for the Treo, it's a good stopgap solution, though—and will reinforce the value of concision.

Our biggest problem with the Treo is the battery life. Even though this model features a monochrome LCD screen, the radio component sucks back battery power like any other cell phone, so you'll want to make sure you recharge it when you're not using it. It will be interesting to see how the battery life is affected when the colour-screen version debuts later this year (although we were told that because it employs a more efficient screen technology, battery life on the colour model will be as good if not better).

As an organizer, the Treo acts like pretty much any other Palm PDA. It has 16 MB of onboard memory, uses Palm OS 3.5.2H, and comes with all the typical onboard software that version of the OS uses: phone book, memo pad, calculator, etc. The Treo can synchronize with your computer via the included USB



cable, and it's compatible with both PC (Windows 98, Me, and XP) and Mac (OS 8.5 and later) right out of the box.

As a phone, the Treo works just fine. It's a bit wider than most cellular phones, but not so large that it becomes difficult to hold. You can dial using the small keys on the keyboard or using the on-screen dial pad, which features larger numbers. You can also set up a contact list and place calls by scrolling through your contact list with the jog dial on the side of the phone. If you'd prefer to leave the cover closed while you talk, a hands-free headset is included in the box. It also has a speakerphone option.

The bottom line: if you treat it as a cell phone and keep it charged at all times, the Treo is an excellent cell phone/PDA combination—and you won't have to carry both!

Handspring has already announced a colour version, the Treo 270, as well as the Treo 90, which is based on Treo design but without the phone portion. □

New Q-ink cartridges coming !!!

For EPSON Stylus C60 and Photo 820

 EPSON Photo 790/870 \$18.00/ea Black \$19.00/ea Color EMJ-007B/008C Photo 875DC/1270	 EPSON Photo 820 \$18.00/ea Black \$19.00/ea Color EMJ-026B/027C Photo 820	 EPSON Stylus C60 \$18.00/ea Black \$19.00/ea Color EMJ-028B/029C Stylus C60	 CANON 2000/4000 5000 \$3.99/ea Black \$8.99/ea Color CBJ-21B/21C 2000/4000/5000
 EPSON Stylus 480SX/580 \$13.99/ea Black \$15.99/ea Color EMJ-013B/014C 480SX/580/C40UX	 EPSON Stylus 777 \$18.00/ea Black \$19.00/ea Color EMJ-017B/018C 680/777/777i	 EPSON Stylus 880/880i \$13.99/ea Black \$15.99/ea Color EMJ-019B/020C 880/880i	 CANON S400/S450 S600 \$10.99/ea Black \$9.99/ea Color CBJ-03B/C/M/Y S400/S450/S600
 EPSON Stylus Color Pro/ProXL/ProXL+ \$11.99/ea EMJ-034B	 EPSON Stylus Color II / IIS / 200 / 820 \$11.99/ea EMJ-047B	 EPSON Stylus Color II / IIS / 820 / 1500 \$14.99/ea EMJ-049C	 EPSON Stylus Color 800/850/1520 \$14.99/ea EMJ-89C
 EPSON Stylus Color 400/500/ 600/Photo/700/EX \$11.99/ea EMJ-93B	 EPSON Stylus Color Stylus Color 200 / 500 \$14.99/ea EMJ-97C	 EPSON Stylus Color 800/850/1520 \$11.99/ea EMJ-108B	 EPSON Photo/ Photo EX \$19.99/ea EMJ-110C
 EPSON Stylus Color Stylus Color 300 \$16.99/ea EMJ-138C	 EPSON Stylus Color 440/640/660 670/Photo 750/1200 \$11.99/ea EMJ-187B	 EPSON Stylus Color 740/760/860/1160 \$11.99/ea EMJ-189B	 EPSON Stylus Color 440/640/660 670/740/760/860/1160 \$14.99/ea EMJ191C

EPROM INC (Vancouver)

Tel: (604) 214-9828 Fax: (604) 214-9829

233 - 13986 Cambie Rd. (& No. 6 Rd.) Richmond, BC

Web: www.q-ink.com e-mail: sb@eprom.com



Anitec Computer

www.anitec.ca

2629 Kingsway Vancouver B.C. V5R 5H4
Ph: 604.435.2038 Fax: 604.435.1298
sales@anitec.ca; service@anitec.ca

LG E700B 17" flat \$223 LG 17" .25mm DPI Flat Screen monitor, 3 years LG parts & labor warranty	Daewoo 17PF 17" \$215 17" .25mm Flat screen monitor, 1280x1024 3 years Daewoo parts & labor warranty	Daytek 95P 19" \$259 19" .26mm monitor, 1600x1200 3 years Daytek parts & labor warranty	LG 915FT 19" monitor \$465 0.24mm DPI, 1600x1200@85, Flat screen USB hub built in, 3years LG local warranty
LG 32x CDRW \$85 LG 32x10x40 CD-rewriter with 8M buffer & Burn-Proof; includes software & cable	Liteon 32x CDRW \$83 Liteon 32x10x40 CD-rewriter & Burn-Proof; with software & cable; or 40X12x48@99	Samsung 753DF 17" \$239 .20mm(H) dpi 17" flat screen monitor 3 years Samsung parts & labor warranty	Samsung 955DF 19" \$375 .20mm(H) dpi 19" flat screen monitor, 3 years Samsung parts & labor warranty
Maxtor 40Gb 7200 \$99 Maxtor 7200rpm ATA133 HD; 3 years warranty; or \$129/149 for 60/80Gb	Seagate ATA IV 40G \$99 Barracuda IV ATA, Quiet operation with Fluid Bearing; or \$129/\$149 for 60/80Gb	Asus P4S533 M/B \$163 SiS 645dx chipset, 533MHz FSB, DDR333, ATA133, 10/100M Lan, Audio built in	ECS K7S5A(735) M/B \$83 SiS 735 chipset, 2x DDR & 2x SDR slot, w/Audio & Lan built in, AGP 4x, ATA100
MSI KT3 Ultra \$119 KT333 chipset, DDR333, ATA133, Audio Optional Smart Key for \$10	MSI 645DX P4 M/B \$129 Microstar 645Max, SiS 645DX chipset, P4, 533MHz FSB, 5xPCI, AGP 4x, DDR333	Asus A7V333 M/B \$175 KT333 chipset, DDR333, USB2.0, ATA133, optional Raid controller & Firewire +\$39	Asus P4B533 M/B \$199 Asus P4B533 motherboard, Intel 845E, 533M FSB, USB 2.0, 3xDDR, Audio
Gigabyte 7VRXP M/B \$149 KT333 chipset, DDR333, ATA133, Audio USB2.0, w/raid; or 7VRX w/o raid \$119	Digital Camera Memory Compact Flash 64/128/256Mb: \$49/79/159; Smart Media 64/128Mb: \$49/79	System \$399 ACT 17" tower, All-in-one M/B and CPU, 128Mb Ram, 52X CDR, FD, 20G HD, Lan	18" 350W Tower \$55 18" tower case with 350W power supply; 4x 5.25" and 6x 3.5" bays, 6x fan space

ACT POWER Series	ACT SUPER Series	ACT PREMIUM Series	ACT Duron Series	ACT Athlon Series	ACT XP Series
Intel Celeron 1.1G \$549 ACT 17" ATX 300W tower Celeron mainboard PC133 128Mb SDRAM Integrated AGP card Maxtor 20G ata100 hard drive Panasonic 1.44Mb floppy drive 52X CDRW drive Integrated Stereo sound card 10/100 network card Or 56K fax/modem 3D Stereo speakers Windows PS2 keyboard PS2 wheel mouse	P4 Celeron 1.7G \$679 or P4 1.6G(512K)...\$759 ACT 17" ATX 300W tower Pentium4-478 mainboard PC2100 256Mb DDRAM SiS integrated AGP up to 64Mb Maxtor 60G ata100 HD Panasonic 1.44Mb floppy drive 52X CDRW drive AC97 stereo sound On board 10/100 network card 3D speakers with subwoofer Aopen Windows PS2 keyboard PS2 wheel mouse	Intel P4 1.8G(512K) \$1149 or 2.0(NW)/2.26G...\$1199/1298 ACT 18" ATX 300W w/2nd fan Asus P4B533 P4 mainboard PC2700 DDR333 256Mb DDRAM MSI GF4 MX440 64M AGP w/tv out Maxtor 80G 7200 ata133 HD Panasonic 1.44Mb floppy drive 16X DVDROM drive C-Media 6 Channel audio chip built PCI 56K v.90 fax/modem or 10/100M network card Altec Lansing 4 speakers w/sub Logitech/MS Internet K/B Logitech/MS Optical wheel mouse	AMD Duron 1100 \$499 or 1.2/1.3G...\$525/\$548 ACT 17" ATX 300W w/2nd fan ECS AMD ata100 Motherboard PC133 128Mb SDRAM Integrated 3D AGP Maxtor 20G 5400 ata100 HD Panasonic 1.44Mb floppy drive 52X CDRW drive Integrated AC97 stereo sound AMR 56K v.90 fax/modem Integrated 10/100M network card 3D Stereo speakers Windows PS2 keyboard PS2 wheel mouse	AMD XP1800+ \$729 ACT 17" 300W tower w/2nd fan ECS K7S5A ata100 Motherboard PC2100 256Mb DDRAM Forsa Geforce MX400 64Mb AGP Maxtor 40Gb 7200 ata133 HD Panasonic 1.44Mb floppy drive Aopen 52X CDRW drive On board 3D stereo sound AMR 56K v.90 fax/modem Integrated 10/100M network card 3D stereo speakers with sub Windows PS2 keyboard PS2 wheel mouse	AMD XP2000+(1.47G) \$1249 1800/1900/2100+...\$1179/\$1219/\$1299 ACT 18" 375W tower w/2nd fan GA 7VRXP raid USB2.0 ata133 M/B PC2700 256Mb DDR RAM MSI GF4 MX440 64Mb AGP w/tv out Maxtor 80G 7200rpm ata133 H.D. Panasonic 1.44Mb floppy drive 16X DVDROM drive Sound Blaster Audigy with firewire PCI 56K v.90 fax/modem or 10/100M network card Altec Lansing 4 speakers w/sub Logitech/MS Internet keyboard Logitech/MS Optical wheel mouse
OPTIONS: Windows ME+\$149 @@@Free Sign Up Roger	Windows 2000 Pro+\$239; Cable's high Internet service &	Windows XP home+\$139; Free installation@@@	Windows XP Pro+\$239;	Add MS Office XP SBE+\$265	

ASUS

AMD:
A7S333(SiS 745 DDR) \$109
A7N266(nVidia ddr v1.1) \$209
A7V333(KT333 ddr) \$175
A7V333R with Raid \$219
INTEL:
TUA266(P3 ddr) \$119
P4B533(P4 533fsb ddr) \$199
P4B533/C/L(533fsb L/F) \$279
P4B533/V/L(533fsb L/V) \$99
P4B533-VML (P4 Micro) \$179
P4S533(P4 533fsb lan) \$163
P4T533/C/L(533fsb audio/Lan
Rambus) \$269

VIA

PLE133 V/L/A+600M CPU \$99
P4XB-SA (P4X266A chip) \$109
P4PA-UL(P4X266A, 533FSB,
USB2.0...) \$139

ECS

K7S5A(735 audio/lan ddr) \$83
K7S6A(745 ddr333) \$99
K7SEM(AGP/audio/lan) \$95
P65MT(P3,V/L/A) \$99
P4S5A(P4-478ddr&sdr) \$105
P4IBMS(P4 sdr L/A) \$75
P4VMM2(P4 ddr+sdr) \$99
AT7Max(KT333 L/A/R/U) \$259
KT7333/R(KT333) \$159/179
IT7max(P4 L/A/R/U) \$259

ABIT

AT7Max(KT333 L/A/R/U) \$259
KT7333/R(KT333) \$159/179
IT7max(P4 L/A/R/U) \$259

Motherboard Warehouse

ACER/AOPEN

AX34 II(VIA133A sound) \$119
AX45S(P4 SiS645 audio) \$119
MX4BS(P4 845 Micro) \$179
DX34RU(Dual P3, raid) \$149
We carry full line of Aopen Products,
call for price!

QDI SPEEDEAST

Super 4L-AL(P4 VIA/L) \$119
We carry full line of QDI M/B!

INTEL

D845GBVL(i845G, Lan) \$219
D850EMV2L(i850E, Lan) \$269
We carry full line of Intel M/B!

SOYO

KT333 Dragon ultra KT333 \$259
P4SDU P4 Dragon ultra \$259
P4VDA Via P4X266A 533m \$139

EPoX

8K3A/(KT333) \$139/179
We carry full line of Epox M/B

GIGA-BYTE

7VRX/P(KT333 ata133) \$119/\$149
8IE(i845e 3DDR u2.0 AC97) \$159
8IEX(i845e 3DDR u2.0 lan SB) \$179
8IEXP(i845e 3DDR u2.0 ata133 raid
lan SB) \$239
8IRXP+(i850D raid A/L usb2.0) \$229

TYAN

S2460 760MP Dual MP \$319
S2462NG 760MP Dual \$549

MicroStar

K7T Turbo II (KT133 100) \$129
KT3 ultra/ARU (KT333) \$119/175
SiS645 ultra(P4-478 ddr333) \$119
SiS645DX(P4 533fsb DDR333) \$129
845D AR/ARU(P4 ddr) \$145/\$179
845G Max(i845G 533P4 V/L/A) \$169
845E Max(i845E 533 P4 A/L) \$159

IWill

XP333 raid V2.1 (ddr333 ata133 raid) \$189
DVD266 VIA Pro 266 DDR Dual P3 \$209
DVD266U-RN VIA Pro 266 DDR Dual P3
Lan/Raid \$299
DP400(i860 Dual Xeon) \$850
DX400SN(i860 Dual Xeon SCSI Lan) \$1299

AOpen

#1 Computing Solution Provider

- Motherboards
- Monitors
- Fax/Modem
- CD-ROM/DVD/CD-RW
- VGA Cards
- Mice & Keyboards
- Housing &
- Networking NIC & Hub
- Bare Systems
- Speakers & Sound Cards

AOpen Monthly Specials:

Aopen 32x12x48CDRW \$85
Aopen 40x12x48CDRW \$99
AopenGF4 MX440 64M \$125
AopenGF4 TI4200 128M vivo\$269
Aopen 10/100M NIC \$13
Aopen 56K PCI fax/modem \$25
Aopen 56K ISA fax/modem \$69
Aopen 10M 8 port hub \$39
Aopen 10/100 Switch 5/8P \$49/69
Aopen H600A tower w/300w \$109

CPU

Pentium III Retail
1G(Copp) \$289
1.13G(Tualatin) \$189
1.2G(Tualatin) \$209
1.26G(517K) \$339

Celeron Retail
1.1G(256K) \$109
1.5G(256K) \$125
1.7G(P4-478) \$139
1.8G(P4-478) \$185

Pentium 4 Retail
1.6G-478(517K) \$225
1.8G-478(517K) \$259
2.0G-478(517K) \$295
2.26G(533fsb) \$385

AMD Duron(Box)
950 \$69
1100 \$85
1200 \$99
1300 \$119

AMD Athlon(oem)
950(200) \$99
1100(200) \$129
1333(266) \$129
1400(200) \$185

AMD XP OEM Retail
1800+(1.53C) \$139 \$169
1900+(1.6C) \$185 \$209
2000+(1.67C) \$215 \$249
2100+(1.7C) \$279 \$305

PRINTER/SCANNER

INKJET:
HP656/845 \$109/145
HP940cm/PS1215 \$249/489
Canon S200/S300 \$99/119
Epson C60/C80 \$139/\$239
Lexmark Z22 \$79
Z35/Z45/Z55 \$119/159/199
LASER:
HP full line Scall
Lexmark E210 \$319
Samsung ML1450 \$459
Brother full line Scall
SCANNER:
ACER 4300 \$79
HP2200C \$115
Epson 1250/iphot \$159/\$199
Mustek 1200USB \$89

MONITOR

Samsung 750u/950B \$219/299
753DF/950SL \$235/349
700FT/700NF \$349/439
955DF/950NF \$375/509
LCD 1515 1715S \$569/\$939
NEC FE770/991 \$259/479
AS75F/AS95F \$229/349
1550V 15" LCD \$580
AOC 7dir 17.1qir 19" \$185/265
Viewsonic
E70P/E90F \$259/389
VE155 /VE170 \$599/999
VX500/VX700 \$789/\$1129
LG 7700P/795FT+ flat \$259/339
LG E700B/E900B flat \$215/359
LG995/915FT+ flat \$419/465
Daewoo 17PF 25 17" \$210

VIDEO CARD

ATI(AGP)
7500LE 64M SDR DH \$115
7500 64M DDR DH \$119
7500 64M A-IW retail \$259
8500LE 64M DH OEM \$179
8500DV A-IW 64M OEM \$365
MATROX
G550 32M dh box/cable \$169
ASUS
8170 MX440 64M \$149
8460 16600 128M \$499
Abit GF4 MX440 64M \$139
Abit GF4 TI4200 64M \$239
Abit GF4 TI4600 128M \$485
Forsa GF2 MX400 64 \$59
GF4 MX 420 64M \$89
MSI GF4MX420 64M \$109
GF4MX440 64M \$129
GF4MX460/VTP 64S159/209
GF4 TI4200 128M \$239
GF4TI4400 128M VIVO \$369

CDWRITER

YAMAHA
24x10x40 EVK retail \$159
FLXITOR
24x10x40 int. IDE RW \$199
40x12x40 int. \$219
Liteon 32x12x40 RW \$83
40x12x48 RW \$99
AOPEN 24x10x40 CDRW\$69
32x12x40 CDRW\$85
LG 24x10x40 CDRW \$69
32x10x40 CDRW \$85
Pioneer DVR 104/2 \$469

SPEAKER

AVS 300/500/ATP3W \$48/59/89
AL641CN black \$259
Yamaha MS201/M101 \$69/175
Logitech
Z340/540/560 \$69/89/229
Creative Inspire 5.1 5300 \$129
MonsoonMH502/702S125/189

HARD DRIVE

Maxtor DiamondMax
5400: 40/60/80/99/109/139
7200: 40/60/80G \$99/129/149
Seagate Barracuda IV EIDE
40/60/80G \$99/129/149
IBM 7200RPM 2M
80GB \$139
Western Digital
WD 800JB/1200JB BM \$229/339
Call for price

NETWORK

D-Link DFE530TXS 10/100 \$13
Aopen 5/8 ports 100 switch \$49/69
Aopen 10m 8 hub \$39
3-COM 3c905 10/100 \$59
Intel Pro 10/100 NIC \$45
Linksys router 4 port \$109
SMC 4 port & PSVR router \$109
D-Link DI-604 router 4 ports \$89

SOUND/CDROM

LG/Aopen 52X CD \$39
SB 128/16v 5.1 \$35/48
SB Audigy oem \$95
SB Audigy MP3 \$139
SB Platinum Exigy \$215
LG 16X DVD \$65
Liteon 16X DVD \$55
Toshiba 16X DVD \$79
Pioneer 16X DVD \$79/89

NOTEBOOK

Acer Travelmate 223C Celeron 1.13/
128/20G/24XCD/14.1/26H \$1499
Acer Travelmate 5230 P4 1.8/
20G/256M/14.1/10V-DVD-CRW \$2359
Acer Aspire P4 1.7/20G/128M/14.1/
DVD-CRW/XP pro \$2369
Fujitsu C211A-XP1 P4 1.6/256M/20/
DVD-CRW/15.1/XP Home \$2359
Toshiba Satellite 1400 C1.33/30C/
14.1/256M/DVD-CRW \$2049
Call Price for any other notebook!

RAM(call for Prices)

PC133 128/256/512 339/75/139
PC2100 256/512 ddr \$85/169
PC2700 256/512 ddr \$99/199
RD800 128/256 \$89/149

FAX/MODEM

ECS AMR V.90 F/M \$15
USR V90 win/hardware \$49/89
Acer 56K PCI/ISA \$25/69

Prices listed reflect cash discount and subject to change without notice. All trademarks belong to their respective

1266 West Broadway, Vancouver, B.C. V6H 1G6 (Oak & Granville)

tel: (604) 731-1218 fax: (604) 731-1273

Generic Computer

sales & service

www.genericcomputer.bc.ca

mon - sat 11:00 - 19:00 sun 12:00 - 16:00

Intel Celeron 1.2GHz

Pentium III ATX Motherboard
128MB PC133 SDRAM
1.44MB Floppy Drive
40GB EIDE Hard Drive
52X CD-ROM Drive
AGP 3D Video O/B
PCI 3D Stereo Sound O/B
10/100 Base NIC
17" ATX Tower Case
PS/2 Keyboard & Wheel Mouse
Power Amplified Speakers

Great Deal

\$419

Intel P4 1.7GHz

PCChips M925 ATX Motherboard
256MB PC2100 DDR RAM
1.44MB Floppy Drive
40GB EIDE Hard Drive
52X CD-ROM Drive
AGP 3D Video O/B
PCI 3D Stereo Sound O/B
10/100 Base NIC
17" ATX Tower Case
PS/2 Keyboard & Wheel Mouse
Power Amplified Speakers

Super Value P4

\$579

Intel P4 1.8GHz

MSI 645 Ultra Motherboard
256MB PC2100 DDR RAM
1.44MB Floppy Drive
40GB (7200rpm) Hard Drive
52X CD-ROM Drive
nVidia GF2 MX400 64MB V/C
PCI 3D Stereo Sound O/B
10/100 Base NIC
17" ATX Tower Case
PS/2 Internet Keyboard
PS/2 Wheel Mouse
Power Amplified Speakers

\$739

Intel P4 2.0GHz

Asus P4S533 Motherboard
256MB PC2100 DDR RAM
1.44MB Floppy Drive
60GB (7200rpm) Hard Drive
32X10X40 CD-Rewriter
nVidia GF4 MX440 64MB V/C
PCI 3D Stereo Sound O/B
10/100 Base NIC
17" Front USB ATX Tower Case
PS/2 Internet Keyboard
PS/2 Wheel Mouse
Power Speakers w/Subwoofer

\$999

AMD Athlon XP1600+

PC Chips M841 Motherboard
256MB PC2100 DDR RAM
1.44MB Floppy Drive
40GB EIDE Hard Drive
52X CD-ROM Drive
AGP 3D Video O/B
PCI 3D Stereo Sound O/B
10/100 Base NIC
17" ATX Tower Case
PS/2 Keyboard & Wheel Mouse
Power Amplified Speakers

\$459

AMD Athlon XP1800+

M830 SIS735 Motherboard
256MB PC2100 DDR RAM
1.44MB Floppy Drive
40GB EIDE Hard Drive
52X CD-ROM Drive
nVidia TNT2 32MB Video Card
PCI 3D Stereo Sound O/B
10/100 Base NIC
17" ATX Tower Case
PS/2 Keyboard & Wheel Mouse
Power Amplified Speakers

Super Sale

\$559

AMD Athlon XP2000+

MSI KT3 Ultra Motherboard
256MB PC2100 DDR RAM
1.44MB Floppy Drive
60GB (7200rpm) Hard Drive
52X CD-ROM Drive
nVidia GF2 MX400 64MB V/C
PCI 3D Stereo Sound O/B
10/100 Base NIC
17" ATX Tower Case
PS/2 Keyboard & Wheel Mouse
Power Amplified Speakers

\$759

MS Windows XP Home / Pro (OEM)

\$145 / \$245

MS Office XP SBE / Pro (OEM)

\$239 / \$489

with System Purchased ONLY
All systems come with:
1 year parts
and 2 years labour warranty

Special

Logitech
Cordless Freedom
Optical Keyboard & Mouse **\$119**

Motherboard

AMD Asus A7S333 SIS745 ----- \$109
AMD Asus A7V333 KT333 USB 2.0 ----- \$179
AMD Asus A7V333-Raid KT333 USB2.0 IEEE ----- \$219
AMD PCChips M810 Video, Audio & Lan ----- \$89
AMD ECS K7SSA / PCChips 830 Audio & Lan ----- \$89
AMD Gigabyte GA-7VRX KT333 USB2.0 ----- \$129
AMD Gigabyte GA-7VRXP Raid USB2.0 ----- \$159
AMD MSI KT3 Ultra KT333 ----- \$125
AMD MSI KT3 ARU Raid USB 2.0 ----- \$169
P4 Asus P4S533 SIS645DX ----- \$169
P4 Asus P4B533 i845E 533FSB USB2.0 ----- \$219
P4 Asus P4B533-EL Raid, USB2.0, IEEE ----- \$279
P4 PCChips M925 Video, Sound & Lan ----- \$99
P4 MSI 645 Ultra SIS645 ----- \$115
P4 MSI i845E Max 533FSB USB2.0 ----- \$139
P4 MSI 6398E Max-LR Raid, USB2.0, Lan ----- \$199

Monitor

17" LG 700S .27dp ----- \$195
17" NEC AS75F .25dp Flat ----- \$229
17" NEC FE700+ .25dp 1280x1024 ----- \$259
17" NEC FE750+ .25dp 1600x1200 ----- \$339
19" NEC AS95F .25dp Flat 1600x1200 ----- \$345
19" NEC FE950+ .25dp Flat 1792x1344 ----- \$449
17" Samsung 753DF .25dp Flat 1280x1024 ----- \$235
19" Samsung 955DF .25dp Flat 1600x1200 ----- \$369
15" NEC 1550V Slim LCD ----- \$569
17" NEC 1720 LCD ----- \$1039

Printer Fax & Scanner

Epson C40U / C60 Color Printer ----- \$65 / 129
Epson 1250 / 1250Photo Scanner ----- \$145 / 189
6ft Bi-Direct / IEEE Printer Cable ----- \$4 / 10
6ft USB Cable / 15ft Ext ----- \$5 / 10

Video Adaptors

ATI Radeon 7500 64MB D/H ----- \$169
ATI AIW Radeon 7500 64MB ----- \$269
ATI Radeon 8500LE 128MB w/TV ----- \$309
ATI AIW Radeon 8500DV 64MB ----- \$409
ATI AIW Radeon 8500DV 128MB ----- \$519
ATI DV Wonder FireWire Adaptor ----- \$65
MSI GeForce2 MX400 64MB DDR ----- \$99
MSI GF3 Ti200 128MB DDR w/VIVO ----- \$209
MSI GeForce4 MX440 64MB w/TV ----- \$129
MSI GeForce4 MX440 64MB DDR w/VIVO ----- \$159
MSI GeForce4 MX460 64MB w/VIVO ----- \$159
MSI GeForce4 Ti4200 128MB w/VIVO ----- \$279
MSI GeForce4 Ti4400 128MB w/VIVO ----- \$375
MSI GeForce4 Ti4600 128MB w/VIVO ----- \$489
nVidia GeForce2 MX400 64MB ----- \$70

Hard Drive & Storage Device

40GB 5400rpm / 7200rpm ----- \$99 / 105
60GB / 80GB 7200rpm ----- \$125 / 145
120GB 7200rpm ----- \$249
100pcs CDR 700MB ----- \$33
Blank CDR 700MB ----- \$0.40
100MB / 250MB Zip Disk ----- \$13 / 16

CD-R & CD-Rewriter

LG 52x IDE CD-ROM ----- \$39
LG / LiteOn 16x IDE DVD-ROM ----- \$65
Pioneer 16x IDE DVD-ROM ----- \$75
LG 24x10x40 Int. CD-RW ----- \$69
LG / LiteOn 32x10x40 Int. CD-RW ----- \$89
LG 12x8x32 CD-RW & 8x DVD Combo ----- \$109
LiteOn 40x12x48 CD-RW ----- \$109
Plextor 40x10x40A CD-RW ----- \$179*
LiteOn 48x12x48 CD-RW ----- \$129

Sound Card & Speakers

SB PCI 128 / Live! DE 5.1 ----- \$27 / 47
SB Audigy Firewire ----- \$97
SB Audigy MP3 5.1 / X-Gamer5.1 (Box) ----- \$139
SB Audigy Platinum 5.1 (Retail) ----- \$269
SB Audigy Platinum EX 5.1 (Retail) ----- \$339
Creative Inspire 5300 5.1 Speakers ----- \$129
Creative Inspire 5700 Digital 5.1 Speakers ----- \$369
Altec Lansing AVS300 w/Subwoofer ----- \$45
Altec Lansing AVS500 w/Subwoofer ----- \$65
Altec Lansing ATP3 w/Subwoofer ----- \$79
Altec Lansing 2100 w/Subwoofer ----- \$119

Modem & Network Adaptors

Creative 56K Win Modem ----- \$18
Aopen 56K Fax/Data Modem ----- \$23
D-Link 530TX PCI 10/100 NIC ----- \$18
Aopen 8 Port Hub 10Base ----- \$35
D-Link 8 Port Switch 10/100Mbps ----- \$85
SMC Router 4 Port ----- \$119
USR 8000+ Router 4 Port ----- \$109
RJ-45 Cable 10 / 25 / 50ft ----- \$5 / 10 / 15

Accessories

1.44 MB Floppy Drive ----- \$15
Logitech QuickCam Express USB ----- \$49
Win98 / MS Internet Keyboard ----- \$8 / 29
MS Optical Wheel Mouse (Retail) ----- \$25
Logitech Cordless Freedom KB/MS ----- \$75
Logitech Cordless Freedom Pro Combo ----- \$119
Logitech Freedom Optical Combo ----- \$119
250W / 300W Power Supply ----- \$23 / 30
Enermax 350W Dual Fan ----- \$65
17" ATX Tower Case 250W ----- \$35
17" ATX Front USB P4 300W ----- \$45

< THE GADGETEER >

Orange PC Card adds USB 2.0

Owners of all but the latest in portable computers will not have a USB 2.0-compatible port on their machines. That was the case when I was reviewing the Triple Play CD-RW drive on my Sony VAIO notebook. Luckily, I had an opportunity to test Orange Micro's USB 2.0 CardBus adapter, so I could get an idea of how quickly the CD burner copied data using the new, faster USB spec.



OrangeUSB 2.0 Hi-Speed CardBus

From: Orange Micro Inc., www.orangemicro.com
Supports: Windows 98/Me/2000, Mac OS X
Price: US\$79

The CardBus adapter is a Type II PC Card that sports four USB 2.0 connectors. Physical installation is as easy as sliding it into your PC Card slot, but getting it up and running proved more problematic. Though it comes with a CD quick start guide to installing drivers from the disc, there are, in fact, no drivers on the disc! Actual driver installation is from Orange Micro's Web site. This was discovered following much searching and head scratching.

Once set up, however, the adapter worked as it should. One problem we encountered, though, is that it was not "hot swappable" as touted. A utility that ostensibly allows the removal and insertion of the adapter without re-booting did not work for us. Every attempt to remove the card froze the computer. New drivers, which are posted regularly on the company's Web site, will hopefully resolve this.

Unhappy too is the fact that the Orange Micro USB 2.0 CardBus requires its own AC adapter—although the potential power draw from four USB 2.0 devices may make that a necessity.

—Ross MacDonald

VASTECH

Vastech Computer Ltd.

3967 Main St. Van, BC TEL: 604-872-4245
Hours: 10AM-7PM (Mon-Sat) FAX: 604-872-4249

Monthly Special

Altec Lansing ACW21 Speakers-----\$ 23
Samsung 753DF 17" Flat Monitor-----\$233
Samsung 955DF 19" Flat Monitor-----\$365
KDS RAD5 15" LCD w/ Wheel Mouse-----\$535
LiteOn 40X12X48 CDRW + Software--\$ 98

* AMD Value *

Duron 1.1G / 1.2G / 1.3G
-----\$ 449 / 459 / 479
ECS K7SEM ATA100 AGP4X MB
LG 52X CDRW (16x DVD + \$25)
40G 5400rpm ATA100 Hard Drive
256MB PC-133 SDR / 1.44M FDD
upto 64M AGP OB + AGP4X Slot
10/100 NIC / AC97 3D Sound OB
Tsunami PS2 Windows Keyboard
Tsunami Wheel Mouse + Speakers
17" ATX Tower + 250W Power Supply

* XP Special *

XP 1600 / 1700 / 1800
---\$ 545 / 565 / 577
ECS K7S5A ATA100 AGP4X MB
LG 52X CDRW (32X CDRW+\$48)
40G 7200rpm HDD / 1.44M FDD
256MB PC-2100 DDR-RAM
ATI Rage Pro128 32MB AGP4X
180W Seakers / 3D Sound O/B
10/100 Networking Ready for DSL
Windows Keyboard + Wheel Mouse
17" ATX Tower + 300W Power Supply

* XP Value *

XP 1800 / 1900 / 2000
---\$ 619 / 665 / 695
Gigabyte 7DXP AMD761 AGP-4X MB
52X CDRW(DVD+CDRW Combo+\$65)
40GB 7200rpm HDD / 1.44M FDD
256 MB PC-2100 DDR-RAM
ATI Radeon 7000 64M with TV-OUT
180W Speaker / 3D Sound O/B
Windows Keyboard + Wheel Mouse
10/100 NIC or 56K Fax Modem
17" ATX Tower + 300W Power Supply

* XP Pro *

XP 1800 / 1900 / 2000
---\$ 799 / 845 / 875
MSI KT3 Ultra KT333 ATA133 AGP4X
LG 52X CDRW / 1.44MB FDD
256MB PC-2700 DDR-RAM
Maxtor 60G 7200 rpm ATA133 HDD
ATI Radeon 7500 64M DDR TV-OUT
56K V.90 Fax Modem or 10/100 NIC
580W Speaker + Subwoofer / Sound
Internet Keyboard + Wheel Mouse
17" ATX Tower + 300W Power Supply

* XP Gamer *

XP 1900 / 2000 / 2100
---\$ 959 / 989 / 1019
Gigabyte TVRXP KT333 ATA133 MB
52X CDRW / 10/100 NIC OB
256 MB PC-2700 DDR-RAM
80G 7200 rpm HDD / 1.44M FDD
Geforce4 MX440 64MB DDR TV-OUT
Creative SB PCI-128 Sound Integrated
Creative 2400 Speaker + Subwoofer
Logitech Optical Mouse PS2 & USB
Multimedia Internet Keyboard PS2
17" ATX Tower + 300W Power Supply

* Intel Value *

Intel Celeron 1.7G ---\$489
Intel P4-1.8Ghz---\$599
ECS P4VMM2 DDR ATA100 AGP4X
LG 52X CDRW (16x DVD + \$25)
40G 5400rpm ATA100 Hard Drive
128MB PC2100 DDR-RAM / FDD
Savage 4 3D Video + 1x AGP Slot
10/100 NIC / AC97 Sound O/B
Tsunami Windows PS2 Keyboard
Tsunami Wheel Mouse + Speakers
17" Tower+P4-300W Power Supply

* P4 Special *

P4 - 1.6G / 1.8G / 2.0G
---\$ 649 / 685 / 729
Pentium 4 ATA100 AGP4X DDR MB
LG 52X CDRW (32x CDRW+\$48)
40G 7200rpm HDD / 1.44M FDD
256MB PC-2100 DDR-RAM
ATI Rage Pro 128 32MB AGP4X
180W Speakers / 3D Sound O/B
Windows Keyboard + Wheel Mouse
10/100 Networking Card Integrated
17" Tower+P4-300W Power Supply

* P4 Value *

P4 - 1.6G / 1.8G / 2.0G
---\$ 735 / 771 / 815
Gigabyte GA8IR533 AGP4X ATA100
52X CDRW(DVD+CDRW Combo+\$65)
40G 7200 rpm HDD / 1.44M FDD
256MB PC-2100 DDR-RAM
ATI Radeon 7000 64M with TV-OUT
180W Speaker / 3D Sound O/B
10/100 NIC or 56K Fax Modem
Windows Keyboard+Wheel Mouse
17" Tower+P4-300W Power Supply

* P4 Pro *

P4 - 1.6G / 1.8G / 2.0G
---\$ 805 / 841 / 885
MSI 6547E SIS645DX ATA133 533 FSB
LG 52X CDRW / 1.44MB FDD
256 MB PC-2100 DDR-RAM
Maxtor 60G 7200 rpm ATA133 HDD
Geforce2 MX400 64MB AGP4X
56K V.90 Fax Modem or 10/100 NIC
580W Speaker + Subwoofer / Sound
Internet Keyboard + Wheel Mouse
17" Tower+P4-300W Power Supply

* P4 Gamer *

P4 - 1.6G / 1.8G / 2.0G
---\$ 999 / 1035 / 1079
Gigabyte 8IRXP ATA133 USB 2.0 MB
LG 52X CDRW (40x CDRW + \$65)
256MB PC2100 DD-RAM / 1.44M FDD
80G 7200 rpm HDD / 10/100 NIC OB
Geforce4 MX440 64MB DDR TV-OUT
Creative 2400 Speaker + Subwoofer
Creative PCI-128 Sound Integrated
Multimedia Internet Keyboard PS2
Logitech Optical Mouse USB & PS2
17" Tower + P4-300W Power Supply

* Desk Note *

Intel P4-1.6Ghz
256MB PC2100 DDR
Max 64M Video+TVOut
14" TFT LCD Panel
20GB HDD (30G +\$55)
8x DVD / 56K Modem
10/100 Network Ready
1x IEEE 1394 Port
4x USB 2.0 Ports



\$ 1555

Battery for A928 / A900-----\$199 / 129

Upgrade to 15" TFT Add-----\$115

to 15" TFT with DVD + CDRW combo--\$225



\$ 1149

VIA 1G Pro CPU
256MB PC133 SDRAM
Max 64M Video + TVOut
14" TFT LCD Panel
10GB Hard Drive
8x DVD / 56K Modem
10/100 Network Ready
4x USB 1.1 Ports

* Server & Special Computing *

* Multi Burner *

With 6 Burners-----\$2588
With 10 Burners---\$3488
LG 32x10x40 CDRW
IEEE 1394 Technology
AMD XP 1800+ processor
512MB PC2100 DDR-RAM
80GB 7200rpm Hard Drive
Full Tower + 550W Power

* Raid & Firewire *

Pentium 4 - 2.26 GHZ ---\$ 1888
(for Game ,A/V & Speed)
GA 8IEXP / 512M DDR-RAM
2x Pcs 80GB 7200rpm HDD
CDRW+DVD Combo=>IEEE
IEEE 1394 Host Adapter
ATI Radeon 8500 128M DDR
Creative SB 5.1 Sound Card
Full Tower + 375W Power

* Raid 5 Server *

Pentium 4 - 2.0GHZ-----\$ 2988
ASUS P4T-E + Adaptec 2100 S Ultra 160 RAID SCSI Controller
3x Pcs Fujitsu 18.4GB 10000rpm Ultra 160 SCSI 68Pin 8M HDD
1.0GB PC800 RAM BUS / 1.44M Floppy Drive / 52X CDRW
Nvidia TNT2 M64 32MB AGP4X Video Card / HDD Cooling Fan
Server Case + Enermax EG465P-VE 450W Power Supply

* BareBone System *

\$149 ECS P6VEM2 VIA 1G Pro Video / Lan / S 17" ATX Tower 250W Power

\$209 Duron 1.1Ghz ECS K7 SEM Video / Lan / S 17" ATX Tower 250W Power

OEM Software purchase with system only:
Windows XP Home / Pro ---\$ 138 / 218
Windows 2000 Professional ---\$ 218
MS Office SEB/Pro ---\$ 235 / 445
Corel Word Perfect 2000/2002 ---\$ 27 / 39
CD Maker Plus Edition Ver.5.1.2 ---\$ 8

Quick Books Pro 2002(BOX)---\$ 215
MS Worksuite 2002 (BOX)---\$ 148
PC Anywhere Ver 10.5 ---\$ 39
Norton Anti Virus 2002 ---\$ 29
Norton system work 2002 Pro ---\$ 39

**All system have a 3 year labor & 1 year parts warranty, Plus 1 Month Free Internet. Financing from 3 to 36 months (3% to 16%).

Motherboard ASUS P4B533-EL-R/P4B533 ---\$278 / \$228 P4533 / P4533 ---\$169 / \$153 P4T-E-WOA / P4S33M ---\$219 / \$122 P4T533-CL 4xUSB2.0 RIMM ---\$265 A7V226E-R / A7V268C ---\$222 / \$128 A7N266VWML / A7N266C ---\$130 / \$162 A7V333 WA / A7V333-R ---\$185 / \$222 ECS K7SEM / K7SEM ---\$ 88 / \$98 K7S6A / K7S6A ---\$ 88 / \$105 L455MG / P4VMM2 ---\$ 118 / \$99 P455A / P4B5M5 ---\$ 108 / \$110 GIGABYTE GA 8IHP / GA 8IEXP ---\$259 / \$215 GA 8IEXP / 8IEXP ---\$169 / \$149 GA 8IR533 / 8IRMT4 ---\$128 / \$129 GA 7VRXP / 7VRXP ---\$159 / \$125 GA 7VKML / 7DXP ---\$106 / \$104 MICROSTAR 6398E Max-LR/6566E ---\$109 / \$147 6580 / 6398Ultra ---\$175 / \$142 6533GL / 6547Uite ---\$127 / \$115 6547E sis645DX Max-E ---\$129 KT3-ARU / KT3 Ultra ---\$185 / \$133 VIA P4XB-RA / P4XB-SA ---\$150 / \$115 P4PA-UL / P4XB-M ---\$129 / \$99	Memory 64M / 128M / 256M / 512M SDR \$ 39 / \$ 75 / \$ 137 DDR \$ 45 / \$ 85 / \$ 147 DDR333 \$ 99 / \$ 198 RIM \$ 78 / \$ 145 / \$ 275 C F \$ 47 / \$ 77 / \$ 155 S C \$ 47 / \$ 77 / \$ 144 \$ 8 / \$ 99 Please call for update prices Video Asus V7100 MX400 64M Pure ---\$119 Asus V8420 GF4 Ti4200 128MB ---\$309 Asus V8440 GF4 Ti4400 128MB ---\$389 Asus V8460 GF4 Ti4600 128MB ---\$589 Rage 128 Pro 32MB ---\$46 Radeon 7000 64M SDR D/H TV ---\$63 Radeon 7000 64M DDR D/H TV ---\$85 Radeon 7500E 64M DDR D/H TV ---\$99 Radeon 7500 A-I-Q 64M (box) ---\$275 Radeon 7500 A-I-W 64M (oem) ---\$255 Radeon 8500LE 64M DDR S/H ---\$179 Radeon 8500LE 64M DDR D/H ---\$195 Radeon 8500LE 128M DDR D/H ---\$239 Radeon 8500 DV 64M A-I-W (box) ---\$399 Radeon 8500 DV 64M A-I-W (oem) ---\$375 Radeon 8500 A-I-W 128M (box) ---\$465 MSI GF4 MX420 64M SDR TV ---\$125 MSI GF4 MX440 64M DDR TV ---\$129 MSI GF4 MX440 64M With D/H ---\$158 MSI GF4 Ti4200 64M DDR ---\$246 MSI GF4 Ti4200 128M DDR ---\$285 MSI GF4 Ti4400 128M DDR ---\$368 MSI GF4 Ti4600 128M DDR ---\$488 Leadtek GF4 MX440 64M DDR ---\$155 Leadtek GF4 Ti4200 64M DDR ---\$255 Leadtek GF4 Ti4200 128M DDR ---\$295 Leadtek GF4 Ti4400 128M DDR ---\$419 Leadtek GF4 Ti4600 128M DDR ---\$505 Nvidia TNT2 32MB AGP4X ---\$48 GF2 MX200 32M / 32M TV ---\$65 / \$75 GF2 MX400 64M / 64M TV ---\$79 / \$89	Hard Drive Maxtor 40G / 60G / 80G (7200) ---\$ 103 / \$133 / \$149 Seagate 40G / 60G / 80G (7200) ---\$ 108 / \$128 / \$149 Notebook 20G / 30G / 40G ---\$152 / \$209 / \$245 Printer / Scanner (Please ask for rebate) Canon S200 / S300 / S520 / S750 ---\$ 95 / \$118 / \$189 / \$282 Canon S820 / S820D / S900 / S9000 ---\$469 / \$565 / \$565 / \$748 Epson C 40 / C 60 / C 80 / P820 ---\$ 69 / \$125 / \$225 / \$148 Epson P890 / P1280 / 2000P / 2200P ---\$279 / \$689 / \$1179 / \$990 Laser Printer Brother 1230 / 1440 / 1470N / 2460N ---\$ 319 / \$455 / \$738 / \$1599 Samsung 1210 / 1250 / 1440 / 1450 ---\$289 / \$345 / \$425 / \$457 Scanner Acer 4300U ---\$ 75 Canon 670U / 1240U ---\$139 / \$219 Epson 1250 / 1250P ---\$135 / \$185 Epson 1650 / 1650P ---\$265 / \$295 Others ATA100 Mobile Rack ---\$16 6 Ports Power Bar ---\$ 5 Refill Ink for most printer start from ---\$14 Manhattan Keyboard Drawer ---\$29 Back Phone with Value Controller ---\$10 17" / 19" Glass Monitor Filter ---\$17 / \$27 2.5" to 3.5" HDD Adapter ---\$ 9	Optical Drive CDROM Aopen / Asus / LG / Sony 52X ---\$ 36 / \$40 / \$39 / \$40 Plexyor 40x12x40 CDRW ---\$229 CDRW Aopen / LG / Liteon / MSI 24X ---\$ 72 32X ---\$85 / \$85 / \$83 / \$83 40X ---\$98 / \$115 / \$98 / \$98 DVD Aopen / LG / Liteon / Pioneer ---\$ 59 / \$60 / \$59 / \$69 FDD Samsung / Panasonic ---\$16 NEC 100M ZIP Drive INT ---\$69 Iomega 250M ZIP Drive EXT ---\$229 USB Drive 64M / 128M / 256M / 512M ---\$ 79 / \$136 / \$239 / \$495 Network Encore 10/100 NIC ---\$11 Surecom 10/100M NIC ---\$13 D-Link 530TX/10/100 WOL ---\$22 D-Link 530TXS 10/100 WOL ---\$17 3Com 3c905CTX NM 10/100 ---\$58 D-Link Router + Printer Server ---\$115 Surecom 10M HUB Sports ---\$27 Surecom 10/100 HUB 5 ports ---\$20 Surecom PCMCIA 10M ---\$35 Surecom 10/100 NIC USB ---\$57 RJ45 Crimping Tool ---\$17 RJ45 Plug ---\$ 25 RJ45 Lan-Tester ---\$ 65 RJ45 Mount Box Dual / Single ---\$4 / \$3 RJ45 Tool Less Keyston ---\$4 RJ45 Network Cable (with 2 Ends) 10' / 15' / 25' / 66' / 82' / 100' ---\$ 5 / \$7 / \$9 / \$16 / \$18 / \$20 Wireless Linksys Wireless Acc+Router ---\$235 Linksys Wireless Access point ---\$205 Linksys Wireless PCI card ---\$135 Linksys Wireless USB Adapter ---\$127 D-Link Di713P Wireless R+P ---\$245 D-Link Di614+ Wireless Router ---\$209 D-Link DWL650 PCMCIA NIC ---\$125 D-Link DWL500 Wireless NIC ---\$165	CPU P-4 1.6G / 1.8G / 2.0G (512K) \$215 / 258 / 298 Celeron (478) 1.7G / 1.8G ---\$135 / \$175 Celeron (A) 1.1G / 1.2G / 1.3G ---\$ 99 / \$110 / \$125 AMD XP 1700 / 1800 / 1900 / 2000 ---\$155 / \$173 / \$210 / \$255 Duron 1.0G / 1.1G / 1.2G / 1.3G ---\$ 69 / \$79 / \$88 / \$99 Please call for update prices Monitor AOC 7ELR 1280x1024 17" ---\$188 AOC 7F 1280x1024 17" Flat ---\$217 AOC 9GLR 26mm 19" ---\$279 AOC 9KLR 26mm 19" Flat ---\$339 AOC LM500 15" LCD Panel ---\$535 AOC LM700 17" LCD Panel ---\$825 KDS XF-9p 25mm 19" Flat ---\$339 KDS RAD5 LCD Panel 15" ---\$535 Philips 170S 27mm 17" ---\$219 Philips 170B 25mm 17" Flat ---\$290 NEC AS70 17" 27mm ---\$218 NEC AS75F 17" 26mm Flat ---\$239 NEC AS90 19" 26mm ---\$339 NEC AS95F 19" Flat 24mm ---\$375 NEC 1550V 15" TFT LCD Panel ---\$565 NEC 1550M 15" TFT LCD Panel ---\$668 Samsung 753DF 17" Flat ---\$235 Samsung 955DF 19" Flat ---\$368 Viewsonic E70F 17" Flat ---\$269 Please Call for other model not listing Modem AOPEN 56K Modem SV / PLM / PM ---\$22 / \$35 / \$42 56K Modem Intel / ESS / PCMCIA ---\$ 23 / \$18 / \$67 USR 56K WinModem ---\$43 USR 2976 56K Modem ---\$97	Case / Power / Fan 17" ATX 250W with 2x USB @ Front ---\$40 17" ATX P4 - 300W With 2 USB Front ---\$50 18" ATX P4 - 300W With 2 USB @ Front ---\$58 19" ATX P4-300W / 24" P4-300W ---\$65 / \$89 18" P4-300W w/Audio + USB ---\$69 18" P4-300W w/IEEE+Audio+USB ---\$119 ATX P4-300W / P4-375W Dual Fan ---\$ 44 / \$ 58 Alpha PAL804ST CPU Cooling Fan ---\$ 78 Volcano7 CPU / 7+ Cooling Fan ---\$ 29 / \$58 ICEMAN1380 / 1680 Cooling Fan ---\$ 10 / \$14 HDD Cooler 2 Fans / Case Fan ---\$ 14 / \$ 8 Keyboard & Mouse Logitech Optical Freedom K+Mouse ---\$128 Aopen Windows Keyboard ---\$10 Windows Keyboard ---\$ 7 Multimedia Internet Keyboard PS2 ---\$12 A4 Tech Multimedia Internet Keyboard ---\$16 LiteOn Internet Keyboard PS2(Black) ---\$25 MS Internet Keyboard PS2 ---\$25 Wheel Mouse / A4 Optical Combo ---\$ 7 / \$25 A4 Cordless Optical Wheel Mouse ---\$45 Logitech Optical Mouse ---\$19 MS Intellimouse Optical / Intellimouse ---\$35 / \$15 Cable IEEE Firewire Cable 6" ---\$12 IEEE Printer Cable 6" ---\$15 USB Printer Cable 6"/10" ---\$5/7 USB Extension Cable 6" ---\$5 Parallel Printer Cable 6" ---\$5 Power Cord ---\$2 ATA33 3Head IDE Cable ---\$2 ATA66 3Head IDE Cable ---\$5 ATA100 3 H IDE Cable ---\$7 SVGA Cable 6" F/M or M/M ---\$10 VGA Cable 6" F/M or M/M ---\$6 Null Modem Cable F/F ---\$6 Data Cable M/M 10" ---\$7 PS2 Extension Cable 6" ---\$5
---	---	--	---	--	---

Price & availability are subject to change without notice. All trademarks & brands are properties of their owners. All advertised prices are reflect 3% cash & interac discount. We reserve the right to correct typographical errors.

Small Office Technology

Solutions for Small Business • Connecting Home & Work

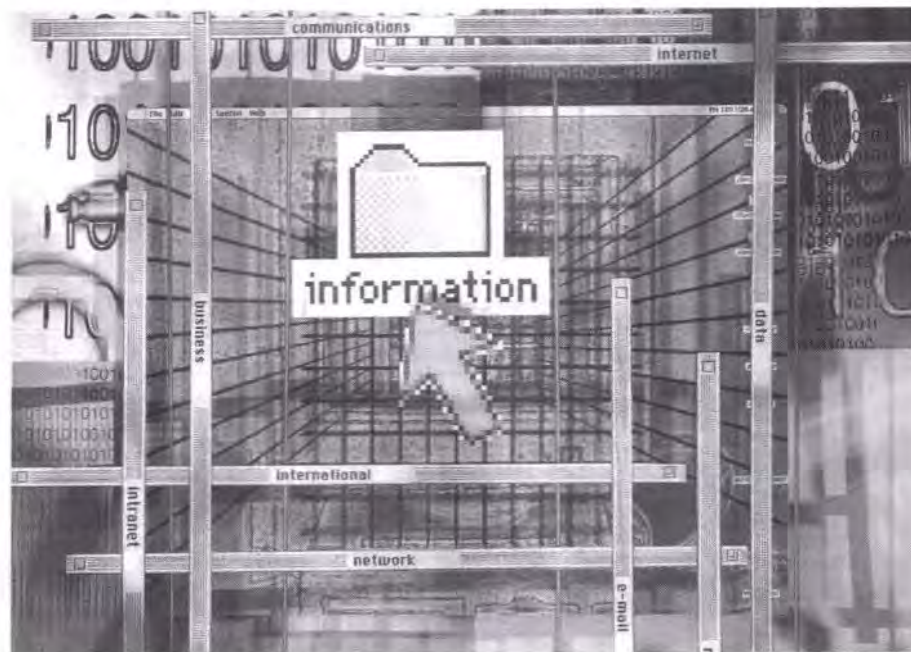
Blended threats latest menace

Virus writers and hackers team up to target sensitive data

By Tom Venetis

Blended security threats are not entirely new to security watchers. Attacking a system from multiple fronts in a variety of ways is a tried and true tactic of experienced hackers and crackers. However, some of the latest blended security threats have a more sinister twist—the addition of malicious code.

Anson Lee, product manager for Norton Internet Security with Symantec Corp. (www.symantec.com) in Santa Monica, Calif. says this malicious code is designed to quietly compromise a system, allowing someone to inflict more extensive damage later on or to steal valuable information without detection.



"The old virus and worm methodology caused downtime," Lee says. "But in terms of blended threats, we are seeing the worlds of the hacker and the virus writer coming together. They are creating viruses that can do a lot more than

your traditional viruses."

In fact, some of the most dangerous and malicious codes starting to appear as part of these blended threats effectively cover their tracks. This is important to

Continued on page 72

Mr. Forklift wins business makeover

During the past few months, you may have seen a poster in this magazine advertising a small business makeover competition, sponsored by Microsoft Canada and *The Computer Paper*. We're happy to announce the winner: Mr. Forklift of Concord, Ont. Over the next few months, we will be filing reports on the progress of the makeover.

Adam Columbus, owner of the 17-person operation, says he was surprised to hear Mr. Forklift was chosen, and looks forward to the server hardware and software, which is part of the prize package.

"I was frankly tired of being my own network administrator," says Columbus, who adds that his company is too small to have a dedicated network person on staff. As a consequence, he says he has spent "whole days at a time" troubleshooting and maintaining his peer-to-peer LAN.

And this is precisely where Microsoft thinks its Windows 2000 Small Business Server package will be able to help, says Scott Jackson, Microsoft Canada's product manager for Small Business Server.

"The small business owner wears many hats," Jackson says, adding that reducing IT administration is one of the strengths of Small Business Server. "There are lots of administrative tasks structured through simple, wizard-driven screens."

Mr. Forklift's peer-to-peer LAN consists of seven PCs—five running Windows XP and two running Windows 98. The LAN is connected to the Internet via DSL router.

The prize package includes server hardware, plus the Small Business Server package. Included in the package is Windows 2000 Small Business Server, Exchange Server, Internet security and firewall applications, SQL Server, plus the services of a Microsoft Certified Partner to assess and then install the system.

"If I could just reduce my problems, that's what I really want," says Columbus.

Mr. Forklift is a private company that sells, rents, and services forklifts. The company operates primarily in Southern Ontario.

—TCP Staff

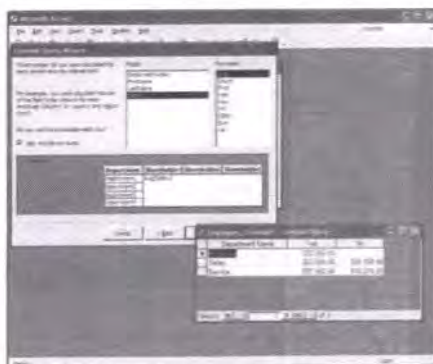
Making inroads with Access queries



The sole purpose of entering data into a database should be to someday get it out again. If you don't expect to extract data, there's really no point in taking the time to put it in.

However, all too often the process of getting data out is harder than putting it in.

This month we'll look at more advanced queries for getting information from an Access database. We're assuming that you have some basic Access skills and that you can create a table and enter data into it. If you're new



Crosstab queries can allow you to easily perform complicated analysis of your data.

to Access, previous columns in this series, which are available online (www.CanadaComputes.com), will get you up and running. Check out "First steps with Access," "Relational databases" and, in

particular, "Access data retrieval."

To follow the steps in this article, you'll need Access 97, 2000 or 2002.

We're using Access 2002 but you will get similar results using earlier versions of Access, although you may find some menu options and other choices are different.

Before you begin

To follow the tutorial you will need some sample data. I'll again use the data from the "First steps with Access" column—it's a simple table but has sufficient detail to create a range of queries. If you already have this file, add the last Yes/No field to it (this is new). If you don't have it, take a minute to create a table called

Continued on page 72



COMPUTER SYSTEMS

www.cspcomputer.bc.ca E-mail: csp@cspcomputer.bc.ca

CSP Computer

439-9100 Fax: (604) 439-9180

Business Hours: Mon.-Fri.: 9:30am - 6:30pm Sat.: 10:30am - 5:30pm
Sun.: 11:30am - 5:00pm

- FREE DELIVERY -

LEASING & FINANCING
ARE AVAILABLE

- OFFICE & HOME NETWORKING
- COMPUTER REPAIRING & SERVICE
- CALL FOR CUSTOMER SYS QUOTATION

免費送貨及安裝

Please visit our **Whole NEW Website @www.cspcomputer.bc.ca** for the **Daily Prices & try our Online Quotations**

Take Care of Your Old System

Upgrade Packages

Upgrade Your PC to 1.0GHz System \$199

CSP Internet Machine:
Complete New System Only \$339
20GB HD, 48X CDROM, 1.44 Flopy, 128MB RAM,
10/100 NIC, 300W Case ... (Monitor Extra)

P4 1.6 / 1.7 / 1.8GHz \$409/419/459

- AOpen P4 Motherboard w/Audio
- 256MB DDRAM / 32MB 3D 4x AGP
- Ethernet Card / P4 300W Case

AMD Duron 950 / 1G ... \$239/249
T-Bird 1.1 / 1.6G ... \$269/299

- K7SEM266 4x AGP ATA100 M.B.
- 128MB RAM / Sound / 10-100 Lan
- 64MB AGP / 56K / 300W 18" Case

Office Assistant

- ECS Socket A MB ATA100 M.B.
- 128MB PC133 SDRAM
- ATA100 20GB UDMA H.D.
- 56K V.90 Fax Modem
- Integrated 128Bit 64MB AGP
- 52X UDMA CDROM / 1.44MB Floppy
- Realtek 10/100 Fast Ethernet Lan
- AOpen Keyboard / 160W Speaker
- Integrated 128Bit 3D Sound
- AOpen Internet Wheel Mouse
- 18" 300W Case w/Cooling System

Duron 850/950/1.0/1.1/1.2GHz
\$375/ 399/ 419/ 449/ 459

T-Bird 1.6XP / 1.7XP / 1.8XP
\$469 / 519 / 539

Assistant Pro

- AOpen P4 ATA100 M.B. Up to 2.0GHz
- 256MB DDRAM
- ATA133 40GB 7200rpm UDMA H.D.
- Integrated 128Bit 32MB AGP
- 12x8x32 CDRW / 8x DVD
- Integrated 128Bit 3D Sound
- 1.44 Floppy Drive
- RealTek 10/100 Fast Ethernet Lan
- Internet Keyboard / 140W Speaker
- Internet Wheel Mouse
- 18" 300W Case USB Front
- AGP Slot for Upgrade/ 4 USB Ports
- 1 Month Dial-up Internet

P4 1.6 / 1.7 / 1.8 / 1.9 / 2.0GHz
\$679/ 689/ 739/ 779/ 799

Power Station

- Asus A7S333 ATA133/ Support
- 256MB DDRAM
- 10/100 Fast Ethernet Card
- ATA133 40GB 7200rpm H.D.
- nVidia GeForceMX MX400 64MB AGP
- 32x10x40 CDRW / 1.44 Floppy
- 56K Fax Modem
- Integrated 3D Sound
- 160W Stereo Speaker
- Internet Keyboard / Wheel Mouse
- 18" 300W ATX Case w/Cooling Sys

Duron 1.0 / 1.2GHz
\$599 / 619

XP 1.6/ 1.7/ 1.8/ 1.9/ 2.0GHz
\$669/ 709/ 729/ 769/ 809

P4 Super Value

- VIA P4 Motherboard
- DDR RAM 4 USB Port
- 256MB DDR / 40GB 7200rpm H.D.
- GeForceMX MX400 64MB 4x AGP TV-Out
- 12x8x32 CDRW / 8x DVD
- 56K Fax Modem / 1.44 Floppy
- PCI 3D Sound / 500W Subwoofer
- 10/100Mbps Ethernet for ADSL
- Internet Keyboard / Wheel Mouse
- Acer 17" .27 1280x1024 Monitor
- 18" 300W P4 Tower Case
- 1 Month Dial-up Internet

P4 1.6/ 1.7/ 1.8/ 1.9/ 2.0GHz
\$959/ 979/ 1019/ 1029/ 1079

SYSTEM UPGRADE OPTIONS

- Win98 / ME / 2000 / XP \$129/135/209/145
- Norton Antivirus 2002\$25

• We Offer On-site Service to Residential and Corporate at \$40/hour. Call for Details.

• We Provide In-store Service at \$25 Flat Rate. Free Estimate.

• Operation System Restore

• Virus Cleaning

• Computer Regular Maintenance

• Backup Data

Great Services

On-site Services for Home/Office, Networking
for Home/Office, Website/Database Design

JULY 25th, 2002

Customer Appreciation Day

* Special Upgrade for Only \$189
(Incl. 1GHz, 128RAM, Motherboard, 56K Modem,
10/100 NIC, 300W Case, Free Installation)

* Free Software Configuration
(Above Services apply to all types of computer systems. Parts cost extra)

Order and pickup on the same day or next day!
All above systems come with 1-year parts &
3-year labour warranty and 1 month FREE internet.
Call us for prices of other parts not listed.
All prices reflect 3% cash discount and
are subject to change without prior notice.

Super Pentium 4

- Asus P4 S533 Motherboard
- 256MB PC2100 DDRAM
- ATA133 40GB 7200rpm H.D.
- GeForceMX MX400 64MB 4x AGP
- 56K PCI V92 Fax Modem
- Liteon 32x CDRW or DVD/CDRW Burn Proof
- 1.44 Floppy Drive
- 3D Sound / NIC 10/100
- 500W Subwoofer System
- Microsoft Internet Keyboard
- Logitech Internet Optical Mouse
- 18" 350W ATX Case / Cooling System

P4 1.6/ 1.7/ 1.8/ 1.9/ 2.0GHz
\$869/ 879/ 929/ 939/ 979

Athlon Super Value

- Gigabyte 7VXRP Motherboard
- 256MB PC2100 DDRAM
- Maxtor/ WD 60GB 7200rpm H.D.
- nVidia GeForce4 MX440 64MB DDR
- 24x10x40x CDRW
- 1.44 Floppy Drive
- 56K Fax Modem
- 3D Sound / 500W Subwoofer
- 10/100Mbps Ethernet for ADSL
- Internet Keyboard / Wheel Mouse
- 18" 300W Tower Case w/Cooling Sys

XP 1.6/1.7/1.8/1.9/2.0/2.1GHz
\$859/899/909/949/999/1049

Super Athlon XP

- Asus A7V333 VIA KT333A Motherboard
- 256MB PC2700 DDR-RAM
- ATA133 80GB 7200rpm Hard Drive
- GeForce4 64MB DDR/ Video In/Out
- All-in-Wonder 7500 64MB DDR
- D-Link 10/100 Nic / 32x10x40 CDRW
- 16x DVD-ROM / 1.44 Floppy
- Creative SB Live / 5.1 Dolby Digital
- Altec 5 Pic Subwoofer System
- Microsoft Internet Keyboard
- Logitech Optical Internet Wheel Mouse
- 18" 300W ATX Case / Cooling System

XP 1.6/1.7/1.8/1.9/2.0/2.1GHz
\$1099/1129/1159/1189/1229/1309

P4 Premium

- Asus P4T-533C ATA133 4x AGP Motherboard
- 256MB RAM / 80GB 7200rpm HD
- ATI Radeon 8500 128MB DDR/VOVI
- Plextor 40x12x40 CDRW / 100 NIC
- Pioneer 16x DVD Drive / 1.44 Floppy
- Creative SB Audigy X-Gamer
- Creative Inspire 5300 5.1 Spkr Sys
- Logitech Cordless Optical Keyboard
- Logitech Cordless Optical Mouse
- 19" Deluxe 300W Case/ Cooling Sys
- 4 USB/ Mic. & Headphone Port on Front

P4 1.6/1.7/1.8/1.9/2.0/2.1GHz
\$1769/1789/1829/1849/1899/1989

HOT SPECIALS

AOpen 24x10x32 CDRW\$72

LG 24X10X40 CDRW\$75

LG CDRW-DVD\$105

Liteon 32X10X40 CDRW\$85

Liteon 40X10X48 CDRW\$99

Liteon 48X12X48 CDRW\$125

Liteon 24X10X40 External CDRW \$179

Plextor 24X10X40 CDRW\$189

Plextor 40X12X40 CDRW\$219

Sony 24X10X40 CDRW\$79

NEC 950+ / 1550V LCD ..\$479/559

Samsung 753DF / 955DF ..\$239/369

Maxtor 40/ 60GB 7200rpm \$105/135

Maxtor 80GB 7200rpm\$149

IBM 80GB 7200rpm\$139

IBM 120GB 7200rpm\$239

Asus MB P4S533\$165

Asus MB P4T-533C\$259

Asus MB A7V333\$179

Gigabyte 7VXR / 7VXRP ..\$135/155

Gigabyte 8IDX / 8IRX\$159/175

Asus 8420 / 8440\$299/379

Asus 8640\$575

MSI GeForce-4 440\$139

SB Extigy Audio\$219

MOTHERBOARDS

Socket A (for AMD Duron & Athlon)

Abit AT7E / AT7MAX\$199/249

Abit KX7-333 / KX7-333R\$159/179

Asus A7V-333 / Raid\$199/229

Asus A7S-333\$109

ECS K7SEM w/AGP/Audio/Lan\$89

Gigabyte 7VTXH+ / VTXE+\$159/145

MSI KT7-333 Pro II / Pro II-RU\$135/199

P4 Motherboard

Asus P4T-533-C / P4B-533\$259/209

Asus P4S-533\$159

MSI 6547 / 845EMAX2-LR\$121/199

Socket 370 (for PIII & Celeron II)

Asus TUV4X / TUA-266 DDR\$139/89

Gigabyte GA6VTXE ATA100\$95

M758 w/64MB AGP/Audio/56K/Lan\$85

MONITORS

Viewsonic E701 / E95 / E901\$249/389/399

GS790 / G810 / P95F\$499/879/609

G751 / G901 / PF790\$319/459/539

Sony G220R / G420\$459/629

Sony G520 / F520\$1249/2499

Samsung 753 / 755 / 955 DF\$239/309/379

Samsung 700 / 900NF / 900IFT\$375/529/539

NEC AS75F / FE700 / FE750\$239/269/329

NEC 95F / 950+ / 1250\$369/499/1039

LG Flatron 775FT / 795FT+ .24\$299/379

Acer / Impression 17" .27 CRT\$185/187

TFT LCD

NEC 1550V / 1700\$559/979

NEC 1720M / 1850\$1019/1205

Samsung 151S / 150S(B) / 151P\$565/589/849

Samsung 171S / 171P / 171MP\$939/1329/1699

Samsung 210T / 240T\$4099/7169

Sony S51 / S81\$709/1599

Viewsonic VE500 / VG151 / 181\$669/699/1689

CPU

P4 1.6 / 1.7 / 1.8\$209/219/249

P4 1.9 / 2.0 / 2.2 / 2.4G\$259/299/359/559

Cel 1.1 / 1.2 / 1.3 / 1.7G\$99/115/125/135/145

AMD XP 1600 / 1700 / 1800\$109/139/159

AMD XP 1900 / 2000 / 2100\$209/249/309

Duron 950 / 1.0 / 1.1 / 1.2G\$59/69/79/89

T-B 1.3 / 1.4G (PC266 & 200)\$129/159

Volcano 6 / Volcano 7 CU / Alpha Fan\$19/29/59

HARD DRIVES & STORAGE

7200rpm

Maxtor 20 / 40 / 60 / 80GB\$95/105/135/159

WD 20 / 40 / 60GB\$99/109/145

IBM 40 / 60 / 80GB\$104/129/149

Seagate 40 / 60 / 80GB\$129/169/199

WD 40 / 60 / 100 / 120GB\$129/145/249/289

Panasonic / Samsung 1.44 Floppy\$18/18

Zip Drive 100 / 250M\$69/129

* Call for the low prices on SCSI & Tape Drives *

MEMORY (Life Time Warranty)

	32M	64M	128M	256M	512M
PC133	\$27	37	67	135	
PC100	\$15	29	38	69	139
PC 66	\$25	35	49	89	
DDR	-	-	39	65	139
Rambus	-	-	79	139	
72Pin EDO 16 / 32 / 64MB				\$29/35/49	

SOFTWARE

Win2000 Server 5 / 10 Client\$1050/1369

Win2000 Advanced Server 25 User\$2320

MS Office XP Professional / SB\$439/239

Photoshop 7.0\$985

Norton Internet Security 2002\$25

VIDEO CARDS

ATI Xpert 2000 Pro 32MB\$45

ATI Radeon 7000 64MB SDR\$75

ATI 7500 / 8500 128MB DDR\$169/259

All-in-Wonder 7500 64MB DDR\$269

All-in-Wonder 8500 128MB DDR\$499

Asus 8460 Deluxe 128MB DDR\$579

GeForce3 Ti200 128MB DDR VIVO\$189

GeForce2 MX400 64MB / TV Out\$59/69

GeForce4 440 64MB DDR/TV-Out\$139

MSI GeForce Ti4200\$269

MSI GeForce Ti4400\$359

ATI TV-Wonder VE / SE / USB\$65/95/129

ATI DV-Wonder 3 Port Firewire\$79

PRINTERS & SCANNERS

Canon S520 / S750 / S820 / 9000\$189/279/465/735

Epson C60 / C80 / 1520 / P890\$119/229/669/419

Lexmark Z22 / Z33 / Z43 / Z53\$89/119/149/209

HP LJ 1200 / 2200D / 1000\$589/1199/369

Lexmark Laser E210 / E320\$279/459

Samsung Laser 1210 / 1250\$289/339

Samsung Laser 1440 / 1450\$419/449

Acer USB Scanner 3300U / 4300U\$85/105

Canon N670U / 2400UF\$129/469

Epson 1250U / 1250 Photo\$139/179

Epson 1650 / 1650 Photo / 2450\$265/289/549

DIGITAL CAMERAS

Logitech QuickCam / Creative Web\$45/45

Compact Flash Card 64 / 128 / 256M\$55/85/175

Smart Media Card 32 / 64 / 128M\$35/55/105

Canon

A30 / A40 / A100 / S200 / S330 / S30 / S40 / G2 / Pro90IS

All Canon Digital Cameras & Mini DV Lowest Price Guaranteed

CD-ROM & DVD

LG 50x / 56x / AOpen 50x / 56x\$35/40/35/40

Sony 52x CD-ROM\$42

Samsung/Liteon/LG/Sony 16x DVD\$65/69/73/85

Pioneer 16x DVD Tray / Slot\$69/75

Sigma Hollywood Plus DVD DecodeCard\$95

Pioneer DVD Writer\$499

Power DVD Ver.3.0/Win DVD Software\$19

MODEMS & NETWORKING

AOpen 56K Win / Hardware / ISA\$25/43/63

3Com USR 56K PCI / Hardware\$39/95

Reltek / SMC / Dlink 10-100BT Card\$13/17/19

Surecom 5 / 8 / 16 Port 10BT Hub\$29/43/89

Linksys / DLink / SMC 4P Router\$115/119/109

Tools, RJ45/ BNC Crimping\$19

PCMCIA 56K V.90 Fax/Modem\$69

SOUND & SPEAKERS

Creative PCI 128 / Live 5.1\$29/48

SB Audigy X-Gamer / MP3+\$129/129

SB Audigy Platinum / Platinum EX\$269/339

SB Audigy w/IEEE 1394 Firewire\$95

Altec AVS300 / AVS500 / 4100\$59/69/239

Creative FPS1000 / Yamaha YS201 Sub\$49/59

Creative Inspire 530 / DTT 5700\$129/379

500W Subwoofer / 160W Stereo\$35/12

CASES & KEYBOARDS

ATX 250W 15" / 17" / 19"\$37/39/45

ATX 24" Server / AT 230W 15" Case\$75/34

Logitech Optical Cordless KB & Mouse\$129

Logitech Cordless Keyboard & Mouse\$80

MS / Logitech Optical Wheel Mouse\$29/22

Logitech Cordless / First Mouse\$28/15

Microsoft Internet KB & Mouse Combo\$39

AOpen Win98 KB & Wheel Mouse\$20

In-Win Case\$15

Pls Call or Visit Our Website

Blended threats latest menace*Continued from page 70*

those looking to steal sensitive corporate information without tipping off anyone to exactly what they are doing.

A malicious bit of code can be buried in what looks an email virus. By the time the email virus is shut down, the malicious code has planted itself in the system and started to send out the files and information that were the real target of the attack.

"The folks that are out there creating these kinds of malicious codes are getting more sophisticated and that is manifesting itself in new kinds of code that can morph themselves each time they replicate or viruses that can have a different signature each time a copy is made," adds James Teel, director of security business management with 3Com (www.3com.com) in Salt Lake City, Utah.

"We recently saw an email from a hacker who guaranteed to write a virus that would have a unique and changing signature that would be non-detectable to most antivirus programs," he says.

Ken Nishidera, product manager for IP security services with AT&T Canada in Thornhill, Ont., says that one of the more disturbing things he has seen is how some of this code actively searches out other systems and servers undetected until it is too late.

According to Nishidera, the early NIMBDA and Code Red virus attacks showed some of these characteristics, "of being able to do such things as embedding worms onto systems and code into Web servers and shared files that allowed other systems to become compromised."

Multi-pronged solution

Because blended security threats can attack on multiple fronts and use malicious code, experts recommend that companies take a number of approaches to tackling the problem.

An antivirus program alone is no longer sufficient protection; it's now just a small part of an overall security plan that also includes an effective firewall. But more important than these two components, according to security experts, is an intrusion detection system that looks for operations or programs behaving in uncharacteristic ways.

Some malicious code tries to remove specific kinds of files from a system or to activate specific programs so that an outside party can connect to a network. An effective intrusion protection system along with a firewall will alert someone when it detects programs being activated without authorization and files being transferred to outside systems, or attempts to let an unauthorized outside system connect to a network.

In February, 3Com released its embedded firewall solution that works with its 10/100 Secure network interface cards (NICs). Teel says the advantage of an embedded solution is that it bypasses one of the biggest problems with security: the operating system.

Hackers and virus writers have proven that some of the latest operating systems are filled with security holes that they can exploit a number of ways, including using malicious code.

An embedded hardware-based solution is less likely to be compromised by a hacker and therefore more secure

because it does not rely on the operating system.

In the future, Teel expects embedded firewalls will be a standard feature of systems and devices.

"The best means of protection is to push security policy enforcement out from the network and onto individual systems, like desktop and mobile devices," Teel says.

Making inroads with Access queries*Continued from page 70*

Employee, with this structure and this data (don't worry about including the rule lines, they are used here for purposes of clarity only):

Field name: EmpNumber

Field type: number

Field name: FirstName

Field type: text

Field name: LastName

Field type: text

Field name: Department

Field type: text

Field name: Salary

Field type: number

Field name: Shareholder

Field type: Yes/No

EmpNumber	FirstName	LastName	Department	Salary	Shareholder
165	Jane	Smith	Accounts	30000	Yes
150	Susan	Smithson	Accounts	35000	Yes
153	James	Mathews	Sales	50000	No
159	Mary	Lieu	Sales	55000	Yes
157	Wayne	Lening	Service	40000	No
152	Kelly	Adams	Service	37000	Yes

Queries that do math

Often you'll need a query that does math for you. For example, if you were to give

Symantec also has remedy for OS security vulnerabilities. Its Firewall/VPN appliance secures both inbound and outbound traffic, including Web, email, and FTP programs. It covers all of the security bases without being overly complex, making it especially welcome in small offices and businesses where the security and technical expertise is often minimal. □

every employee a 10 percent pay increase, you'd want to know how much that would be. To create a query to make this calculation, click the Queries option in the Objects list and choose Create Query in Design View. In the Show Table dialogue, choose the Employee table, click Add, then click Close.

You'll create the query using the grid displayed in the Select Query dialogue. Add the FirstName and LastName fields and the Salary field to the grid. In the next empty column type:

Pay Increase: [Salary] * 0.1

In the column to its right, type:

New Salary: [Salary] * 1.1

Run the query to check the result. You should see each employee's current salary, their proposed increase and the new salary they'll be receiving. Notice that the text you typed before the colon becomes the column heading in the query window.

You may notice that the numbers for

Continued on page 76

Hosting

starting from
CAD \$3.25/mo.

Featuring :

- 25+ megabytes of web storage
- Website statistics
- Microsoft FrontPage extensions
- Multiple domains supported
- Perl-CGI/ASP/PHP/Coldfusion/SSI/.NET
- 24 hours technical support

**Upon Mecca's summer promotion
\$1.00 off on registration of
our ehosting Startup Plan**

offer extended to 8/10/2002
visit <http://www.ehosting.ca> and signup today.

* ehosting.ca is a subsidiary of Mecca Internet Solutions (<http://www.mecca.ca>)



PC World

Tel: (604) 872-8996

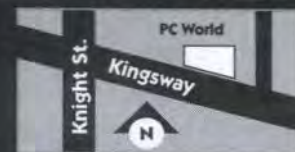
Fax: (604) 872-3778

1439 Kingsway, Vancouver, B.C. V5N 2R6

Monday - Saturday 10:30am - 6:30pm

Computer Ltd.

For more products & best price please visit: www.pcwcomputer.ca



PCW-C1000 \$338

- VIA C3 1.0G CPU
- VIA EM7187 M/B
- 128M PC133 SDRAM
- Integrated Video card
- Maxtor 20G 5400 Hard drive
- Mitsumi 54X CDROM
- 1.44 Panasonic floppy drive
- 17" 300W ATX Case
- Integrated Sound card
- PS/2 Enhanced keyboard
- PS/2 wheel mouse
- 56K Voice FAX Modem
- Integrated 10/100 Network card
- 240W 3D Speakers

Why buy used one?

Upgrade Option:
40G 7200 HD
+\$10

PCW-D1000 \$388

- Duron 1.0 CPU Retail box
- PC Chips 8310 Mainboard
- 128M SDRAM
- Integrated video card
- Maxtor 40G 7200 Hard drive
- Mitsumi 54X CDROM
- 1.44 Panasonic floppy drive
- 17" 300W ATX Case
- Integrated sound card
- PS/2 Enhanced keyboard
- PS/2 wheel mouse
- 56K Voice FAX modem
- Integrated Network card
- 240W 3D speakers

PCW-TB1300 \$418

- ThunderBird 1.3G CPU
- PC CHIPS 8330 mainboard
- 128M PC2100 DDR RAM
- Integrated video card
- Maxtor 40G 7200 Hard drive
- Mitsumi 54X CDROM
- 1.44 Panasonic floppy drive
- 17" ATX 300W Case
- Integrated sound card
- PS/2 Enhanced keyboard
- PS/2 Wheel mouse
- 56K Voice FAX modem
- Integrated 10/100 Network card
- 240W 3D speaker

PCW-XP1700L \$479

- AMD XP1700
- PC Chips EM8341
- 128M DDR RAM
- Integrated video card
- Maxtor 40G 7200 Hard drive
- Mitsumi 54X CDROM
- 1.44 Panasonic floppy drive
- 17" ATX 300W Case
- Integrated sound card
- PS/2 Enhanced keyboard
- PS/2 wheel mouse
- 56K Voice FAX modem
- Integrated 10/100 Network card
- 240W 3D speakers

Best Price in Town

PCW-P1600L \$544

- P4 1.6 CPU Retail box
- VIA P4MA-UL 533FSB M/B
- 128M PC2100 DDR RAM
- Integrated AGP 4X Video card
- Maxtor 40G 7200 Hard drive
- Mitsumi 54X CDROM
- 1.44 Panasonic FDD
- 17" ATX 300W Case
- Integrated sound
- PS/2 Enhanced keyboard
- PS/2 wheel mouse
- Integrated 10/100 Network card
- 240W 3D speakers
- 4 USB ports

Best Price Ever

SPECIAL

LiteOn 32X12X40X CD-RW . \$90
LiteOn 16X DVD ROM \$65

ATI Radeon 7000 64M dual display \$69
Maxtor 40G 7200RPM \$102

Princo 48X 80min 50pcs CD \$18.5

CPU

- Intel Pentium 4 256K
1.6/1.7/1.8/1.9G \$213/225/270/278
- Intel Pentium 4 512K
1.6/1.8/2.0G \$215/259/298
- 2.2/2.4G \$398/649
- AMD XP Retail box with fan
1700/1800/1900 \$155/169/208
- 2000/2100 \$250/370

Memory (Life time warrant)

- DDR266 128/256/512M \$38/58/132
- RAMBUS 128/256/512M \$69/135/354
- SDRAM133 128/256/512M \$38/65/124

Hard Drive

- Maxtor 20G 5400 \$95
- 40G 5400/7200 \$103/102
- 60G 5400/7200 \$129/132
- 80G 5400/7200 \$155/152
- 120/160G 5400 \$234/369
- WD 20G 5400/7200 \$101/113
- 40G 5400/7200 \$112/126
- 60G 7200 \$166
- 80G 5400/7200 \$169/179
- 120G 5400 \$255

Camera

- Logitech Quickcam web \$89
- Creative Labs Webcam/ plus \$47/78

Motherboards

- Abit AT7 MAX /RAID AMD . . . \$248
- Abit KX7-333 AMD \$158
- Abit BD7 /WA AMD \$138
- Abit BL7 / BD7II S478 . . . \$129/194
- Asus A7N266-C-WA AMD . . . \$159
- Asus A7N266-VM-WA AMD . . . \$124
- Asus A7N266-WA AMD \$209
- Asus A7S333-WA AMD \$109
- Asus A7V266-C-WA AMD . . . \$126
- Asus P4B-WA S478 \$159
- Asus P4B266-WA S478 \$209
- Asus P4B533 S478 \$228
- Asus P4B533-VM-L/B S478 . . . \$174
- Asus P4S333-WA S478 \$154
- Asus P4S533-WA-WL S478 . . . \$168
- Asus P4T-E-WA S478 \$228
- Asus P4T533-C-L S478 \$263
- Asus TUA266-WOA S370 \$88
- Gigabyte GA6VTXE S370 \$98
- Gigabyte GA7VKML AMD . . . \$104
- Gigabyte GA7VTXEP AMD . . . \$115
- Gigabyte GA8IDMLC S478 . . . \$112
- Gigabyte GA8IDX S478 \$129
- MSI MS I845G/ I845E S478 \$178/206
- MSI MS KT3 Ultra 333 AMD . . . \$128
- MSI MS KT3-ARU 333 AMD . . . \$174

Scanner

- Acer S2W 4300U/ 5300U . . . \$76/124

Printer

- Epson Stylus C42/ C60 \$74/128
- Epson Stylus C80 \$229
- Epson Stylus Photo 785EPX . . \$299
- Lexmark Inkjet Z22/Z33/Z55 \$84/94/198
- Lexmark X83 Print/ Scan/ Copy \$245
- Lexmark E210 Laser Optra . . . \$284
- Samsung ML-1210/1450 Laser \$298/448

Monitor

- Hansol 720E 17" .24 \$198
- Hansol 17" .20 Flat \$218
- Hansol 19" .20 DynaFlat \$368
- Philips 107T 17" \$238
- NEC AS70/ AS75F 17" \$218/244
- NEC AS90/ AS95F 19" \$338/378
- Philips 107T 17" Flat \$238
- Samsung 955DF 19" .20 \$379
- ViewSonic E70 .27 17" \$233
- ViewSonic E70F .25 17" \$244
- Sony G220R 17" .24 \$444

LCD

- Acer AL501 15"/ AL702 17" \$528/898
- NEC LCD 1550V 15" \$568
- NEC LCD 1700V 17" \$943
- Samsung 171S 17" \$928
- ViewPanel VE170, 17" LCD . . \$1099
- Philips 170B2B 17" Ultraslim . \$988

Sound Card

- Aureal vortex SQ1500 \$18
- Creative SB PCI 128/ Live! 5.1 \$28/54
- Creative SB audigy MP3+ \$139

Modem

- USR 56K v.90 PCI \$34
- USR 56K v.90 PCI Hardware . . \$86
- AOpen 56K v.92 PCI \$22

ROM Drive

- ASUS 32X12X40X CD-RW \$99
- LG 12X8X32X/ 8X DVD Combo \$108
- LG 24x10x40x CD-RW \$77
- LG 32x10x40x CD-RW \$94
- LiteOn 32x12x40x CD-RW retail \$90
- LiteOn 40x12x48x CD-RW . . . \$104
- Samsung 32x10x40x CD-RW . . \$92
- Asus/ LG/ Sony 16x DVD . \$75/64/73
- Samsung / LiteOn 16x DVD . \$65/65
- ASUS/ Sony 52x CDROM \$42
- LG/LiteOn/Samsung 52x CDROM \$39

Networking

- DLink 5 PORT Hub 10 Base . . \$49
- DLink 5 PORT Switch 100 Base \$68
- DLink wireless PCI card 11MBPS \$128
- DLink wireless PC card 11MBPS \$118
- Realtek 10/100 LAN card . . . \$14

Video Card

- Asus V7100Pro GeForce2 MX400 64M \$118
- Asus V8440 128M TV In/Out . . \$378
- MSI GeForce4 MX460 64M/TV . . \$158
- Abit T200 G2 MX200 32M/TV . . \$69
- Abit T400 G2 MX400 64M/TV . . \$85
- Abit G4 MX440 64M/TV \$138
- Abit G4 Ti4400 128M/TV \$355
- ATI Radeon 7000 64M Dual Display \$69
- ATI Radeon 7500 AGP 64MB . . . \$139
- ATI Radeon 7500 All in Wonder w/Remote \$258
- ATI Radeon 8500DV All in Wonder+Remote \$385
- ATI Radeon 8500LE 64M \$229
- ATI TV Wonder VE PCI NTSC . . . \$69

Speaker

- Altec Lansing ACS21W 2PCs . . . \$34
- Altec Lansing ATP3W 3PCs . . . \$88
- Altec Lansing AVS300/AVS500 \$48/68

Keyboard & Mouse

- Logitech Cordless Freedom . . . \$79
- Logitech Cordless iTouch Freedom \$104
- Logitech Cordless Freedom Optical \$134
- Microsoft Wireless Combo . . . \$84
- Microsoft Internet PS/2 Keyboard \$25
- Logitech Internet PS/2 Keyboard \$28
- FUJITSU PS/2 Keyboard \$18
- Logitech optical PS/2/USB . . . \$28

PCW-XP1800 \$585

- AMD XP1800 Retail box
- ECS K7S5A Mainboard
- 256M PC2100 DDR RAM
- Geforce2 MX400 64M Video
- Maxtor 40G 7200 Hard drive
- 1.44 Panasonic floppy drive
- Sony 52X CDROM
- 18" ATX 300W Case
- Integrated sound card
- PS/2 Enhanced keyboard
- PS/2 wheel mouse
- Integrated 10/100 Network card
- 240W 3D speakers
- Front USB ports

Best Price Ever

PCW-P1700 \$668

- P4 1.7 CPU Retail box
- MSI 6547 Mainboard
- 256M DDR RAM
- Geforce2 MX400 64M video
- Maxtor 40G 7200 Hard drive
- Sony 52X CDROM
- 1.44 Panasonic floppy drive
- 18" ATX 300W Case front USB
- Integrated 10/100 Network card
- Integrated sound card
- PS/2 Enhanced keyboard
- PS/2 wheel mouse
- 240W 3D speakers
- 6 USB ports

Best Price in Town

PCW-P2000 \$868

- P4 2.0 512K CPU Retail box
- VIA P4PA 533FSB mainboard
- 256M DDR RAM
- ATI Radeon7000 Dual Display 64M/TV
- Maxtor 40G 7200 Hard drive
- Sony 16X DVD ROM
- 1.44 Panasonic floppy drive
- Powmax 18" ATX 350W Case
- Integrated sound card
- Logitech Internet keyboard
- Logitech optical wheel mouse
- Integrated 10/100 Network card
- 1000W 3pcs 2.1 Subwoofer
- USB 2.0 ready

PCW-XP2100 \$1148

- AMD XP2100 Retail box
- ASUS A7V333-RAID
- 512M PC2100 DDR RAM
- MSI G4 MX460 64M video in/out
- Maxtor 80G 7200 Hard drive
- LG 12X8X32X/8X CDRW & DVD
- 1.44 Panasonic floppy drive
- 18" ATX 350W Case
- Integrated 6 channel audio
- Logitech Internet keyboard
- Logitech optical mouse
- D-Link 530+10/100 network
- 1000W 3pcs 2.1 Subwoofer
- USB 2.0 ready

PCW-P2200 \$1259

- P4 2.2G 512K CPU Retail box
- Asus P4B 533 FSB Mainboard
- 512M DDR RAM
- MSI G4 MX460 64M video in/out
- Maxtor 80G 7200 Hard drive
- Lite-On 40X12X48X CDRW
- 1.44 Panasonic floppy drive
- Powmax 18" ATX 350W Case
- Integrated 5.1 audio
- Logitech Internet keyboard
- Logitech optical mouse
- D-Link 530+10/100 network
- 1000W 3pcs 2.1 subwoofer
- USB 2.0 ready

* Call for current prices • All prices and product availability subject to change without notice • All advertised prices reflect 3% cash discount • All brand and trademarks are property of respective manufacturers • Not responsible for typographical errors •

21926906

Platform News

Macintosh • Linux • Windows • Palm • Emerging Trends

Taking a tablet PC for a spin Acer first out with Microsoft Tablet PC-based device

By Geof Wheelwright

So you think you know what the Tablet PC is all about? No doubt you've heard about Microsoft's new product platform, which on first glance looks like a device designed solely for entering handwriting that your computer can recognize and turn into text.

TravelMate 100
From: Acer Corp., www.acer.com
Estimated price: \$3,500

While it does do that, it also does a lot more. The Tablet PC is actually a whole new way of working with your computer. I know that sounds corny and very overblown, but it's really the only way to describe this ground-breaking new design.

To start with, the designers of the Tablet PC software platform worked with a variety of hardware manufacturers to come up with designs that would reflect the diversity of what the Tablet PC version of the Windows XP operating system could help them create.

Taiwanese computer manufacturer

Acer, for example, decided that a "pure" Tablet PC was probably too radical an approach for the average user. So it designed a hybrid sub-notebook (which it says will probably sell for only a few hundred dollars more than an ordinary notebook) that could either act as a standard sub-notebook, or a Tablet PC.

The TravelMate 100 allows you to swivel the screen 180 degrees (facing outward relative to the keyboard) so you

can clip it to the front of the keyboard and use it as a tablet device. Swivel the screen around again and you have a standard sub-notebook computer.

This is a design that Microsoft chairman and chief software architect Bill Gates has been championing for several years. He has shown various implementations of the Tablet PC design at major events, such as his annual Comdex

Continued on page 96



Are you fresh?

Talking to fish and other RF ID adventures

By Geof Wheelwright

SOPHIA ANTIPOLIS, France—Technology consulting company Accenture (www.accenture.com) has developed some innovative uses for a technology based on Radio Frequency Identification (RF ID) that allows credit card-sized cards to store and transmit information about any item to which they are attached. At a press briefing from its research facility here earlier this year, the company talked about applications that range from a fish in a supermarket that can "smell itself" to in-store checkout systems that can offer huge improvements in efficiency.

RF ID cards are battery-operated and can contain memory and even sensors. In the case of the "smart fish," the sensor will record and store information about the temperature and chemical composition of the fish at regular intervals. This information can then be transmitted by the RF ID card to an RF ID card reader, allowing buyers to easily determine whether or not the fish has ever risen above a certain temperature (or spawned a culture of unhealthy chemicals) after it was caught.

The same technology can also be used to improve efficiency at supermarket checkouts, as the readers can simultaneously read many RF ID tags—meaning that an entire bag of goods can be scanned, itemized, and totaled by passing it in front of the scanner rather than scanning each item separately.

RF ID tags also have potential industrial applications. Researchers at the Sophia Antipolis facility talked about how these tags might be used on train tracks to measure the amount of heat generated by the friction between the

Continued on page 96

Office update includes smoother text



suite of four programs, as well as improved performance and stability.

Microsoft (www.microsoft.com/mac) has updated the OS X version of Office:mac with the first service pack. The update claims to contain more than 1,000 bug fixes for the

The one feature we've been waiting for—Palm sync with Entourage v.X—has still not been implemented in this update, but Microsoft has announced plans to ship Palm conduits for Entourage on July 15, just as this issue of TCP hits the streets.

The update offers a huge number of improvements, both suite-wide and for individual programs. The suite-wide improvements include Quartz text smoothing in all Office:mac apps (for users of OS 10.1.5 or higher), FileMaker

Server integration, ODBC support, and Button face customization, which allows the user to control the look of the toolbar buttons in Word, Excel, and PowerPoint.

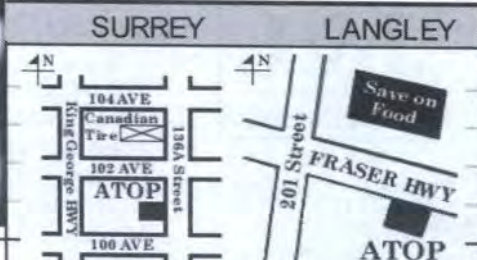
The Quartz text smoothing feature allows for much better text rendering using the more sophisticated Quartz graphics layer that was previously reserved for Cocoa applications. Office:mac v.X is a carbon application, which means it used the older method of

Continued on page 80



ATOP COMPUTER

Web Site: www.atop.ca
Email: atop@atop.bc.ca



Microsoft Certified

* Networking Services now available *

Novell

Professional

- Microsoft & Novell certified technicians
- System Pre-Planning /Deployment /Upgrading /Administration
- LAN /WAN connectivity
- NT to Windows2000 upgrades
- Discounts for block-booked rates

Business Hour: 10AM-6PM
Monday-Saturday
Sunday & Holiday Closed
We are the member of BBB

Surrey Store: #10083 136A ST.Surrey BC

Tel:604-930-4838,Fax:604-930-4848

Langley: #20188 Fraser Hwy. Langley BC

Tel:604-514-9130, Fax:604-514-9133

Celeon Value Workstation	P4 Performace System	P4 Game Box	P4 Video Maker
Intel Celeron 1.7Ghz 400FSB CPU Gigabyte 8IR533 MB 128M PC-2100 DDR RAM Panasonic 1.44M Floppy Drive Maxtor 20G 5400RPM HD LG 52X CDROM NVidia TNT2 m64 32M Video Card Audio on Board 10/100 PCI Ethernet Card 18" ATX Case w/300W PS WIN PS2 Keyboard BTC Wheel Mouse w/Pad Juter 140W Speaker	Intel P4 1.6Ghz 512K CPU Gigabyte 8IR533 MB 256M PC-2100 DDR RAM Panasonic 1.44M Floppy Drive Maxtor 40G 7200RPM HD LG 32X10X40X CDRW w/SW NVidia Geforce2MX400 64M Video Audio on Board 10/100 PCI Ethernet Card 18" P4 ATX Case w/300W PS WIN PS2 Keyboard BTC Wheel Mouse w/Pad Juster 3DFX2 Speaker w/Sub	Intel P4 1.8Ghz 512K CPU Asus P4B533 533Mhz MB 512M PC-2100 DDR RAM Panasonic 1.44M Floppy Drive Maxtor 60G 7200RPM HD LG 32X10X40X CDRW w/SW MSI Geforce4 mx440 64M Video Audio On Board 10/100 PCI Ethernet Card 18" ATX Case w/300W PS w/Fan WIN PS2 Keyboard Logitech Optical Mouse w/Pad Creative Inspire 2.1 Speaker	Intel P4 2.0Ghz 512K CPU Asus P4B533-E-L MB w/RAID 1G PC-2100 DDR RAM (512x2) Panasonic 1.44M Floppy Drive 2X Maxtor 80G 7200RPM HD For RAID 0 (160GB) Toshiba 16X DVD Drive LG 32X10X40X CDRW w/SW ATI Radeon8500DV AIW 128M 6 channel Auido on board 10/100 Ethernet 18" Aluminium-like Case w/300W/Fan WIN PS2 Keyboard Logitech Optical Mouse w/Pad Creative Inspire 4.1 Speaker
\$670	\$885	\$1250	\$2280
OS & Monitor Extra	OS & Monitor Extra	OS & Monitor Extra	OS & Monitor Extra
Duron Value Workstation	XP Performace System	XP Game Box	XP Video Maker
AMD Duron 1.3Ghz 200FSB CPU Gigabyte GA-7ZXE MB 128M PC-133 SDRAM Panasonic 1.44M Floppy Drive Maxtor 20G 5400RPM HD LG 52X CDROM NVidia TNT2 m64 32M Video Card Audio on Board 10/100 PCI Ethernet Card 18" ATX Case w/250W PS WIN PS2 Keyboard BTC Wheel Mouse w/Pad Juter 140W Speaker	AMD Athlon XP 1800+ CPU Gigabyte GA-7VRX 333Mhz MB 256M PC-2100 DDR RAM Panasonic 1.44M Floppy Drive Maxtor 40G 7200RPM HD LG 32X10X40X CDRW w/SW NVidia Geforce2MX400 64M Video Audio on Board 10/100 PCI Ethernet Card 18" ATX Case w/300W PS WIN PS2 Keyboard BTC Wheel Mouse w/Pad Juster 3DFX2 Speaker w/Sub	AMD Athlon XP 2000+ CPU Asus A7V333 333Mhz MB 512M PC-2100 DDR RAM Panasonic 1.44M Floppy Drive Maxtor 60G 7200RPM HD LG 32X10X40X CDRW w/SW MSI Geforce4 mx440 64M Video Audio on Board 10/100 PCI Ethernet Card 18" ATX Case w/300W PS w/Fan WIN PS2 Keyboard Logitech Optical Mouse w/Pad Creative Inspire 2.1 Speaker	AMD Athlon XP 2100+ CPU Abit AT7 333Mhz MB w/RAID 1G PC-2100 DDR RAM (512x2) Panasonic 1.44M Floppy Drive 2X Maxtor 80G 7200RPM HD For RAID 0 (160GB) Toshiba 16X DVD Drive LG 32X10X40X CDRW w/SW ATI Radeon8500DV AIW 128M 6 channel Auido on board 10/100 Ethernet 18" Aluminium-like Case w/300W/Fan WIN USB Keyboard Logitech Optical Mouse w/Pad Creative Inspire 4.1 Speaker
\$585	\$840	\$1230	\$2280
OS & Monitor Extra	OS & Monitor Extra	OS & Monitor Extra	OS & Monitor Extra

Os: Microsoft Windows XP-Home CD \$150, Microsoft Windows XP-Pro CD \$235, Microsoft Windows 2000 Pro CD \$235
Monitor : Samsung 17" 750S Monitor \$215, AOC 19" 9Glr Monitor \$295, Samsung 17" 753DF Flat Monitor \$255, Samsung 19" 955DF Flat Monitor \$395, NEC 19" AS95F Flat Monitor \$395, NEC 1550V 15" LCD \$560, NEC 1700V 17" LCD \$985

Visit <http://www.atop.ca> For ALL Component Prices & System Builder.

All Prices reflect 2% Cash Discount. Prices Are Subject To Change Without Notice. <http://www.atop.ca>

21332506

J&L MULTIMEDIA

486 Kingsway,
Vancouver, B.C. V5T 3J9
Tel: (604) 263-2377
Toll Free: 1-877-743-9653
Tel: (604) 708-2178
Fax: (604) 264-9663
www.jlcomp.com

Welcome USA / Canada PO

- * Match Price
- * Good Services
- * Great Selections
- * Special Orders
- * Quick Shipping

Hours:
Monday - Saturday
10:00 am - 6:30 pm



7966 Granville Street (W. 64 Ave),
Vancouver, B.C. V6P 4P2
Tel: (604) 267-2261
Fax: (604) 267-2263
www.peoplemm.com

Below All Product are Brand NEW, NOT Remanufactured!!! Visit Our Web Sites For The Latest Software Availability !!!

Video Games

Sony Playstation 2
007 Agent Under Fire 55.00
Final Fantasy X 55.00
Jak & Daxter 55.00
Sega Sport NBA 2002 55.00
Metal Gear Solid 2 55.00

Nintendo GameCube
Super Smash Bros. Melee 49.95

Nintendo Gameboy Color
Super Mario Bros. Deluxe 29.95

Visit our web sites
for more titles!!!

Games

Age of Empires 2: Gold Edition 39.95
Age of Wonders 2 35.50
Aliens VS Predator 2 34.95
Baldur's Gate 2 36.50
Black & White 28.50
Black & White: Creature Isle 19.50
C&C - Red Alert 2 27.50
C&C - Renegade (BOX) 29.95
C&C - Theatrical Of War 38.50
Civilization 3 29.50
Command & Conquer 4 29.50
Commandos 2 29.50
Destroyer Command 29.50
Deus EX - Game Of The Year 19.95
Dungeon Siege 44.95
Diablo 2 34.50
Diablo 2: Lord Of Destruction 33.50
Empire Earth 39.95
Everquest: Trilogy 29.95
Everquest: Shadows Of Lucien 28.50
FIFA 2002 19.50
Fly 2 18.50
Grand Theft Auto 3 39.50
Half Life: Counter-Strike 33.50
Harry Potter 29.50
Heroes Of Might & Magic 4 34.95
HL: Half-Life 2 14.50
HL: Counter-Strike 39.95
Madden NFL 2002 18.50
Max Payne 39.95
Mech Commander 2 24.50
Mech Warrior 4 - Black Knight 29.95
Medal Of Honor (BOX) 34.95
Might & Magic 9 34.95
Monopoly Vegas Casino 24.50
Morrowind 44.95
Moon Project 14.50
Motor City Online 24.50
MS Combat Flight Simulator 2 38.50
MS Flight Simulator 2002 54.00
MS Flight Simulator 2002 Pro 59.00
MS Links 2001 Expansion 26.00
MS Train Simulator 38.50
MS Zoo Tycoon 34.50
MS Zoo Tycoon - Dinosaurs Digs 29.50
Myth 3: Exile (PC/MAC) 35.50
Nascar Racing 2002 44.95
Neverwinter Nights 18.50
NHL 2002 24.95
Pinball Madness 18.95
Project Eden 29.95
Real War 29.95
Red Faction 29.95
Return To Castle Wolfenstein 34.95
Riven 34.50
Sim City 3000 Unlimited 33.50
Sim Golf 34.50
Sims 36.50
Sims: Hot Date 34.50
Sims: House Party 34.50
Sims: Vacation 34.50
Soldier Of Fortune 2 39.95
Star Trek: Armada 2 34.95
Star Trek: Bridge Commander 39.95
Star Wars: Galactic Battlegrounds 39.95
Star Wars: Galactic Battlegrounds Expansion 38.50
Star Wars: Jedi Knight 2 39.95
Star Wars: Starfighter 34.50
Sub Command 29.95
Tropico 24.95
Thony Hawk Pro Skater 3 29.95
Throne Of Darkness 18.50
Ultima Online - 3rd Drawn 9.95
UO - Lord Blackthorn's Revenge 24.50
Vegas Fever 24.95
Viper Racing 14.95
WarCraft 3 49.95
War Lord Battletary 2 34.95

ONLY \$228

QuickBooks 2002 Premier

ONLY \$34.95 @

Heroes Of Might & Magic 4

ONLY \$188

QuickBooks 2002 Pro

Application	
Act 2000	38.50
Adobe Acrobat 5.0 Upgrade	125.00
Adobe Acrobat 5.0 (Commercial Full)	299.00
Adobe Illustrator 10 Upgrade	209.00
Adobe Illustrator 10 (Commercial Full)	550.00
Adobe PageMaker 7.0 Upgrade	125.00
Adobe PageMaker 7.0 (Commercial Full)	425.00
Adobe PhotoShop 7.0 Upgrade	209.00
Adobe PhotoShop 7.0 (Commercial Full)	499.00
Adobe PhotoShop Elements	99.00
Adobe Premiere 6.0 (Commercial Full)	99.00
Black Ice PC Protection	44.95
Blackboard Desktop 6.0 Pro	299.95
Corel Draw 8.0	29.00
Corel Draw 9.0	64.50
Corel Draw 10 (Upgrade)	245.00
Corel Draw 10 (Commercial Full)	345.00
Corel WordPerfect 8.0	14.95
Corel WordPerfect 2000	19.00
Corel WordPerfect 2002 Pro	33.00
Dragon Naturally Speaking Standard 5.0	79.00
Dragon Naturally Speaking Preferred 5.0	119.00
Drive Image 6.0 (Full, Box)	69.95
Easy CD Creator 5.0	28.50
Easy CD Creator 5 Platinum	84.95
Lotus SmartSuite Millennium 9.5	28.95
Lotus SmartSuite Millennium 9.5	23.95
Macromedia Dreamweaver MX	174.00
Macromedia Flash 5 (Box)	99.00
Macromedia Freehand 10 (Box)	174.00
Mandriva Linux 8.2 Standard	48.95
Mandriva Linux 8.2 PowerPack	88.50
McAfee Virus Scan 6	23.50
McAfee Virus Scan 6 Pro (Box)	35.95
MS Works 4.5	22.50
MS Works 2000 5.0	29.50
MS Works 6.0 + Money 2001 Std	39.50
MS Excel 2000 (Full Version)	99.00
MS FrontPage 98 (Full Version)	68.00
MS FrontPage 2000 (Upgrade)	49.00
MS FrontPage 2000 (Full Version)	99.00
MS Office XP Standard (Upgrade)	268.00
MS Office XP Standard (Full)	499.00
MS Office XP Professional (Upgrade)	389.00
MS Office XP Professional (Full)	599.00
MS Office XP Pro Special Edition (Upgrade)	625.00
MS Office 2000 Standard (Upgrade)	199.00
MS Office 2000 Professional (Upgrade)	199.00
MS Office 2000 Premium (Upgrade)	389.00
MS Office 2000 Premium (Full)	589.00
MS Office 97 Pro	14.95
MS Project 98 (Full)	14.95
MS Project 2000 (Upgrade)	19.00
MS Project 2000 (Full)	33.00
MS Visual Basic .NET Standard	79.00
MS Visual Basic 6.0 Professional	119.00
MS Visual C++ 6.0 Professional	69.95
MS Visual Studio 6.0 Professional	28.50
MS Visual Studio 6.0 Enterprise	84.95
MS Windows 98 1st Edition - Upgrade	28.95
MS Windows 98 SE - Upgrade	13.95
MS Win ME Upgrade - Win95 & 98	23.95
MS Windows NT Server 4.0 (5 CALs)	174.00
MS Windows NT Workstation 4.0	174.00
MS Windows 2000 Pro (Upgrade/Box)	99.00
MS Windows 2000 Pro	174.00
MS Windows 2000 Server (5 CALs)	48.95
MS Windows XP Home Upgrade	88.50
MS Windows XP Home (Full, Box)	23.50
MS Windows XP Pro Upgrade	35.95
MS Windows XP Pro (Full, Box)	22.50
MS Word 2000 5.0	29.50
MS Works Suite 2002 (Box)	39.50
MS Picture It! Publishing 2002	19.95
MS Money 2002 Standard	38.50
MYOB Accounting 11	109.00
MYOB Accounting 11 Plus	CALL
Nero 5.5	28.50
Nero MIX	34.50
Norton AntiVirus 2002	26.00
Norton AntiVirus 2002 (Box)	49.50
Norton Internet Security 2002	33.00
Norton Internet Security 2002 (Box)	75.00
Norton Personal Firewall 2002 (Box)	53.00
Norton System Works 2002 Pro	28.50
Norton System Works 2002 Pro (Box)	78.00
NTI CD Maker Standard 5.19	28.50
Paint Shop Pro 7.0 Anniversary (Box)	109.00
Partition Magic 7.0 (Full, Box)	66.00
PC Anywhere 10.5 - Host & Remote	38.00
Photo Impact 5.0	34.50
Power DVD 4.0	34.95
Print Shop Select 11 (Box)	9.50
Quicken 2002 Basic (Box)	38.00
Quicken 2002 Deluxe (Box)	59.95
Quicken 2002 Pro (Full, Box)	119.00
Quicken 2002 Pro Premier (Full, Box)	169.00
Quicken 2002 POS (Full, Box)	850.00
QuickTax 2001 Standard	9.95
Red Hat Linux 7.1 Standard	99.00
Red Hat Linux 7.1 Professional	CALL
Simply Translating Deluxe 3.0	39.95
Simply Accounting 9.0	119.00
Simply Accounting 9.0 Pro	189.00
Visio 5.0 Personal Edition (BOX)	38.00
Visio Enterprise 5.0	99.00
Win DVD 3.0	34.95
WinFax Basic 9	19.00
WinFax Pro 10	29.95
WinFax Pro 10.02	34.95
WinFax Pro 10.02 (Box)	89.00

Brother - Toner / Fax-Film

TN-100HL 24.00
TN-200HL 34.50
TN-300HL 34.50
TN-430 68.00
TN-460 96.00
PC-302RF 32.00
PC-402RF 32.00

Toner / Drum

BROTHER - DRUM
DR-100 178.00
DR-200 178.00
DR-300 178.00
DR-400 178.00

HP (Hewlett Packard) - Toner

C4092A 34.95
92275A 34.95
92295A 34.95
Okidata - Toner
52104201 9.95
52106201 9.95

Reference

Learning Arabic 18.95
Learning Cantonese 18.95
Learning Dutch Beginner 14.95
Learning English Beginner 14.95
Learning Japanese 18.95
Learning Korean 18.95
Learning Mandarin 18.95
Learning Russian 18.95
Learning Tagalog 14.95
Learn Now: Italian 22.95
Learn Now: Portuguese 22.95
Learn Now: Swedish 22.95
Learn To Speak English 24.95
Learn To Speak French 24.95
Learn To Speak German 24.95
Learn To Speak Spanish 24.95
Master Hacker 14.95
Mastering Corel Draw 10 24.95

Mastering Office XP

Mastering PhotoShop 6.0 24.95
Mastering Visual Basic 6.0 24.95
Mastering Visual C++ 6.0 24.95
Math Master 19.95
Mavis Beacon Typing 11 Deluxe 14.95
Mavis Beacon Typing 12 Deluxe 19.95
MS Encarta 2002 Standard 24.95
MS Encarta 2002 Reference - SCD 49.95
MS Encarta 2002 Reference - DVD 49.95
Music Maker Deluxe 19.95
Serials & Reg Key Heaven 19.95
Tai Chi 19.95
Talking Dictionary: Italian <-> Eng 19.95
Talking Dictionary: Latin <-> Eng 19.95
Webster Talking Dictionary 19.95
Visual Basic Source Code 2002 19.95
Web Server 19.95
Web Spy 14.95
Windows CE Utilities 2002 19.95

Fun Learning

Dr. Brain: Mindventure 24.95
Fisher Price Series 14.95
Fisher Price Construction 18.50
Fisher Price Magna Doodle 19.95
Jumpstart Baby 24.95
Jumpstart Grade 1/2/3/4/5 19.95
Jumpstart Math Blaster (CD) 14.95
Jumpstart Math Blaster (Box) 24.95
Jumpstart Kindergarten/Pre-K 17.95
Jumpstart Pre-School/Toddler 14.95
Kid Pix Studio Deluxe 14.95
Lego Creator 12.95
Lego Island 2 14.95
Lego Land 12.95
Lego Racer 12.95
Lego Racer 12.95
Lego Racer 12.95

Living Books

Magic School Bus: Dinosaurs 14.95
Magic School Bus: Rain Forest 14.95
Magic School Bus: Solar System 9.95
Mario Teaches Typing 2 14.50
Muppet Calendar 9.95
Rainbow Fish 19.95
Reader Rabbit Library 8.00
Reader Rabbit Math Series 8.00
Reader Rabbit Reading Series 8.00
Reader Rabbit Preschool 14.95
Safety Monkey 8.00
Sesame Street: Numbers 8.50
Teletubbies 14.50
Teletubbies 2 19.95
Treasure Cove 9.50
Universe - Virtual Reality 7.00
Webster's Dictionary For Kids 9.50

Reseller Inquires Welcome!!!

< SMALL OFFICE TECHNOLOGY >

Making inroads with Access queries

Continued from page 72

the calculated figures aren't formatted. Switch back to Design View and click the column heading to select it. Right-click and choose Properties, then select the Currency format in the Format area. Now, when you run the query again, there will be dollar symbols in front of the numbers.

Summary calculations

You can also get more general information from your database. For example, if the salaries must be taken into account in department budgets, you'll want to total the salaries for employees in each department.

To create this query, create a new Query in Design View using the Employee table. Add Department as the first field in the grid, then add Salary as the second field. Choose View then Totals to display the Totals row in the grid and leave the Department setting as Group By. In the Salary column, select Sum from the dropdown list in the Totals row.

Run the query and you'll get a list of the three departments and the total salaries of all employees in these departments.

You can now add the two items you added to the previous query to see what the salary figures will be when the pay rise is given:

Pay Increase: [Salary] * 0.1

And:

New Salary: [Salary] * 1.1

Set each of these to read Sum in the Totals row. Run your query again and you'll see the total current salaries, the total proposed increase and the total new salaries for each department. As you did for the previous query, you can format the results if you wish.

There are other calculations you can make, too: calculating the average salary of all employees, for example. Start with a new Query in Design View using the Employee table.

This time, add the Salary field to each of the first three columns and choose View, then Totals. In the first column's Total row, choose Sum, in the second choose Avg, and in the last choose Max. Now, click in front of the Salary field

name in each column in turn and alter the field to read:

Total Salaries: Salary
Average Salary: Salary
Maximum Salary: Salary

Run your query to see the total, average and maximum of the salaries being paid to all the employees.

As before, you can use calculations in this type of query too, so you can calculate the total, average, and maximum of the new salaries (after the pay increase). To do this, change the Fields for all three columns to read:

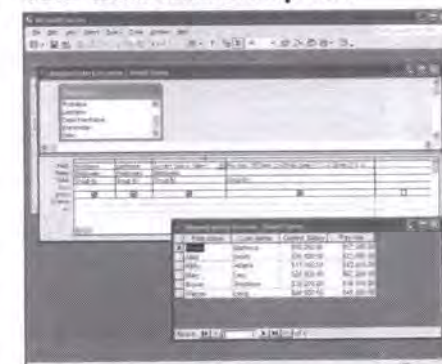
Total Salaries: [Salary] * 1.1
Average Salary: [Salary] * 1.1
Maximum Salary: [Salary] * 1.1

You can format the results to show currency symbols if you wish.

Duplicating a query

To save creating a new query each time, duplicate an existing query that is close to what you want. To do this, click the Queries option in the Objects list and right-click the Query you want to copy. Choose Copy, click in a blank area just below the list of existing queries, right-click, then choose Paste. A small dialogue will appear into which you can type the name of the new (duplicate) query. Now open this query and make the desired alterations.

Other useful calculation queries



Use expressions like If to create queries that make calculations based on field content.

Not all fields are numeric, but there's no reason they can't be used as the basis for calculations. For example, Yes/No fields can also display and calculate information.

For example, consider the situation in which each employee is to receive a \$200

Continued on page 78

Making inroads with Access queries

Continued from page 76

bonus if they are a shareholder. To make this calculation, select Create a Query in Design View and use the Employee table.

Add the FirstName, LastName, and Shareholder fields (for reference purposes only) to the query grid. In the next empty column type this in the field area:

```
Bonus: IIf([Shareholder],200,0)
```

Run the query and see that only shareholders will have \$200 appearing in this field. The expression you've used is "IIf"—the equivalent of Excel's "If" function. Here, IIf tests the value of Shareholder: if it is True/Yes the first value in the remainder of the expression is used (\$200), if it is False/No, then the second value is used (\$0). So the syntax of the expression is:

```
IIf(test, value if true, value if false)
```

You can use a similar process to the one we've been using to calculate the total of the bonus by department or for the entire business. For the department totals, remove the first three fields from this last query leaving only the calculation itself. Replace these fields with the Department field. (To remove fields from the Query grid, in Design View, click the column to remove and click the Cut button.) Ensure that the Department field appears to the left of the calculated field (do this by selecting it and dragging it into position). Now display the Totals line and set the Department to Group By and the calculated field to Sum. Run the query to see

the resulting summary by department.

You can also use fields like Yes/No to make tests, then make calculations on another field based on the result of the test. Here's an example that gives a 10 percent salary increase to non-shareholders and a 15 percent increase to shareholders. Type this into a new field in a query:

```
Pay rise: IIf([Shareholder],[Salary] * 1.15, [Salary] * 1.1)
```

Other options include using IIf to test a field that doesn't store Yes/No information but, instead, contains text or numbers. For example, create a query with the FirstName and LastName fields and this one:

```
Pay rise: IIf([Salary] > 35000, [Salary] * 1.15, [Salary] * 1.1)
```

This shows the result of giving a 15 percent increase to people who earn more than \$35,000 and a 10 percent increase to those who earn \$35,000 or less.

To enter an expression into a field in your Query more easily, open the Expression builder dialogue so you can see your expression in a larger area. This is particularly helpful when you're writing a long query. To do this, click in the field, then on the Build button on the toolbar.

This opens the Expression Builder dialogue and displays your current expression. The Expression Builder has a built-in Help function for finding useful information when you're building expressions.

Using a Crosstab

A Crosstab query allows you to analyze data in a table. Use it if, for example, you want to assess whether being a shareholder gives you a higher salary than non-shareholders, and whether that changes by department.

For this, the Crosstab you'll create will display the departments down the left and the shareholder status (Yes/No) across the top. The average salary for groups of employees will appear at the intersection of each column and row.

For example, at the intersection of the Yes column and the Accounts row you'll see the average salary for all employees who are both shareholders and work in Accounts. In the column to the right will be the average salary for those employees who are not shareholders and who work in Accounts.

Compare these figures to answer the question "Are shareholders in the Accounts department paid more on average than non-shareholders?"

Here's how to create the Crosstab query to make this analysis. Begin by clicking the Query button in the Objects list, then choose Create Query By Using Wizard. Click the New button and, from the New Query dialogue, choose the Crosstab Query Wizard option. Click OK, in the Crosstab Query Wizard dialogue, choose Employees as the source table, and click Next. When prompted for the field you want to use for the row headings, choose Department (this will ensure the Department names appear down the left of the results table).

Click Next to continue and, when prompted for the field to use for the column headings, choose the Shareholder

field and click Next. Finally, choose Salary as the field for the calculations and choose Avg from the Functions list. Disable the Yes, include row sums checkbox, and click Next.

Choose View The Query, click Finish, and the Crosstab query results will appear on the screen. The column headed "-1" is the Shareholder column and that headed up with "0" contains the non-shareholder information. You can improve the look of these headings by clicking Return To Design view, right-clicking an empty cell (in an empty column) of the grid and choosing Properties. In the Column headings area type:

Yes,No

Run the query again and the headings will be a more self explanatory. □

Helen Bradley specializes in writing hands-on tutorials. Her columns appear regularly in a number of publications in Australia, the U.K. and the U.S. Contact Helen at helen@helenbradley.com.

The Computer PAPER
Canada's Computer Information Source

Buying a digital camera?

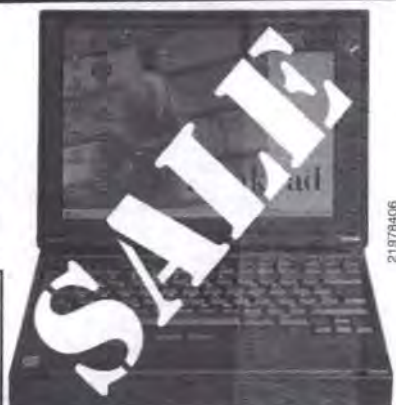
Check out TCP's archives, at CanadaComputes.com, for articles on image-catalogue software and printing digital images.

www.laptopcloseout.com

USED LAPTOPS

Now on Sale:

Pentium Laptops, Modems, Network cards
Memory Upgrades, Storage Upgrades
CD-ROMs, DVD-ROMs, PCMCIA Cards Etc.



for info visit web-site or Call: **416-975-0748**

CD & DVD COPIES



**The One-Off
CD Shops**
Vancouver

Friendly Service
Fast Turnaround
Quality Products
Great Prices

The Leading source for all your media duplication and replication needs for more than 20 years.

15% discount

On your first CD-R duplication order when you mention this ad.

www.newmediasource.com

Tel: 604.278.5356

Fax: 604.278.3486

The One-Off CD Shop Is A Cinram Factory Direct Company



#21-12391 Bridgeport Rd.
Richmond, B.C. V6V 1J4
Tel: (604) 244-0793
Tech: (604) 244-8793
Fax: (604) 244-9762
Web: www.addax.bc.ca
Mon-Sat 10am-6pm



ADDAX

Financing & Leasing

Computer Inc.

K7-Monthly Special

Duron 1.1G/Athlon 950	\$429/449
XP 1600/1700/1800	\$479/499/519
XP 1900/2000/2100	\$549/589/649
ECS K7SEM MB. W/266Mhz FSB/ATA100	
3D Video upto 64M RAM	10/100Mb LAN
40G ATA100 hard drive	128MB SDRAM
1.44M Floppy drive	3D Sound/Speaker
52x CD-Rom	Keyboard/Mouse

Prices are subject to change without notice! Systems are Internet Ready with 1 month FREE access, 3 years labor & 1 year parts warranty!

K7-Dream Machine	K7-Home Theater	K7-Premium System	P4-Premium System	P4-Home Theater	P4-Dream Machine
Athlon 950/1.3G \$1229/1249 XP 1600/1700+ \$1259/1279 XP 1800/1900+ \$1299/1329 XP 2000/2100+ \$1369/1429 Asus A7S333 Main Board 512MB 266Mhz DDR RAM 60G 7200rpm Hard Drive Samsung 1.44MB floppy drive Geforce4 64M DDR Video TV out MSI 40x12x48 CD-RW Sony/Pioneer 16X DVD-ROM USR V.90 56K Fax Modem SoundBlaster Live 5.1 sound Microsoft Internet keyboard Microsoft optical wheel mouse 18" ATX Tower Case 300wPS PCI 10/100 Mb LAN card built-in Altec Lansing AVS500 5pc speaker 17" NEC AS75F Flat Monitor	Duron 1.1/1.3G \$899/919 Athlon-950/1.3G \$909/929 XP-1600/1700+ \$939/959 XP-1800/1900+ \$979/1009 XP-2000/2100+ \$1049/1099 ECS K7S5A MB. W/266 FSB 256MB 266Mhz DDR RAM 40G 7200rpm Hard Drive Samsung 1.44MB floppy drive ATI 7000 64M Video TV out PCI 3D sound card integrated Panasonic 24x10x40 CD-RW Artec 16X DVD-ROM Internet keyboard w/wrist pad Logitech optical wheel mouse 18" ATX Tower Case w/PS 10/100 Mb LAN card built-in 500w Speakers w/subwoofer 17" LG E700B Flat Monitor	Duron 1.1/1.3G \$759/789 Athlon-950/1.3G \$779/799 XP-1600/1700+ \$809/829 XP-1800/1900+ \$849/879 XP-2000/2100+ \$919/979 ECS K7SEM MB. w/266 FSB 256MB PC-133 SDRAM 40G 7200rpm Hard Drive Samsung 1.44MB floppy drive SIS Video upto 64M on board LG 12x8x32 CD-RW combo w/ LG 8x DVD-ROM PCI 3D sound card integrated Internet Keyboard w/wrist pad Logitech Wheel Mouse 18" ATX Tower Case 10/100mb LAN Card built-in 140w Speakers 17" Digital/NI/LR Monitor	P4-CL1.7/1.8G \$849/879 P4-1.7/1.8G \$919/939 P4-1.9/2.0G \$959/989 P4-2.2/2.4G \$1059/1279 ECS P4VMM2 MB. W/400 FSB 256 MB 266 Mhz DDR RAM 40G 7200rpm Hard Drive Samsung 1.44MB floppy drive S3 ProSavage4 video on board LG 12x8x32 CD-RW combo w/ LG 8x DVD-ROM PCI 3D Sound Card Integrated Internet Keyboard w/wrist pad Logitech Wheel mouse 18" P4 ATX Tower Case 10/100mb LAN Card built-in 140w Speakers 17" Digital/NI/LR Monitor	P4-CL-1.7G \$979 P4-1.7/1.8G \$1049/1069 P4-1.9/2.0G \$1089/1129 P4-2.2/2.4G \$1189/1399 VIA P4XB-M MB. 400Mhz FSB 256 MB 266Mhz DDR RAM 40G 7200rpm UDMA Hard drive Samsung 1.44MB Floppy Drive ATI 7000 64M Video w/TV out Panasonic 24x10x40 CD-RW Artec 16X DVD-ROM PCI 3D Sound Card Integrated 10/100 Mb LAN card Integrated Internet Keyboard w/wrist pad 18" P4 ATX Tower Case Logitech Optical Net Mouse 500w Speakers w/subwoofer 17" LG E700B Flat Monitor	P4-CL-1.7G \$1289 P4-1.7/1.8G \$1359/1379 P4-1.9/2.0G \$1399/1439 P4-2.2/2.4G \$1499/1719 Asus P4S333 MB. 400Mhz FSB 512MB 266Mhz DDR RAM 60G 7200rpm UDMA hard drive Samsung 1.44MB Floppy Drive Geforce4 64M DDR Video TV out Sony/Pioneer 16X DVD ROM MSI 40x12x48 CD-RW SoundBlaster Live5.1 sound card USR 3595 V.90 56K Fax Modem Microsoft Internet Keyboard 10/100 Mb LAN card Integrated 18" P4 ATX USB Front Case Microsoft Optical Wheel Mouse Altec Lansing AVS500 5pc speakers 17" NEC AS75F Flat Monitor

With system purchase only: Windows 98 SE/ME \$139/129 MS Office 2000 SB/Pro...\$269/379
Windows 2000 Pro\$219 NT 4.0 Workstation ..\$170
MS keyboard Internet/Natural.. \$38/45
Optical mouse/Intellipoint/Wireless Explorer.....\$29/55/95
Office XP SE/Pro...\$269/460 MS Works Suite 2002...\$119

Memory
PC-133 SDRAM 128/256/512M \$45/75/149
DDR 266MHZ 128/256/512M 48/89/179
DDR 333MHZ 256/512M 99/199
RAMBUS 800MHz 64/128/256M 49/98/189
Compact Flash 32/64/128/256M 39/54/89/169
USB RAM Disk 64/128/256 82/138/229
Compact Flash & Smart Media Card Reader..... 59

Video Cards
PCI TNT2 M64 32M \$65
ATI 8M Rage2/Xpert 98(XL Chipset) 26/32
GeForce2 MX400 Retail Box 64M/TV out 69/79
Geforce4 64M DDR TV-out MX420/MX440... 99/119
MSI Geforce4 64M TV-out MX420/MX440... 109/129
MSI Geforce4 MX460-VTP 64M/VIVO/DH 165
MSI G4Ti4200-TD 64M/128M 245/279
MSI 128M G4Ti4400-VTD/G4Ti4600-VTD... 359/479
Asus 7100 Pro 32M/TV out/64M 85/95/105
Asus 64M DDR V8170 Magic/V8170 135/159
Asus G4 128M V8420/8440/8460 299/ 379/499
ATI Radeon VE Dual head DDR 32M 89
ATI 64M DDR all-in-wonder 7500/8500DV... 249/369
ATI Radeon 64M SDRAM 7000/7500 69/89
ATI 64M DDR 7500/8500 119/209
Leadtek G4 Ti4200/Ti4400/Ti4600 299/389/509
Matrox G450 Dual 16/32M/G550 109/129/139
TV Tuner & Capture Card w/Remote Controll..... 89
WEB Logitech/Zeca 49/79

Monitors
SVGA 17" 27mm/19" 25mm \$188/295
LG 17" E700B Flat Short Tube 238
LG 19" Flatron F700B/E900B/995FT... 269/355/438
Sony G220R/G220S/G410R 447/492/588
Sony E500/G520/F500 999/1358/2449
NEC AS70/AS75F/AS90/AS95F 218/234/315/354
NEC FE700+/FE950+/AS125F(22") 268/474/899
NEC LCD 1550V/1700V/1850E 569/945/1198
Samsung Flat Tube 753DF/955DF 238/378
Samsung 19" 950B/900NF 295/518
Samsung LCD 15" 151S/17" 171S 568/1018
ViewSonic E70T/E90T/G90T/PF790... 258/378/448/508
ViewSonic LCD VE155/VE170 608/1009
ViewSonic G810/GS815/P220F 848/1178/1018

Notebooks
ECS 928 P4-2.0G/40G/512MB DDR/CD-RW & DVD/15.0" TFT/56K LAN/1394 Fire Wire/4xPort USB2.0/TV out/Infra...\$2079
P4-1.7G/20G/256M DDR/8xDVD/other same as above...\$1719
ECS A928 P4-1.7G/20G/256MB DDR/14.1" TFT/8x DVD/56K LAN/1394 Fire Wire/4xPort USB2.0/TV out/Infra...\$1599
Options of other combinations of CPU, Memory, Hard drive...call
Acer, Fujitsu, Toshiba, IBM, HP, Compaq Notebooks Call
IBM 2.5" Hard drive 10/20/30/40G 149/169/229/279
144Pin SDRAM 64/128/256M \$49/69/139
PCMCIA 56K Fax/Networking Card \$69/59

Motherboards
Intel D850MV 3D sound/800Mhz RAMBUS 209
ECS K7S5A/K7SEM/P4VMM2 89/88/119
MSI 745 Ultra/845 Ultra-AR/ARU 99/148/178
MSI 645Ultra/K73 Ultra/ARU/K7D... 119/124/184/348
Gigabyte GA-7VRX/7VRXP/8IR533... 128/169/134
GA-8IRX/8SR533/8IHXP 158/115/268
Abit BL7/BL7-R/KR7A/KR7A-R... 139/159/139/155
Abit TH7II/TH7II-R/KG7/KG7-R... 205/219/129/139
ASUS P4T-E/P4S333/P4S533 224/129/174
ASUS P4B533-EL/P4B266/P4B266-C... 279/214/168
ASUS P4T533-C-L/P4B533/P4BGLVM... 254/228/159
ASUS A7V333/RAID/A7M266-D 184/225/328
ASUS A7N266-C/A7N266/A7N266-E... 169/219/229
ASUS A7S333/A7V266-C/Raid 114/139/219
ASUS TUSI-M/TUV4X-C/TUSL2-C... 119/129/144
VIA P4XB-M/P4PA/P4XB-RA 109/179/169

Sound Cards & Speakers
SoundBlaster PCI 128/Live 5.1 29/49
SoundBlaster Live 5.1 Audigy OEM 97
SoundBlaster Live 5.1 retail Box Xgamer..... 108
SoundBlaster Live 5.1 Audigy Platinum 274
SoundBlaster Live 5.1 Audigy MP3+/Xgamer 144
140w Speakers/Base Control 8/15
Creative Theater5.1 5300/5700 128/369
Yamaha MS201(w/subwoofer) 65
Altec Lansing ACS21w/AVS300/AVS500... 25/44/64
Acer MS-810 Subwoofer 1000W Remote controll... 59
500w Speakers w/Subwoofer 29

Keyboards & Mice
Multimedia Internet Keyboard w/Wrist pad... \$9
Fujitsu KB 8725/4725 18/49
Artec 520DPI Mouse 2 B/Wheel Net 5/8
Cordless Keyboard & Mouse Logitech /MS... 89/95
Logitech Cordless optical internet KB.&Mouse... 129
Logitech Optical Wheel Mouse 25
Logitech Scroll MouseMan 4 Buttons 29
Logitech Mouse 2B/wheel mouse 7/12

CD-Rom & CD Writer
52X Acer/Creative/56x Acer \$42/49/47
MSI CD-Rewriter 40x12x48 Retail box 99
LG CD-Rewriter 32x10x40/40x10x40... 99/114
Acer CD-Rewriter 24x10x40/40x12x48... 79/108
LG 12x8x32 CD-RW & 8x DVD Combo kit 114
24x10x40 CD-RW Panasonic/Sony 79/99
Plexstor 24x10x40/40x12x40 199/235
16X DVD-ROM Sony/Artec(Kit) 75/62
Pioneer 16x DVD-ROM Tray/Slot 75/89
Ext. Liteon USB2.0 CD-RW 24x10x40 269
DVD-Writer HP200i/Pioneer DVR-A04... 695/538
DVD-Writer Panasonic LF-D311 539
Blank CD Writable/Rewritable 0.49/2.9
Blank DVD Writable/Rewritable 19/29

Drives & Controllers
Maxtor/Quantum/Western Digital: 40/60/80/120/160G 99/127/139/259/389
7200rpm 40/60/80/100G 105/129/149/254
7200rpm 120/120G(8MB buffer) 289/324
SCSI Hard Drive call
Tekram SCSI 395U/395UW 69/88
ATA100 Hard Drive Controller 49
IEEE 1394 Fire Wire Port Kit 59

Networking
Surecom Ethernet Card 10/100Mb \$12/14
Surecom 10Mb HUB 5/8 27/41
Surecom 100Mb Switch 5/8/16 59/79/149
GVC 10/100/1000Mb LAN Card 129
GVC 10/100/1000Mb switch 9 port 299
Addtron 4 Port Router 99
D-Link 538TX 10/100M Wake on LAN 19
D-Link wireless LAN PCI/PCMCIA... 168/139
D-Link wireless LAN USB DWL120 169
D-Link WLS Access point DWL900AP... 239
D-Link DI-713P WLS Router3 ports 269
Linksys Router 4/8port 125/209
10/100M 3COM 3C905X/Intel 51/44
3COM 4 port Router w/printer server ... 119
3COM Switch 3C16730/3C16791... 138/198
Cable Assembly 15/30/50ft 9/12/19
USB HUB 4 Port/4 Port/7 Port 19/39/69

Printers & Scanners
HP 845C/920C/940C/990C... \$135/179/238/449
Lexmark Z22/Z35/Z45/Z55 84/104/144/188
Canon S520/S800 229/474
Canon S200*(S30)/S300*(S20*) 64*/98*
Epson C40UX 1440 dpi 74
Epson C60/C80/1280 134/228/675
Epson Photo 890 385
HP Laser 1000/1200/2200D 354/578/1098
Brother HL1230/1440/1650 315/449/809
Samsung Laser 1210/1250 299/349
HP Scanner 4400/4470 148/249
Acer 4300U/1240UT 79/199
Accessories:
Canon BC-22 Photo Kit/Value Pack 59/19
Epson Ink Jet Paper (photo quality) 15
Brother Toner TN-200HL/TN-300HL... 39/35

Leasing rate is based on 36 month, 10% buyout and financing is available.
All listed prices (reflect 3% cash discount), quantities and specifications are subject to change without notice.
All system are tested and burned-in for 48 hours before shipping.
This AD is effective from Jul.22 to Aug.22

CPUs
AMD Duron 950/1.1/1.2/1.3G 65/79/89/109
K7 Athlon-950/1.3/1.4G 89/115/139
K7-XP 1600/1700/1800+ 119/139/159
XP 1900/2000/2100+ 189/229/289
PIII box 1.0G/1.13G-A/1.2G-A 269/189/219
CL Retail 900/1.1/1.2/1.3G 119/109/119/129
Pentium4 Celeron Retail box 1.7/1.8G... 159/189
Pentium4 Retail box 1.6/1.7/1.8G... 219/229/259
Pentium4 Retail box 1.9/2.0G 279/309
Pentium4 Retail box 2.2/2.4G 379/589

Modems
GVC V.9056k PCI Voice Fax/Modem \$24
PCI 56k Voice Diamond Supra 34
Acer 56K Voice V90 PCI/ISA 24/64
USR PCI 56k V.90 Hardware Modem 84
USR 56k V.90 PCI Win Modem 34
USR 56k V.90 External Retail Box 159

Zip Drivers
Zip Disk 100M/250M 13/24
EX. LS120 USB Super Drive /Disk 199/13
lomega 2G Jaz Diver SCSI 499
lomega 2G Jaz Disk/2G Tape 125/25

Cases & Misc.
400w Power supply (AMD certified) 59
Power supply AT/ATX/300w 25/32/39
USB Port Controller/4 port USB2.0 \$35/59
18/25" ATX Tower Case 300w PS 34/64
1.44M Floppy Drive Panasonic 17
Removable hard drive rack ATA100 w/fan... 29
Hard drive Cooling fan kit 19
Secondary Case Colling Fan/Slots Fan... 12/19
AMD Balibearing CPU Fan 15/19/25/35
Printer Cable Bi-directional 5
Microphone & Headphone set 12
PS/2 Mouse & Keyboard Adaptor 5
Switch Box for 2/4 Printers 29/39
Switch Box for 2/4 Computers 29/39
4 port KVM Switch 119
LPT2 Printer Card/Enhanced/PCI 17/25/39
PowerMax UPS 650VA w/Smart software... 129

Software
Corel WordPerfect 8/Draw 8/9 39/99/199
Norton Anti-virus 2002 29
Lotus SmartSuite Millennium 19
Upgrade Special
(Free installation)
M787 MB+1G pro CPU+3D video+3D sound +10/100Mb LAN +56k Fax modem \$179
VIA PLE01MB.+C600Mhz+3D AGP Video+ +3D Sound Card \$149

Office update includes smoother text*Continued from page 74*

text smoothing found in OS 9. The OS 10.1.5 upgrade is the first version to allow Quartz text smoothing in all apps. An updated version of Internet Explorer (5.2) is now available that takes advantage of this feature. The Internet Explorer update is not included in this service release, however.

Other improvements to all apps include improved stability for Word, Excel, and PowerPoint, including bug fixes to the project gallery feature and Visual Basic.

Improvements to the specific programs are as follows:

- **Word** is more stable when working with large documents or creating large tables. Performance has improved in the areas of scrolling long documents, printing, and working with complex border art. The custom dictionary no longer gives a "dictionary full" message if you try to add new words.
- **Excel** has fixed a very major bug we mentioned in our product review in the June issue of *TCP*, namely Excel 98 incompatibility. Excel X can now save a file that will work when opened in Excel 98. As well, Excel 98 files can now be opened in Excel X without corrupting them. Performance when working with charts has been improved by as much as four times.
- **PowerPoint** has improved performance when caching large or complex pictures during screen updates. With the Quartz smoothing on in OS 10.1.5, transparency effects are much faster in slideshows, the time to prepare the next slide is also shorter, and transparent objects will animate properly during a presentation. Faxing from PowerPoint now works as it should.
- **Entourage** has had improvements to its database engine. The maximum mail database has been increased from 2 GB to 4 GB and Entourage can now rebuild some damaged files that it previously could do nothing with. It now uses the hard drive and network less, which improves performance and battery life on laptops. IMAP has been improved so users can now synchronise IMAP folders as they switch between online and offline modes. The Entourage Database Daemon is more stable running in the back-

ground, and Entourage is more stable when working offline.

There are many more improvements to be found in the suite and the update makes a noticeable difference when installed on a G3 or G4 system. We noticed the improved performance right away, and the stability fixes are most welcome.

Since the service release is free to users of the regular or education version of the suite, it is a must-have upgrade. Note, however, that with the Service Release 1, Microsoft has cracked down on pirated copies, so many pirated serial numbers are invalidated by the update. So if you are running an illegal version of Office:mac v.X, there is a good chance that after the update you will not be able to run any of the programs. However, now that the suite is faster and more stable, it might be a good time to go pick up an upgrade. If you're a Palm user, you'll have another OS X alternative to Palm Desktop (after July 15, that is).

eMac now available to everyone

After releasing the eMac in May and restricting sales to the education market, Apple was flooded with calls and email from people wondering when they would be able to buy one for use at home. Well, it only took a few weeks for Apple to see the possibility of a consumer eMac, which it announced in June.

The major difference between the educational eMac and the consumer version is price: US\$999 for a basic educational eMac and US\$1,099 for non-education purchases. Another difference is that the eMac comes in two configurations for education: CD-RW or a CD-RW/DVD combo drive. The non-education model is only available with a CD-RW drive at this time.

The eMac model available in Canada includes a 700 MHz G4 processor, 128

MB RAM, 40 GB hard drive, and a 17-inch CRT display, all for \$1,699. The eMac features all the usual Mac ports, including two FireWire and two USB ports, a 56Kbps modem, 10/100 Ethernet, and an AirPort slot. The combo-drive version is not available in Canada at this time, which is a shame because a lot of home users in the eMac target audience would probably appreciate the ability to watch DVDs on their computer. In terms of performance, the eMac is comparable to the 700 MHz LCD iMac: same CPU, bus speed, and 32 MB nVidia GeForce2mx graphics card as the \$2,249 iMac, but for \$550 less. So if you want a new G4 Mac for your home and don't care about the LCD screen, the eMac is worth a look.

Mac OS 10.1.5 update available

Possibly the last update to OS 10.1 before 10.2 debuts, this release consists mostly of updated digital camera and CD burner drivers with a couple of notable exceptions.

The first noticeable improvement is the ability of non-Cocoa apps to use the Quartz graphics layer for text smoothing. Previously, many popular Carbon apps like Internet Explorer, AppleWorks, Office:mac X, and Netscape were forced to use the inferior Carbon graphics libraries, but the OS 10.1.5 update opens up the Quartz layer to any program that wants to use it. However, programs will not automatically adopt the new Quartz smoothing, they must be updated. Internet Explorer and Office X have been updated already, other apps should be updated in the near future.

There is a freeware hack called Silk available that enables Quartz smoothing in all applications. It's available on www.versiontracker.com or directly from www.unsanity.com.

The other improvement in OS 10.1.5 is significantly faster iDisk access, especially for DSL or cable Internet users. If you are using a modem to access your iDisk, you won't notice a change. However, if you have high-speed Internet access, the iDisk will both mount faster and allow you to access files more quickly than in previous versions of OS X.

There is one final piece of good news for owners of older G3 Macs with ATI Rage Pro graphics cards: OS 10.1.5 introduces support for 2D and QuickTime hardware acceleration. This means performance of the Aqua GUI

should be improved, scrolling should be faster, and large QuickTime movies can be played with fewer dropped frames on these machines.

Macs that use the Rage Pro chipset include tray-loading iMacs and the original 333 MHz and 400 MHz PowerBook G3s. The slot-loading iMac and FireWire PowerBook G3s already had hardware acceleration as they use the newer Rage 128 chipset.

The 10.1.5 update is available in the System Preferences panel in OS X or from Apple's Web site. Since Apple has not announced pricing for 10.2 yet, this may be the last free upgrade for OS X, so if you're using 10.1, you should grab it for sure.

CPU upgrade for Cube, G4 towers

No one thought it could be done, but Powerlogix (www.powerlogix.com) has designed a CPU upgrade that fits in both standard and miniature G4 Cubes. This marks the first time any company has released an upgrade for the Cube, and the first time an upgrade over 550 MHz has been available for the G4 towers.

The new Powerlogix upgrades are available in 800 MHz and 1 GHz configurations, and are compatible with a wide range of machines. There will be two versions of the new boards: one for Macs with a 100 MHz system bus and another for Macs with a 133 MHz bus speed. The G4 Cube and original "Sawtooth" G4 towers are 100 MHz machines, the new "Quicksilver" G4 towers are 133 MHz machines.

The complete list of supported models are (original speed in brackets): Sawtooth AGP G4 (350 to 500 MHz), G4 Cube (450 to 500 MHz), Digital Audio G4 (533 to 733MHz), and Quicksilver G4 (800 MHz to 1 GHz). The 800 MHz board lists for US\$599 and the 1 GHz model is US\$799. All upgrades include 256Kbps of on-chip Level-2 cache and 1 MB of backside Level-3 cache. That's not as good as the 2 MB Level-3 cache in the Quicksilver G4s, but it's better than the complete lack of Level-3 cache in the G4 iMac and 800 MHz G4 Tower. For more information, visit the Powerlogix Web site, or Other World Computing (eshop.macsales.com), one of the first authorized distributors of the new cards.

Upgrades for 'Pismo' PowerBook G3

Powerlogix and the newly resurrected Newer Technologies (www.newertech.com) have both announced upgrades for the

very popular but previously non-upgradeable "Pismo" series of PowerBook G3 Macs. These models, also known as FireWire PowerBook G3, were the last G3s released before the Titanium PowerBook was introduced in January 2001. They were sold in two configurations only: 400 MHz and 500 MHz. Both models included 14.1-inch screens and DVD playback with 8 MB Rage 128 video cards, which means they are fully supported in OS X for DVD playback and video acceleration, making them very popular in the used market.

However, since Apple chose to include proprietary ROM chips on the processor card, the Pismo line has never been upgradeable until now. Both the Powerlogix and the Newer Tech cards are G4 CPU upgrades running at 500 MHz with 1 MB Level-2 cache. They use the low power G4 7410 chip, the same chip used in early PowerBook G4 Titanium machines.

The difference between a 500 MHz G3 and a 500 MHz G4 will not be noticeable for OS 9 users, but for those running OS X, the G4 chip will significantly speed up the OS and the GUI in particular, mak-

ing it a worthwhile upgrade for those who use OS X on their PowerBooks and want to squeeze a few more years out of them before moving to a newer machine.

Both upgrades require that you send your PowerBook in to perform the upgrade—turnaround time should be less than a week (five business days). The procedure involves removing the G3 chip from the existing processor card, then soldering on a G4 chip. The PowerBooks are tested fully before being sent back.

The Newer Tech upgrade is available exclusively from Other World Computing (www.macsales.com) at this time. It retails for US\$299, including shipping.

The Powerlogix upgrade is available from various distributors and it retails for US\$329, although it is priced at US\$299, including shipping, until the end of July as an introductory promotion. □

Justin Siemens is a Mac IT specialist based in Vancouver, B.C. You can contact him at jsiemens@mac.com.

Bridgeport Rd
Bathgate Way
Rowan Pl
Clarke Pl
Cambie Rd

#170-12811 Clarke Place
Richmond B.C. (2nd Floor)
MON-FRI: 10am - 6pm
SAT: 11am - 5pm
SUN & Holidays: closed
Email: sales@imadapc.com

www.imadapc.com
TEL: 604.278.3339 FAX: 604.270.8884

IMADA D-1000

- AMD Duron 1.0GHz CPU
- SiS 730S Chipset Mainboard
- 128MB SDRAM
- 20G 5400rpm Hard Drive
- 52X CD-Rom
- 1.44 Floppy Drive
- Integrated 64bit PCI Sound
- Integrated 4X AGP Video
- Integrated 10/100 NIC
- IMADA 18" Case w/ 300W PS
- 3-in-1 Desk Manager (Keyboard + Mouse + Speakers)

only \$389⁹⁹

IMADA A1800

- AMD XP 1800 CPU
- SiS 740 Chipset Mainboard
- 256MB DDR SDRAM
- 40G 7200rpm Hard Drive
- 16X DVD-Rom
- 1.44 Floppy Drive
- Integrated 64bit PCI Sound
- Integrated 64MB 4X AGP Video
- Integrated 10/100 NIC
- IMADA 18" Case w/ 300W PS
- 3-in-1 Desk Manager (Keyboard + Mouse + Speakers)

only \$569⁹⁹

IMADA X1800

- AMD XP 1800 CPU
- SiS 735 Chipset Mainboard
- 256MB DDR SDRAM
- 40G 7200rpm Hard Drive
- 32X10X40 CDRW w/Software
- 1.44 Floppy Drive
- Geforce2 MX400 64MB Video
- SoundBlaster Live 5.1 OEM
- Integrated 10/100 NIC
- IMADA 18" Case w/ 300W PS
- P/S2 Keyboard & Wheel Mouse
- Tsunami GX680 Speakers 680W

only \$739⁹⁹

MANUFACTURE PRING !!!!

NEW MODEL

- New Imada 1501B 15" LCD
- New Design, New Feature
- Still manufacture price for you
- with 3 years limited warranty
- 1st year express - exchange warranty

before end of August **only \$499**

IMADA C-1300

- Intel Celeron 1.3GHz CPU
- VIA Apollo Pro133T 694T Board
- 128MB SDRAM
- 20G 5400rpm Hard Drive
- 52X CD-Rom
- 1.44 Floppy Drive
- TNT2 32MB Video Card
- Integrated 64bit PCI Sound
- 10/100 NIC
- IMADA 18" Case w/ 300W PS
- 3-in-1 Desk Manager (Keyboard + Mouse + Speakers)

only \$459⁹⁹

IMADA P-1700

- Intel Pentium-4 1.7GHz CPU
- SiS 650Chipset Mainboard
- 256MB SDRAM
- 40G 7200rpm Hard Drive
- 16X DVD-Rom
- 1.44 Floppy Drive
- Integrated 64MB 4X AGP
- Integrated 64bit PCI Sound
- Integrated 10/100 NIC
- IMADA 18" Case w/ 300W PS
- 3-in-1 Desk Manager (Keyboard + Mouse + Speakers)

only \$634⁹⁹

IMADA I-1700

- Intel Pentium-4 1.7GHz CPU
- VIA P4X266 Mainboard
- 256MB DDR
- 40G 7200rpm Hard Drive
- 32X10X40X CDRW w/Software
- 1.44 Floppy Drive
- ATI Radeon 7500 64MB DDR
- AGP Video Card w/DVI&TV-Out
- Soundblaster Live 5.1 OEM
- 10/100 Network Card
- IMADA 18" Case w/ 300W PS
- P/S2 Keyboard & Wheel Mouse
- Tsunami GX680 Speakers 680W

only \$849⁹⁹

P4 NOTEBOOK UNDER \$2000

Unbelievable Prices for P4 & AMD Notebooks!

Pentium4 1.6Ghz Notebook
w/256MB DDR, DVD 14" TFT, Firewire, USB2.0
20GB Hard Drive, 56K Modem, & Network Card

only \$1679.⁹⁹

COMPONENTS DEPOT

Leasing Option available

*** System Warranty: 1 year parts & 3 years limited labour warranty on Hardware
*** All prices are subjected to change without notice or obligation & all prices reflect a 3% pre-cash discount.
*** Shipping and applicable taxes are not included in prices shown.
*** Mail-in Rebates are offered by the manufacturer and have no affiliation with Imada PC Inc.

BRAND NEW SAMPLE & USED PARTS DEAD & DAMAGED UPGRADES

CE COMPUTER OUTLET Tel: (604)278-2633 Fax: (604)278-2661
118-4800, No.3 Road, Richmond, B.C. Canada V6X 3A6

STORE HOURS

Monday-Friday 11:00am - 7:00pm Saturday 11:00 am - 6:00 pm
Sunday & Holidays closed

INTEL PENTIUM SYSTEMS

INTEL PENTIUM 4 SYSTEMS	INTEL PENTIUM SYSTEMS
P 4 - 1.6 G.....\$1350	CELERON 1.2 G.....\$810
P 4 - 1.8 G.....\$1410	CELERON 1.3 G.....\$830
P 4 - 2.0 G.....\$1460	

***With Intel CPU & Fan**

- *ASUS P4S 533 Motherboard
- *256MB DDR RAM (PC2100)
- *4 0GB HDD (7200 rpm)
- *1.44MB (3 1/2") FLOPPY
- *ATI RADEON W/64 MB AGP Video Card
- *17" N/I L/R SVGA 0.25 dp, Monitor
- *24 x 10 x 40 CDRW
- *SOUND ON BOARD
- *Speakers w/Subwoofer
- *ATX Case
- *Windows 98 keyboard
- *Logitech 2 button/wheel Mouse & Pad

***With Intel CPU & Fan**

- *Pentium Motherboard (133MHz)
- *256 SDRAM (PC133)
- *2 0 GB HDD (7200 rpm)
- *1.44MB (3 1/2") FLOPPY
- *128 bit AGP Video
- *17" N/I L/R SVGA 0.27 dp, Monitor
- *52X CD ROM
- *3D Sound
- *140W/Speakers (Amp)
- *ATX Case
- *Windows 98 keyboard
- *Mouse & Pad

System Upgrades

Modem	Monitor	Hard Drive/Memory
56K Fax/Voice Internal (v.90) +\$44	17" to 19" 0.25dp +\$160	(please call)

Prices subject to change without prior notice **Cash and Carry**

THREE YEARS LABOUR AND ONE YEAR PARTS WARRANTY FOR SYSTEMS

We do

**Trade-ins, Repairs,
System Upgrades**

We carry

**New and Used
Computer Components**

樣品和舊電腦 舊零件 損壞的電腦和零件 全新電腦和大量零部件

主機板 顯示器 機箱 磁碟機 記憶體 電腦用品 軟體 電腦升級 電腦系統

next GEN

COMPUTERS LTD

604 **713-8538**
 fax 604 713-8539
 www.nextgencanada.com
 email nextgen@axion.net
 Mon-Fri 10:30am-6:00pm
 Sat 11:00am-5:30pm

VISA MasterCard
 #5-111 West Broadway,
 Vancouver, B.C. V5Y 1P4
 Leasing & Financing Available
 Networking Services Also Available.
 Corporate Clients Welcome.

AMD Econo Systems

Microstar 6378L Motherboard
 266MHz FSB, ATA100, 4 USB Ports
 40.0GB ATA100 Hard Drive
 52x CDROM / 3D Video
 128MB PC133 DIMM
 1.44MB Floppy Drive
 ATX Tower Case
 10/100 LAN/ 140W Spkrs
 107-keys Keyboard / Mouse
 AC97 Codec Sound On Board
Duron 1.1GHz \$449
 T-bird 950 / 1.3G \$449/475
 XP 1600+ \$485
 Duron 950 / 1.0G \$429/439
 Duron 1.1/1.2/1.3G \$449/459/469

AMD Power System

ECS K755A 266 FSB Motherboard
 266 FSB, 2DDR, 2 SDR, 5 PCI, 1 AGP
 40.0GB ATA100 HD / 10/100 LAN
 256MB DDR / AC97 Sound
 AOpen 52x CDROM
 Panasonic 1.44MB Floppy
 nVidia TNT2, 32MB AGP 4x
 107-keys Keyboard / Mouse w/Pad
 18" ATX Tower Case w/300W / Stereo Spkrs
XP 1600+ \$589
 T-bird 950 / 1.3GHz \$559/575
 XP 1600+ / 1800+ \$589/619
 XP 1900+ / 2000+ \$685/725
 Duron 950 / 1.1G \$529/559
 Duron 1.2 / 1.3G \$569/579

AMD XP System

Asus A7S 333 Motherboard
 266 FSB, ATA133, 5 PCI, 1 AGP 3DDR
 40.0GB 7200rpm ATA133 HD
 256MB PC2700 DDR-333
 C-Media 6-Channel Audio
 Panasonic 1.44MB Floppy
 52x CD-ROM / Stereo Spkrs
 nVidia GeForce2 MX400 64MB
 107-keys Keyboard / Mouse w/Pad
 18" ATX Tower Case w/300W
XP 2000+ \$759
 XP 1600+ / 1800+ \$619/649
 XP 1900+ / 2000+ \$715/759
 XP 2100+ / 2200+ \$819/Call

NextGen Special

Gigabyte GA-8SIML P-4 Motherboard
 533FSB, ATA133, 6-USB
 40.0GB ATA100 HD
 256MB DDR Memory
 Panasonic 1.44MB Floppy
 Multimedia Speakers
 Integrated Sound
 52x CDROM / Integrated 3D Video
 107-key Keyboard, PS/2 Wheel Mouse
 10/100 LAN / 18" ATX Tower Case
P-4 1.7GHz \$679
 P-4 1.7 / 1.8GHz \$679/699
 P-4 1.9 / 2.0GHz \$735/819
 P-4 2.2GHz \$1049
 Celeron 1.7 / 1.8GHz \$579/619

Intel CPU System

Gigabyte 6VEML Motherboard
 Support 4 USB, 133MHz Bus, ATA100
 128MB PC133 SDRAM
 40.0GB ATA100 Hard Drive
 1.44 MB Floppy Drive
 3D AGP Video On Board
 107-keys Keyboard / Mouse
 AC97 Sound O/B / LAN
 140W Multimedia Stereo Speakers
 52x CDROM / 17" ATX Tower Case
Celeron 1.1GHz \$459
 Intel Cel 1.1/1.2/1.3G \$459/469/479
 P-III 1.13 / 1.2G \$535/550

PENTIUM 4 SPECIAL

Asus P4S-533 Motherboard
 533 FSB, ATA133, 2 USB, 6 PCI, AGP4x
 256MB DDR 333 Memory
 60GB 7200rpm Hard Drive
 ATI Radeon 7000 64MB TV-Out
 C-Media 6-Channel Audio
 1.44MB Floppy Drive
 Asus 52X CDROM
 107-keys Keyboard
 PS/2 Wheel Mouse
 10/100 LAN
 Multimedia Stereo Speakers
 18" ATX Tower Case w/300W
P-4 1.9 GHz \$845
 P-4 1.7G \$795
 P-4 1.8G \$839
 P-4 1.9G \$845
 P-4 2.0G \$889
 P-4 2.26G \$979
 P-4 2.4G \$1195
 P-4 2.53G \$1585

UPGRADE
 your computer
 with

AMD Duron CPU Package

- Gigabyte 7VKML / ATA133
- AGP Video / AC97 Sound
- LAN / 128MB DDR Memory

Duron 950/ 1.1/ 1.2/ 1.3G
 \$210 / 230 / 240 / 250

Intel CPU Package

- Microstar 6368 KLE133 M/B
- AGP Video / AC97 Sound
- LAN / 128MB PC133 SDRAM

Intel Celeron 1.1 / 1.2 / 1.3G
 \$229 / 239 / 249

CPU with Motherboards

Celeron 1.1/ 1.2 / 1.3G w/Gigabyte M/B \$189/199/210
 Pentium-III 1.13 / 1.2G w/Gigabyte M/B \$270/287
 AMD Duron 950 / 1000 w/M/B \$150/160
 AMD Duron 1.1 / 1.2 / 1.3G w/M/B \$180/185/198
 AMD Thunderbird 950MHz w/M/B \$175
 AMD Thunderbird 1.3GHz w/M/B \$193
 AMD XP 1600+ / 1800+ / 266 w/M/B \$205/234

Memory

32 / 64 / 128 / 256M SDRAM PC100 / PC133 ... Call
 DDR / Rambus ... Call

Motherboards

Asus A7V266-C / A7V333 \$127/189
 Asus A7V333-Raid / A7N-266 (M.ATX) \$225/127
 AOpen Socket 370 AX34U / AXSP i815 \$105/125
 AOpen Socket 370 AX4BX \$129
 AOpen Socket A AK77Pro A-133/ AK77-333 \$120/155
 AOpen Socket 478 AX48533 \$149
 Gigabyte 6VEML / 6VTXE S-370 \$93/95
 Gigabyte 7VXR DDR / 7ZX-E SDR Socket A \$125/90
 Gigabyte 7VXRP / 7VKML DDR Socket A \$165/105
 MSI KT3 Ultra KT333 / ARU KT333 \$125/170
 MSI M6368L S-370 / MSI 6547 P4 S-478 \$92/115
 MSI KT266 Pro2-A KT266A \$109
 SOYO Socket 370 / Socket A / Socket 7 ... Call

CD-ROM • CD Writer • DVD

Asus 52x / Creative 52x \$42/44
 AOpen 52x / 56x \$42/44
 LG 12x8x32x CDRW + 8x DVD-ROM Combo \$110
 CDRW LG 40x12x40 / 32x10x40 \$125/92
 CDRW Liteon 40x12x40 / 32x12x40 \$114/89
 CDRW AOpen 32x12x40 / 24x10x40 \$99/79
 CDRW Yamaha 24x10x40 / Plextor 40x12x48 \$159/225
 DVD Liteon 16x / LG 16x \$59/64
 DVD Sony 16x / Pioneer 16x \$72/75

Hard Drives • Storage

WD 20 / 40 / 60 / 80 7200rpm \$107/120/162/185
 WD 100 / 120 / 120SE 7200rpm \$259/295/329
 WD 20 / 40 / 60 / 80 5400rpm \$105/109/145/169
 Maxtor 20 / 40 / 61 / 81 7200rpm \$95/105/135/157
 Maxtor 20 / 40 / 60 5400rpm \$99/109/135
 Maxtor 80 / 120 / 160 5400rpm \$155/239/375
 IBM 40 / 60 / 80 7200rpm \$109/132/145

Sound Cards • Speakers

Sound Card PCI AOpen AW 840 / 850 (5.1) \$20/39
 SoundBlaster Ensoniq / PCI 128 \$25/27
 SoundBlaster Live Value 5.1 / Live Audigy \$49/99
 Creative Inspire 2.1 / 4.1 / 5.1 \$56/80/135
 Altec Lansing CN-220 / 221 / 251 \$45/65/125
 Logitech Z-340 w/ Subwoofer \$69

Monitors

AOC 15" / 17" .27dp / 19" .26dp \$179/195/289
 AOC 17" 7F / 9Klr DynaFlat .25dp \$219/345
 Philips 107T Flat / 109S.27dp / 109B Flat \$239/369/395
 NEC 17" AS70 / AS75F / FE750+ \$219/255/359
 Samsung 17" 750S / 753DF \$210/245
 Samsung 19" 950B / 955DF \$310/390
 Samsung 19" 900NF / 1100P+ \$570/789
 LG / Philips / Samsung 15" LCD \$575/579/585
 LG / Philips / Samsung 17" LCD \$1029/1059/1029
 Daytek 17" .27dp / Daewoo 17" .25dp \$195/210

Fax Modems

56K V.90 PCI Win / Asus Modem Riser \$22/33
 USR 56K Int. V.90 Voice Win / Hardware \$35/79
 AOpen 56k FM56-PLM / FM56-SM PCI \$35/28
 Smartlink 5634PCV Hardware, 56K, PCI, Retail \$55

* Call for current prices • All prices and product availability subject to change without notice.
 * All advertised prices reflect 3% cash discount • Not responsible for typographical errors
 * All brands and trademarks are property of respective manufacturers.

AOpen #1 Computing Solution Provider

- Motherboards
- Monitors
- Fax/Modem
- CD-ROM/DVD/CD-RW
- VGA Cards
- Mice & Keyboards
- Housing & Bare Systems
- Networking NIC & Hub
- Speakers & Sound Cards

AOpen Monthly Specials:

CDRW 32x12x48 \$89
 CDRW 40x12x48 \$105
 17" Monitor A70E \$209
 MS810 1000W w/Subwoofer \$49
 Modem FM-56-SV \$24
 AW840 4 channel PCI Sound Card \$19

Video Cards

ATI Rage-128 32MB, AGP \$45
 ATI Radeon 7000 64MB SDR/ DDRAM TV-Out \$65/83
 ATI Radeon 7500 LE/ AGP 64MB DDR TVO-DVI \$99/125
 ATI Radeon 8500 LE 64 / 128MB DDR TV-O \$192/239
 ATI TV Wonder USB / PCI \$129/99
 nVidia TnT2 32MB PCI \$65
 nVidia GeForce2 MX200 32MB SDR \$59
 nVidia GeForce2 MX400 64MB SDR V/O PCI \$129
 nVidia GeForce2 MX400 64MB SDR / TV-Out \$65/72
 MSI GeForce3 Ti200 Pro 128MB DDR DT \$195
 MSI GeForce4 MX440-T 64MB DDR TV-Out \$145
 Matrox G550 DDR 32M AGP \$155
 Asus V7100 Pro MX400 64M AGP, Pure \$115
 Asus V8170 Magic GeForce4 MX420 64MB SD \$142
 Asus V8170 64M DDR GeForce4 MX440 \$165
 Asus V8440-TD 128MB DDR \$429
 Asus V8460 128MB DDR Ultra - TD / Dlx \$535/595

Scanners • Printers

AcerScan 4300 / 5000 / 5300 Scanner \$79/105/123
 Canoscan N640 Pex / N670U / N1240U \$105/129/225
 HP 656C / 3420V Inkjet Printer \$99/139
 HP 3820V / 960C Inkjet Printer \$169/299
 HP 1000/ 1200/ 2200 Laserjet Printer \$369/609/1049
 HP Scanjet 2200C / 4400C / 4470C \$119/149/219
 Epson 1250/ 1250P/ 1650/ 1650P \$143/189/275/295
 Samsung Laser ML-1210 / 1250 \$299/359
 Brother HL 1230 / 1440 / 1450 Laser \$329/469/565
 Canon S-200 / 300 / 520 Printer \$99/119/195
 Epson C60 / C80 / P820 Printer \$127/229/149

Networking Products

Intel Etherexpress / 3Com 905CX 10/100 PCI \$56/55
 D-Link / Surecom 10/100 Network Card \$20/15
 D-Link 10/100 Desktop Switch DSS 5/8 Ports \$70/89
 Network Cable RJ45 10/ 15/ 25/ 50/ 100 ft ... Call
 5-Port 10BT-Hub / 100-Switch \$30/46
 PCI to USB Card \$21
 Router 5-Port Linksys / 3 Com \$115/119

< SMALL OFFICE TECHNOLOGY >

QuickTips

Vector objects in PaintShop Pro

Understanding vectors • Photos are bitmap files made up of a series of coloured pixels, but vector images are made up of shapes. The resulting files are much smaller and can be scaled up or down without showing jagged edges. Typically, many clip art images are created as vector images and are commonly in WMF format.

Creating vector objects • Create vector objects in PaintShop Pro 7.0 by selecting the Create as Vector option when using tools such as the Text, Draw, or Preset shapes tool. If you don't have a vector layer selected when you do this, a new vector layer will be created and the object automatically placed on it.

Selecting vector objects • When a vector layer is selected, you'll find the Object Selector tool (at the foot of the Tool Palette) is enabled. Click this then click on any Vector object to select it. The selected object will appear with a border around it and sizing handles. The central bar and handle can be used to rotate the object. Placing the mouse pointer on the move handle lets you to move the object.

Right-click options • When the Object Selection tool is enabled, you'll find most of the vector features in PSP are available by right-clicking on an object. From this shortcut menu, choose Properties to alter the object's line and fill colours and style. Choose Node Edit to display the shape's nodes. You can edit these to reshape the object.

Editable type • Using vectors, you can add editable type to an image. Click the Text tool, click where the text should appear, then select the Vector option. Type the text in the dialogue and click OK. Move the text into position and size it appropriately. At anytime in the future you can edit the text by selecting it with the Object Selector, then choosing Edit Text from the Object Selector's Tool options dialogue to open the Text Entry dialogue.

Creating text on a curve • To create text along a Freehand shape, draw the shape using the Freehand line tool as a vector shape. Select the Text tool and hold the mouse over the edge of the shape until it turns into a letter A over a semicircle. Click to select the curve, type your text, enable the Floating option, and click OK. The text will appear along the line you drew. Right-click the Floating Selection in the layers palette and choose Promote To Layer. If you wish, remove the line you used to align the text.

Changing the way text looks • You can use vector text to alter the shape of text objects, for example, to create an oversized first letter or to pull text into different shapes or alignments. Choose the Text tool, click in the editing area, and type your text. Choose the Vector option and click OK. Select the text using the Object Selector, right-click it, and choose Convert Text To Curves, As Character Shapes. You can now use the Object Selector to select each letter in turn and move it to a new position. Use the Node Edit option on the right-click menu to alter its shape and the Properties option to change is line and/or fill.

Revamping clip art images • Using PaintShop Pro 7.0, you can open clip art WMF files or access clip art images by copying them from your clip art tool and pasting them into PaintShop Pro. Display the Layer Palette to see the objects in the image. Using the Select Object tool, click on an image to select it, then you can recolor the pieces to change the look of the image. You can also remove pieces you don't want by deleting some of the objects that make up the image. You can add new objects, as well. When you're done, simply save the image in WMF format and it will retain all the benefits of being a vector image.

Converting vector layers to raster layers • It is possible to convert a vector layer into a raster layer—this will happen automatically if you save an image that has vector objects in a raster format, such as BMP, GIF, or JPEG. To change a vector layer into a raster layer, select the layer you want to alter in the Layers Palette, right-click and choose Convert To Raster Layer. You should note, however, that you can't do this in reverse—a raster layer can't be converted to a vector layer.

—Helen Bradley



LEGEND computer

Unit 150-11180 Bridgeport Road,
Richmond, B.C. V6X 1T2 Fax: (604) 279-8757
Tel: (604) 279 - 8856
www.legendcomputer.ca

● Monday - Saturday 10:30 am-6:30 pm Sunday 12:00 noon-4:00 pm
● Not responsible for typographical errors ● All brand and trademarks are property of respective manufacturers ●

Intel Celeron 1.2 \$419	AMD Duron 1.0 \$369
Intel Celeron 1.2GHz CPU PCChips PIII ATX Motherboard 128MB PC133 SDRAM 1.44MB Floppy Drive 40GB EIDE Hard Drive 52X EIDE CD-ROM AGP SVGA O/B PCI 3D Stereo Sound O/B 10/100 Base NIC PS/2 Keyboard & Wheel Mouse 17" ATX Tower Case w/Power Supply Power Amplified Speakers	AMD Duron 1.0GHz CPU PCChips M810 AMD Motherboard 128MB PC133 SDRAM 1.44MB Floppy Drive 40GB EIDE Hard Drive 52X EIDE CD-ROM AGP SVGA O/B PCI 3D Stereo Sound O/B 10/100 Base NIC PS/2 Keyboard & Wheel Mouse 17" ATX Tower Case w/Power Supply Power Amplified Speakers

P4 Celeron 1.7 \$489	AMD XP 1800+ \$669
Intel P4 Celeron 1.7GHz CPU PCChips M925 Motherboard 256MB DDR RAM 1.44MB Floppy Drive 40GB EIDE Hard Drive 52X EIDE CD-ROM AGP SVGA O/B PCI 3D Stereo Sound O/B 10/100 Base NIC PS/2 Keyboard PS/2 Wheel Mouse 18" ATX Tower Case w/Power Supply Power Amplified Speakers	AMD XP-1800+ CPU Asus A7S333 Motherboard 256MB DDR RAM 1.44MB Floppy Drive 40GB (7200rpm) EIDE Hard Drive 24x10x40 EIDE CD-RW nVidia GF2 MX400 w/64MB Video Card PCI 3D Stereo Sound O/B 10/100 Base NIC PS/2 Keyboard PS/2 Wheel Mouse 18" ATX Tower Case w/Power Supply Power Amplified Speaker

Intel P4 1.8 GHz \$749	AMD XP 2000+ \$839
Intel PIV-1.8GHz CPU MSI 645 Ultra Motherboard 256MB DDR RAM 1.44MB Floppy Drive 40GB (7200rpm) EIDE Hard Drive 24x10x40 EIDE CD-RW nVidia GF2 MX400 w/64MB Video Card PCI 3D Stereo Sound O/B 10/100 Base NIC PS/2 Internet Keyboard PS/2 Wheel Mouse 18" ATX Tower Case w/Power Supply Power Amplified Speakers	AMD XP-2000+ CPU MSI KT3 Ultra Motherboard 256MB DDR RAM 1.44MB Floppy Drive 60GB (7200rpm) EIDE Hard Drive 32x10x40 EIDE CD-RW MSI GF4 MX420 64MB Video Card PCI 3D Stereo Sound O/B 10/100 Base NIC PS/2 Internet Keyboard PS/2 Wheel Mouse 18" ATX Tower Case w/Power Supply Power Amplified Speakers

Intel P4 2.0 GHz \$929
Intel PIV-2.0GHz CPU Asus P4S533 Motherboard 256MB DDR RAM 1.44MB Floppy Drive 60GB (7200rpm) EIDE Hard Drive 32x10x40 EIDE CD-RW MSI GF4 MX420 64MB Video Card PCI 3D Stereo Sound O/B 10/100 Base NIC PS/2 Internet Keyboard PS/2 Wheel Mouse 18" ATX Tower Case w/Power Supply Power Amplified Speakers

Monthly Special	
LG 700S 17" Monitor\$ 188	Epson C40UX Color Printer \$ 65
NEC AS75F 17" Monitor\$ 219	17" ATX Tower Case\$ 28
Samsung 753DF 17" Monitor \$229	100pcs 700MB CDR\$ 30
NEC AS95F 19" Monitor\$ 339	PS/2 Multimedia Keyboard\$ 8
LG 52x CD-ROM\$ 35	PS/2 Keyboard\$ 5
LG 24x10x40 CD-RW\$ 70	PS/2 Wheel Mouse\$ 3
40GB ATA100 Hard Drive\$ 95	160 Watt Speaker\$ 5

Motherboard	
AMD Asus A7V333 KT333 USB2	\$ 185
AMD Asus A7V333-Raid USB2 IEEE	\$ 225
AMD MSI KT3 Ultra KT333	\$ 125
AMD MSI KT3 Ultra-ARU Raid USB2.0	\$ 185
AMD Gigabyte GA-7VRXP Raid USB2.0	\$ 165
Asus P4S533	\$ 165
Asus P4B533	\$ 229
MSI 645 Ultra SIS645	\$ 109
MSI 845 Ultra-AR i845D ATA133 Raid	\$ 149
MSI 845 Ultra-ARU i845D USB2.0 ATA133 Raid	\$ 189
Video Card	
ATI Radeon AIW 8500DV 64MB/128MB	\$ 405 / \$ 515
ATI DV Wonder FireWire Adaptor	\$ 65
MSI GF3Ti 128MB DDR w/VIVO	\$ 205
MSI GF4 MX420 64MB DDR w/TV	\$ 109
MSI GF4 MX440 64MB DDR w/TV	\$ 125
MSI GF4 MX460 64MB DDR w/VIVO	\$ 159
MSI GF4Ti4400 128MB DDR w/VIVO	\$ 360
MSI GF4Ti4600 128MB DDR w/VIVO	\$ 490
nVidia GF2 MX400 64MB	\$ 65

Monitor	
15" NEC 1550V Slim LCD 1024*768	\$ 569
17" NEC 1720 LCD 1280*1024	\$ 1039
17" NEC FE700+ .25dp AG 1280*1024	\$ 255
17" NEC FE750+ .25dp 1600*1200	\$ 335
19" Samsung 955DF .25dp Flat 1600*1200	\$ 359
19" NEC FE950+ .25dp Flat 1792*1344	\$ 459

CD/DVD/CDRW Drives	
LG 16x EIDE DVD-ROM	\$ 60
LiteOn 16x EIDE DVD-ROM	\$ 60
Sony 24x10x40 EIDE CD-RW	\$ 75
LG 32x10x40 EIDE CD-RW	\$ 85
LG 12x8x32 CD-RW & 8x DVD	\$ 109

Misc.	
Logitech Quick Cam Express	\$ 48
Cordless PS/2 Wheel Mouse	\$ 22
Microsoft Optical Wheel Mouse	\$ 25
Creative 56K internal Modem	\$ 17
RJ45 Network Cable 10/20/50 ft	\$ 3 / 5 / 10
Microphone	\$ 3

Storage	
1.44MB Floppy Drive	\$ 14
40GB (5400rpm)	\$ 95
40/60GB (7200rpm)	\$ 105 / \$ 129
80/120GB (7200rpm)	\$ 145 / \$ 235

Speakers & Audio Adaptor	
SB PCI 128 / Live! DE5.1	\$ 27 / \$ 47
SB Live! Audigy FireWire	\$ 97
SB Audigy Platinum 5.1	\$ 275
Creative Inspire 5300 5.1 Speakers	\$ 129
Altec Lansing AVS300 w/Subwoofer	\$ 45
Altec Lansing ATP3 w/Subwoofer	\$ 85
Altec Lansing 2100 w/Subwoofer	\$ 119

Software	
Windows XP Home	\$ 140
Windows XP Professional	\$ 239

Online and on the move: dual-mode digicams fit the bill

As gadgets go, digital cameras are certainly one of the most fun. One of the newest trends in digital photography is the two-in-one camera. These can be used as a standalone one megapixel digital camera, or can be hooked directly to the PC and used as a streaming video camera for use with video chat or network meeting applications.

There are a few of these devices out there, from a number of different companies. Here are two that we've had a chance to look at recently.

Creative's PC-Cam 600 is the updated version of the PC-Cam 300. This one doubles the onboard memory from 8 MB to 16 MB, adds motion capture, and bumps up the image size to 1.3 megapixels using an XGA-sized CCD (1024x768). The camera features a few shooting modes, including still, timer, movie (352x288), five-shot burst, and a straight voice-record mode for taking audio memos. It has a built-in flash with a setting for red-eye reduction. It's powered by four AAA batteries, and comes with a hand strap. As with other



Creative PC-Cam 600

From: Creative Technology, www.creative.com
Estimated price: \$200

cameras of this type, there's no window on the back for reviewing your images, so you'll have to wait until you get back home to see what you've shot.

When connected to the PC, it uses a USB 1.1 connection for streaming video or transferring pictures back to the computer. Movie capture resolution is slightly higher when connected to the PC, at 640x480. It comes with a base that tilts forward/backward, but only very slightly—this is probably the camera's weak point in that when it's connected directly



Hercules DualPix

From: Guillemot Corp., www.hercules.com
Estimated price: \$150

to the PC, it doesn't have a lot of flexibility in terms of positioning.

Other than that, it's a nice little device with a lot of functionality, and certainly worthy of Creative's good name. It comes with a 90-day hardware warranty.

The DualPix from Hercules has a number of attractive features. The camera uses a 640x480 CCD sensor, but uses interpolation to bump up still images to 1024x768 resolution. The front of the DualPix has a manual focus control, allowing you to choose between far-off and close-up (as

close as 10 cm) with a spin of your fingers. Though it doesn't have a built-in flash, it does have several shooting modes, including timer, movie (320x240) and a five-shot burst mode. The camera comes with a hand strap and a protective carrying case. It's powered by four AAA batteries, and features 8 MB of onboard memory.

Back at the PC, the camera slides into a stand that can be tilted backward/forward, and spun through 360 degrees. (There's also an adhesive strip you can use to fasten the stand to your desktop, or to the top of a monitor, if you want to keep it in one place.) The camera hooks to your PC using a USB 1.1 connection, which is used for both streaming video and digital still picture transfer.

Though it's not the most cutting-edge of the dual-mode cameras, the DualPix is a nice little bundle, at a slightly more attractive price point.

It comes with an even more attractive three-year warranty.

—Sean Carruthers

VIA C3 System
VIA C3 1GigaPro CPU (O/B)
PCChips EM-7187CLMR Motherboard
128MB PC133_SDRAM
20G ATA100 Hard Drive
Sony 1.44MB Floppy Drive
3D Graphic Video (O/B)
AC97 3D Sound (O/B)
10/100 NIC (O/B)
52X CD-ROM
AMR 56K Modem
18" 250W Tower Case
PS/2 Win98 Keyboard
PS/2 3D Wheel Mouse
180W Speaker
\$339

AMD Duron System
Duron 1.1GHz CPU
ECS L7VMM Motherboard
128MB PC2100_DDR266
20G ATA100 Hard Drive
Sony 1.44MB Floppy Drive
Up to 64MB AGP 3D Video (O/B)
AC97 3D Sound (O/B)
10/100 NIC (O/B)
52X CD-ROM
18" 250W Tower Case
PS/2 Win98 Keyboard
PS/2 3D Wheel Mouse
180W Speaker
Duron 1.2G/1.3G \$425/\$439
XP1600+/1700+ \$455/\$479
\$409

Visit our Website or call for
More components price!!!
Leasing Program Available Now!
Hard Drive:
Maxtor 20G_5400rpm\$95
Maxtor 40G_7200rpm\$105
Maxtor60G_7200rpm\$129
Maxtor80G_7200rpm\$149
DVD/CDRW:
LiteON 16X DVD\$59
Sony 16X DVD\$68
Panasonic 24X10X40\$69
LG 32X10X40\$89
LiteOn 40X10X48\$105

A-Linx Computer

WWW.alinxcomputer.com Tel:(604)592-5388

AMD Value System
AMD XP 1600+ CPU
ECS K7 S5A_266 Motherboard
256MB PC2100_DDR266
40G ATA133 7200rpm Hard Drive
Sony 1.44MB Floppy Drive
Nvidia TNT2 M64_32MB
AC97 3D Sound (O/B)
10/100 NIC (O/B)
52X CD-ROM
18" 300W Tower Case
PS/2 Win98 Keyboard
PS/2 3D wheel Mouse
180W Speaker
XP 1700+/1800+ \$565/\$579
XP 1900+/2000+ \$625/\$659
\$539

P4 Value System
Intel P4 1.6GHz CPU^{512K}
MSI 6533GL SiS650
256MB PC2100_DDR266
40GB ATA133 7200rpm Hard Drive
Sony 1.44MB Floppy Drive
3D Graphic 4X AGP (O/B)
AC97 3D Sound (O/B)
10/100 NIC (O/B)
52X CD-ROM
18" P4 300W Tower Case
PS/2 Win98 Keyboard
PS/2 3D Wheel Mouse
180W Speaker
Celeron 1.7G \$549
Celeron 1.8G \$589
P4 1.8G/2.0G \$665/\$709

All advertised prices reflect 3% cash discount.

AMD Power System
AMD XP 1800+ CPU
MSI KT3 Ultra KT333 Motherboard
256MB PC2100_DDR266
40G ATA133 7200rpm Hard Drive
Sony 1.44MB Floppy Drive
Geforce2 MX400_64MB
AC97 3D Sound (O/B)
10/100 NIC
16X DVD
18" 300W Tower Case
Win Multimedia Keyboard
Logitech Optical Wheel Mouse
3D Speakers system w/Subwoofer
XP 1900+/2000+/2100+ \$765/\$799/\$869
\$719

P4 Power System
Intel P4 1.8GHz CPU^{512K}
MSI 6547C SiS645DX Motherboard
256MB PC2100_DDR266
40G ATA133 7200rpm Hard Drive
Sony 1.44MB Floppy Drive
Geforce2 MX400_64MB
AC97 3D Sound (O/B)
10/100 NIC (O/B)
16X DVD
18" P4 300W Tower Case
Win Multimedia Keyboard
Logitech Optical Wheel Mouse
3D Speakers system w/Subwoofer
P4 2.0G/2.2G/2.4G \$859/\$919/\$1129
\$809

All Systems come with 1 year parts and 3 years labour hardware warranty.

AMD Super System
AMD XP 2000+ CPU
Gigabyte 7VRX Motherboard_USB2.0
256MB PC2700_DDR333_Dual BIOS
60GB ATA133 7200rpm Hard Drive
Sony 1.44MB Floppy Drive
Geforce4 MX440 64MB_DDR
AC97 3D Sound (O/B)
D-Link 10/100 Ethernet NIC
16X DVD
32X10X40 CD-RW
18" 300W Tower Case
Logitech Internet Keyboard
Logitech Optical Wheel Mouse
Creative INSPIRE2400 Speakers w/Sub
XP 2100+ \$1139
\$1069

P4 Super System
Intel P4 2.0GHz CPU^{512K}
ASUS P4S533 Motherboard
256MB PC2700_DDR333
60GB ATA133 7200rpm Hard Drive
Sony 1.44MB Floppy Drive
Geforce4 MX440 64MB_DDR
Ac97 3D Sound (O/B)
10/100 Ethernet NIC (O/B)
16X DVD
32X10X40 CD-RW
18" 300W Tower Case
Logitech Internet Keyboard
Logitech Optical Wheel Mouse
Creative INSPIRE2400 Speakers w/Sub
P4 2.2G/2.4G \$1219/\$1429
P4 2.26G/2.4G_533MHz \$1249/\$1469
\$1159

All Systems come with 1 year parts and 3 years labour hardware warranty.

AMD Super+ System
AMD XP 2100+ CPU
ASUS A7V333 Motherboard_USB2.0
512MB PC2700_DDR333
80GB ATA133 7200rpm Hard Drive
Sony 1.44MB Floppy Drive
Geforce4 Ti4400 128MB_DDR_VIVO
SB Audigy 5.1 Sound Card w/Firewire
D-Link 10/100 Ethernet NIC
16X DVD
40X12X48 CD-RW
18" 300W Tower Case
MS Office Keyboard_PS2/USB
MS Optical Wheel Mouse_PS2/USB
Creative INSPIRE2400 Speakers w/Sub
XP 2200+ \$1799
\$1689

P4 Super+ System
Intel 2.26GHz CPU^{512K}
ASUS P4T 533_C Motherboard_USB2.0
256MB RAMBUS 800MHz
80GB ATA133 7200rpm Hard Drive
Sony 1.44MB Floppy Drive
Geforce4 Ti4400 128MB_DDR_VIVO
SB Audigy 5.1 Sound Card w/Firewire
D-Link 10/100 Ethernet NIC
16X DVD
40X12X48 CD-RW
18" 300W Tower Case
MS Office Keyboard_PS2/USB
MS Optical Wheel Mouse_PS2/USB
Creative INSPIRE2400 Speakers w/Sub
P4 2.4G/2.53G_533MHz \$2029/\$2409
\$1799

All Systems come with 1 year parts and 3 years labour hardware warranty.

Surrey/Delta
7176 120th Street
Surrey, B.C. V3W 3M8
Fax: (604) 592-5377
sales@alinxcomputer.com
Mon-Fri: 10am-6:30pm
Sat-Sun: 11am-5:30pm

Here comes the sun

A solar charger for your stuff

By Emru Townsend

A few months ago, I went on a business trip, which was fantastic by all accounts, except for two things: I had to wake up at 5 a.m. to catch my flight out (I'm really not a morning person.), and I had to deal with the added weight and awkwardness of toting rechargers to the batteries in my laptop, MiniDisc recorder, MP3 player, cell phone, and Handspring Visor.

Brunton SolarPort 2.2

From: Brunton, www.brunton.com
Suggested retail price: \$145

In my long-held tradition of not learning things until it's too late, I found out about the Brunton SolarPort 2.2 during my return trip—I kid you not—when I picked up the in-flight magazine to occupy myself when the laptop's battery gave out.

If you're an outdoorsy person, you've probably heard of Brunton. It makes gadgets for, well, outdoorsy people. These days that means GPS receivers and tiny FM radios, as well as standbys like compasses, portable stoves, and binoculars. And of course the SolarPort.

The SolarPort's stated *raison-d'être* is to supply power to electronic gadgets when you're miles away from the nearest

electrical outlet. All you have to do is connect it to your device with one of the eight supplied adapter plugs, open the clamshell and aim the solar panels toward the sun.

Even if you're not planning on setting up a tent in the woods anytime soon, you can see the benefits. If you spend a lot of time on the road, the SolarPort can reduce your dependence on finding an outlet (or deciding what to plug into your car's cigarette lighter first) to recharge or use one of the many portable gadgets that are becoming increasingly essential. And skin cancer notwithstanding, how can you get more environmentally friendly than the sun?

I like the design of the SolarPort, which is light but reasonably sturdy. The size is right, too. When closed it's about the dimensions of a VHS cassette and only a little heavier. Just about everything you need to adjust it to your particular device is along the hinge: a switch to select between 6 volts and 12 volts, and male and female mini connectors.

Unfortunately, you'll have to carry the various adapter plugs (one of which is a car cigarette lighter-style adapter) and suction cups (for window mounting) in a separate container; I wouldn't have minded sacrificing a little extra volume on the SolarPort to make it self-contained.



Speaking of adapter plugs, I was surprised to find that none of them fit in my Toshiba Satellite Pro. My collection of similar adapter plugs from Radio Shack had a few sizes that the SolarPort didn't, but my poor laptop remained out of luck. However, the included plugs supported every other device I own that uses an AC adapter or a car's cigarette lighter, and it's entirely possible that another trip to Radio Shack will solve the problem.

The SolarPort provides 2.2 Watts of electricity, which seems to slow recharg-

ing somewhat (my MiniDisc player, for instance, uses a 7 Watt recharger). If that's an issue, you can easily connect multiple SolarPorts through the hinge connectors. That's not much of a benefit if, like me, you're trying to cut down on carry-on luggage; but if you're planning to recharge your laptop as you drive from, say, Montreal to Toronto, it might be worth the expense. □

Emru Townsend (emru@pobox.com) prefers to recharge himself with Jolt Cola and chocolate M&Ms.

A BlackBerry for the gabbing crowd

There are some who'd say the BlackBerry was perfect as it was: mobile email, a pocket organizer with contact list, a calendar, memo pad, and more. What more could you want? Well, apparently voice capability was in demand, because Research In Motion has released a new version of the device that features a headset jack, allowing you to make and receive phone calls from your BlackBerry.

The advantage of this is obvious; you can leave your cell phone at home. The BlackBerry 5810 has a belt clip and holster similar to the one found on the old BlackBerry Enterprise Edition, but with an open end, allowing you to use the buttons on the side. (The new holster also spins in place so you can angle it properly, which



BlackBerry 5810

From: RIM and Rogers AT&T, www.blackberry.net
Estimated price: \$749

is a really nice new feature.)

The BlackBerry 5810 connects to the outside world using a GSM/GPRS network, which means your carrier choices will be limited, but the range should be slightly better than the data-only BlackBerry, which used the Mobitex network. As with other GPRS devices, this one requires a SIM card to store your identity. This one inserts inside a little plastic tray at the bottom of the device, near the interface (rendering it incompatible with the older sync cradles, due to a slightly different interface—this one uses its own USB cradle).

Of course, there are a couple of downsides. The first is that the keyboard isn't really set up properly to handle phone calls: the number pad is spread out across

the top row, sequentially, as with a standard QWERTY keyboard, which means you'll have to relearn how to dial. (There's also the problem of the missing asterisk, but that's another issue altogether.)

Far more important, if you're already a BlackBerry user, is that your battery life will plummet once you switch to this model, because servicing a full cellular phone connection takes a lot more juice than basic radio pager communications.

If you're willing to place your BlackBerry in the charger every night, though, it shouldn't be an issue. The cell phone component is certainly competent, and the all-in-one design means you'll have one less device to cart around.

—Sean Carruthers

Bluefish lightens your load

By Sean Carruthers

NEW YORK—Ever wondered how a little blue fish could lighten your load?

Well, that question was answered the second TechXNY attendees walked in the door of the Jacob Javits Convention Centre. Facing them was a small blue fish sitting atop a blinking blue light. The fish was painted onto a 17x17 cm metal box owned by Bluefish Wireless Inc. (www.bluefishwireless.com/), which featured an infrared sensor/transmitter designed to communicate with any Palm-based handheld running Palm OS 3.1 or above. Users pointed their handheld at the sensor, approved the file transfer and installation, and an electronic copy of the TechXNY program guide was transferred to their PDA. Sure beats lugging around a kilogram or more of paper, doesn't it?

Anyone who has spent time at a trade show collecting literature knows how heavy all those pieces of paper can get, and the Bluefish technology is one way

around this problem. The metal box (known as a Bluefish Access Point) can be mounted in a booth, or in a public area, and runs off batteries, so it doesn't need to be placed within reach of a power supply.

The implementation at Javits Center was a perfect example of what the technology can offer: before we even entered the show floor, there were a number of signboards set up with instructions, in large type, on how to download the TechXNY program, complete with a full exhibitor's list, a schedule of keynotes and special events, and the option to download additional information.

From there it was easy to look up an exhibitor's location with a couple of taps on the screen of the Palm. At Bluefish's booth, users could download more information, including a guide on how its technology works.

The potential of this technology is great for offering location-based services: allowing users to hold up their handheld

to a localized Bluefish Access Point instead of going booth to booth collecting paper press kits.

The information stored on the box can be updated via a wired Ethernet connection or a wireless link receiving updates from a Bluefish server.

The wireless configurations currently available include a long-range 900 MHz connection and a shorter-range 802.11b WiFi connection.

In areas where setting up a Bluefish server is impossible or impractical, the boxes can be set up to receive updates via a paging network. In this regard, the Bluefish Access Points are technology agnostic. A Bluefish server can control more than 100 remote Bluefish Access Points.

The Bluefish Access Points can also be set up to do other tasks that can, theoretically, be set up over an infrared connection, such as synchronization or email retrieval/sending.

In a company where employees are



always on the go, this type technology would mean employees could send an email from their Palm without having to sync it with their desktop PC.

As data transfers are expected to take 20 seconds or less once a connection is established, you would be able to get back to your work (or your coffee break) fairly quickly. □

Seagate announces first Serial ATA drive

Plus higher-density platters for increased hard drive capacity

Just over a year ago, Seagate (www.seagate.com) announced a breakthrough in data density for its hard disk drives, allowing up to 20 GB per side for each platter inside the drive. Now the company has bumped that capacity up to 30 GB per side, or 60 GB per platter, meaning a standard two-platter Seagate drive will now have a capacity of 120 GB.

Seagate's new Barracuda ATA V drive will feature platters with this higher density, spinning at 7,200 rpm. The first generation of the new drives will connect to the PC with the ATA/100 interface. As with the last generation of the Barracuda, this drive will feature Seagate's noise-damping technology, placing the drive's acoustic level below the threshold of the human ear.

As technology in the rest of the PC world gets better, that interface will become the biggest bottleneck inside your desktop computer—the interface has remained standard for much of the past two years despite increases in the speed

of both processors and memory. While Maxtor has introduced that ATA/133 interface, Seagate has been holding out for Serial ATA, and has now announced plans for the first such drive, which will hit the market some time this fall.

The Ultra ATA interface is a parallel interface to the PC, typically offering a transfer speed of 100 MBps to and from the PC (Maxtor's ATA/133 line runs at 133 MBps). As you'd guess from the moniker, Serial ATA is a serial interface to the PC, which will use new snap-in, hot-pluggable connectors to the motherboard. The first generation of the Serial ATA spec runs at 150 MBps, already faster than any of the Ultra ATA drives currently on the market, and the interface has a theoretical speed of up to 600 MBps down the road.

The Barracuda V line will be Seagate's first to feature Serial ATA technology, and will ship later in 2002 as motherboards and host cards supporting Serial ATA are ready to hit the market.

—Sean Carruthers

NEXTTM
WEBHOSTING

FREE
3 MONTHS
HOSTING

ONE YEAR EQUALS 15 MONTHS
WEBMASTERS, DESIGNERS
CHECK OUR AMAZING
RESELLER PROGRAM
PROFESSIONAL WEB HOSTING

TOLL FREE
1.877.356.7638
LOCAL
905.760.8440

WWW.NEXTWEBHOSTING.COM

STARTING FROM
\$6.95
PER MONTH

Professionally Hosted Websites
Domain Registration
Unlimited Email Accounts
Unlimited Hits, Transfers
World Class Support Desk
Same Day Set-up
Fiber Optic OC-3 Connections
24x7 Toll Free Tech Support
Microsoft FrontPage 2002
Active Server Pages
Vbasic, Java, Perl 5
Unique IP Address
CGI Support
OBDC Support
SQL7 & SQL2000
Real Audio / Video
Shockwave, Flash, Quicktime
Web Statistics by Webtrends
Counter
Guest Book
WEB Board
Form-return
Money Back Guarantee

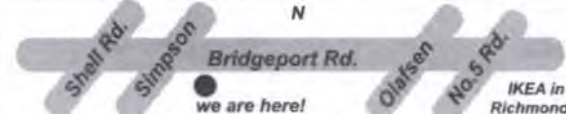
ELOSOFT
online

NEXTWEBHOSTING.COM IS A
SUBSIDIARY OF ELOSOFT

22017006



PowerSonic

<http://www.powersonic.bc.ca>

Business Hours: Monday ~ Saturday 10am - 6pm
Tel: (604) 214-9316, 214-9326 Fax: 214-9317

The Pioneer

Duron 950 System

Athlon Motherboard with AGP Slot
128MB PC133 SDRAM
Upto 64MB AGP Video
3D Sound / 56K Modem
10/100BaseT Network built-in
40GB 7200rpm Hard Drive
52X CDROM / 1.44MB Floppy Drive
Keyboard / Mouse / Speakers / One month free Internet

\$389

Upgrade to:
Duron 1.2G \$419
TBird 950 \$429
TBird 1.3G \$449
XP1700 \$479



Back to School Special

Spindle CD 50pcs 80min... (While Quantity Last)..... \$18
Sound Blaster Live5.1 Dobby Digital Sound Card \$46
Logitech Optical Wheel Mouse \$17
Norton AntiVirus 2002..... \$20



Leasing is available
List Price is Cash discounted already
Price and availability subject to change without notice.
All trademarks & brands are properties of their respective owners.
Microsoft products are sold with new systems only.
We reserve the right to correct typographical errors.

P4 Special

Pentium4-1.6G..... \$599

Pentium 4 S478 Motherboard
128MB SDRAM (DDR Upgradable)
Integrated Video upto 64MB
3D Sound / 56K Modem / 10/100BaseT Network built-in
40GB 7200rpm IDE Hard Drive
52X CDROM / 1.44MB Floppy Drive
Keyboard / Mouse / Speakers / One month free Internet

All systems are backed with 3 years labour & 1 year parts limited warranty plus one month free Internet.

Home Officer

Celeron-1.1G..... \$429
Celeron-1.2G..... \$439
Pentium3-1.1G..... \$529
Pentium III Motherboard
128MB PC133 SDRAM
Upto 64MB AGP Video
1.44M Floppy Drive
40G 7200rpm Hard Drive
52X CDROM / 3D Sound
56K Fax Modem / 10/100 Lan
Keyboard / Mouse / Speakers

K7 Master

ThunderBird-950..... \$529
TBird-1.3G..... \$549
XP1600..... \$559
XP1700 / 1900..... \$579 / 639
Athlon K7 266FSB Motherboard
256MB SDRAM (DDR Upgradable)
64M GeForce2 AGP Video Card
1.44M Floppy Drive
40G 7200rpm Hard Drive
52X CDROM / 3D Sound
56K PCI Data/Fax Modem
Keyboard / Mouse / Speakers

P4 Partner

Pentium4-1.6G..... \$649
P4-1.8G..... \$679
P4-1.9G..... \$699
P4-2G..... \$739
Pentium 4 S478 Motherboard
256MB SDRAM (DDR Upgradable)
32M NVidia TNT2 AGP Video Card
1.44M Floppy Drive
40G 7200rpm Hard Drive
52X CDROM / 3D Sound
56K PCI Data/Fax Modem
Keyboard / Mouse / Speakers

P4 Commander

Pentium4-1.7G..... \$789
P4-1.8G..... \$809
P4-1.9G..... \$829
P4-2G..... \$869
Asus P4B266C S478 Motherboard
256MB DDR RAM 266mhz
64M GeForceII MX400 Video Card
40G 7200rpm Hard Drive
52X CDROM / 1.44M FDD
Sound Blaster PCI 128
Altec AVS300 Subwoofer Speakers
Keyboard / Mouse / 56K Modem

Play Center

AMD XP1600..... \$999
XP1800..... \$1029
XP2000..... \$1109
MSI KT3 Ultra 333 Motherboard
256MB DDR 333mhz
128M GeForce4 Ti4400 Video Card
40G 7200rpm Hard Drive
16x DVD / 1.44M FDD / 56K Modem
Sound Blaster Live 5.1 Dobby Digital
Microsoft Internet Keyboard
Logitech Optical Wheel Mouse
Altec AVS500 Subwoofer+4 Speakers

Price, availability subject to change without notice.

CPU

Celeron 1.1G / 1.2G / 1.3G..... 99 / 109 / 129
Celeron (S478pin) 1.7G / 1.8G..... 139 / 179
P4 1.6G / 1.7G / 1.8G..... 209 / 219 / 239
1.9G / 2.0G / 2.2G..... 259 / 299 / 359
2.4G / 2.5G..... 569 / 979
Duron 950 / 1G / 1.1G..... 59 / 69 / 75
1.2G / 1.3G..... 85 / 99
T-Bird 950 / 1.3G / 1.4G..... 85 / 99 / 139
XP 1600 / 1700 / 1800..... 109 / 129 / 139
1900 / 2000 / 2100..... 189 / 219 / 279
P233mmx / K6II-450 / 500..... 59 / 45 / 49

MEMORY

	64M	128M	256M	512M
PC133 SDRAM	39	69	139	
DDR 266mhz		79	149	
DDR 333mhz		99	189	
NoteBook SDRAM	49	85		
RAMBUS 800mhz		85	149	
Compact Flash	49	79	149	
SmartMedia Card	49	79		
MultiMedia Card 32M / 64M.....		49 / 85		
Memory Stick for Sony 64M/128M.....		75 / 119		
EDO SIMM 16M / 32M / 64M.....		25 / 35 / 69		

MOTHERBOARD

Asus A7V333 3DDR / RAID..... 185 / 215
Asus A7S333 SIS745 3DDR AC97..... 109
Asus A7N266VMWA NForce220D Lan..... 129
Gigabyte 7VRXP 3DDR w/ARUL..... 159
MSI KT3 Ultra DDR333..... 125
MSI KT3 Ultra DDR333 Raid USB2.0..... 169
ECS K7S5A 2DDR 2DIMM w/Audio..... 85
ECS K7S6A 3DDR333 LAN AC97..... 109
ECS K7SEM 2DIMM w/Video LAN AC97..... 89
K7 MB w/Video AC97 Modem LAN 2DIMM..... 95
Asus P4B266-C i845D 2DDR..... 155
Asus P4B533VML i845G DDR Lan..... 179
Asus P4S533 SIS645DX DDR Lan..... 169
Asus P4T-E S478 i850 4 Rambus..... 219
Gigabyte 8IEXP i845E 3DDR333 w/ARUL..... 219
Gigabyte 8IHPX i850E 4RIMM w/ARUL..... 259
ECS P4S5A 2DIMM+2DDR w/Audio, LAN..... 109
P4 MB w/Video AC97 Modem LAN 2DIMM..... 119
P3 Tualatin w/Video AC97 LAN..... 99

HARD DRIVE

	20G	40G	60G	80G	100G	120G
7200rpm	99	105	125	155		299
Notebook HDD 10 / 20 / 30G.....		129 / 159 / 209				

VIDEO

PCI Geforce II 64M / TNT2 32M..... 129 / 59
nVIDIA RIVA TNT2 32M AGP / TV out..... 45 / 59
GeForce2 MX400 64M / TV Out..... 59 / 69
GeForce4 MX440 64M TVout / MX420..... 109 / 89
Leadtek G4 MX440 64M DDR TVout..... 149
Leadtek G4 Ti4200 64M DDR TVout..... 249
Leadtek G4 Ti4200 128MB DDR VIVO..... 289
Leadtek G4 Ti4400 128MB DDR VIVO..... 409
Leadtek G4 Ti4600 128MB DDR VIVO..... 499
MSI G3 Ti200 128M DDR TV in&out..... 205
MSI G4 MX440 64M SDRAM TVout..... 129
MSI G4 MX440 64M DDR TV in&out Dual..... 159
MSI G4 MX460 64M DDR TV in&out..... 169
MSI G4 MX460 64M DDR TV in&out Dual..... 195
MSI G4Ti 4200 128M DDR TVout..... 285
MSI G4Ti 4400/4600 128M DDR VIVO..... 365 / 495
Radeon 7000 64M TVout Dual Head..... 69
ATI DV Wonder Firewire Card+SW..... 75
1394 Firewire Card / with Cable & SW..... 49 / 59
USB TV Tuner Capture w/Remote Control..... 99
Logitech Quickcam / Intel Deluxe PC..... 39 / 55
Creative Webcam / Webcam+..... 45 / 75

AUDIO

PCI 3D Sound Card..... 16
Sound Blaster PCI 128..... 25
Sound Blaster Live 5.1 Dobby Digital..... 46
Sound Blaster Audigy w/1394 Firewire..... 95
Sound Blaster Audigy MP3 / X-Gamer..... 139
Sound Blaster Audigy Platinum/ Extigy..... 269 / 209
Multimedia 3D Speakers..... 8 & up
TSUNAMI GX680 Speaker System..... 39
Altec Lansing AVS300 / AVS500..... 46 / 59
Altec Lansing ATP3 / ATP4 black slim..... 95 / 169
Microphone / Headset Mic +Vol Control..... 6 / 12

CD-ROM / CDRW / DVD

Asus 52X / LG 52X CDROM..... 42 / 35
AOpen 56x CDROM..... 40
LG 32x10x40 Burn Proof w/ EZCD Creator..... 89
LG 24x10x40 Burn Proof w/ EZCD Creator..... 75
LG 12x8x32x CDRW + 8x DVD..... 105
LiteOn 40x12x48 CDRW w/NERO..... 99
Brother 48x12x48 CDRW w/NERO..... 129
LiteOn 24X10X40X USB External CDRW..... 189
AOpen 40x12x48x USB2.0 CDRW..... 215
DVD 16X LG / LiteOn / Sony..... 59 / 59 / 69
DVD 16X Pioneer Tray / Slot..... 69 / 75
DVD-RW Pioneer A04 box / 104 bpk..... 509 / 499
80min Recordable CD 50pcs Spindle..... 19

MODEM / NETWORK

56K PCI Data / Fax Modem..... 18
AOpen 56K PCI Modem SV / PLM..... 23 / 35
AOpen 56K ISA Hardware Modem ITU..... 69
USR 56K PCI HW Modem / WinModem..... 75 / 29
D-Link 530TX 100/10mbps PCI..... 18
3Com 3C905x 100/10mbps PCI..... 59
PCMCIA 10&100 mbps 16bit / 32bit..... 45 / 35
Wireless PCMCIA Dlink DWL650..... 129
Wireless PCI Linksys WMP11..... 145
Linksys 4-Port Cable/DSL Router..... 125
USR 4-Port Router w/Print Server..... 109
Wireless Linksys 4 Port Router..... 239
Ethernet HUB 10mbps 5 / 8 Ports..... 25 / 41
Ethernet Switch HUB10&100mbps 5 Ports..... 49
USB HUB 4 Ports / with Power Adapter..... 19 / 29
Wall plate / Keystonejack..... 2 / 6
Ethernet Cable Crimping tools / Tester..... 19 / 59
RJ45 Cable w/ends (customized length)..... call

MONITOR

15" AOC .28 5E 1024x768..... 169
17" AOC .27 7ELR..... 199
17" AOC .25 7F flat screen..... 229
17" NEC .27 AS70 / .25 AS75F..... 219 / 239
17" NEC .25 FE700+ / FE750+ flat..... 269 / 335
17" NEC .25 FE771SB super bright..... 299
17" Viewsonic .25 E70F / Black flat..... 269 / 289
17" Samsung .20(H) 753DF flat..... 239
17" Samsung .25 755DF flat..... 299
19" AOC .25 9GLR / 9KLR flat..... 299 / 339
19" NEC .25 AS95F flat..... 345
19" NEC .25 FE950+ flat..... 459
19" Viewsonic .25 E90F..... 375
19" Samsung .25 955DF flat..... 385
LCD 15" NEC 1550V..... 569
LCD 15" Samsung 151S silver..... 589
LCD 17" NEC 1700V / 1850E..... 949 / 1209
LCD 17" Impression 7LS silver..... 819

PRINTER / SCANNER

Canon BJC-S200 Color Printer..... 95
Epson C40 / C60 / C80 Printer..... 69 / 125 / 225
Epson Photo 820 Printer..... 145
HP 845c / 940c Color Printer..... 139 / 235
Brother HL1230 Laser Printer..... 325
Lexmark E210 Laser Printer..... 289
HP1000 / 1200 Laser Printer..... 365 / 579
AcerScan 4300U / 5000U / 5300U..... 72 / 99 / 113
Epson Scanner 1250U / Photo..... 139 / 189
Epson Scanner 1650U / Photo..... 269 / 295
Refill kit for Canon, Epson, HP, Lexmark..... call

KEYBOARD & MOUSE

Keyboard+Wheel Mouse Combo..... 15
MS Internet / Natural Elite Keyboard*..... 29 / 35
Logitech Internet Keyboard..... 29
Logitech Cordless KB & Mice PS2..... 79
Logitech Cordless KB & Mice Optical..... 125
MS IntelliMouse PS2 / Optical*..... 12 / 27
Logitech Optical Mouse USB+PS2 Combo..... 20
Logitech Wireless Wheel Mouse (Radio)..... 29
A4 Wireless Rechargeable Optical Mouse..... 49
A4 Wheel Mouse PS2&Serial Combo..... 12
Keyboard PS2 <-> AT Converter..... 5

Miscellanies

Firewire Cable 1394 6-4pin 6ft / 15ft..... 12 / 15
Rounded IDE ATA133 Cable / FDD..... 16 / 15
PCI to USB Controller Card..... 19
External CDR&HDD Box USB / 1394..... 119
Arctic Silver 3 Premium Compound 3g..... 15



AOpen #1 Computing Solution Provider

- Motherboards
- Monitors
- Fax/Modem
- CD-ROM/DVD/CD-RW
- VGA Cards
- Mice & Keyboards
- Housing & Bare Systems
- Networking NIC & Hub
- Speakers & Sound Cards

AOpen Monthly Specials:

AOpen 40x12x48x USB2.0 CDRW..... \$215
AOpen 40x12x48 CDRW w/ Nero..... \$99
AOpen 16x DVD..... \$65
AOpen G4 MX440 64M TVout..... \$125
AOpen G4 MX460 64M TVout..... \$195
AOpen G4 Ti4200 128M..... \$265
AOpen 56K PCI Modem SV / PLM..... \$23 / 35
AOpen 10/100 PCI Network Card..... \$16

Compu2000

complete solutions
Same location since 1993

www.compu2000.com

That's the Compu2000 advantage. What can we do for you?



Home / Internet PC Intel P4-1.6GHz

Intel P4-1.6GHz processor
P4 Mothe Board
ATX 17" Tower Case 250W PS
256MB SDRAM PC-133
20GB 7200RPM EIDE HDD
1.44MB Floppy Drive
32MB AGP Video
16bit Sound Card
17" SVGA 27mm Monitor
16x10x40 CDR-W Drive
Stereo speaker w/Sub woofer
10BT network card
Win98 KB & PS/2 wheel mouse
1-yr parts & 1-yr labor carry-in warranty

Not Exactly as Shown

17" SVGA 27mm
Monitor included!

\$1249



Hot Rod / Gaming PC Athlon XP 1800 1.53GHz

AMD Athlon XP 1800+ 1.53GHz
Asus A7V266 M/B
ATX 17" Tower Case 250W PS
256MB DDR PC2100 266MHz
40GB 7200RPM EIDE HDD
1.44MB Floppy Drive
Asus V8200 TI 200 Pure
GeForce3 64MB DDR Video
Samsung 753DF 17" Flat Monitor
10x16x40x CDR-W Drive
Sound Blaster Audigy OEM sound Card
Altec Lansing AVS500 4.1 speaker
56K Int.V.90 Voice/Fax/Modem
10BT network card
Win98 KB & PS/2 wheel mouse
1-yr parts & 1-yr labor carry-in warranty

Not Exactly as Shown

17" SVGA 27mm
Monitor included!

\$1849

Competitive Prices.

Asus P4B266 WA \$219	Aspen 24x10x40x CDRW (Retail) \$90
Asus TUV4X W/O \$129	Aspen 32x10x40x CDRW (Retail) \$110
Asus P4T-E W/O \$239	Plextor 24X10X40 CDRW(Retail) \$213
Asus P4S533-WA \$169	Plextor 40X12X40 CDRW(Retail) \$231
Asus P4B533 \$249	Plextor Combo 20x10x40x CDRW/Rx DVD \$293
Intel BoxD845GBSE \$195	ECS S5315P 64MB \$55
Intel BoxD845GBCL \$195	TNT2 M64 32MB \$55
Intel BoxD845SHV \$179	TNT2 M64 32MB w/TV \$59
Intel BoxD845GBV \$198	Innovation GeForce2 MX400 64MB retail \$99
Intel BoxD845SWN \$180	Innovation GeForce2 MX400 64MB retail w/TV \$199
Intel BoxD845WNL \$209	Aspen GeForce4 MX400 64MB DDR \$159
Master 20GB 7200 \$115	Asus GeForce4 T4400 128MB DDR w/TV \$459
Master 40GB 7200 \$125	Asus GeForce4 T4400 128MB DDR w/TV \$599
Master 80GB 7200 \$150	ATI Radeon 7500 64MB DDR VIVO(Retail) \$219
Master 80GB 7200 \$175	ATI Radeon 7500 A/W 64MB DDR (Retail) \$289
Aspen 52x CDRW \$45	ATI Radeon 8500 w/TV 64M DDR \$289
Aspen 52x CDRW \$49	ATI Radeon 8500DV A/W 64MB DDR \$439
LG 16x DVD \$65	ATI Radeon 8500DV A/W 128MB DDR \$539
Pioneer 16x DVD \$79	SB Audigy Platinum EX (Retail) \$336
Pioneer 16x DVD (Slot) \$85	SB Audigy Platinum (Retail) \$299
Aspen 16x DVD (Tray) \$68	SB Audigy OEM w/1394 \$59
LG 12x4x32x / 8x DVD \$111	SB Audigy MP3+ (Retail) \$139
LG 24x10x40 CDRW \$90	SB Audigy Games (Retail) \$139
LG 32x10x40 CDRW \$90	SB Live 5.1 Dolby (OEM) \$55.00

all prices are cash, debit card only, visa +2%

See our web site for other systems configurations and specials. Quality products at very competitive prices.

Repair Service.

**Notebook, monitor &
laser printer repair**
FREE* estimate.



Point-of-sales HW and accessories

POS hardware & software

Cash Drawers from \$199
Bar code reader from \$199
Invoice printers from \$339
Data collectors from \$549
Barcode printers from \$call



Service Department.

**Knowledgeable
technicians on staff**
Reasonable rates.
Quick turn-around.

Pickup & delivery available.
MS Windows 9x, 2000 and XP
service and support.
Virus removal.
Hardware upgrades.



PowerEdge
Servers



Business Products.



Small Business Solutions

On-site service and support.
Brand name PCs, notebooks
and servers.
Network design & integration.
Web site design.
Custom database design.
e-Business solutions.

Mac department expanded!



The all-new
eMac from
\$1,679

Apple Studio Displays:
15" Flat LCD Panel \$899
17" Flat LCD Panel \$1549
22" Flat LCD Panel \$3849



Power Mac G4 from
\$2,459

Edit movies, watch DVDs,
burn CDs anywhere.



PowerBook G4 from
\$3,849

See how the new
iMac and OS/X
can change
you world!



iMac from
\$2,209

Live large. Travel light.



iBook **\$1,859**



G4, PowerBook,
iMac and iBook
repair & rental

On-site service
and support
Call for a
free estimate



"Open Box" iBook / PB

iBook 500/128/10/Combo/12.1TFT \$1999
Full 1 yr Apple Warranty (Apple care starts \$259)



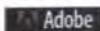
LaCie FW DVD/CDRW Super Drive	\$1099
LaCie 80GB Ext. Firewire HDD	\$479
LaCie 80GB Ext. Firewire HDD	\$549
LaCie 120GB Ext. Firewire HDD	\$649
LaCie 24x10x40x USB/Firewire CDR-W	\$449
Imagema 250MB Ext. USB Zip drive	\$249
Imagema 100MB Ext. USB Zip drive	\$149
18.4GB Barracuda Ultra SCSI HDD	\$399
Imation USB Floppy/SuperDisk Drive	\$129

Farallon 16/100 PCI Ethernet card	\$49
Asante 10BT Com/Slot Ethernet card	\$109
LinkSys DSL/Cable, 10/100 4 port switch	\$159
Netgear 4 port 10BT hub	\$49
Apple AirPort Card	\$149
Apple AirPort Base Station2	\$469

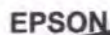
Adobe PageMaker 7 / upgrade	\$799 / \$139
Adobe Photoshop 8 / upgrade	\$999 / \$319
Adobe Illustrator 9 / upgrade	\$659 / \$249
Adobe GoLive 5 / upgrade	\$449 / \$149
Macromedia Flash 5 / upgrade	\$579 / \$229
FileMaker Pro 5.5 / upgrade	\$399 / \$239

256MB SDRAM	\$96
512MB SDRAM	\$199
1GB SDRAM	\$449
256MB SO DIMM	\$149
512MB SO DIMM	\$call

prices subject to change
installation extra



*After rebate when purchase with Power Macs



Aug-2002

Service: 436-2333

Fax: 436-2619

info@compu2000.com

Tel: 436-2333

Compu2000 - 2811 Kingsway, Vancouver, B.C., V5R 5H9

All prices, specs and stock level subject to change without notices. All prices are cash, debit card or certified cheques only. Credit cards, please add 2%.

< THE GADGETEER >

Sony MD offers alternative to MP3
Continued from page 48

Simple Burner 1.0. (Both use the GraceNote CDDb music database for album information.) As its name implies, Net MD Simple Burner is the easiest to use: it digitally extracts tracks from a CD and directly copies them to the MiniDisc recorder, though only in LP2 or LP4.

OpenMG Jukebox is a full-fledged music organization and playback program that recognizes audio in MP3, Windows Media, WAV, CD-Audio, and OpenMG formats. (I'm sure you're not in the least surprised that OpenMG is a Sony development.) OpenMG Jukebox uses a "check-in/check-out" system that allows you to copy (check out) the same track onto three separate MDs. Before you can copy a track a fourth time, you have to remove it by using the software to check it back in. (You could delete the track using the recorder's own edit functions, but then the software wouldn't register it as being checked in.)

It's during check-out that music is actually recorded, and this is where Sony gets its speed ratings for transfer. SP is supposed to be rated at 4X (four times faster than real-time), LP2 at 16X, and LP4 at 32X. However, the first time you transfer a song, it has to be converted to ATRAC, which adds a considerable amount of overhead. Subsequent transfers use the cached data, and transfer speeds then approach the actual rating. As I mentioned earlier, my first LP2 copy of the 63-minute *Mezzanine* took almost 11 minutes; the second time around it took almost six—not quite 16X, but still a respectable 11X or so.

Although people used to MP3 players might balk at the less than speedy transfer times, it seems a small price to pay for the flexibility afforded to MiniDisc recorders—not the least of which is the ability to easily record from analogue devices or, in many cases, a microphone (the MZ-S1 being an exception, not having a mic input). And it's hard to argue with the price and availability of blank media (you can find MDs in many music and electronic stores).

MP3 isn't going anywhere, but by getting a little closer to it Sony has probably made the MiniDisc format a few new friends. □

Emru Townsend's MiniDisc recorder looks like something out of a Japanese animation video. Despite his best efforts, it does not turn into a giant robot.

Keep your data safe when shopping online

Most everyone has at least heard of a horror story stemming from online ordering, and the unfortunate may also have experienced the horror first hand. While some consumers still hesitate to buy online, experts insist shopping online need not be risky and offer tips to minimize the risk associated with shopping online.

Legitimate vendors have nothing to hide

Common sense is still the best way avoid trouble. Safeshopping.org (www.safeshopping.org) suggests consumers pay close attention to a site's privacy policies and legal terms, and only do business with organizations that seem reputable. A listed business address is important when ordering online. Flags should go up if the site lists a P.O. box as its address.

Keep detailed records of transactions

As with transactions taking place in physical stores, it is important that consumers keep good records of their transactions. Usually, a print out of an order confirmation will suffice, though if there is a page listing the merchant's location and phone numbers, as well as the site's legal terms and other relevant information, consumers are advised to print that out too, just in case. If there is a problem with your order, be sure to keep records of any correspondence with the company.

Where possible, buy Canadian

While the bulk of online shopping is done on sites not on Canadian soil, Canadians would be advised to deal with Canadian companies whenever possible. Dealing with online businesses outside your country's borders, your rights may be difficult to enforce, and legal recourse may prove more trouble than it's worth.

Protect your sensitive information

Safeshopping.org advises online shoppers to ensure that a Web site is secure before submitting any sensitive information over the Internet. Many sites use SSL encryption to protect data in transit. Order pages that use the prefix https:// are using SSL encryption.

—CanadaComputes.com

NU-AGE

Affordable Computer & Communication Products

Authorized Dealer

COMPAQ

HEWLETT
PACKARD

IBM

MasterCard

VISA

AMERICAN
EXPRESS

Monthly Special
IPaq H3850
Color PC 2002 64MB
240x320 TFT
\$820

Cooling Fan Centre

Alpha for AMD/Intel (PAL6035)	\$47
Cooler Master for AMD/Intel (DP5-6H11)	\$15
Cooler Master for AMD/Intel (DP5-6H51)	\$15
GlobalWin for AMD Processor (WBK38)	\$43
GlobalWin for AMD/Intel CPU (FOP38)	\$35
GlobalWin for AMD K7 CPU (FOP32)	\$32
Thermaltake Volcano II for AMD (DU0462-7)	\$27.5
Thermaltake Super Orb for AMD (DU0462-3)	\$30
Lian Li Aluminium PC-60 Case (No P/S)	\$199

Accessories

APC Surge-Arrest P-Bar	\$28
HardDisk Removable Rack(ATA66/100)	\$28
Promise ATA133 PCI Controller Card	\$59
Promise ATA133 Raid PCI Con.Card	\$169

COMPUTER PLUS AGE

Celeron PPGA478 1.7GHz Internet System

Asus P4B 266-C, S478, i845D, ATX, 6PCI/1 AGP, 2DDR
Support Ultra DMA/100 & Floppy Controller
2x16550 UART Serial, 1 Parallel Port & 4x USB
256MB PC2100 DDR-RAM Exp. to 3.0GB
Panasonic 1.44MB Floppy Drive
ATX Mid-tower 16" CSA w/300W Power Supply
Maxtor 20.0GB Ultra EIDE 7200rpm Hard Drive
AOpen Xpert2000 Pro 4XAGP w/32MB RAM Video
Asus 52X EIDE CD-ROM
SB 128PCI Sound Card w/Basic Speaker
Fujitsu 8729 104-Key Keyboard PS/2
Logitech Optical w/Wheel PS/2 Mouse OEM

\$750

AMD XP-1900 / 2000 / 2100 (Retail Box) Power Systems

Abit KR-7A 133 Motherboard
Support Ultra DMA/133, 4xDDR Slots
2x16550 UART Serial, 1 Parallel Port & 4x USB
256MB DDRAM PC2100 RAM Exp. to 2.0GB
Panasonic 1.44MB Floppy Drive
ATX Mid-tower 16" CSA w/300W Power Supply
Maxtor 20.0GB Ultra EIDE 7200rpm HD
AOpen Xpert2000 Pro AGP 4X Video w/32MB
Asus 52X EIDE CD-ROM
SB 128PCI SoundCard w/Basic Stereo Speakers
Fujitsu 8729 104-Key Keyboard PS/2
Logitech Optical w/Wheel PS/2 Mouse OEM

\$795 / 840 / 900

FREE
1st Month Internet Access
by Infinet Group

We support and service

Novell
Certified
NetWare
Engineer™

Trained
and tested
to provide
superior
NetWare
Support

3Com™
net Working
Partners program

Networking Partner

We support and service:

• Novell NetWare • Windows For Workgroups •
• LANtastic Windows NT •

We're Keeping Up with Your Networking Needs

Multi Media World

AOpen 52X CD-ROM	\$40
Asus 52X IDE CD-ROM	\$43
AOpen 32x10x40x IDE CD-RW (Just Link)	\$149
Asus 32x10x40x IDE CD-RW	\$120
Plexstor 40x12x48x EIDE CD-RW (Burn Proof)	\$239
TDK 40x12x48x EIDE CD-RW (Burn Proof)	\$239
HP DVD100I DVD+RW 2.4X/4X CDR/RW/R Combo	\$669
Pioneer 16x DVD-ROM	\$129
Asus 16X DVD-ROM IDE Drive	\$105
Sound Blaster 128 PCI/ Live 5.1 Value	\$35/55
Altec Lansing / GNT Speakers	Call
Yamaha Magnetically Shielded Speakers	Call

Need On-Site Service?

Call Us!

Computer Problems?
We do upgrades
Monitor Repair
& Y2K Solutions

Pentium III 1.13 / 1.2GHz (FC-PGA)

Graphic Systems

Asus VIA Appollo Pro Chipset TUV4X-WOA M/B
Support Ultra DMA/100 and Floppy Controller
2x16550 UART Serial, 1 Parallel Port & 4xUSB
256MB PC133 SDRAM Exp. to 2.0GB
Panasonic 1.44MB Floppy Drive
ATX Mid-tower 16" CSA w/330W Power Supply
Maxtor 40.0GB Ultra133 EIDE 7200rpm HD
ATI Radeon 7500 64MB DDR 4XAGP HydraVision TVO
SB 128PCI Sound Card w/Altec Lansing AVS-200 Spks
Asus 52X IDE CD-ROM Drive TrayLoad
Fujitsu 8729 104-Key Keyboard PS/2
Microsoft Intelli-Mouse Optical w/Wheel PS/2

\$865 / 885

P-4 Socket 478 - 1.8 / 2.0 / 2.2GHz

Super Power Systems

Asus P4B533, S478, i845E, ATX, 6PCI/1AGP, 3DDR
Support Ultra DMA/100 and Floppy Controller
2x16550 UART Serial, 1 Parallel Port & 4xUSB
256MB DDR PC2700 Exp. to 3.0GB
Panasonic 1.44MB Floppy Drive
ATX Mid-tower 16" CSA w/330W P4 P/S
Maxtor 40.0GB Ultra133 EIDE 7200rpm HD
Asus V8170DDR, GeForce4 MX440, 64MB DDR, 4XAGP, TVO
SB Live Value 5.1 w/Altec Lansing AVS-200 Spks
Asus 52X IDE CD-ROM Drive TrayLoad
Fujitsu 8729 104-Key Keyboard PS/2
Microsoft Intelli-Mouse Optical w/Wheel PS/2

\$1050 / 1150 / 1230

Networking Product

BackOffice Small Business Server w/5 CAL \$1950
MS Windows 2000 Server w/5 Clients... \$1350
MS Windows 2000 Professional OEM... \$220
MS Exchange Server w/5 Clients... \$1225
Novell Netware V5.0 w/5 Clients... \$1490
3Com 905C TX 10/100BT PCI Card... \$65
Acer 10 Base T 5-Port Hub... \$32
Intel Express Pro 10/100BT PCI Card... \$90
3Com USB Ethernet Interface 3C19250... \$89
3Com Off.Conn.8Port 10/100B Switch 3C16734A \$279
Linksys Cable/DSL Router w/4 Ports BEFSR41... \$139
Linksys Cable/DSL Router w/1 Ports BEFSR11... \$115
3Com Home-connect ADSL Modem PCI 3CP3617 \$319
HP 170X External Print Server w/1 Par. Port. \$220
Xircor RealPort 10/100+56K Combo PCMCIA \$522
MegaHertz 10/100+56K V.90 Combo PCMCIA \$465

Notebook

Acer TravelMate 223X Notebook \$1610
Intel Celeron 1.13GHz, 128MB SDRAM, 20.0GB
Hard Drive, 14.1" TFT Display, 24x CD-ROM,
56K V.90 Modem and MS Windows XP Home
Asus L8400CE Notebook \$2280
Intel Pentium III 1.13GHz, 256MB SDRAM, 30.0GB
Hard Drive, 14.1" TFT Display, 8X DVD-ROM,
56K V.90 Modem, NIC and MS Windows XP Pro
Fujitsu LifeBook S5582B \$3130
Intel Pentium III 800MHz, 256MB SDRAM, 30.0GB
H.D., 13.3" Active Matrix Color Display, DVD/CD-ROM
Combo Drive, 56K Modem, LAN, Windows 2000 Pro
IBM ThinkPad T23B (26475KU) \$4880
Intel Pentium III 1.13GHz, 128MB RAM, 48GB H.D.
14.1" Active Matrix Color Display, 24x CD-ROM,
56K Modem and LAN, Windows 98

Monitors / LCDs

Envision 17" SVGA Monitor 0.28	\$229
Envision 910E 19" 0.25 1600x1200	\$339
NEC 1550V 15" LCD Panel	\$598
NEC FE700+ 17" MULTI-SYNC 0.25	\$299
NEC FE950+ 19" MULTI-SYNC 0.25	\$559
Samsung 700NF 17" 0.25 1600x1200	\$378
Samsung 900NF 19" 0.25 1600x1200	\$588
Sony E200 17" Multiscan 0.25 1600x1200	\$527
Viewsonic VE150 15" LCD Panel	\$640
Viewsonic E70F 17" 0.25 1280x1024	\$299
Viewsonic G5773 17" 0.22 1280x1024	\$410
Viewsonic PF775 17" 0.25 1600x1200	\$489
Viewsonic PF790 19" 0.25 1600x1200	\$675

Printers

Epson Stylus C60 2880x720dpi 12ppm USB/PAR	\$145
Epson Stylus C80 2880x720dpi 12ppm USB/PAR	\$268
HP 845C Deskjet Color	\$145
HP Deskjet 920CVR Color Inkjet	\$165
HP Deskjet 990CSE PhotoRet III	\$439
HP 1000 Laserjet (USB Only, 1MB, 10ppm)	\$379
HP 1200 Laserjet (8MB, 15ppm)	\$610
HP 2200D Laserjet (8MB, 19ppm)	\$1267
Lexmark E210 LaserJet Printer	\$325
Ink-Jet Refill for Canon/ Epson/ HP	Call

Modems

3COM/USR 56K X2 V.90 Int. Fax/Data PCI	\$55
Acer 56K V.90 Int. Fax/Voice (PCI)	\$45
SupraSST 56is Int. K56 Flex PCI	\$39

Flatbed Scanners

Canon N670U 600x1200dpi USB	\$145
Epson Perfection 1250U 1200x2400dpi USB	\$145
HP Scanjet 4400C FlatBed 1200dpi 48bit	\$145
HP Scanjet 5400C Scanner	\$279
Visioneer 8900 Flatbed 1200x4800dpi 48B USB	\$205
Umax Astra 4400 1200x2400dpi 48bit USB	\$165

PDAs

3Com Palm M505 Color Handheld Organizer	\$375
3Com Palm M515 Handheld Organizer	\$570
Ipaq H3850 Color PC2002 64MB 240x320TFT	\$850

AGP Video Cards

Asus V7100 Pro GeForce2 MX400 64MB SDR	\$125
Asus V8170DDR GeForce4 MX440 64MB DDR	\$170
Asus V8420/TD GF4 Ti4200 128MB DDR AGP4X	\$335
AOpen ATI Xpert2000 Pro w/32MB RAM AGP4X	\$55
ATI Radeon 7500 64MB DDR AGP 4X TV-Out	\$135
ATI Radeon 8500 DV All-in-Wonder 64MB DDR	\$438
PowerColor GeForce4 MX440 64MB DDR Retail	\$158
PowerColor Radeon 8500LE 128MB DDR Retail	\$195
Matrox Millennium G450 Dualhead w/32M DDR	\$139

Hard Drives

Maxtor 20.0GB 7200rpm IDE	\$109
Maxtor 40.0GB 7200rpm IDE	\$128
Maxtor 60.0GB 7200rpm IDE	\$142
Maxtor 80.0GB 7200rpm IDE	\$165
Western Digital Ultra IDE	Call
Ultra / Ultra-2 Wide SCSI Hard Disk	Call

RAM

32/ 64/ 128MB PC100 SDRAM 168PIN	Call
64/ 128/ 256MB PC133 SDRAM 168PIN	Call
DDR RAM 266-MHz / Rambus PC800	Call
Notebook Memory (Compaq/IBM/Toshiba)	Call
Muse Compact Flash Memory 128/256MB	\$85/159

Digital Devices

Canon A20 Digital Camera	\$489
Canon S40 Digital Camera	\$989
Fuji FinePix A201 2.1MP 2.5x Digital Zoom	\$340
HP PhotoSmart C612 Digital Camera	\$375
HP PhotoSmart C715 Digital Camera	\$699
Kodak DX3500 2.2MP 3x Digital Zoom	\$320
Kodak DX3700 3.3MP 3x Digital Zoom	\$399
Intel Pocket PC Camera 640 x 480	\$183
Logitech QuickCam Web - USB	\$112
Nomad II C 64MB Clamshell MP3	\$210
Nomad Jukebox 6GB Silver / Blue	\$398

Warranty: 2 year parts & labour on systems. 1 year on parts.

TEL 739-0883 | FAX 739-2027 | EMAIL nuage@nuageplus.com | #101-1668 West Broadway, Vancouver, B.C. V6J 1X6

Business Hours: Mon-Fri 9:00-6:00 Sat 11:00-5:00 Free Parking At Rear Above prices reflect 2% cash discount. Prices subject to change without notice. All products name, trademarks are properties of their respective owners. 3% for Amx payment.

Online & Connected

Internet Trends • Wired & Wireless • Online Services • Work & Play on the Web

Taking GPRS for a test drive

By Geof Wheelwright

For anyone who has ever considered wireless email, Web browsing, or corporate network access while on the move, the letters G, P, R, and S will take on new significance.

GPRS (general packet radio service), is, roughly speaking, the data communications portion of the GSM digital cellular system, and it's now available from a couple of different providers in Canada: Microcell (Fido) and Rogers AT&T Wireless.

I tested GPRS using the Microcell service, available either as a data-only service by using a PC card from Novatel or Sierra Wireless (or any other manufacturer of GPRS cards) or as a voice and data service available on a GPRS-enabled mobile phone.

The combined service test included the use of a \$500 Motorola P280 GSM/GPRS phone (which also included a headset for listening to FM radio). It allowed me to connect to the GPRS network using a cable that ran between the phone and the computer.



Fido GPRS

Fido GPRS service

From: Microcell, www.fido.ca

Monthly rate: \$50 (flat-rate special until August)

P280 GSM/GPRS phone

From: Motorola, www.motorola.com

Price: \$500

Wireless PC Merlin G100 card

From: Novatel, www.novatelwireless.com

Prices: \$525

The nice thing about this configuration was that it didn't require separate dialing into an Internet service provider

(ISP). It operates by directly connecting to its digital GPRS network and eliminates the loss of performance typically associated with dialing into an ISP over a mobile phone.

Setup was quite easy using the software provided by Motorola. Within a few minutes of unpacking the phone, I was wirelessly connected to the Internet. I should say at this point that wireless was, of course, a relative notion, as this solution did require a cable to run between the mobile phone and the laptop.

But users can also use the fast infrared connection accessory to establish the GPRS link. This means that even when connecting to the Internet using a mobile phone and a notebook computer, the link is still completely wireless.

In either case, the GPRS connection works and offers speeds around 56 Kbps (the same kind of performance normally available from a dialup modem hooked up to your desktop computer). According to Microcell, it is possible to attain data transfer speeds of up to

Continued on page 95

10 anti-scam and anti-spam Web sites

By Keith Schengili-Roberts

Tired of all the messages offering ways to make money, save money, lose weight, get a diploma, and get ripped off, all with only a mouse-click? These sites offer a few ways to fight back, fend off, and poke fun at scammers and spammers.

- **Internet Scambusters:** If you suspect you're the target of some Internet-based scam, make sure you check this site first. It's an award-winning site devoted to exposing Internet-based frauds and scams of all sorts. Scam Check Station lists the most popular scams of the moment, and how you can prevent yourself from getting taken. www.scambusters.org/

- **Nigeria—The 419 Coalition Web site:** A typical "419" email goes like this: a stranger asks for your help in accessing a bank account holding millions of dollars, promising you a significant cut for providing some funds to open up the account. What started out as a fax-based scam has grown exponentially with the advent of spam email. It's called 419 Fraud, after the a section of the criminal code of Nigeria, where most of these scams originate. This page says what you should and shouldn't do if you receive such an email. home.ica.net/alphae/419coal/

- **Work From Home, Unwelcome Herbalife Signs:** Spam isn't just electronic. If you live in a bit city, chances are you've seen signs telling you how you can make lots of money working from home or how you can lose dangerous amounts of weight in a week. If you've ever wondered where they come from, visit this site. It details the network distribution scam and the herbal remedy firm behind it. cockeyed.deadtrout.com/workfromhome/workfromhome.html

Continued on page 91

Weaving your own Web site

IE CSS extensions: Part 8

By Keith Schengili-Roberts

In the past several articles, we've looked at some of the new Cascading Style Sheet (CSS) properties that Microsoft has added to recent versions of Internet Explorer. This month, we conclude the series (for now) by looking at two very different sets of properties that control aspects of the user interface and provide greater control over background positioning of images.

The accelerator property

The accelerator property is a browser-specific extension available within Internet

Explorer that allows Web authors to turn off the underlines under "accelerated" items. An accelerator is the keyboard shortcut that activates a particular feature—for example, in Word, ALT + F activates the File menu. The word "File" in this case has an underlined letter "F", showing the user that this is the key that, combined with holding the ALT key, will activate the feature. The accelerator property allows the Web author to turn this feature on or off.

Accordingly, the accelerator property has two values: true and false. For reasons that should be obvious, it makes the most sense to combine this with the underline HTML element (though keep

in mind that this is a deprecated element). It must also be used in conjunction with the label HTML tag in order to tell the browser that the underlined element is selectable. The following example code shows how this property could be effectively used within a sample form:

```
<!doctype html public "-//W3C//DTD XHTML 1.0
Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">
<html>
<head>
<title>accelerator Property Example</title>
<style>
```

Continued on page 91

10 anti-scam and anti-spam Web sites

Continued from page 90

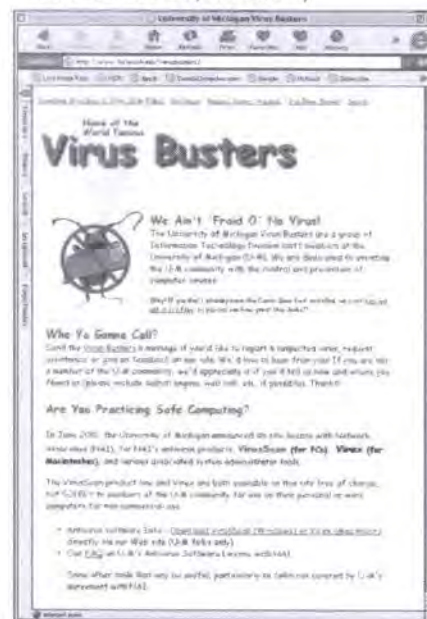


- Better Business Bureau:** This Web site for this organization—which is dedicated to fairness in the marketplace—has plenty of information and news to help you protect yourself from being scammed. Find out whether a particular company or charity is legitimate, learn ways to protect yourself from identity theft, or file a complaint.
www.bbb.org/

- Urban Legends Reference Pages:** Ever get an email from a well-meaning friend who is passing along a message containing information on “the worst virus ever” or asking you to sign an online petition for something that sounds fishy? If so, take a look at this site, hosted by the San Fernando Valley Folklore Society, which lists a number of Internet virus hoaxes and fake petitions. This site covers urban legends in general, which makes for interesting and sometimes amusing reading.
www.snopes.com/
- Diet Fraud:** There are many people looking for a short cut to losing weight. Unfortunately, there are also many scam artists who prey on them, by selling fraudulent diet products. This site covers “all the news not fit to eat,” including diet frauds, government actions and lawsuits surrounding the weight loss industry, and cautionary news on the latest herbal supplements, “slimming patches,” and more.
www.dietfraud.com
- Virus Busters:** Sponsored by IT staff at the University of Michigan, this site is

dedicated to fighting the spread of viruses. While intended primarily for people associated with the university, the site contains general information, anti-virus software, and lists of current viruses and email virus hoaxes (often designed to make you delete necessary files on your computer).

www.itd.umich.edu/virusbusters/



- Fight Spam on the Internet:** Tired of getting virtual heaps of junk email in your inbox? If so, go to this site for tips on reducing the amount of spam emails you receive. It includes detailed information on how you can set up blocking programs, tracing the source of spam, and even the latest news on the legal front in the fight against spam.
spam.abuse.net/
- Spam FAQ:** It may not look pretty, but the Spam FAQ contains a lot of information about the origins of spam, how and why you get spam, common types of spam and hoaxes, filtering systems, and more. The site also has a thorough listing of links and other online resources.
ddi.digital.net/~gandalf/spamfaq.html
- The Spam Letters:** This Web site spoofs and parodies replies to spammers. It shows how surprisingly unsophisticated the majority of spammers seem to be—as the many clueless responses to the spoofing reply emails seen here would suggest.
www.thespamletters.com/

IE CSS extensions: Part 8

Continued from page 90

```
u {accelerator: true}
body {font-size: large; font-family: Arial, Helvetica,
sans-serif}
</style>
</head>
<body>
```

When you hit the ALT key, underlines will appear underneath the “F” under “First Name” and the “L” under “Last Name.”

```
<p>
<u>
</u>
</p>
<li>Hitting ALT+F simultaneously will move focus
automatically to the First Name input text
field.</li>
<li>Hitting ALT+L simultaneously will move focus
automatically to the Last Name input text
field.</li>
</ul>
</p>
<form action="goes-nowhere.php" method="post"
name="erewhon">
<label id="fname">First Name:
</label><input type="text" accesskey="f"
name="fname" size="10" maxlength="15" />
<label id="lname">Last Name:
</label><input type="text" accesskey="l"
name="lname" size="15" maxlength="25" />
</form>
</body>
</html>
```

When you load this code in Internet Explorer 5.5 and greater, you will notice that when you hit the ALT + L key, the cursor appears in the “Last Name” text field.

The accelerator property appears to be a relatively harmless enhancement, as it is unlikely to interfere with functionality when the page is viewed in other browsers (while the sample code does not work on other browsers, neither does it appear to cause any problems). However, unless you tell the user about this feature, it is unlikely that a user will find it (they would have to accidentally hit the ALT key to discover it otherwise).

Background-position-x and -y properties

In order to provide Web authors with greater control over where exactly background images can begin tiling themselves as a background, Microsoft introduced two new, browser-specific background properties with the release of version 5.5 of Internet Explorer: background-position-x and background-position-y. Both properties are used in conjunction with the background-image property, and are used to set the position where the background image begins to start tiling. Note that this does not mean that you can set exactly where the background-

image is to start tiling within an element on a Web page; instead, they position the background image relative to itself—so a setting of 0,0 does not refer to the top-leftmost portion of the background element, but the top-leftmost position of the image itself.

Both background-position-x and background-position-y can take percentage and specific length measures. A value of 50 percent means that the background image should start tiling at exactly half of its vertical (or horizontal) dimension. When a length measure—such as pixels—is used, Internet Explorer begins tiling the background image at the point specified. The following code example shows how these values can be applied using the background-position-x property:

```
<!doctype html public "-//W3C//DTD HTML 4.0
Transitional//EN">
<html>
<title>background-position-x Example 1</title>
<style>
div.fixed-length {background-image: url(test-
image.jpg); background-position-x: 0 px; height:
140 px; width: 400 px; font: large Arial, Helvetica,
sans-serif; color: navy}
div.percentage {background-image: url(test-
image.jpg); background-position-x: 50%; height:
140 px; width: 400 px; font: large Arial, Helvetica,
```

```
sans-serif; color: navy)
div.negative-value {background-image: url(test-
image.jpg); background-position-x: -100 px; height:
140 px; width: 400 px; font: large Arial, Helvetica,
sans-serif; color: navy}
code {font: large Arial, Helvetica, sans-serif; color:
navy; background-color: white}
</style>
</head>
```

```
<body>
<p>
<div class="fixed-length">This image is positioned
using <code>background-position-x: 0
pixels</code> (so it appears as it would normally
be tiled).</div>
</p>
<p>
<div class="percentage">This image is positioned
using <code>background-position-x:
50%</code>.</div>
</p>
<p>
<div class="negative-value">This image is posi-
tioned using <code>background-position-x: 100
pixels</code>.</div>
</p>
</body>
</html>
```

As this example shows, it is also possi-
Continued on page 95

WHAT'S NEW

Continued from page 58

music production software. The company, based in Hamburg, Germany, is best known for Logic, which is used by more than 200,000 musicians around the world, according to an Apple press release.

Emagic will operate as a wholly owned division of Apple. And, though Emagic currently develops software for both Mac and Windows platform, Apple says Windows-based product offerings will be discontinued at the end of September.

—TCP Staff

Glucose monitor integrated with PDAs

In June, TheraSense Inc. (www.therasense.com) received approval from the U.S. Food and Drug Administration to begin marketing a new tool for diabetes management: a glucose monitoring system that is integrated into a Handspring Visor PDA.

The FreeStyle Tracker is an expansion module that slides into the Springboard slot of any Visor. After putting a dot of blood on a test strip, the strip slides into the FreeStyle Tracker and analyses the blood, giving a readout on the PDA screen.

TheraSense says the tool not only allows patients to test their glucose levels, they can graph and chart the results over time, review carbohydrate food lists to track their food intake, and create reminders about testing or dietary choices.

Parhelia-512 graphics accelerators debut

Matrox Graphics Inc. (www.matrox.com) has unveiled the first line of graphics boards based on its Parhelia-512 GPU. The company says new features in the Parhelia include a full 256-bit DDR memory interface, partial compatibility with Microsoft DirectX 9.0, and advanced multi-display computing capabilities.

The 2D and 3D multi-display functionality makes these adaptors ideal for desktop publishing, Web design, software development, digital photography, video editing, and gaming, according to Matrox.

The Parhelia adaptors are full-height ATX boards with two DVI-I connectors integrated on the bracket, which allows for a wide variety of display outputs. The boards come bundled with three cables/adaptors: a DVI-I to dual HD-15 cable; a DVI-I to HD-15 adaptor; and an HD-15 to S-video and composite cable.

The Matrox Parhelia graphics boards will initially be available with 128 MB of DDR RAM. The retail packaged version has an estimated price of US\$399 and are expected to be available in July. Matrox says 64 MB and 256 MB versions will be available by fall.

—TCP Staff



es. The system also gives doctors a more accurate time-stamped progression of the patient's glucose levels.

TheraSense does distribute diabetes management products in this country, but there was no information at press time on when it plans to distribute the FreeStyle Tracker in Canada.

—TCP Staff

Creo releases Six Degrees trial version

Vancouver, B.C.-based Creo Inc. (www.creo.com/sixdegrees) has released a free 30-day evaluation version of its Six Degrees software.

The email-driven productivity tool automatically connects and displays related messages and files, allowing users to quickly navigate through projects, according to Creo. The developer says Six Degrees updates in real time, and does not make users change the way they work or store their files.

The software underwent external beta tests in both freelance and corporate environments, and in a range of industries and educational environments. Six Degrees operates on Mac OS X (with Microsoft Entourage X) and Windows 2000 and XP (with Microsoft Outlook).



The full version will ship in July and will be available for an introductory price of US\$99.

—TCP Staff

Adobe ships InCopy 2.0

Adobe Systems Inc. (www.adobe.com) has announced the release InCopy 2.0, copy-editing software that is integrated with the company's professional layout application, InDesign.

The software for writers, editors, and copy fitters at magazines and newspapers is designed to help manage and streamline the editorial process. InCopy 2.0 includes support for XML, enhanced editing tools such as dynamic spell check, a built-in thesaurus, fast text substitution and table creation, and an improved interface for working on multiple views of a story simultaneously. Because InCopy and InDesign share the same XML structure, stories created in InCopy can be imported directly into InDesign.

InCopy is available through the Adobe's system integrator channel. Pricing is based on individual installations.

—TCP Staff

Improve your swing with GPS

iGolf Technologies (www.igolfgps.com) has released a new application for use with a PDA/GPS device, which it claims will significantly improve a golfer's skill level and playing ability.

The software, iGolfgps, gives golfers accurate distance measurements—from the golfer's ball to the front, centre, or back of the green—from any location on a course. The software supports the Magellan GPS receiver and Palm OS-based PDAs from Palm, Sony, and Handspring. The iGolfgps interface includes a scorecard for up to four players.

The company says the combination is an affordable alternative to golf cart-mounted GPS products.

A release from iGolf says its software "can provide accurate distances on any golf course throughout the world." However, courses do have to be mapped/surveyed first to work with the system. The California-based company will be adding course information to its Web site database, which users can download. If a favourite course is not in the database, users can map it themselves with the system in less than 90 minutes, according to iGolf.

—TCP Staff

Canadians travel more with PDAs than partners, study finds

Fifty-five percent of Canadians travel with their handheld computer more often than their partner, according to the results of survey on PDA etiquette released in June.

The survey—conducted by Toshiba Information Systems Group (www.toshiba.ca) to coincide with the launch of its Pocket PC line in Canada—offers insight into handheld habits. Habits revealed in the survey:

- 71 percent use their handheld computers while flying in Canadian skies;
- 60 percent have used their handheld computers on the golf course;
- 51 percent use their handheld computers while schmoozing at social engagements;
- 19 percent have used their handheld computers to impress a prospective date;
- When asked about the most interesting place they have used their handheld computers, 11 percent listed the beach while an equal number considered the washroom to be the most interesting place to have used handheld computers.

Media Profile and Toshiba Canada ISG surveyed 415 Canadians through email across Canada and at various locations in downtown Toronto, Ont. in April 2002.

—TCP Staff





DCC Technologies

Your digital creation center



Matrox RT.X100

NEW

ProCoder

Professional video editing to the Power of X

Matrox RT.X100 is the first of the new generation of Matrox products to incorporate "The Power of X" - a new architecture that leverages the scalable power of your CPU with the explosive performance of dedicated hardware for the ultimate realtime video editing experience.

Matrox RT.X100 delivers many unique professional features that are not available on any other video editing card in its class. It's ideal for corporate communicators, event videographers, project studios, educational facilities, and digital filmmakers.

Exploits the full power of dedicated hardware for:

- Realtime DV output
- Realtime MPEG-2 encoding
- Analog input and output
- Compositing and true 3D geometric effects
- High-quality bi-cubic and anisotropic effects filtering



\$1599



Quadro 4	900XGL	w/128MB	\$1,790
Quadro 4	750XGL	w/128MB	\$990
Quadro 4	700XGL	w/64MB	\$790

Professional Video Card



ProCoder

The Ultimate Format Converter

Whether you're encoding MPEG for DVD production or a Windows Media for streaming, ProCoder makes conversion from one video format to another quick and easy.

Featuring Canopus's highly optimized DV and MPEG CODECs, ProCoder provides high-quality output without the long wait and guesswork of similar tools.

\$1149

Snazzi* III AV. DV Gold Perfect For Home & Business

- DV to MPEG real time hardware encoding
- Archive AV and DV camcorder tapes to real DV now!
- Record from any external video source to high quality, full motion MPEG-1 and MPEG-2.
- DV to AVI-DV file transfer.
- DV I/O for mini DV camcorders.
- Built-in multiplexer to guarantee AV sync.
- Full D1, MPEG-2 MP @ ML, up to 10Mbps with adjustable GOP.



\$599

Introductory Offer

Demo available for DVStorm and RT2500. Please call 604-821-1108 for appointment and see these awesome products in action.

2/F, 145-4471 No. 6 Road, Richmond, B.C. V6V 1P8
Tel: 604.821.1108 Fax: 604.821.0813
Web: www.dccetek.com email: info@dccetek.com

Office Hours:
MON - FRI (10:00am - 6:00pm)
SAT (1:00pm - 5:00pm)

DCC Technologies specialized in customization of turnkey systems based on Canopus, dps, Matrox, Newtek and Pinnacle products. Please contact our technical specialists for detail.



All prices reflect 2% CASH discount.
All prices are subject to change without notice.
All trademarks are the properties of their respective holders.

604.821.1108 www.dccetek.com

TOLL FREE: 1-866-DCC-1108

Introducing CANOPUS ADVC-50 Advanced Digital Video Converter

Key Benefits

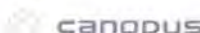
- Award winning DV Codec for best-quality conversion
- Locked audio support
- Convenient cabling access via 5 1/4" PC bay
- Both NTSC and PAL compatible
- Windows and Mac OS compatible



\$319

DCC Realtime DV NLE workstation

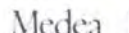
Now with 5 Realtime Video Tracks



- Intel Pentium 4, 2.53GHz Processor
- Kingston 512MB PC2100 DDR SDRAM DIMM
- Pioneer 16X internal DVD-ROM
- AGP Video card w/32MB RAM
- 40GB 7200RPM UltraATA 133 application drive
- 80GB 7200RPM UltraATA 133 video drive
- Canopus DVStorm SE Plus RT video capture system
- 21" Antec full ATX tower case w/ 350W Power supply
- Microsoft 2-button intellimouse and internet keyboard
- Windows 2000 Professional w/CD and manual
- 1 Year warranty (Parts & labour)
- * Monitor not included



\$4990



145-4471 No. 6 Road, Richmond, BC, Canada V6V 1P8
Tel: (604) 821-1228 Fax: (604) 821-0813
Web: http://www.dmac.bc.ca Email: sales@dmac.bc.ca
Hours: Mon-Fri 10am - 6pm, Sat 1pm - 5pm
TOLL FREE: 1-866-821-1228



discount MAC CLUB



Authorized Reseller and Service Provider



*All prices subject to change without notice.

The New iMac Package

- 800MHz G4 PowerPC Processor
- 15" Active Matrix Flat Panel LCD Display
- 256K on-chip Level 2 Cache
- 512MB Memory
- nVIDIA GeForce2 MX with 32MB
- 60GB Hard Drive
- DVD-R / CD-RW Super Drive
- 5 USB Ports, 2 Firewire Ports
- Internal V.90 56K Modem
- 10/100BaseT Built-in Ethernet Port
- Apple Pro Keyboard and Mouse
- Mac OS X and 9 installed
- Epson c60 Color Inkjet Printer
- AppleCare 3-year Protection Plan



\$3359

Leasing Available

New iBook 12" Package w/ iPod

- 700MHz G3 Processor
- 256KB on-chip Level 2 Cache
- 12" TFT XGA Display w/ 16MB VRAM
- DVD-ROM / CD-RW Combo Drive
- 384MB Memory
- 20GB Hard Drive
- Internal 56K Modem
- Up to 6 hr. battery life
- Only 4.9 pounds
- Mac OS X and 9 installed
- 2 USB Ports, 1 Firewire Port
- 10/100 BaseT Built-in Ethernet Port
- Built-in omnidirectional microphone
- Apple 5GB iPod
- AppleCare 3-year Protection Plan



\$3399

Leasing Available

eMac 700 MHz G4 Package

- Apple G4 / 700 MHz All-In-One
- 700 MHz G4
- 17" Flat CRT Display
- 256K Level 2 Cache
- 384 MB SDRAM
- 40GB HD
- 24x CD-RW Drive
- Int. V.90 56K Modem
- 2 Firewire Ports & 5 USB Ports
- NVIDIA GeForce2 MX with 32MB
- 10/100 BaseT Ethernet Port
- Mac OS 9, X, iMovie 2
- Apple Pro Keyboard and Mouse
- AppleCare 3-year Protection Plan
- Epson c60 Color Inkjet Printer



\$2099*

Leasing Available

New PowerBook G4 800MHz

- 800MHz G4 Processor
- 15.2" TFT Wide Screen Display
- 1GB Memory
- 32MB Video SGRAM
- 60GB Hard Drive
- 10/100/1000 BaseT Ethernet Port
- Internal V.90 56K Modem
- S-Video and DVI Output
- 2 USB Ports, 1 Firewire Port
- One PC Card Slot
- Slot Load DVD/CDRW Combo Drive
- Apple AirPort Card for wireless network
- AppleCare 3-year Protection Plan



\$6399

Leasing Available

Ask us about educational prices on Adobe, Macromedia and Symantec products.

New Arrival

Apple iPod 10GB/5GB	799/599
LaCie HexaMedia 6 Media Reader	99
LaCie 40x10x40 USB/Firewire CD-RW	399
VirtualPC 5 w/ Win XP / Upgrade	329/139
Adobe Photoshop 7 / Upgrade	999/249
Macromedia Flash MX / Upgrade	739/309
Pioneer A04 DVD/CDRW Int. Drive	699
Matrox RTMac w/ Premiere 6	1299
LaCie 120GB Ext. Firewire HD	549
Microsoft Office X / Upgrade	699/429
Apple Mac OS X - V10.1	195
LaCie 80GB Ext. Firewire HD	399
Epson Perfection 1650 Scanner	299
Epson Perfection 2450 Scanner	599
LaCie FW DVDR/CDRW Super Drive	799

Software

Filemaker Pro 5.5 / Upgrade	399/249
Roxio Toast 5 Titanium	129
Adobe Illustrator 10 / Upgrade	679/249
Adobe GoLive 6 / Upgrade	679/169
Final Cut Pro 3 / Upgrade	1549/479
Adobe PageMaker 7 / Upgrade	849/149
Quicken Deluxe 2002	79
AppleWorks 6.2.2	129
MYOB Accountedge 2.0	259
Extensis Suitcase 10 / Upgrade	169/79
Norton AntiVirus 8.0	109
Norton Internet Security 2.0	159
Norton Utilities 7.0	159
Norton SystemWorks 2.0	199

CPU Upgrade

Crescendo 450MHz/1M PCI G3	299
Crescendo 400MHz/1M PCI G4	359
Crescendo 400MHz/1M L2 G3	429
Crescendo 400MHz/1M NuBus G3	429
Sonnet G3 500 MHz processor upgrade card w/ firewire port (iMac)	519

Lifetime Warranty Memory

128MB SDRAM	59
256MB SDRAM	99
512MB SDRAM	199
128MB SO-DIMM	69
256MB SO-DIMM	149
512MB SO-DIMM	379

Video Editing

Contour Design ShuttlePRO	179
Matrox RT Mac	999
Canopus Analog / DV Bridge	499
Adobe Premiere 6 / Upgrade	899/249
Adobe After Effects 5.5 / Upgrade	1099/329
After Effects 5.5 Production Bundle	2199
After Effects 5.5 Pro. Bundle Upgrade	499
DVD Studio Pro	1449
Terapin Video CD Recorder / Player	759
Terran Cleaner 5	899
Apple DVD-R Media 5-pak	45

Storage Devices

LaCie 16x10x40 USB / Firewire CDRW	299
Iomega 250MB Ext. USB Zip Drive	259
Iomega 100MB Ext. USB ZIP Drive	169
18.4GB Barracuda Ultra SCSI HD	399
iMation USB Floppy/SuperDisk Drive	129

USB/FireWire/IDE Cards

Sonnet Tempo Ultra ATA100 PCI Card	179
Sonnet Tempo RAID 133 PCI Card	349
Keyspan USB PCI Card / USB 2.0	49/99
OrangeMicro Firewire/USB 2.0 PCI Card	179

Network Cards/Hubs

Farallon 10/100 PCI Ethernet Card	49
Linksys DSL/Cable 10/100 4-port Switch	159
Netgear 4-port 10BT Hub	49
Apple AirPort Card	159
Apple AirPort Base Station 2	469

Adobe Photoshop 7.0

The professional image-editing standard
Adobe® Photoshop® 7.0 software, the professional image-editing standard, helps you work more efficiently, explore new creative options, and produce the highest quality images for print, the Web, and anywhere else. Create exceptional imagery with easier access to file data; streamlined Web design; faster, professional-quality photo retouching; and more.



New iPod MP3 Player

Apple iPod MP3 Player
2,000 songs in your pocket.
Presenting iPod. The first MP3 player to pack a mind-blowing 2,000 songs and a 10-hour battery into a stunning 6.5-ounce package you can literally take everywhere.



http://www.apple.com/ipod

MSN.ca studies keyboard generation

By Andrew Moore-Crispin

It's not the death of the English language, but rather the birth of a new form of communication, at least in the opinion of MSN.ca and Neil Randall, a professor with the English department at the University of Waterloo in Waterloo, Ont.

What started as a way for geeks to communicate online using acronyms and emoticons has become an accepted language for the "keyboard generation," with abbreviated phrases like IMHO (in my humble opinion) and the more familiar LOL (laughing out loud) creeping into everyday communication according to Lingo Online, a study by MSN.ca and Randall.

The keyboard generation moniker isn't confined only to the younger generation though, "anyone using a computer on a day-to-day basis seems to be incorporating some kind of online language," and hence is a part of this demographic,

says Donna Hindson, a marketing manager with MSN.ca.

The study asked 1,000 Canadians between the ages of 16 and 54 how they communicate online and offline, and if the English language is being forgotten in favour of an abbreviated writing style, which Randall says is an unprecedented hybridization of writing and speech.

The Lingo study suggests that online language has gained more acceptance with the wide adoption of messaging programs like Microsoft's Instant Messenger—which was used by 81 percent of the study's respondents.

When sending instant messages, time is of the essence to maintain conversation flow, so online language is being adopted out of necessity, Randall says.

"Language has to adapt to suit culture," and this is just the latest evolution, he says. Randall notes that several of the acronyms are now listed in reputable dictionaries.

The online language is, for the most

part, a creation of younger generations, and Randall says he was surprised by the fact that its use has spread across all age groups. Despite this, a generation gap is apparent.

"Anyone using a computer on a day-to-day basis seems to be incorporating some kind of online language," and hence is a part of this demographic.

The survey asked people to give the meaning behind some of the more common abbreviations found in online messages, and while 86 percent of respondents aged 16 to 19 correctly answered that LOL stands for laughing out loud, that number fell to 60 percent among respondents aged 20 to 34, and further to 28 percent of those 35 or older. The numbers fall across all age groups for some of the more obscure references.

The survey also found discrepancies between age groups with the way respondents choose to communicate online.

Of those 20 years or older, 100 percent said they use email when online, but use of instant messaging seems to be confined mostly to younger people. Of people aged 35 and older, only 31 percent said they used instant messaging while online, compared to 86 percent of those age 16 to 19.

While online language can be seen as the next evolution, Randall says it won't replace typical spoken or written English, and that the keyboard generation still understands the value of "traditional" English.

The Lingo Online study supports this observation, as computer users seem to see email as a more formal mode of communication, and data suggests that users are much less likely to use abbreviations when corresponding via email.

—CanadaComputes.com

Telus Mobility launches national 1X network

By Megan Johnston

Telus Mobility has started rolling out what it is calling Canada's first "national" 1X wireless network.

At a press conference in Vancouver to announce the new service on June 3, Telus Mobility's B.C. vice-president Neil Cusati also introduced the Velocity Wireless PC Card solution and a new 1X phone.

Cusati said the new service offers speeds of 40 to 60 Kbps under typical conditions, and up to 144Kbps under ideal conditions.

Eventually, this CDMA-based network could transfer data at rates of up to 2 Mbps, he said.

Existing cellular networks have a maximum speed of about 14.4Kbps, making next-generation services such as 1X the first over which wireless multimedia Internet access is truly practical.

Other Canadian wireless network providers include Bell Mobility, which is

also CDMA-based, while Rogers AT&T and Microcell's Fido are GPRS-based networks.

Initially, the Telus Mobility 1X service is available in Halifax, Québec City, Montréal, Ottawa, Toronto and Southern Ontario, Winnipeg, Edmonton, Calgary, Vancouver, and Victoria. Telus Mobility says it plans to extend its reach in Canada and into the U.S. (through a roaming agreement with Verizon) by the end of the year.

To make use of 1X, Telus Mobility introduced two hardware solutions: the Velocity Wireless kit, which bundles a Sierra Wireless AirCard 555 network PC Card with Internet services (such as email and Web space); and the LG TM-520 phone. The PC Card can be used with a Windows laptop or a PDA (with a PC Card adapter).

The phone can also be used with a laptop or PDA to access online data wirelessly, but requires a connection kit.

The LG TM-520 is \$249 without a service contract (the price drops

depending on length of service contract).

The 1X monthly service fee starts at \$30 for 5 MB and up to \$100 for unlimited usage. (Because CDMA is packet-based, users are charged based on amount of data transferred rather than air time.) For pricing on the Velocity Wireless kit, contact one of Telus Mobility's Data Solution Channel Partners.

Corporate clients with a mobile workforce are a key market for the 1X service, and to reach it Telus Mobility has partnered with enterprise software developer Citrix and Hewlett-Packard Canada.

In addition to developing services and all-in-one mobile solutions, Telus Mobility says these high-profile alliances provide additional channels for marketing its service.

See "Wireless world slowly emerging" in the May issue of *The Computer Paper* for an overview of wireless services and devices in Canada. □



IE CSS extensions: Part 8

Continued from page 91

ble to set a negative value to background-position-x (and background-position-y). In this case, the negative value tells the browser to start tiling the image beginning 100 pixels "in" to the left side of the image.

Both background-position-x and background-position-y also have specific named values as well: background-position-x can take on left, center and right; background-position-y can take top, center and bottom.

These values behave slightly differently than the percentage and length values—in that they do not refer to a coordinate within the image, but how the background image is initially positioned within a Web element containing the background image. So a value of right tells the browser to put the first background image on the right-hand side, and begin tiling leftward and down from there. A value of bottom tells the browser to put the initial background image at the bottom of the element to tile up from there.

The following code example shows how the three values for background-position-x can be used:

```
<!doctype html public "-//W3C//DTD HTML 4.0
Transitional//EN">
<html>
<head>
<title>background-position-x Example 2 (left, center
and right values)</title>
<style>
div.left {background-image: url(test-image.jpg);
background-position-x: left; height: 140 px; width:
```

```
400 px; font: large Arial, Helvetica, sans-serif; color:
navy)
div.center {background-image: url(test-image.jpg);
background-position-x: center; height: 140 px; width:
400 px; font: large Arial, Helvetica, sans-serif; color:
navy)
div.right {background-image: url(test-image.jpg);
background-position-x: right; height: 140 px; width:
400 px; font: large Arial, Helvetica, sans-serif; color:
navy)
code {font: large Arial, Helvetica, sans-serif; color:
navy; background-color: white}
</style>
</head>
```

```
<body>
<p>
<div class="left">This image is positioned using
<code>background-position-x: left</code> (the
default setting).</div>
</p>
<p>
<div class="center">This image is positioned using
<code>background-position-x:
center</code>.</div>
</p>
<p>
<div class="right">This image is positioned using
<code>background-position-x: right</code>.</div>
</p>
</body>
</html>
```

There's one other little trick you have to know about if you intend to use these properties—ensure that you are using the proper <!doctype> statement.

When using background-position-x or background-position-y make sure you do not use

obvious.

Our second setup was for data service only, using a wireless PC Card modem plugged into a notebook or handheld computer to access GPRS. Using the \$525 Novatel Wireless PC Merlin G100 card, I was also able to establish a good connection to the Internet at average speeds of around 56Kbps.

The PC card option offered several advantages. For one thing, I could use it in both my notebook computer and my Compaq iPaq handheld computer. The drivers and the modem connections software installed easily and I was able to get up and running quickly.

I found that the GPRS card was particularly good for doing wireless email. I did find, however, that it tended to be rather slow when I wanted to use it for Web browsing. This was particularly

IE CSS extensions

This list shows all of the Internet Explorer CSS extensions, listing them in the order in which they first appeared in various releases of the browser:

Internet Explorer 4.0:	layout-grid-mode	scrollbar-3dlight-color
filter (while first introduced in this version, many new values were tacked onto this property in later versions of Internet Explorer)	layout-grid-type	scrollbar-arrow-color
	line-break	scrollbar-base-color
	overflow-x	scrollbar-darkshadow-color
	overflow-y	scrollbar-face-color
	right	scrollbar-highlight-color
Internet Explorer 5.0:	ruby-align	scrollbar-shadow-color
accelerator	ruby-overhang	text-autospace
behavior	ruby-position	text-justify
border-collapse	table-layout	text-kashida-space
bottom	text-autospace	text-underline-position
direction	text-justify	word-wrap
ime-mode	word-break	writing-mode
layout-flow	Internet Explorer 5.5:	zoom
layout-grid	background-position-x	Internet Explorer 6.0:
layout-grid-char	background-position-y	min-height
layout-grid-line	layout-flow	text-overflow

thestandard XHTML <!doctype> declaration—these properties will only work when the document is set as a transitional or frameset HTML 4.0 document (i.e.<!doctype html public "-//W3C//DTD HTML 4.0 Transitional//EN"> or <!doctype html public "-//W3C//DTD HTML 4.0 Frameset//EN">). If <!doctype> is set to a strict HTML 4.0 or XHTML 1.0, it will "turn off" when viewed under Internet Explorer 6.0, as it has the ability to process the contents of a Web page in accordance to the <!doctype> setting.

Other Internet Explorer extensions

While this concludes our look at the

extensions to CSS available in recent versions of Internet Explorer, there are certainly more available.

For a full list of CSS values (standard CSS properties and extensions added to the browser) go to: msdn.microsoft.com/library/default.asp?url=/workshop/author/css/reference/css_ref_entry.asp. □

Next Time: Mozilla extensions to CSS.

Keith Schengili-Roberts welcomes any comments, suggestions, or HTML tips you may have. You can email Keith at: robertsk@rogers.com. His book on CSS published by Prentice Hall, *Core CSS* (ISBN: 0-13-083456-4), is available in bookstores.

Taking GPRS for a test drive

Continued from page 90

115Kbps using its compression software. I did see this in demonstration, and even saw streaming video using that configuration, but I was unable to repeat that experience on my own notebook.

The quality of this connection varies tremendously depending on the quality of the overall cellular signal. In places where weak cellular signals made mobile phone calls difficult, the GPRS data connection was also poor. In places where I could make very clear and highly audible voice calls, the GPRS signal was also strong and stable.

This means that GPRS is only a solution for those who live in areas where the underlying PCS provider already offers good service. But I guess that's kind of

true on the iPaq, which I suppose was not doing as good a job of caching the Web pages as my Hewlett-Packard Pavilion notebook.

One piece of advice I would offer anyone considering the use of GPRS as their primary method of mobile Internet connection would be to set your email software to leave attachments over a certain size on the server.

I was caught out a couple of times when people sent large attachments. On a 56Kbps connection, they can considerably slow downloading of your email. It's best to wait until you have a DSL or cable connection before downloading large attachments.

I have to say that the roaming coverage Microcell offered its GPRS service was excellent and I suspect this will be the key to its success with GPRS. I used

it in Vancouver, Toronto, Orlando, and Seattle. Within the next six months, users will also be able to roam on GPRS networks throughout Europe, Australia, and many other countries. That's because GPRS is based on GSM standards.

Microcell currently has an "introductory offer" flat-fee price of \$50 per month (which includes U.S. roaming) for one year, available only to those who sign up before Aug. 31, 2002. For that fee, these early adopters will get unlimited usage. After that, customers will pay for the service on a "per byte" basis (i.e., the more data you receive and transmit, the more you pay).

So if you want to sample wireless email and Web browsing, you may want to think about getting started now. □

Taking a tablet PC out for a spin

Continued from page 74

keynote for some time now.

One of the key design goals of the Tablet PC was usable handwriting recognition—in other words, it had to be highly accurate. But, handwriting could not be the only method of input.

Thus, in practice on the Acer unit, you can type with a keyboard, do handwriting recognition on the screen, use voice recognition, or simply write on the screen and leave the information as ink. These choices are designed to allow users to decide how they want to use the Tablet PC at any given time.

On the Acer unit, you can type with a keyboard, do handwriting recognition on the screen, use voice recognition, or simply write on the screen and leave the information as ink.

The approach to handwriting recognition is particularly interesting. Microsoft recognized that previous attempts to introduce technology similar to the Tablet PC—such as the many pen-based computers of the early 1990s—largely failed due to poor handwriting recognition. The most memorable of these was Apple's Newton device, the failure of which was viciously lampooned in a series of *Doonesbury* cartoons that had the hapless device mangling everything that was entered into it.

By throwing an army of smart people at the problem of handwriting recogni-

tion, Microsoft has come up with technology that appears to be highly accurate. Not only will it recognize handwriting that is written in a small space between lines, but it is also designed to recognize handwriting that is sideways, or even written in a circle.

Probably the cleverest element of the Tablet PC though, is that it recognizes the value of leaving information as ink. Included with the Tablet PC is an application called Journal. Microsoft Journal allows you to write on a screen that resembles a simple lined pad of paper, with the difference being that you have almost an unlimited number of pages on your pad.

You can write notes on this pad to your heart's content and when you're finished, you can then turn those notes into editable text or take the diagrams or pictures you have drawn and quickly turn them into high quality drawings that could be used in presentations or business documents.

These journals can also be indexed based on the recognized text underlying the handwriting. This means you have a whole new way of quickly being able to find handwritten notes.

And as I said earlier, the Tablet PC is not just about handwriting. It is also designed for voice recognition data entry. This entire article was dictated to the TravelMate 100 Tablet PC using a headset and the Windows XP Tablet PC built-in voice recognition software.

Voice recognition is a natural fit for the Tablet PC because there's nothing more natural than wanting to walk around a little as you formulate your thoughts. It's not very easy to do that

when writing or typing. But with voice recognition, you can pace up and down your office or cubicle and entrust your best thoughts to the care and safety of your Tablet PC.

Of course, there will be times when you want to use a keyboard and a mouse. I tried, for example, to put together a few PowerPoint presentations using the Tablet PC and pen. It was frustrating and fiddly. So I just flipped the screen around, plugged in a mouse and keyboard, and finished the job very quickly.

I guess what will really make or break the Tablet PC is the extent to which software developers create applications that really leverage the uniqueness of this platform. At the Tablet PC reviewers' workshop in Seattle, Wash., in June, Corel showed off an amazing drawing application that really made the most of the fact that you could draw directly on the screen with a vast array of very powerful drawing tools and a pressure sensitive digital pen. Pressure sensitivity means that when you hold the pen for a longer time in a particular spot it will release more on-screen "ink," mimicking the operation of a standard ballpoint pen.

Other areas of innovation for the Tablet PC are likely to come from the fact that the design supports built-in wireless communications capabilities. The Acer model I tested included built-in support for 802.11 wireless networks, providing me with full access to the Internet and my home network (where I have an IBM wireless access point installed).

This wireless support means you have the full power of the Internet, all its

applications and all its content wherever you are. As a result, I have taken to reading the morning paper on my Tablet PC, by having it propped up on the breakfast table and scrolling through all the news of the day as it comes in live through my wireless connection.

The Tablet PC also makes a fantastic platform for reading electronic books. The Tablet PC software ships with the Microsoft Reader utility, so I could carry a number of books with me as I traveled around, without the added weight of physical books. More importantly, it was much more like the experience of reading a book than I'd typically get using my notebook computer.

Nobody really knows where the Tablet PC will end up being most useful. At the reviewers' workshop, Bill Gates spent a few minutes with us talking about how he uses the Tablet PC.

He told me that it has actually replaced his PDA because he no longer needs both a notebook computer and a PDA. The Tablet PC offers all the advantages of both, except that it is a little big to put in your pocket.

Several other analysts suggested a future in which PDA functions that don't make sense to use on a Tablet PC would migrate down to cell phones, while the remaining PDA functions would reside in the Tablet PC.

The only thing I know for sure is that Microsoft is going to have a fight on its hands when it comes time to reclaim the Tablet PC I have been reviewing. I can't remember what I've had as much fun reviewing a new product. □

Office update includes smoother text

Continued from page 74

train and the track. That information can then be used to calculate metal fatigue and predict track failure.

In a factory setting, RF ID tags can give very precise information about goods that move out of the warehouse. When combined with global positioning system (GPS) devices, these tags can store and transmit information about

where they are at all times—which could be useful in transporting high-end vehicles or expensive equipment, for example.

Yet another application comes from the health care sector, where some patients require constant monitoring. Enter the Digital Angel: an RF ID tag attached to medical sensors that would continuously report the vital signs and location of a patient, while allowing that

patient more privacy and independence.

RF ID tags could get small enough to be taken as a "sensor pill" that would report back on conditions inside a patient's body.

Researchers also report that these RF ID tags could get small enough to be taken as a "sensor pill" that, after swallowed, would report back on conditions inside a patient's body.

Crude versions of RF ID tags are

already in use for some military applications and have been reportedly used in Afghanistan to detect and report motion in combat areas.

Looking further out, Accenture suggests that these tags could sit in a field to report on acidity of soil, can be woven into expensive materials to report on their current state (combined with stress sensors in the propeller of a plane, turbine, or submarine, for example).

Researchers at the French facility also said RF ID tags could be built into money, allowing authorities to more easily trace cash and detect whether or not it is counterfeit. □

Missed an issue? Catch up on Canadian technology news, reviews, and opinions in The Computer Paper archives at:

canada
computes.com

HP ready to launch 50 new products

Calling it the biggest rollout of consumer products in Hewlett-Packard's history, representatives from HP Canada Ltd. announced the company will be introducing more than 50 printing and imaging products over the next six months. They got the ball rolling at a June 25 event at HP Canada headquarters in Mississauga, Ont. by unveiling three new printers and two flatbed scanners.

Among the new printers announced is the Deskjet 5550, which uses 4,800 dots per inch (dpi) print heads; Photoret IV (the next generation of HP's image-smoothing technology) and a six-colour ink system. The printer also uses a newly developed ink and paper combination, which will give an estimated image permanence of 80 years. Look for a review of this printer next issue.

Ralph McNeil, head of HP Canada's Imaging and Printing Group, said there are a number of consumer and small business trends driving the digital market, including the fact that people want access to images like personal digital photos everywhere they happen to be, and they want to do more things in less time.

From a business perspective, McNeil said companies big and small are shifting to a digital workflow. Among the technology trends driving the digital imaging market are the huge uptake in Internet use, and the fact that digital imaging products such as cameras and scanners are getting better and cheaper while becoming easier to use.

McNeil said HP has strengths in this area, including its number-one position in terms of worldwide market share in photo



printers and scanners.

The Scanjet 3570c is one of two new scanners HP has announced. It offers 1,200 dpi scanning resolution and 48-bit colour depth. It comes with a transparency adapter for scanning 35 mm slides and negatives. The 3500c is similar, but without the transparency adapter.

A second wave of four digital cameras and one photo printer was announced July 15. Now at the top of HP's digital camera line is the Photosmart 720, a 3.3-megapixel model. The camera has adopted SecureDigital cards for removable memory, which are still not common on digital cameras but have the advantage of being smaller than other popular memory card formats—they are about half the size of a SmartMedia card. The camera also has a feature called InstantShare, which allows the user to email images directly from the camera once it is docked to an Internet-connect device like a personal computer.

HP has scheduled other printer and scanner products to be announced in late July and throughout August and September.

—David Tanaka

Amazon.ca sparks criticism from Canadian booksellers

By Andrew Moore-Crispin

Sharp criticism came from some Canadian booksellers after Amazon.com announced its long expected entrance into the Canadian marketplace with the launch of Amazon.ca in late June.

Indigo Books and Music chief executive officer Heather Reisman and Todd Anderson of the Canadian Booksellers Association blasted the online retailer's plans, saying its foray into the Canadian market violates federal ownership laws.

Amazon.com founder and chief executive officer, Jeff Bezos, maintains that the move to a Canadian site using Canadian distribution and prices is a good one for

publishers, authors, and consumers alike, and adheres to Canadian law.

"Amazon.ca will not only serve Canadians, but will also export Canadian products all over the world, increasing the visibility and reach of Canadian writers and artists," Amazon.ca representative said after the announcement.

Indigo currently has about 70 percent of the Canadian market share, though there is no word on how that is divided between online and in-store sales.

Either way, Indigo likely has the most to lose from Amazon.ca's debut.

Amazon.ca will use Canadian distribution channels, but has no employees in Canada, a technicality that may allow them to skirt Canadian ownership rules

like the Investment Canada Act. The act states that any non-Canadian starting a business venture in Canada must submit to a review by the federal government to determine the potential benefits for Canada.

Amazon.ca said in a release that the company is exempt from the Investment Canada Act, as it does not require approval of companies that have no locations or employees in Canada, and Amazon.ca has neither.

The release went on to say Reisman's call for government intervention is a "smokescreen to protect her own vested interests."

Orders coming out of Amazon.ca will be packaged in a Mississauga Ont. ware-

house, and shipped through an offshoot of Canada Post, a Crown corporation—something that further enrages critics.

According to a report from Internet research company IDC, 75 percent of online consumers originate from six countries. Until recently, Amazon.com operated in five of them, and now Canada makes six.

Canada is Amazon.com's biggest export country, so the move to a Canadian site is a natural, Amazon.ca says.

Amazon.ca says the new site boasts 1.5 million books, CDs, videos, and DVDs, and has editorial content in both French and English.

—CanadaComputes.com

Does your Web host give you PHP4, Python, Perl5, SSI, CGI, SSH access, MySQL database, Ensim™ dashboard, Web statistics, FTP, file manager, fibre optic connection, Web-mail, unlimited emailboxes, aliases, auto-responders, vacation messaging, no setup fee, 24x7 support, 30day \$back guarantee, 99.9% uptime and 10% more space every year with...

100MB We do!
for \$9.99 CDN / month?*

Get the full detail and more value @
WWW.MANUALLABOUR.BIZ

Bionics for your Website® 604.685.4254
Manual Labour eBusiness Services Innovator
© 1998-2002 MLeBI All rights reserved. * with purchase of annual hosting plan.

Network Control System: 22010606

AMD Duron 850/ 1200 MHz \$699/ \$745
AMD Athlon 1.3/ 1.4 GHz \$769/ \$799
AMD Athlon XP 1600/ 1800 \$779/ \$819
Intel Celeron 1.1/ 1.3 GHz \$819/ \$839
Intel Pentium-4 1.7/ 2.2 GHz \$915/ \$985

All systems include:
128MB RAM, 20GB HD, 52X CD, 1.44 FD, 10/100 network, 56K modem, 3D audio, GeForce 400 64MB Video, Tower Case, Keyboard, Mouse, Speakers, 17" Monitor (.23mm dot pitch)

Upgrades for above specifications:
Upgrade to: 256MB RAM/ 60GB (7200) HD add: \$45/ \$39
Upgrade to: 16X DVD/ GeForce4 420 64M DDR add: \$27/ \$49

Special deal / Clearance sale:
32/10/40X IDE CD-ReWriter Drive \$ 95

Complete PC under \$700!

1350 - 8888 Odlin Cres., Richmond Tel: (604)231-9725 Fax: (604)231-0958 Prices are subject to change without notice.
Email: info@network-control.com Web: www.network-control.com Add 4.5% for credit card.
Hours: Mon.-Fri.: 9:30am-6pm; Sat., Sun. & public holidays: closed

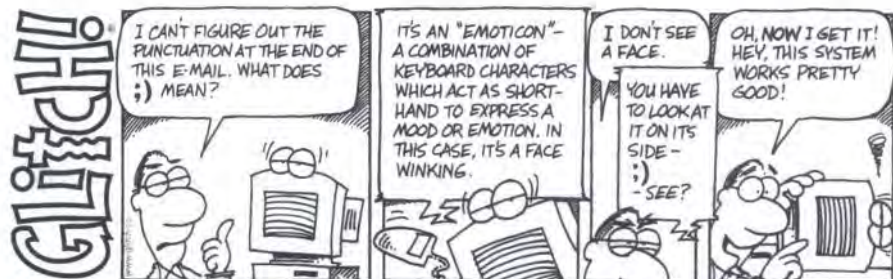
The handheld computer portion uses the Symbian operating system (which regular readers will remember is the OS also used in Psion handhelds) and Java. The browser is WAP 1.1 and xHTML compliant, and is capable of displaying most Web pages the way they were intended to be seen, graphically speaking, instead of converting everything to a text-readable format or squashing the graphics to fit a square screen. Selecting links is not obvious without reading the manual, but you'll pick up navigation fairly quickly.



Estimated price: \$999

Despite the unit's awkwardness, it's still a nice little device, thanks largely to the excellent screen, which allows graphical browsing right on your handset.

—Sean Carruthers



Check out "Managing an IT Career" in the September issue of TCP. Distributed beginning Aug. 14.

multimed@axionet.com **SOFTWARE** 365 W. Broadway, Vancouver
MULTIMEDIA TECHNOLOGIES
 872-0400

Productivity **Boxed Games (\$9-\$15)** **Games**

2000 Fantastic Fonts (Box) 9	4x4 Evolution 9	Kingdom Under Fire 9	Aliens VS Predator 2 40
3D Render Studio 14	Adventure Pinball Forgotten Island 9	LA Times Crossword 9	Age of Wonders 2 40
Act 2000 (Box) 179	Airline tycoon 9	Legends of Might & Magic 3	Arcanum 56
Adobe Acrobat 5-Academic (Ac-Box) 199	Age of Wonders 14	Martin Gothic 14	Baldur's Gate 2 40
Adobe Illustrator 9 Acad (Ac-Box) 99	Alpha Centauri 9	Merchant Prince 2 14	Chestermaster 8000 34
Adobe PageMaker 7 Acad (Ac-Box) 468	Anarchy online 9	Might and Magic 7 9	Civilization 3 39
Adobe Photoshop 6 (box) 379	Annocon 9	Monty Python Loonie Bin 14	Command & Conquer Renegade 44
Adobe Photoshop7 Upgrade (box) 239	Aquanox 9	Motorcross Mania 9	Cossacks 44
Autocad LT version 6 (Box) 1149	Army Men Toys in Space 9	MotorSports 2=Need for Speed (2 box) 9	Crazy Taxi 44
Cad 3D (Box) 9	Blade Runner 9	MTV Sports Skateboarding 9	Dark Age of Camelot - Euro Edition 21
CD Burner Pro 14	Battlezone+Sin+Heretic 9	Myth 2 9	Deus X - Game of the Year 39
CD Maker 2002 Pro 14	Braveheart 9	Nascar Racing 2000 9	Delta Force Taskforce Dagger 21
Clickart 360,000 Images (box) 29	Brunswick Pro Bowling 9	Nascar Road Racing+Sports Car 9	Diablo 2 44
Coral Draw 10 Academic (box) 249	Brunswick Pro Pool 9	GT+Superbike (6 games) 9	Diablo 2 Action Figure-Barbarian (HOT) 44
Coral Draw 10 Upgrade (box) 249	Cabelas 4x4 Off Road Adventure 9	Need For Speed Porsche Unleashed 14	Diablo 2 Battletchase 54
Coral Gallery Magic 65,000 Clipart (box) 14	Cabelas Big Game Hunter 4	NHL 2000 9	Diablo 2 exp Lords of Destruction 33
Coral Wp Office Pro 2002 (box) 148	Cabelas Big Game+Paint Brew+Pro 9	Normandy WWII 9	Diablo + Starcraft + Brood Wars + 51
Dragon Naturally Speaking 5 Std (box) 89	Fishing 9	Nox 9	Warcraft 2 Battletchase 31
Dreamweaver 3+Fireworks 3 (box) 119	Cabelas Outdoor trivia Challenge 9	Omikron Nomad Soul 9	Duke Nukem - Manhattan Project 36
Dreamweaver MX (box) 174	Caesars 3 14	Oni 9	Empire Earth 45
Dreamweaver V4+Fireworks4 (Ac-Box) 269	Casino 9	Open Kart Racing 14	Everquest Shadows of Lucin 34
Dreamweaver Ultra Dev 4 (Ac-Box) 269	Casino Master 4	Parahox 14	Everquest Trilogy 52
Drive Image 2002 74	CatZ 9	Planescape Torment 9	Grad Prix 4
Drive Image 5 (box) 74	Commandos Behind Enemy Lines 9	Populous 9	Grand Theft Auto 3 51
Easy CD Creator 5 Platinum (box) 89	Crusaders of Might & Magic 9	Premier Battle Col-FighterSquad, 9	Half Life 19
Easy CD Creator VS 29	Deer Avengeer 3D 14	Heavy GT2 Total Air,Barrage 9	Half Life Generations 3 (Platinum) 29
Fireworks MX - academic (box) 174	Death Track Racing 9	Quake 2 9	Cstrike + Op F + TFC + BShift 34
Fireworks V4 Academic (box) 169	Deer Hunter 2 Gold 9	Railroad Tycoon 2 14	Heroes Might & Magic IV 50
Flash 4 (box) 99	Delta Force 2 9	Red Alert + Red Alert Alternath 9	Hoyle Board Games 2002 33
Flash 4 + Freehand 9 (box) 119	Delta Force Land Warrior 14	Red Baron 3D 9	Hoyle Card games 2002 33
Flash 5 Academic (box)+A224+A29974 9	Disciples 9	Redguard 9	Hoyle Casino 2002 33
Flash 5 MX (box) 174	Divided Ground: Middle East Conflict 9	Redneck Rampage Family Reunion 9	Hoyle Word games 2002 33
Font Studio 2002 14	Dogs of War 9	Rising Sun Gold 9	Icewind Dale+expansion double pack 35
Forms Maker (box) 9	Ducks Unlimited 9	Rocky Mountain Trophy Hunter 9	IL-2 Sturmokiv 48
IBM Via Voice 39	Dungeon Keeper 9	Rune 9	IL-2 Sturmokiv-EastThunExpansion 32
Lotus Smart Suite Millennium 9.5 14	Empire of The Ants 9	Sacrifice 14	Janes Attack Squadron 49
Lotus Smart Suite Millennium 9.6 24	Enemy Engaged:Command VS Hokum 14	Samurai Showdown 2 9	Jedi Knight 2 50
Macromedia WebDesign Studio MX - 9	Eurofighter Typhoon 14	Serious Sam 14	Madden 2002 39
McAfee Viruscan Version 6 24	Fallout Tactics 9	Shanghai -Kishin Diki Pk Crosswords 9	Max Payne 38
McAfee Viruscan Version 6 (box) 39	Fly 9	Silent Hunter 2 14	Magic The Gathering online 19
MGI Photosuite (box) 14	Plying Heroes 9	Sim Ant + Sim Farm 9	Mechwarrior 4 Inner Sphere 19
MP3 Tools 2002 19	Force 21 9	Sim City 2000 SE 9	Medal of Honor Allied Assault 33
MS Frontpage 2002 (box) 169	Force RACING 9	Sim Sin Mania + Simcity + Tower + 9	Might and Magic IX (9) 19
MS Money 2002 (box) 44	Forgotten Realms Collection 9	Isle + Safari + Streets + Copter 9	Monopoly 2 55
MS Office XP Pro Full (box) 599	Forsaken 9	Sim Theme Park 9	Morrowind 50
MS Office XP Pro Upgrade (box) 399	Freestyle BMX 9	Skate Park Tycoon 14	Motorcar 3 29
MS Office XP Standard Full (box) 499	Gamefest Family Pk (Vpool + 9	SportPark Chef's Luv Shack 14	MS Age of Conquerors 30
MS Project 2000 (box) 499	Chessmates + Racers + Tanktics) 9	Sportman's Paradise II XI 9	MS Age of Kings + Conquerors 50
MS Publisher 2002 Dlx (box) 189	Giants 9	Starcraft + Brood War 14	MS Combat Flight Simulator 2 50
MS Visio Pro 2002 (box) 399	Grand Prix Legends 9	Star Trek Away Team 14	MS Dungeon Siege 55
MS Windows 2000 Server 5 User (box) 1249	Grand Theft Auto 2 9	Star Trek Pinball 9	MS Flight Simulator 2002 Pro 79
MS Windows 2000 Pro Upg (box) 289	Great Jigsaw Puzzles 9	Star Wars - Jar Jars Journey 14	MS Flight Simulator 2002 Std 63
MS Windows 98 SE Upgrade (box) 149	Green Berets 9	Star Wars Gunghar Frontier 9	MS Links 2002 58
MS Windows XP Home Ed Upgr (box) 149	Harley Davidson + Mouse Pad 9	Steel Soldiers 14	MS Zoo Tycoon 59
MS Windows XP Home Full (box) 199	Hardball 6 9	Superbike 2000 9	Myt 3 Exile 47
MS Windows XP Pro Full (box) 299	Heavy Metal Fakk 2 9	Swamp Buggy Racing 9	Myt 3 Exile + Riven + Myst 1 47
MS Windows XP Pro Upg (box) 269	Heroes Chronicles Clash of Dragons 9	Thief 9	Newerint nights 60
MS Worksuite 2002 (box) 134	Heroes Chronicles Conquest Underworld 9	Tiberian Sun 9	NHL 2002 25
MYOB 11 Standard (box) 139	Heroes Chronicles Master of Elements 9	Tiger Woods PGA Tour Collection 9	Operation Flashpoint Gold 48
Nature Themes (box) 14	Heroes Chronicles Warlords Westland 9	Tomb Raider 3 9	Quake 3 Gold 40
Nero 5.5.5.6 (box) 29	Heroes of Might and Magic 3 14	Tomb Raider 4 Millennium Edition 14	Rainbow 6 Gold 19
Nero 5.5.5.6 (box) 7	Hoologans 14	Tomb Raider Gold 9	Red Alert 2 41
Nero Antivirus 5 user Corporate (box) 329	Hoyle Backgammon + Cribbage 14	Tomb Raider Platinum 9	Red Alert 2 - Yuri's Revenge 35
Nero Antivirus 10 user Corporate (box) 549			

Panasonic unveils new DVD line

By Sean Carruthers

NEW YORK—Panasonic has long been a proponent of rewriteable DVD technology, and the DVD-RAM format in particular. The first day of TechXNY saw the announcement of some new

Panasonic products making use of the DVD-RAM technology, all of which will be available in the fall.

The first product announced was its third-generation DVD Recorder, known as the DMR-E30, which will be available at retail sometime in July for a suggested

retail price of US\$800. The DMR-E30, designed for use in the living room with an entertainment centre, will handle either DVD-RAM or write-once DVD-R media, which can hold a maximum of six hours of video per side. (DVD-R discs, at 4.7 GB, are one-sided, while

double-sided DVD-RAM discs can be flipped for an additional six hours.)

The product features Progressive Scan, as well as Time Slip functionality, which allows users to watch the beginning of a show that hasn't finished recording. The DMR-E30 also allows

Lynx Communications

A division of eSeeNet.com Ltd.

Serve You On-line : isp.lynx.net

HIGH SPEED INTERNET ACCESS

DIAL-UP

personal^A package

- 50 Hours Access
- 1 E-mail Account
- 2MB Personal Web Space
- Over 30,000 News groups Access
- No Prime Time Charge

\$10 /month ^{50 HOURS} anytime

personal^B package

- UNLIMITED Access
- 2 E-mail Accounts
- 2MB Personal Web Space
- Over 30,000 News groups Access

\$20 /month **UNLIMITED ACCESS**

1 Month FREE for 12-Month-Prepaid Account!

Dial-up service available in Greater Vancouver Lower Mainland areas only.

Get FREE Internet Access by Referring New Accounts to Us!

Please check isp.lynx.net or call for details.

ADSL

personal package

- 5 Email Addresses
- 3GB Data Transfer
- 5MB Personal Webspace
- Support up to 5 Computers

\$34.50* /month

Please Call for Details!

1.5M ADSL

Business ADSL Packages also Available !

*6 months service contract required (\$100 termination fee otherwise).

HOSTING

Super value package

- High Performance UNIX Server Hosting
- 20MB Web Space Storage
- 5 POP Email Addresses
- FrontPage 98/2000 or FTP Upload
- CGI-BIN Capability

\$15 /month

Please Call for Details!

UNIX Server

Other Hosting Packages Available :

Windows 2000 Server, MS-SQL 2000 Server Support, ASP Support, PHP4/MYSQL Support, ODBC DSN Setup, Web Traffic Report.

APPLY ON-LINE isp.lynx.net/apply

BY PHONE **604.638.1818**

TOLL FREE **1.877.395.6078**

SIGN UP NOW !!!

Address : B21 - 525 West Broadway . Vancouver B.C. Canada V5Z 4K5

Email Address : info@lynx.net

All services are subject to availability. Prices are subject to change without notice.

you to watch one program while a different one is being recorded.

The second living room product is the DMR-HS2, which adds a 40 GB hard drive inside the case. This hard drive serves several purposes, including longer recording time than recordable DVD media (up to 52 hours of video in EP mode), the ability to edit content for mastering back to DVD media, and something known as "relief recording," which starts recording the video to the hard drive when space on the removable media accidentally runs out.

This model also features a FireWire (IEEE 1394) slot for transferring video directly from your DV (digital video) camcorder, and a PC Card slot for transferring still images to the hard drive or DVD media. The DMR-HS2 will have an estimated price of US\$1,200 and is scheduled to hit shelves in October.

The third and final product introduced was the VDR-M20 DVD camcorder. Though Panasonic was beaten to the punch by Hitachi's announcement last month of its newest DVD Cam, this is a new product for Panasonic. This camcorder will use 8 cm DVD-RAM or DVD-R media for recording, though only the DVD-RAM discs will support on-camera editing. The camera will link to a PC via USB, though it's expected (as with the Hitachi camera) that those with compatible DVD drives on the PC will find it far easier to just take the media out of the camera and drop it into the PC's drive. The VDR-M20 will hit the streets in September, with a price point of US\$1,000.

Also joining the lineup of new products is the forthcoming DVD Burner II Multi Drive, which will read and write a number of formats, including DVD-RAM, DVD-R, DVD-RW, CD-R, and CD-RW, as well as handling playback of standard formats like DVD-ROM and DVD Audio. The drive, designed for use inside a PC, is expected to be available for under US\$500 sometime in October.

Panasonic also noted that there will be a drop in the price of DVD recordable media, which will make its newly announced products even more attractive. DVD-RAM discs will be available in three-packs and DVD-R media in five-packs, bringing the price as low as US\$7.99 per DVD-RAM disc and US\$5.99 per DVD-R disc. □

[<http://www.extranc.com>]

What are the hottest IT programs this summer?

Full-Time:

MCP in Windows XP
Oracle 9i
Oracle Application Developer
Sun Java2

New
Summer
Programs

Complete and get certified in 4 weeks!!

Real-industry project integrated!!

Our excellent team of instructors are working IT professionals and Ph.Ds!!

Downtown
Campus

NEW!! MOUS XP/2002 Certificate Track

at our new downtown campus. For more info,
please visit www.extranccollege.com

EXTRANC Computer College

In EXTRANC Computer College ■ ■ ■

In addition to our excellent public IT training, EXTRANC is also one of the very few schools in Western Canada that is recognized as MS CTEC, the highest level of training centers from Microsoft.

With this license we can conduct corporate training for IT professionals. We offer both standardized courses and customized programs to suit your preferences in time and location (Richmond or Downtown Vancouver). For more information please contact our Richmond Campus at 604.821.1114!!

Special technical workshops:

Including Microsoft 2000, XP and .Net framework, database giant - Oracle's latest technologies in 2002, and enterprise-level system security vulnerabilities.

Our Ongoing Programs

- A+
- MCSE
- MCDBA
- MCSA
- Oracle DBA
- Oracle Application Developer
- Java2 Programming
- Unix
- Java Solution Developer
- Cisco

Microsoft exam vouchers on sale now!

Special notice to EI students:

Our fully integrated IT programs will shape you into very hot and marketable commodities in the job market again! (all exam fees are included)

Program Info Session & (EI)
Funding Application Seminar:
Every Friday AM11:00
Call Now for Seat Reservation

Oracle Workforce
Development Program

Authorized
PROMETRIC
TESTING CENTER

VUE
TESTING SERVICES

Microsoft
Authorized Academic
Training Provider

Microsoft
CERTIFIED
Partner

#100-8120 Granville Ave., Richmond

T. 604.821.1114

F. 604.821.1141

info@extranc.com

21821006

Careers & Training

IT Career Trends • Productivity Tips & Tricks • Book Reviews • Tutorials

Manager gets mice to market

By Sharlene Myers

In the time between the production of a product and its purchase by a customer, the product marketing manager has the most influential role. From providing input into how a product is developed and packaged, to pricing, promotions, and where it is placed on store shelves, the position requires a variety of skills and carries a lot of responsibility for a product's success or failure.

Christopher Wolfe has been a hardware marketing manager with Microsoft Canada for nine months, and recently took time out to speak with TCP about the varying demands of his job. Following is an edited version of that conversation.

TCP: Did you always want to be a hardware marketing manager?

CW: Actually, my moving into this role was an interesting transition. I have an engineering background as well as a degree in finance, so not necessarily the background that the usual marketing manager has. Usually they have a com-

merce background with some marketing experience.

I was looking for a financial analyst role when I got hired into Dell computers as a product manager for their desktop and notebook lines. That's how I made the transition to marketing.

A lot of the marketing manager and product manager roles require a large degree of analytical skills, because you are responsible for the revenue and margin that your products are bringing in, so you need to have a good understanding of finance and the impact that your products have on the company's [profit] and [loss].

Tell me about a typical workday for you.

I don't know if there is one, but [laughs]... Looking after the hardware product lines—mice, keyboards, and gaming devices—you're responsible for a whole spectrum of responsibilities. Actually, anything and everything to do with [Microsoft] hardware in Canada, I'm responsible for, so I get pulled into a lot of different things.

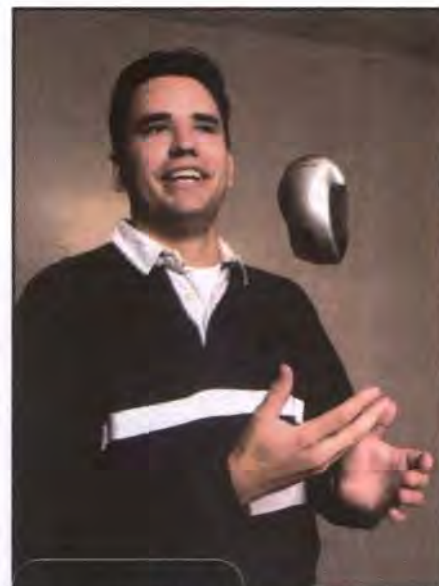
My core responsibilities, though, when it comes to the mice and key-

boards and gaming device lines, would be positioning the products in the marketplace: working with our retail accounts [and] our account team to put the best product plans together, so that when you walk into a Future Shop or a Staples you see our product displayed properly with the right pricing, the right promotion, and the right positioning so consumers understand which product is best for them. That's what I do on a day to day basis.

Now there's a lot of tactical stuff that goes along with that, all the way from just making sure the product gets on the shelf, so working with operations, both here in Canada and in the U.S. where the goods come from; doing analysis on the Canadian marketplace to see where the trends are occurring, are wireless mice bigger or smaller, are prices increasing or decreasing on average; and then ensuring that fits into your plans.

Do you spend a lot of time in meetings?

Not that much. I probably have the typical workday of eight or nine hours—there are busy and slower seasons with everybody's role—but I typically have



Career Profile

Name: Christopher Wolfe
Title: Hardware marketing manager
Organization: Microsoft Canada
www.microsoft.com

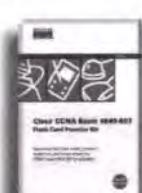
about three hours of meetings a day, which isn't too bad. It gives me a lot of time to really study my product line and

Continued on page 105

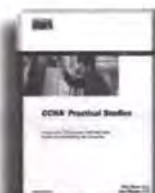
August Computer Book Coupon Promotion Save \$5.00 on all Cisco Press titles



**Cisco CCNA
Exam #640-607
Certification
Guide**
1587200554
\$77.99



**Cisco CCNA
Exam #640-607
Flash Card
Practice Kit**
1587200481
\$61.99



**CCNA
Practical Studies**
1587200465
\$77.99



**Cisco Secure PIX
Firewalls**
1587050358
\$52.95



**Cisco Secure
Intrusion
Detection System**
158705034X
\$74.95



Offer valid from August 1, 2002 thru August 31, 2002.
Visit us at: www.pearsontechnology.ca/powerstore

Cisco Press

This offer is only available at these fine bookstores across Canada

BRITISH COLUMBIA
Granville Book Company
604-687-2213
www.granvillebooks.com

ALBERTA
Computer Book Source
780-429-1077

Nexus Computer Books
403-229-2520
www.nexuscomputerbooks.com

OA Books
780-428-8888 Ext. 457
www.oabooks.com

SASKATCHEWAN
McNally Robinson Booksellers
306-955-3977
www.mcnallyrobinson.ca

MANITOBA
Copperfield's Computer Books
204-477-1961
www.copperfields.com

McNally Robinson Booksellers
(2 locations)
204-475-0325
204-943-8376
www.mcnallyrobinson.ca

ONTARIO
Computer Books For Less
613-233-7418
www.computerbooksforless.com

University of Toronto
Computer Shop
416-978-7925
www.campuscomputershop.com

University of Waterloo Bookstore
519-888-4567 Ext. 2902
www.bookstore.uwaterloo.ca

Wondercom/Wonderbook
905-513-8518
www.itbook.ca

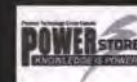
Mississauga Computer Books
905-279-6055
www.canadacomputerbooks.com

Waterloo Computer Books
519-746-6042
www.canadacomputerbooks.com

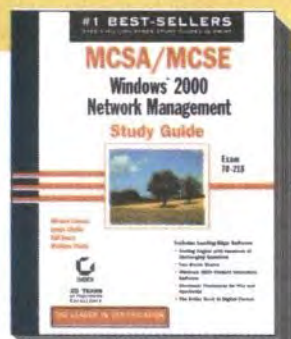
QUEBEC
Camelot Info (5 locations)
450-682-2289
514-861-5019
514-861-7400
514-342-2772
418-653-8888
www.camelot.ca

NEW BRUNSWICK
Roswell Computer Books
506-854-2170
www.roswell.com

NOVA SCOTIA
Roswell Computer Books
902-478-7549
www.roswell.com



Come to Sybex for the skills to pass the exams and the knowledge to do the job.



Covers Exam 70-218
0-7821-4105-6 \$79.95
832 pages



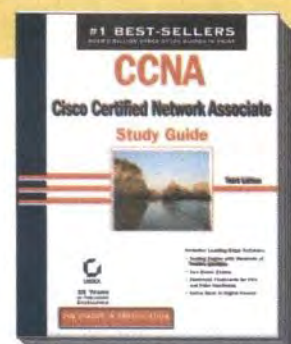
Going for your MCSA? The new MCSA (Microsoft Certified Systems Associate) certification is up and running, and Sybex has what you need to tackle the required exams.



Contains 4 Study Guides
0-7821-4160-9
\$255.95

This value priced box set contains Study Guides for the three core exams as well as the elective recommended by Microsoft.

- MCSA/MCSE: Windows 2000 Professional Study Guide (70-210)
- MCSA/MCSE: Windows 2000 Server Study Guide (70-215)
- MCSA/MCSE: Windows 2000 Network Management Study Guide (70-218)
- MCSE: Windows 2000 Network Infrastructure Administration Study Guide (70-216)

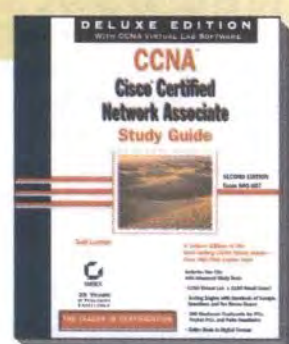


Covers Exam 640-607
0-7821-4167-6
\$79.95
848 pages



Here's the book you need to prepare for Cisco's new CCNA exam, 640-607. Written by a Cisco internetworking expert Todd Lammle this Study Guide provides:

- Assessment testing to focus and direct your studies
- In-depth coverage of official exam objectives
- Configuration practice with a Router Fundamentals Simulator complete with hands-on labs
- Hundreds of challenging practice questions, in the book and on the CD

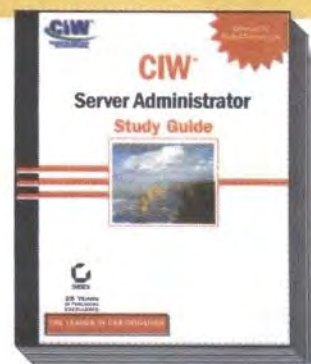


Covers Exam 640-607
0-7821-4169-2
\$143.95
896 pages

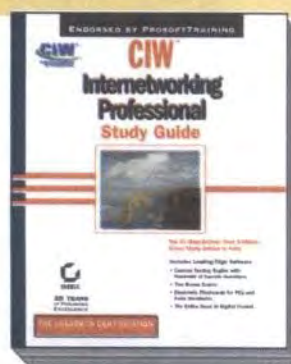


Take the best-selling CCNA Study Guide, add the CCNA Virtual Lab router simulator, and you have the tools you need to approach the new CCNA exam with confidence. The CCNA Virtual Lab simulates a network environment consisting of three routers, one switch, and one host.

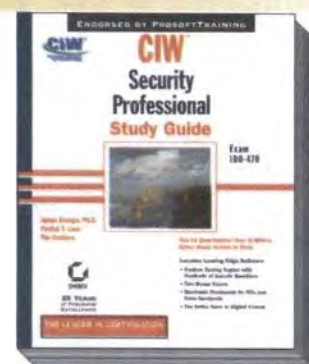
Get on the path toward a successful career as a Web professional with CIW Master Administrator certification. Sybex CIW Study Guides are exclusively endorsed by ProsoftTraining.



Covers exam 1D0-450
0-7821-4085-8
\$95.95
816 pages



Covers Exam 1D0-460
0-7821-4083-1
\$95.95
624 pages



Covers Exam 1D0-470
0-7821-4084-X
\$95.95
784 pages



Distributed in Canada by



FIREFLY BOOKS

3680 Victoria Park Avenue, Toronto, Ontario M2H 3K1
tel: (416) 499-8412 fax: (416) 499-8313
(800) 387-6192 (800) 450-0391

www.fireflybooks.com



Visit www.sybex.com
for content, downloads
and more news.

**Sybex Computer Books
are available wherever
computer books are sold.**

It's the friendliest OS X book, but 'little' it ain't



The Little Mac OS X Book
 Author: Robin Williams
 Publisher: Peachpit Press,
www.peachpitpress.com
 ISBN: 0-201-74866-5
 Softcover 2002 801 pages
 Price: \$44.95

Rating (out of *****)
 Information content ***
 Readability ***1/2
 Overall rating ***1/2
Intended for Beginner

The "little" in the title of this Mac OS X book is a farce—at more than 800 oversized pages, I'd hate to think what a Large Mac OS X Book would look like.

Having said that, author Robin Williams (not to be confused with the comedian) is an acclaimed, award-winning author who has written such classics as *The Non-Designer's Design Book* and the original *Little Mac Book*.

Because of that, this book has some real advantages over others on the same topic.

It is easily the best organized and the most clearly written—I'd even say the

friendliest—of the beginner's level Mac OS X books I've seen.

With a myriad of screenshots and a lucid writing style, it would be hard for a neophyte Mac OS X user to go wrong. That it was written by an experienced user of the operating system comes through in the way she tackles typical problems users might run into.

Of all of the books on OS X I've read, this is perhaps the best for the rank beginner. It's the book I would get for my Mom.

While it claims to go into some more advanced functions, only OS X newbies and the semi-experienced will get much

out of the book.

It would be wrong to complain about the book based on size alone, but titles in Williams' earlier Little Mac Book series were known for their simplicity, concision, and for fitting a lot of truly useful information into a compact text.

Though this new edition tries to harken back to the days of simpler operating systems, something has been lost. I would have been happier with a smaller book that focused on getting users up and running, quickly, with the new OS. It's a good book—better than average, in fact—but "little" it ain't, and that's too bad.

—Keith Schengili-Roberts

Solid Mac OS X guide goes beyond basics



Mac OS X: The Missing Manual
 Author: David Pogue
 Publisher: Pogue Press/
 O'Reilly, www.oreilly.com
 ISBN: 0-596-00082-0
 Softcover 2002 583 pages
 Price: \$37.95

Rating (out of *****)
 Information content ***1/2
 Readability ***1/2
 Overall rating ***1/2
Intended for Beginner to Intermediate

David Pogue has proven his worth as a computer book writer, creating the deservedly successful Missing Manual series as well as a half-dozen of the more notable For Dummies series. Perhaps more importantly for Mac users interested in this book, he is a former *MacWorld* columnist and author of *Mac OS 9: The Missing Manual*. Pogue has a particularly good basis for knowing how OS X differs from its predecessors.

The book covers all of the fairly basic topics found in most of other books on OS

X: getting to know the new layout; using the programs that come standard with the operating system; dealing with font settings; and more. But this book goes beyond the basics, dealing with things like simple networking, using the Unix shell that lies at the heart of the new OS, and even a rather tentative chapter dedicated to "hacking" the OS.

There's enough here to get the OS 9 and wholly new Mac OS users up and running quickly with OS X, and enough depth to make it a useful reference. One particular

feature I liked was the "Where'd It Go?" dictionary, which lists where and under what name Apple has put all pre-OS X features.

While this book arguably has more "meat" to it than most, I was hoping for something that got more into the nitty-gritty aspects of the OS, providing more than just a cursory look at things like the Unix shell.

A good—though not likely to be the best—book on OS X.

—Keith Schengili-Roberts



Learn .NET

"Getting Started with Microsoft .NET"

Two days of hands on training
 July 25 - 26
 Aug 15 - 16

Seat Sale \$399

Learn the .NET Framework from our senior consultants at our convenient downtown training center. See our website for details on all of our .NET courses.

Training@ObjectSharp.com

tel 604.893.7090

fax 604.736.3296

www.ObjectSharp.com

OBJECT SHARP
 CONSULTING



City Tech College

YOUR ONLY CHOICE TOWARD CISCO CAREER

WWW.CCLABS.COM

BEST CISCO LAB IN TOWN!

CISCO LAB RENTAL AVAILABLE (On-site or Remote)

EI HRDC FUNDING MAY BE ELIGIBLE
 CALL YOUR LOCAL EI OFFICE FOR DETAILS

VENDER CERTIFICATION COURSES

- Cisco: CCNA/CCNP/CCDP/CCIE
- Microsoft: MCSE/MCDBA/MCSD
- SUN: Solaris SCSA/Java SCJP

ADVANCED CAREER ORIENTED COURSES

- Internetworking Specialist
- Network and Security Specialist
- System Solution Develop Specialist
- Computerized Accounting (Co-op with BCTax)

Course Info Session: Every Friday 6-8 PM
 EI Info Session: Every Thursday 2-4 PM **Call for Details**

(604)299-8950 3550 E. Hastings Street Vancouver BC V5K2A7
www.citytechcollege.com info@citytechcollege.com

Manager gets mice to market*Continued from page 102*

the marketplace.

What do you like best about your job?

I like the diversity of the role. Being a product manager, you get to kind of dabble in everything. A big chunk of my responsibility is [in] the consumer marketplace—that's where the bulk of my revenues come from. That being said, there's a large OEM (original equipment manufacturer) business with the system builders, so I do work with them as well. I work with distribution. I also work with the corporate side; the large corporations need mice and keyboards as well.

So I get to touch all aspects and I guess all sizes of organizations, which is good because it allows you to learn more, instead of just being purely corporate focused or purely retail focused.

Also, there's a broad range of people I deal with and customers I deal with, [and] within the role there's a broad range of skills needed—analytical skills, creative skills, project management skills. You're not staring at spreadsheets all day, you're not in meetings all day. It's a good mix.

What do you like least?

That's a very difficult question. I wouldn't say "what do I like least," I'd say, "what isn't the most exciting," but it's some of the routine things, things that you do day in and day out, and they're more of just the bookkeeping items. They don't really challenge your thinking, but they're critical to get the job done: things like paying the bills. The more administrative, tactical things are not the most enjoyable, but every role's got those aspects.

What do you do to keep yourself up to speed in your industry knowledge, your job skills, and your product knowledge?

Microsoft's a great company in that they support us across the board in developing ourselves both personally and career-wise. So just little things like getting subscriptions to all the computer and tech magazines: *The Computer Paper*, *Toronto Computes!*, *PC Magazine*, *PC World*. We read them on our breaks, so we can keep up to speed on the latest products and trends. We have relationships with big research companies as

well... the standard computer IT research companies that also provide a lot of insight into what's happening in the industry. And just the newspaper I find is a good place to find out what's happening because usually they know what's going on before everybody else.

In terms of my skill set, beyond industry knowledge, it's just keeping up to speed with the latest marketing trends... through seminars or courses or whatnot. So if you look at the year, I'm probably in two or three weeks a year just learning new things, challenging old concepts.

What would you consider to be the most important skills someone would need to do your job?

I would have to say understanding the product's place in the market as well as the organization. That could be financial, or from a customer point of view, or from your account's point of view, be it a retailer or a corporation. It is a jack-of-all-trades job, so you need to be a well rounded individual to do this role versus a role like, say a financial analyst, which is very numbers-oriented.

[In] this you do need strong analytical skills, but you also need a strong creative and project background.

What are the biggest challenges you would expect to face in your position over the next couple of years?

The biggest challenges would be to continue pushing the limits of creativity, trying to do new things, and getting new breakthroughs in your product lines. Mice and keyboards have been around for quite a while. There's always new variations and new technologies coming out, but it's just pushing the barriers of what customers you can get on board, how you position the products so customers that weren't customers in the past recognize the benefits of a better input device.

When you're not working, what's your favourite way to spend your time?

Depends on the season. In the summer I like to get outside, play volleyball or go bike riding, go to the cottage. I'm a computer person, so I do enjoy tinkering around on my computer, be it software or hardware, and setting up wireless networks, that type of thing. Into winter it's more indoor stuff—reading, watching movies, those types of things. □

NORTHWEST DIGITAL**Microsoft Certified Courses**

3-for-2 Promotion: Receive one free course when you register for two. Courses may be shared among friends and co-workers. Group discounts and customized courses also available. Call (604) 419-7690 for details!

Windows 2000 Server

#	Course Name	Certification
2151	Windows 2000 Network & Operating System Essentials	MCSA, MCSE, MCDBA
2152	Implementing Windows 2000 Professional and Server	MCSA, MCSE, MCDBA
2153	Implementing Windows 2000 Network Infrastructure	MCSA, MCSE, MCDBA
2154	Administering Windows 2000 Directory Services	MCSE
2126	Managing a Windows 2000 Network Environment	MCSA
2028	Basic Administration of Windows 2000	
1561	Designing a W2K Directory Services Infrastructure	MCSE
1562	Designing a W2K Networking Services Infrastructure	MCSE
2010	Designing a Windows 2000 Migration Strategy	MCSE

Network Security & Firewall Software

#	Course Name	Certification
2150	Designing a Secure Windows 2000 Network	MCSE
2159	Deploying Internet Security and Acceleration Server	MCSE
2604	Microsoft Security Clinic	
	Check Point FW-1/VPN-1 Administration Training	CCSA

Exchange Server 2000

#	Course Name	Certification
1572	Implementing & Administering Exchange 2000 Server	MCSE
1573	Designing Exchange 2000 for the Enterprise	MCSE

SQL Server 2000

#	Course Name	Certification
2071	Querying SQL Server 2000 with Transact-SQL	MCAD, MCSD, MCDBA
2072	Administering a SQL Server 2000 Database	MCAD, MCSD, MCDBA
2073	Programming a SQL Server 2000 Database	MCAD, MCSD, MCDBA
2092	Populating a Data Warehouse with SQL Server DTS	

Visual Studio.NET Development

#	Course Name	Certification
2310	Developing Web Applications using Visual Studio.NET	MCAD, MCSD
2389	Programming with ADO.NET	MCAD, MCSD
2555	Developing .NET Applications for Windows (C#.NET)	MCAD, MCSD
2524	Developing XML Web Services using ASP.NET	MCAD
2559	Introduction to Visual Basic.NET Programming	
2373	Programming with Visual Basic.NET	
2124	Programming with C#	
2349	Programming the .NET Framework using C#.NET	
2415	Programming the .NET Framework with VB.NET	

Full
course schedule
available at
www.nwdbc.com

Other Technical Courses

#	Course Name	Certification
	Cisco Certified Network Associate Prep	CCNA
	A+ Certification Training Course	A+ Technician

Microsoft
CERTIFIED
Technical Education
Center

Course fees range from \$850 (2 days) to \$1875 (5 days).

Call 604.419.7690 or visit www.nwdbc.com
Northwest Digital: 12th Floor Metrotower II, Metrotown.
Free parking available. Enter from Central Boulevard.

What's here is coming everywhere

By David Tanaka

TAIPEI, Taiwan—Computex is one of computer technology's biggest events. The annual show, held this year from June 3-7, is primarily an event for buyers (or traders, as they're referred to by event organizers) who come in droves from all parts of the globe. According to show organizers, the final attendance tally was approximately 24,400, a 4.6 percent increase over last year. The top three visitor countries were the U.S., Japan, and Korea.

Just over 1,000 companies were registered as exhibitors. Most were from Taiwan, although an international exhibitor section took up one quadrant of the main hall. The U.S., Korea, and Hong Kong each had their own pavilion, and a fourth area was devoted to other international exhibitors. International or domestic, there's a good chance that the products exhibited in the more than 2,000 booths spread across three locations will show up on a sales shelf somewhere in the world.

The show covers a broad spectrum of IT products, from components to finished goods. Products include both business equipment like bar code scanners as well as computer and consumer electronics.

While some exhibitors mount the kind of massive showcase areas common to trade shows like Comdex or PC Expo, most have standard booths, so the density of exhibitors on the floor is high. The show is organized into zones, though,



Wall-to-wall technology: More than 2,000 booths representing 1,000-plus exhibitors crowd the show floor at Taipei's multi-venue Computex in early June.

which makes it easier to skip whole sections that are not of interest. Here's a few items that caught our eye.

K8 motherboards

Taiwanese manufacturers own the motherboard market. A report in *DigiTimes* magazine states that Taiwan's top four motherboard makers—Asustek, ECS, MSI, and Gigabyte—are responsible for more than half the world's supply of motherboards.

At Computex, motherboard and add-in card makers took over most of Hall 2, and most of the major companies were displaying boards for the new AMD K8 processor, which is scheduled for an October release.

David Bennett, spokesman for Micro-

Star International Co. Ltd. says the MSI K8 motherboard uses the VIA VIAK8HTA chipset, and will come with USB 2.0 support and 5.1 sound onboard. FireWire (IEEE 1394) connectivity will be an option, as will a choice of onboard Bluetooth or WiFi wireless LAN connectivity. The board will have three memory slots supporting DDR333 SDRAM.

Bennett also pointed out MSI's N18 Ultra-ABIL Athlon board, which he said is the first motherboard to include Bluetooth onboard.

Bluetooth? Yes, there was some evidence at the show that Bluetooth may be building a head of steam. In addition to the usual Bluetooth modules, we came across a couple of LAN solutions based

on Bluetooth, including the BlueCute access point from a newly minted company called Albatron.

Albatron started life in the mid-'80s as a TV manufacturer and slowly branched into monitor and computer peripheral production. At the beginning of this year, it took on the new name, Albatron, and a new focus: IT-related products including flat-panel displays, motherboards, and connectivity products like the BlueCute.

Marketing director Darryl Chan said BlueCute is intended primarily for residential wireless networks, where Bluetooth's 10 m range won't be a limiting factor. He says one advantage of Bluetooth is its relatively low power requirements, making it an ideal wireless

SAVE

at least

20% off

Publishers' list price on
every computer book.
Everyday!

Hot Sellers!

	other stores	OUR PRICE
Mac OS X Missing Manual Ver 10.1	\$37.95	30.96
Dreamweaver 4 Win & Mac Visual QuickStart	32.95	26.36
Photoshop 6 Windows & Mac Visual QuickStart	32.95	26.36
Teach Yourself Visually Windows XP	39.99	31.99
Flash 5 Windows & Mac Visual QuickStart	32.95	26.36
Adobe Photoshop 6 Classroom in a Book w/cd	67.50	54.00
Windows XP Dummies	32.99	26.39
HTML 4 for the WWW 4th Ed Visual QuickStart	29.95	23.96
Teach Yourself Photoshop 7 in 24 Hours	38.99	31.19
Java in a Nutshell 4th Ed	61.95	49.56

Book WAREHOUSE

632 W Broadway 872-5711
2388 W 4th Ave 734-5711
4444 W10th Ave 221-5744
550 Granville 683-5711
1181 Davie St 685-5711
1524 Lonsdale 904-5711

Vancouver's own independent
discount bookstore

solution for battery-powered devices like handheld computers.

Handhelds, accessories abound

Speaking of handhelds, bring up the subject of PDAs in Canada and only a few brands come to mind, but more may be on the way, as a number of new devices were on display at the show.

Acer, already a known brand in North America, has two: one based on the Palm OS, and the other on the 2002 version of Windows Pocket PC. The Windows for Pocket PC 2002-based n20 and n20w premiered at this show. Both use Intel's PXA 250 processor, come with 64 MB of RAM, and use a Sony Memory Stick slot for removable storage (the n20 also has an accessory slipper with PC Card and CompactFlash slots).

Dimensionally, the n20 comes within a whisker of Toshiba's svelte new Pocket PC device. The n20w is thicker and heavier, because it has built-in 802.11b wireless and a bigger battery.

The Palm-based s10 was announced last fall, and Acer says it is the first Chinese Palm OS device. Alas, on returning to Canada, we learned from Acer that it has no immediate plans to release either platform in North America.

Eten Information Systems Co Ltd. (www.eten.com.tw) has incorporated a dual band (900/1,800 MHz) GSM/GPRS phone into its latest InfoTouch P600 model, which uses Windows Pocket PC 2002. The unit is powered by a 206 MHz StrongARM processor, has 64 MB of onboard RAM, and has a 65,000-colour screen. It also has MultiMedia Card and Type II CompactFlash slots for expansion. This brand is relatively unknown in North America, but the company says it has sold about three-quarters of a million InfoTouch handhelds in Taiwan and China since 1997.

One company that seemed to have support from many handheld hardware makers is Penbex Data Systems (www.penbex.com), which has developed its own operating system, Penbex OS. We've seen Penbex on this side of the ocean exhibiting at Comdex. The company says the platform will support GSM wireless telephony as well as consumer-oriented multimedia applications like MP3 playback.

A supporting cast of handheld accessories—keyboards, cases, camera attachments, etc.—was also there. A case in point was an innovative folding key-

board from Benq (formerly Acer Peripherals). The nearly full size keyboard is built in three sections. The two outer parts of the keyboard slide over the centre part for compact storage.



Interestingly, when we returned to Canada, a news release from Belkin was waiting for us, announcing that it would be selling it as the G700 Portable PDA keyboard. It will retail for around \$100, and will be available for most Palm models, some Sony Clie models, and the Toshiba e310.

Internet appliances



It might be a product category best suited to Asia (where dimensionally small computers generally do better than they do in North America), but there was a special pavilion devoted to IA (Internet appliance) devices, with 15 companies exhibiting there. In addition, other exhibitors throughout the show also showed IA devices.

Many are based on Microsoft CE/Pocket PC operating system, and are tablet-style units. A case in point is the e-DigiNote Pen Tablet from APlux Communications (www.aplux.com). The unit has an 8.4-inch TFT screen that can be viewed in portrait or landscape mode. It comes with Pocket Internet Explorer and wireless connectivity via expansion cards (the unit has Type II PC Card and Type II CompactFlash slots).

Similarly, EB2000 from Epower.com Technology (www.epower-tech.com) uses Windows CE 3.0 and is architecturally similar, although it has a 10.4-inch display.

Continued on page 108



MAPLE COLLEGE

High Technology & Business Training



NEED A PROFESSIONAL TRAINING FOR JOB FINDING ?
Let us help you step by step to reach the goal !

I. Diploma in Information Technology

Four concentrations

- * **CIW Web Master** (CIW Web Design, E Commerce, Internet Programming)
- * **Developer Solution** (C#, C++, VC++, VB, JAVA Programming, .NET)
- * **Network Administration** (A+ & Network, MCSE, MCSA, MCDBA, CCNA, Sun Unix Administration)
- * **Oracle Database Developer** (Oracle 9i DBA, Oracle 6i Developer, Oracle Internet JAVA Developer)

We welcome:

- * **People who are on EI**
- * **International students**
- * **College transfer**
- * **New immigrants**

II. Diploma in Business Administration

Four concentrations

- * **Business Administration**
- * **Marketing Management**
- * **Computerized Accounting**
- * **Legal Administrative Assistant**

III. Summer certificate programs

- * **Computerized Accounting Certificate**
(235 hours/8 weeks)
- * **Legal Assistant Certificate**
(185 hours/7 weeks)

Intensive ! Start in July !!!

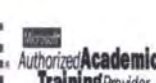
Important message to EI students:

"We will fully assist you for Funding Application (EI)"

More than 100 computers
Free Lab time
Professional instructors
Small Class Sizes

#200-4751 Garden City Rd., Richmond TEL: 604-207-1289 FAX: 604-207-9189

E-mail: admissions@maplecollege.com WEB: www.maplecollege.com



The fast and the frigid



You want fast? Then you need to chill, literally. On display at the Asus (www.asus.com) booth was what the company (formally Asustek Computer Inc.) calls the fastest PC in the world. The system uses an Asus P4B533-E motherboard and an overclocked 2.4 GHz Intel Northwood processor. The secret to keeping the CPU from vapourizing when pushed to 3,000 MHz or higher is a little refrigerator posing as a computer case.

The case is called the VapoChill, from Asetek Inc. of Norway. Inspecting the normal looking tower case reveals a small finned heat exchanger (similar to what you'd see on a window air conditioner) where the power supply fan usually sits. Inside, sitting on the CPU, is a block, presumably the chiller, and insulated plumbing. The person I talked to at the booth could not fully explain how it worked, or how much extra power it required, but it had all the makings of a standard air conditioner: heated fluid flows from the chiller to the finned heat exchanger, where it is cooled, then cycled back to the chiller.

TAIPEI, Taiwan—Gigabyte wants active and potential PC do-it-yourselfers to know that installing a motherboard is not difficult. This was the main message delivered by Bill Hong, vice-president of Gigabyte Technology Inc.'s PCBA Group during a briefing here at Computex.

The luncheon meeting, called Tech Forum 2002, gave the Taiwan-based motherboard manufacturer the opportunity to show what it is doing for the ease-of-use cause. One of the signature design elements of Gigabyte motherboards is Dual BIOS, which improves reliability through redundancy. Hong said that, in addition to viruses, a BIOS can be damaged through improper flashing. The implication was that if users somehow damaged the BIOS during an update gone wrong, the Dual BIOS feature gives them a second chance.

Gigabyte has also developed some utilities to make it easier to adjust motherboard settings. They include EasyTune, which Hong described as a Windows-based platform tuner that provides control of extensive hardware settings through a friendly graphical interface. Another utility,

Ezflex, makes it easier to select the correct multiplier when installing an AGP video card into the AGP slot. Likewise, V-Tuner monitors various hardware settings and provides overclocking utilities. Gigabyte even includes a utility called Face Wizard, that allows a user to create a personalized bootup screen.

On the subject of overclocking, Hong said Gigabyte neither encourages overclocking, nor warranties damage that may result from the practice. But, he said, "we cannot limit what end users can do. Overclocking is not illegal and we get lots of requests on it. We do not encourage it but we know that's what users want."

Miles of motherboards

After the briefing, Gigabyte bussed a group of journalists to one of its five factories for a plant tour. In Ping-Jen, about an hour's drive out of Taipei, is the 45,000 sq. m Nan-Ping plant. The eight-storey structure might be mistaken for an office tower, but in fact only the top floor is for administration with the remaining floors devoted to aspects of the manufacturing

process. Opened in October 2000, the plant employs approximately 1,730 people, and can pump out about 800,000 motherboards and 250,000 network and VGA cards a month.

The Nan-Ping plant includes 17 automated surface mount lines, along which all of the small surface mounted components are inserted by machine. The plant also includes 10 DIP lines, where workers physically add the larger components and PS/2, USB, and other peripheral connectors. The plant also has nine testing and eight packing lines. At the end of the process we wandered through stacks of cartons stamped with their final destination, among them a couple of recognized names of PC distributors in Vancouver and Toronto.

Gigabyte was founded in 1986. It has one additional plant in Taiwan, and three in Mainland China. It currently employs 3,900 people, including about 80 outside of Taiwan and China. The company says its revenue last year was approximately US\$833 million.

—David Tanaka

Asus, the self-proclaimed "king of overclocking," has a number of solutions to keep CPUs cool, including a system called Q-Fan, which varies the speed of the cooling fan according to what is needed, resulting in a quieter and more energy efficient system. Asus also incorporates overheating protection that cuts power to an overclocked CPU before it is damaged.

According to *DigiTimes*, Asustek Computer is the leading motherboard manufacturer in Taiwan, and shipped 15 million motherboards in 2001.

Commodity digital cams coming

If what is being shown at Computex points to what might soon be coming to store shelves in Canada, expect a flood of low-cost digital cameras. Several manufacturers, some recognized in Canada, had a variety of models on display.

In 2000, we looked at Aiptek's (www.aiptek.com.tw) PenCam I, which was about the size of a thick felt-tipped pen—10x3x2 cm (4.9x1.2x0.8 in.). The company has developed several lines since then, including the follow-up Pen-

Cam II, a 1.3-megapixel version, and models with a more traditional camera body style.

Microtek (www.microtek.com), long known in Canada for its scanners, was showing several digital camera prototypes, including one that is smaller than a business card and about 1.25 cm (0.5 in.) thick, and comes on a keychain. While the model on display was a non-working sample, Andy Hu, director of the company's digital camera operations showed us a working model Microtek is manufacturing for a Japanese com- ➤

Vancouver Central College

Tel: (604) 430-5608

www.vancollege.com

Address: 305-4538 Kingsway, Burnaby (Near Metrotown)

OracleWorkforce
Development Program

Authorized
PROMETRIC
TESTING CENTER

Microsoft
Authorized Academic
Training Provider

Diploma In Information Technology

Oracle 9i DBA Oracle Developer
Oracle 8i DBA + 9i Upgrading
Microsoft.Net (C#, VB.Net, ASP.Net)
Java, EJB, J2EE, UML, XML
MCSA, MCDBA, MCSD
UNIX Solaris Administration I & II
Quality Assurance (software tester)
More Courses...

IF YOU ARE ON E.I. AND ARE SERIOUS ABOUT YOUR FUTURE

Our instructors are experienced professionals in IT fields and are deeply appreciated by students for their teaching expertise and their invaluable experience. Work shops provide hands-on trainings which serve as future references.

Diploma in Computerized Accounting

Computer Skills
Financial Accounting
Bookkeeping/Accounting
Payroll and Payroll Legislation
Computerized Accounting Software
Personal and Corporate Taxation
More Courses...

El Information Session: Program and Funding Application Every Tue.&Thur. 3:00PM

Japanese teams triumph in RoboCup

While many sportswriters lamented the scant attention North Americans paid to World Cup soccer action, few if any allocated a single line to RoboCup, a concurrent soccer event also held in Japan and Korea in June.

On the official Web site (www.robocup2002.org), RoboCup is billed as "an international research and education initiative" with a goal to, "by the year 2050, develop a team of fully autonomous humanoid robots that can win against the human world soccer champion team."

This year's competition was the sixth annual event and was held in Fukuoka, Japan, co-sponsored by Busan, Korea. Participants comprised 193 teams from 30 countries, and for the first time, the competition included biped humanoid robots.

Tournament participants were divided into five leagues: simulation, small-size robots, medium-sized robots, four-legged robots, and humanoids. In addition there were two other competitions: RoboCup Rescue, a search and rescue competition; and RoboCup Junior, for younger students.

In a press release announcing its participation in the mid-size RoboCup event, Philips Electronics outlined some of the technologies needed by the robots to play soccer. These include colour recognition so robots could discern the orange ball and propel it toward a yellow or blue goal; kinematics to enable the robots to turn 360 degrees and move around the field; and wireless Ethernet to allow the four robots on the field to communicate with each other.

The Philips Cyber Football team, which was created by a group of 40 Philips employees in their spare time, finished fourth in the mid-size league. First place went to Eigen, a team from Keio University in Japan; followed in second place by WinKIT, from Kanazawa Institute of Technology; and Osaka University's Trackies2002 team in third place.

More details and a complete list of winners is available on the Web site, as is information on past tournaments and winners and future tournaments.

—Sharlene Myers

What's here is coming everywhere

Continued from page 108

pany. When we were in Tokyo a few days later, we saw these cameras in a number of retail outlets, selling for the equivalent of \$120.



DXG Technology Corp. (www.dxgtech.com) showed what it claims is the first colour wrist cam. The VGA-resolution camera has 2 MB of built-in memory, and will download images to a computer through either a USB connection or wirelessly via infrared. Company spokesman Aaron Chen said the product may be available in North America (well,

at least the U.S.) by Christmas, and will cost approximately US\$200. The unit is also a digital watch.

One company we may hear more of in the future is Skanhex Technology Inc. (www.skanhex.com.tw), which had a full line of digital cameras, including a 4.1-megapixel model, on display. Spokesman Kenzo Tseng said Skanhex is five years old, but has only been making digital cameras for the past year. Previously, it made film cameras on an OEM basis for companies like Minolta and Kodak.

Tseng said the company has 300 employees in Taiwan and about 600 in Mainland China. Its 14 production lines in China combined can produce about 40,000 units a month.

The high-end 4.1-megapixel unit uses CompactFlash for storage and includes a 3X optical zoom. Tseng said it would be ready for distribution in September, but so far, the company has not formalized plans for North American distribution. □

Mid-career crisis?

Check out "Managing an IT Career" in the September issue of TCP. Distributed beginning Aug. 14.

TRAINING LISTINGS

Burnaby College

101-1199 W. Pender, Vancouver, B.C.

Tel: (604) 684-9511

450 4th Floor Metrotown, Burnaby, B.C.

Tel: (604) 437-5711

Email: info@burnabycollege.bc.ca

Website: www.burnabycollege.bc.ca

Desktop Publishing, Computer Graphics & Internet Publishing Program.

Internet Professional Program.

City Tech College

3550 E. Hastings St.

Tel: (604) 299-8950

Email: cisco@cclabs.com

Website: www.citytechcollege.com

- CCNA, CCNP, CCIE, MCSE, MCDBA, MCSO, SUN Diploma in:
- Internetworking • Network and Security
- Systems Integration • Systems Solution Development
- Computerized Accounting - coop w/ BC Tax firm

Extranc Technologies Inc.

#100-8120 Granville Ave.

Richmond, B.C. V6Y 3P1

Tel: (604) 821-1114 Fax: (604) 821-1141

Email: academic@extranc.com

Website: www.extranc.com

We are...

- Oracle Authorized (WDP)
- Microsoft Authorized (AATP)

We provide...

- Certification Guaranteed
- Internship Program
- One to one TA Tutoring
- Course Projects Integrated
- Full Time/Part Time available

We offer...

Oracle

- Oracle8i Database Administrator
- Oracle Internet Application Developer Rel.6i

Microsoft

- MCP Windows 2000
- MCSE Windows 2000
- MCDBA Windows 2000
- MCSO Bundled Program

Sun Microsystems

- Sun Java 2 Programmer Program

Langara College Continuing Studies

100 West 49th Avenue

Vancouver, B.C. V5Y 2Z6

604-323-5322 to register

www.langara.bc.ca for info

Certificate Programs:

- E-commerce Business skills and technological expertise to maximize Internet profile
- Computer Skills for the Workplace Comprehensive training for first-time computer users
- Advertising and Graphic Design Skills for print and electronic media careers
- Help Desk Business, technical and communication skills for a successful Help Desk
- Internet Publishing Comprehensive training in the designed and development of Internet and Intranet Web sites
- Local Area Network Administration & Upgrade Technical and management issues of LAN, and professional development

Other course areas:

- Accounting • Database • Hardware • Keyboarding • Macintosh • Multimedia • Networking • Operating Systems • Oracle Database • Presentations • Programming • Project Management • Spreadsheet • Word Processing

Maple College

200 - 4751 Garden City Road

Richmond, B.C. V6X 3M7

Tel: (604) 207 1289 Fax: (604) 207 9189

Email: admissions@maplecollege.com

Web: www.maplecollege.com

Our instructors are fully trained and qualified, and are com-

mitted to helping students learn the skills that will get them certified by using the most up-to-date software and equipment. All of our courses can be transferred for full credit to the University of Phoenix.

- Microsoft - MCSE, MCDBA, MCSO
- Oracle - 9i DBA, Oracle Internet Java Developer
- Oracle 6i Internet Application Developer
- Oracle 8i/9i Upgrade Course
- CIW, CCNA, A+, Network+, C++, .NET
- Sun Unix Administration
- Java Programming & Java Developer
- Computerized Accounting
- Marketing Management Specialization
- Legal Office Assistant Specialization
- Business Administration Specialization

Prometric and VUE testing center job and practicum placement. We welcome EI students.

Northwest Digital

12th Floor Metrotower II, Metrotown

1201-4720 Kingsway, Burnaby, B.C.

Tel: (604) 419-7690

Email: training@nwdbc.com

Website: www.nwdbc.com

Northwest Digital has been launching high tech careers since 1993. We are a Microsoft Certified Technical Education Center accredited by PPSEC. Our programs are ideal for those seeking in-depth knowledge and skills in web application development and server technologies. Daytime and evening courses available.

Please visit www.nwdbc.com for detailed course/program information.

- Network Integration Security Specialist Program
- Microsoft Certified Systems Engineer Program
- Microsoft Certified Systems Administrator Program
- Microsoft Certified Application Developer Program
- Web Development Program
- Cisco Systems and Check Point Technologies Courses

ObjectSharp Consulting

Tel: (604) 893-7090

Fax: (604) 736-3296

Email: training@objectsharp.com

Website: www.objectsharp.com

ObjectSharp Consulting delivers Microsoft.NET training and consulting to corporate customers in Vancouver and Toronto. Our instructors are senior consultants/mentors who actively work on projects and bring this real world experience to the classroom. We train custom and Microsoft Official Curriculum on site or at our convenient downtown training center. Visit our website for details on all of our .NET courses.

Open Learning Agency

Burnaby Skills Centre

115 - 4400 Dominion St, Burnaby, B.C.

Tel: (604) 660-8450

Email: info@ola-bsc.com

Website: www.ola.ca/it

Open Learning Agency (OLA) is a public post-secondary institution that offers on-site training and distance education. Information Technology programs are taught at the OLA Skills Centre. Full-time and part-time courses are offered during the day and evenings.

- Technical Support Specialist
- Oracle8i DBA - Database Administrator
- CCNA - Cisco Certified Administrator
- CompTIA - A+ Certification Program
- CompTIA - Network+ Certification Program
- MOUS - Microsoft Office User Specialist

Funding may be available to qualified candidates.

Sina Executive Training Centre

9th Floor 549 Howe Street

Vancouver, B.C. V6C 2C2

Tel: (604) 730-8885 Fax: (604) 730-8855

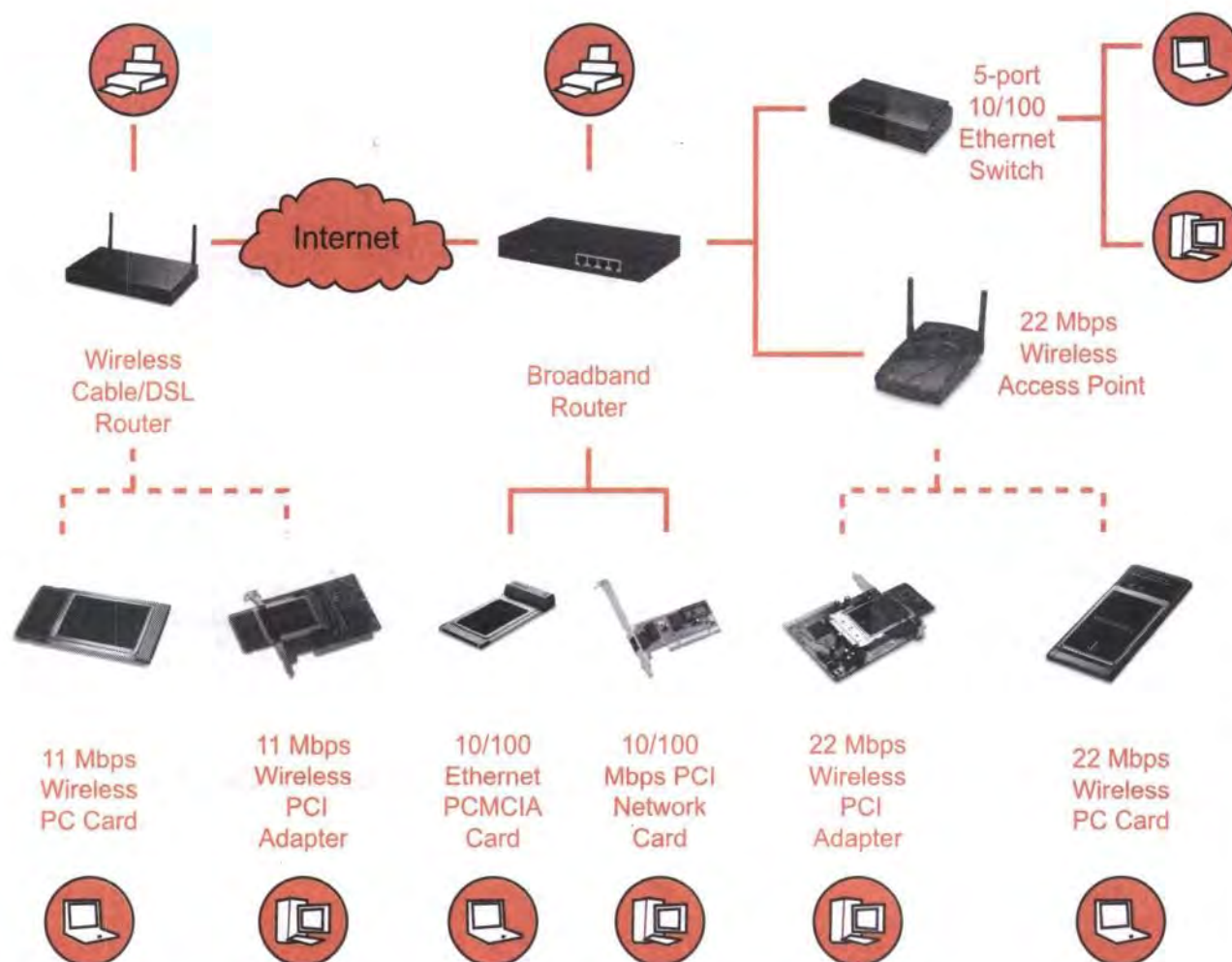
Website: www.sina.ca

Internet Pub/Multimedia & E-Com (32 weeks)
Computerized Accounting (24 weeks)
MS Office 2000 (10 weeks)

21344606

U.S. Robotics®

Ready. Set. Connect.™



Whatever your network needs, we've got the solution - Ethernet or Wireless. Our Ethernet line of networking products offers secure and easy-to-use solutions for a variety of wired networks. Our Wireless line gives you the mobility and freedom to take your network with you to keep you connected from virtually anywhere. Our Routers make it easy to expand your network, share resources, and implement enhanced security features. Choose your solution or mix and match our products to get just what you need to fit your individual networking needs!

For more information, visit www.keating.com/usrobotics/connect or call 1-877-KEATING.

U.S. Robotics is a registered trademark of U.S. Robotics Corporation. Ready. Set. Connect. is a trademark of U.S. Robotics Corporation. All rights reserved.

< NEW & NOTABLE >

PC Expo Report

Innovation still apparent at smaller show

By Sean Carruthers

NEW YORK—PC Expo has long been New York's biggest annual technology event, though that may soon change. This year's PC Expo, which ran June 25-27, was rolled into a larger event known as TechXNY, which also featured a Web services expo and a dedicated DV Expo for those working with digital video. Though this year's event was smaller than previous shows, there were still a number of interesting things happening, and some innovative and interesting products both on and off the show floor. Following are highlights:

Focus on DV

Digital video has become such a big part of the consumer electronics and computer world that a separate hall was set aside to hold this year's DV participants. Hardware companies like Sony, Canon, and Sharp showed off new cameras, while Matrox, ADS, and Adaptec presented capture cards and peripherals. Software companies, such as Adobe and Roxio, were also on hand to talk up their newest capture and editing packages.

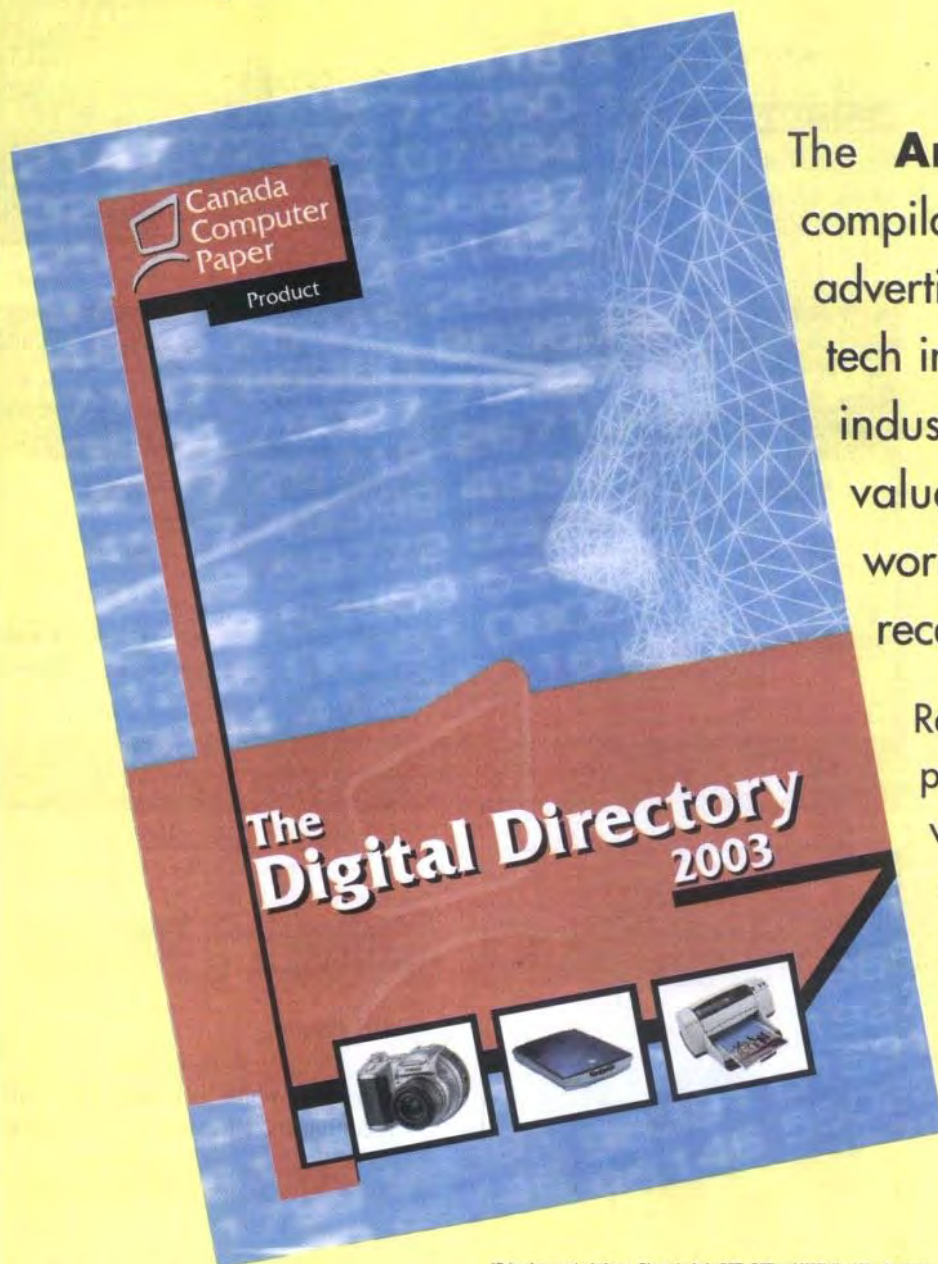
Tablets take off

Though the tablet PC concept has been around for a while, it's never taken off with consumers. Microsoft is betting that that's about to change, with the announcement of the new Windows XP Tablet PC Edition operating system, which brings Tablet PC-specific features to Windows XP. This combination may be what it takes to bring users to the tablet form factor—previous versions had a more scaled back version of the operating system, like Windows CE or Pocket PC for Windows, as opposed to a full version of Windows. This new operating system not only has all of the features of XP, it adds the ability to write on the PC screen using a special stylus. A number of major hardware vendors have announced support for the OS, and some—like Acer Peripherals, Fujitsu, Toshiba, Viewsonic, and VIA—were showing off Tablet PC prototypes that will hit the market as soon as the OS officially ships, sometime near the end of 2002 (possibly in November).

Continued on page 116

The Computer PAPER

We would like to send YOU a
FREE
Digital Directory!



The **Annual 2003 Digital Directory** is a compilation of all **Canada Computer Paper's** advertisers- exclusive suppliers to the Canadian high-tech industry. You will get a comprehensive guide to industry resources, knowledge and factoids--and valuable coupons for your office, home or workshop! Sign up for a **NEW** subscription and receive a **Digital Directory** absolutely FREE!

Receive **12** issues of Canada's leading technology publication right on your doorstep! Find news, wired and wireless information, careers and training, the latest trends on computing platforms and hands-on evaluations of the latest hardware and software. Don't miss it!

Simply fill out the form below and mail, with your payment to:
625 Church St., Suite 600 Toronto, ON M4Y 2G1
Or, fax, toll free, to 866-263-0899,
email subscriptions@tcp.ca, or call, toll free, 800-263-0899

*Price does not include tax. Please include GST, QST and HST. For US subscriptions, please send \$75 Cdn. For International subscription, please send \$135 Cdn.

☒ YES! I want to receive 12 issues of **The Computer PAPER** for ONLY \$19.99* and receive a **FREE** Digital Directory!

Name _____

Address _____

City _____ Prov. _____ Postal Code _____

E-mail or Telephone Number _____

☐ VISA ☐ MasterCard ☐ Cheque ☐ Money Order

Credit Card Number _____ Expiry Date _____

Signature _____

Cover Price: ~~\$47.40~~
(12 issues)
YOU Save: \$27.41
OVER 57%!
PLUS, get your **FREE** Digital Directory!

Subscription Price: \$19.99
Taxes: \$1.40

Total: **\$21.39**



*Price does not include tax. Please include GST, QST and HST. For US subscriptions, please send \$75 Cdn. For International subscription, please send \$135 Cdn.

MEMORY HOUSE INC.

#3-3671 Viking Way, Richmond, B.C. V6V 2J5
Tel: (604) 821-1178 (604) 821-1107
Email: mhi@memoryhouse.ca
<http://www.memoryhouse.ca>



Competitive Pricing!

- Specializing in wholesale and distribution
- SDRAM 168PIN PC133, PC133, PC100, 144PIN Notebook RAM
- EDO, Fast Page, True Party
- Intel-Coppermine, Katmai, CELERON, PENTIUM
- AMD-Athlon, K6II
- **LIFETIME WARRANTY** on Memory Module
- **Notebook Harddrive**

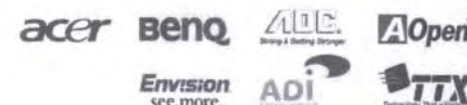


ALL PRODUCT NAMES, TRADEMARKS AND REGISTERED TRADEMARKS ARE PROPERTIES OF THEIR RESPECTIVE OWNERS. 21632806



Authorized Warranty Service Center

Monitor Repair



All Brands Welcome!
We repair CRT & LCD Monitor, Scanner.

Cybertec Industries Inc
#108 - 3840 Jacombs Road
Richmond BC V6V 1Y6

Tel: 604-233-1000
Fax: 604-233-1001
www.cybertec.bc.ca



JMTek USB Drive
32/ 64/ 128/ 256/ 512/ 1024 MB
\$53 / 79 / 137 / 245 / 509 / 1046

Digital Voice Pen



M925 M935
M925 - record 9 hs 20 min \$251.00
M935 - record 27 hs 30 min \$325.00



EasyDisk USB Drive
64MB / 128 MB / 256 MB
\$79.00 / \$137.00 / \$245.00

Digital Voice Pen



P755 \$1545
P755 - record 16 hs \$228.00
S1545 - record 15 hs 40 min \$277.00



15" LCD
\$559.00

17" MM LCD
\$ 998.00

Datus LCD Panel

Wireless Solutions:

11Mbps Mini USB	\$ 119.00
22Mbps PCI Card	\$ 119.00
22Mbps PCMCIA Card	\$ 99.00
22Mbps Access Point	\$ 199.00
22Mbps Router	\$ 229.00

BUY THEM NOW @ www.e-shoppers.ca or @ www.shopeastar.com

Monitor King

We buy & recycle Monitors
Special (with this ad)

Monitor Repairs

14"	\$59.00
15"	69.00
17"	99.00
19"	179.00
21"	265.00

Monitor Sales

14" VGA	\$39.00up
14" SVGA	49.00up
15" SVGA	69.00up
17" SVGA	135.00up
19" SVGA	249.00up
21" SVGA	349.00up

21" VGA
from \$349

19" SVGA
from \$249

Monitor King

103 - 11500 Bridgeport Rd.
Richmond, B.C. V6X 1T2
Tel: (604) 270-2677
Fax: (604) 270-2630
Toll free: 1-888-918-5464

2716 West 4th Avenue
Vancouver, B.C. V6R 1R1
Tel: (604) 733-0101
Fax: (604) 733-0322
Toll free: 1-888-918-5464

No Fix - No Charge
That's our policy

Pick-up + Delivery \$15.00
(Greater Vancouver)

Big Computer Swap Meet

Saturday August 10th 11:00am - 4:00pm
Croatian Cultural Centre - 3250 Commercial Drive, Van., BC

Bargains, Deals, Fun, Friendly, Great Prices, Expert Advice, Door Prizes

ADMISSION:

Adults \$3.00

DEALER INFO:

50 - 8 ft. tables \$40.00 each
Don't Miss Out! One Day Only!
For Table Reservations and More Info:
★ Phone: (604) 521-6304 ★
Email: funpromo@shaw.ca

Website:

www.geocities.com/turnbuckle99

12th Ave. Broadway
◆ SkyTrain Station
16th Ave.

Croatian
Cultural
Centre

21241706

Printers
Computers
Fax Machines
Copiers, Networking

SERVICE!

Call 604 418 6823 or 821 1451
SBS Tech Services, Inc.
www.sbstech.ca

17" MONITOR - \$70

* 17" (IBM PHILIPS)	\$70~99
* 15" (IBM DELL NEC)	\$35~59
* IBM 300GL (PII266 System)	\$135
* MMX 200 System	\$99

Apex Computer Inc. 2985 Rupert Street, Vancouver
Tel: 604 438-5248 www.apexcomputer.ca

www.eeseehosting.com

World Class Hosting Solution

\$0 WEB HOSTING

without banner ad



Cartridge Depot



HP Authorized Reseller

Printer, copier, fax, monitor repair
New and manufactured cartridges
Ink and Toner refill service



Ink Toner Refill, Save Up to 75%

Satisfaction Guaranteed

#1692-4500 Kingsway (@Willingdon, the Crystal Mall) Burnaby
Tel: (604) 439-9497 Free pickup and delivery over \$50

22013906

CAL'S Computer Mall

OPEN 10AM to 10PM 7 Days a Week

10,000 Sq Ft

Tons of
Parking

Over 10,000 New + Used Parts
New & Used Systems, Printer etc.

You're
Gonna Love
this Place

Why
Pay
Retail??

- Service Rate \$49⁰⁰/hr
- Complete MAC Dept. laptops from \$249⁰⁰
- Color Monitor from \$38⁰⁰
- Check out our Museum

Vancouver's Biggest & Best Computer Store

NOBODY BEATS OUR PRICES

Tons of New & Used Books, Software, Parts, Etc etc etc...

3083 Grandview Highway in Vancouver
Goseecal.com • (604) 437-5551

22010206

CYTOINK CARTRIDGE PLUS Inc. 'The Ink & Laser Specialists'

MEETING ALL YOUR PRINTING NEEDS



INK REFILL	from \$2.00
COMPATIBLE CARTRIDGES	from \$2.99
REFILL KITS	from \$9.99
TONER CARTRIDGE	from \$15.00

OEMs 10% below our competitors' prices

Full warranties for all our products

We collect empty cartridges

Head Office: 150-4320 Viking Way@Cambie (Richmond):.... 604 270 8825
Fax.... 604 270 8652

925 Seymour (Downtown):..... 604 408 4203

210-3340 Kingsway:..... 604 438 2408

4550 Kingsway (Burnaby):..... 604 430 2411

No. 1-987 Marine Dr (North Van):..... 604 985 5696

Web site: www.cytoink.com

email: sales@cytoink.com

Fax Orders: 604 270 8652

Store hours:

Mon-Fri 10am to 6pm

Sat 11am to 5pm

excluding head office

211820406

Is your computer being a
MONSTER???
We can TAME it!!!

Upgrades, Home or store service & basic training

SYSTEMS

Intel P4 1.7Ghz **\$988**
AMD Netsurfer 1.1Ghz **\$600**
Intel P233mmx **\$275**
Pentium Netstations **\$100**
"Bare Bones" Pentiums from **\$25**

LAPTOPS

Dell Lat. PII-300 **\$800**
IBM TP P150mmx **\$400**
Canon Portable Printer
w/Sheet Feeder **\$75**



FLAT-RATE MONITOR REPAIRS*

14" \$50; 15" \$60; 17" \$100; 19" \$150; 20/21" \$225

*Flat-rate includes upto \$25 in parts & do not cover tube or flyback

Prices are CASH discounted & subject to change. phone for most current pricing. 21610806

BC Compusolve Inc.
We buy & sell New & Used Computer Items

#206 - 5679 Imperial St, Burnaby
Phone: 604-437-6919 Mon-Fri. 10am-7pm, Sat/Sun Closed

Specializing in computer

MONITOR

Repairs

- ❖ All models from 14"-21"
- ❖ Free estimates
- ❖ Pick-up and delivery
- ❖ Three month warranty
- ❖ Monitor loan available

Monitors For Sale!

AERO Monitors

#116-2323 Boundary Rd. Vancouver

Tel: (604) 298-4455

21173506

CD-R DVD-R

- DISTRIBUTION -

PRINCO PRODISK RITEK SONY MITSUI TAIYO YUDEN

CD-R \$0.43 PioneerDVD Recorder A04 \$6.35 DVD-R \$3.99

CD-R, CD-ROM DUPLICATION, SILKSCREEN
THERMAL PRINTING, PACKAGING.

FIRST CHOICE RECORDING MEDIAS INC.

120-12820 Clarke Place, Richmond, BC, CANADA, V6V 2H1

Email: firstchoicerecording@telus.net

Tel: 604-273-8301 Cell: 604-836-3988 Fax: 604-273-8391

21173506

AUTOCAD

BY CORRESPONDENCE

AutoCAD Operator Certificate, AutoCAD,
AutoCAD LT, AutoLisp, 3D Studio, MicroStation.
SAIT, Construction Dept.

email: cadd@sait.ab.ca www.sait.ab.ca/cadd



For more information
call 284-8430

1301-14TH AVENUE N.W.
CALGARY, ALBERTA T2M 0L4
www.sait.ab.ca

21278706

Ink Cartridge/Toner

Brand new compatible ink cartridges:
For Canon: BCI-21 from \$3.25, BCI-24 from \$5.25
For Epson: C60 from \$15.00, C80 from \$10.50
Other models also on sale. Ink refill from \$1.99
Printer and copier toner refill from \$14.99

Reseller Wanted
Free Training

Trade in your printer for
up to \$50. We collect &
recycle empty cartridges.

Everlasting Business Solutions Inc.
280 - 4611 No.6 Road, Richmond (M-F 9:30-7)
(604) 232-9282 www.EverlastingBusiness.com

22014606

MULTIMEDIA PRODUCTION SOLUTIONS



- CD Duplication / Replication
- CDR Printing (screen / inkjet / thermal)
- Custom Offset / Digital Printing
- Assembling and Packaging
- Diskette Duplication
- Tape to VCD, MPEG1 and AVI transfer

- Business card CD
- Mini / Shape CD
- Standard CD ROM / Audio
- MediaFORM CDR Copiers
- AFFEX CDR Printers
- Packaging Supplies



**Quality Service
Fast Turnaround**

PROGRESS Media Duplication
www.progressmarketing.com
#110-12811 Clarke Place
Richmond, B.C. V6V 2H9
Tel: (604) 821-0066 (800) 818-6944
Email: sales@progressmarketing.com

TDK • FUJI • Maxell • Princo
Affex • SKC • Avery • MediaFORM

21995806

oh no.
virus.
media crash.
data loss. we can help.

Your data is important to us.
So are you.

1.800.551.3917
(1) 905.479.9938
(1) 905.479.1515
105-590 Alden Road
Markham, Ontario
L3R 8N2
Canada

www.cbltech.ca
VIRUS ALERT CENTRE
CBL Data Recovery Technologies, Inc.
The lost-and-found for 1s and 0s

21611806

DataRecoveryBC.COM

Start from \$75/hr. Successful rate: 88%

From dead, deleted, formatted, fdisked, corrupted, virus infected, water & fire damaged, inaccessible devices: hard drive, tape, raid, removable, optical, CDRW, CD, flash memory, zip, file, password, forensic service ...

Windows / Dos / Mac / Unix / Netware / VMS

13 Years of Quality Computer Service
No File - No Charge

(604) 681-3770

Toll Free: 1-877-460-3670
M-F: 9:30 - 5:00 pm PT



#745 - 1050 W. Pender St. Vancouver, BC V6E 3S7
Tel: (604) 681-3770 Fax: (604) 681-3739
help@DataRecoveryBC.COM www.DataRecoveryBC.COM

ChromaSoft

Computing Services

**DATABASE
APPLICATION
SPECIALISTS**

Call 604.970.2550
randal@chromasoft.com

- Microsoft Access
- SQL Server
- ASP/.NET Web Apps
- Crystal Reports

www.chromasoft.com

22022806

G4 Systems Corp

#220 - 515 W. Pender St., Vancouver, BC, V6B 6H5
Tel: 604-633-1638 Fax: 604-633-1639

Network Solutions

Network Security & Admin
Design, Implementation, &
Migration
Premises Wiring & Cabling

On-Site Services

Emergency Troubleshooting
Computer Maintenance &
Support
Hardware & Software
Installation

Data Recovery

Hardware Failure
System Malfunction
Accidental Erasure or
Formatting
File Corruption or Virus
Infection

www.g4systems.net

21650806

Get Your New Web Address

.COM .NET .ORG .INFO .BIZ

www.

go

**EASY
HOST**

**ONLY
\$14.95!**
USD per year

- ☐ Free Web Page
- ☐ Free E-mail Forwarding
- ☐ Free Domain Forwarding

www.easyhost.com

22007406

simmttec Tel: (604)273-5581
1-800-895-3456
E-mail: Lee@simmttec.com
Ruby@simmttec.com

**Manufacturer & Suppliers of Memory
10 Years of Excellence**

FOR FACTORY DIRECT PRICES ON
72 PIN, 30 PIN SIMMS, 168 PIN SDRAM, RAM BUS & DDR MODULES

SPECIALIST:
PROPRIETARY MODULES FOR NOTEBOOKS & PRINTERS FROM A TO Z

21628606

Linux RedHat Server Specialists Sales-Service

Linux Troubleshooting/Installation/Administration
Complete Pre-configured servers
Email Sendmail Qmail Samba VPN Firewalls Apache
We make Linux and Windows work together
Tel 604.720.0954 Fax 604.720.0041
Info@scws.ca

21995906

Flat Rate Pricing

NO DATA, NO CHARGE

53 Gore Drive
Barrie, ON L4N 5R5

**1DATA
.COM**

EMERGENCY DATA RECOVERY

TOLL FREE 1-888-712-7787

22011106

FileMaker Hosting

	Plan 1	Plan 2	Plan 3	Plan 4
DBs	3	6	9	50
Middleware	CDML	+Lasso	+Lasso	+Lasso
Monthly	\$40	\$60	\$90	\$150
Backups	NA	NA	Yes	Yes
IP Address	NA	NA	NA	Yes

TOLL FREE 1.888.748.0668
SALES@NEOCODESOFTWARE.COM
WWW.NEOCODESOFTWARE.COM

21731206

AUS AsYouSee.com Enterprises
99min/90min/80min

Platinum CD-R	Mini 8cm 185MB 4X CD-RW
Light Blue CD-R	Mini 8cm 185MB 10X CD-RW
Mini 8cm 185MB CD-R	Color CD-R
Business Card CD-R	Printable CD-R
Black CD-R	DVD-R
Diamond CD-R	CD Duplicator
90 & 99min CD-R	CD replication and printing services
700MB 10XCD-RW	

40X80min CD-R
\$0.40

STORE: 1613-4500 KINGSWAY, B.V. B.C.
OFFICE: 2102-6088 WILLINGDON AVE. B.V. B.C.
11:00AM-9:00PM WE ARE OPEN 7 DAYS A WEEK
TEL: 604-4386316 FAX: 604-4386755

21930306

SOHO Skyway

482.1222

Power-up your LAN

Full Service Internet Service Provider since 1996

ISDN, Analog, ADSL

sales@sohoskyway.net www.sohoskyway.net

order your ADSL now

22011706

NOTEBOOK DOCTOR
The Laptop Specialists

Goto our webpage for all models and prices **TOSHIBA**
Best Toshiba Prices In Canada **IBM**

Repair - Service - Upgrade

- Hard Drive Upgrades
- Memory Upgrades
- Modern Upgrades
- LCD Screen Repair
- Battery Reconditioning
- Software Troubleshooting
- Data Recovery
- Spill Cleanup
- Software Optimization
- Windows Tune-up & Tweaking

Call Now! (604) 303-8600
Toll Free 1-888-222-8082
www.comwellgroup.com

22010706

Rebuild Notebook Battery Packs

Specializing in rebuilding:
IBM, Toshiba, NEC, Compaq... **Li-Ion & NiMH** notebook batteries.

"The Solution to Your Battery Needs"
Battery Supplier and Assembler for Consumer & Industrial applications.
Alkaline, Lithium, NiCd, NiMH, Sealed Lead Acid [UPS], Photo,
Li-Ion, Notebook, Specialty Batteries...

D W Technologies Ltd.
#132-2323 Boundary Road
Vancouver, B.C. V5M 4V8

Tel: 604-205-6928
Fax: 604-205-6918
E-Mail: dwtl@telus.net

21649806

ELIMINATE POOR NETWORK PERFORMANCE
NETWORK CABLING SPECIALISTS

DATA, VOICE, FIBRE CABLING

TEL DATA
Cabling Services

Servicing the Lower Mainland
604-294-0399

Also New & Used Commercial Telephone Systems

21707906

AD INDEX

3J Computers	46	Intelligent Batteries Inc.	112
A Crazy Computer	36	Internet Lightspeed	54
A-LINX Computer	84	Intertech O.A.	40
A-Power Computers	57	IOridge Technology Ltd.	116
Ad Index	116	J & L Multimedia	76
ADDAX Computers	79	Laptop Closeout.com	78
Aero Monitors	114	Leadtek Research Inc.	37
Alentus	58	Legend Computer	83
Anitec Computer Technology	67	Lexmark Canada	44
Aopen	7	LG Electronics	11
Apex Computer Inc.	113	Linux Motor	112
AsYouSee.com	115	Look Residential	35
AT&T - Connectivity	13	Lynx Communications	100
ATIC Computer	33	Manual Labor Services	98
ATOP Computer	75	Maple College	107
Auction4it.com	48	MDG Canada	120
BC Compusolve Inc.	114	MDI	26
Bestop Computers	31	Mecca Internet Solutions Ltd.	72
Book Warehouse	106	Memory House Inc.	113
Cal's Computer Mall	114	Micro Concept	16,18
Canadian Computer	49	Monitor King	15
Cartridge Depot	114	MSI Microstar	113
CBL Data Recovery	115	"Multimedia Technologies	43
CE Computer Outlet	81	Netlink	99
Chroma	115	Neo Code Software Ltd.	20
CityTech College	104	Network Control	115
Classified/User Group	112	New Type Computers	98
Com Canada	55	NextGen Computers	77
Compu 2000	88	Northwest Digital	82
Compugear Systems	62	Notebook Doctor	105
Computer Swap	113	Nu Age Computer Plus	115
CompuTrak Systems	41	ObjectSharp Consulting	89
Crystal Computer	24	Pacific Online Services	104
CSP Computer	71	PC World Computer Ltd.	42
Cybertec Industries Inc.	114	Pearson Technology Group	73
Cytoink Cartridge Plus Inc.	113	Phase 1 Systems	102
Daiwa	117	planetvelocity.com	9
Dangeo.com	38	Powersonic Computers	32
Data Fortress	28	Progress Media	87
DataRecoveryBC.com	115	Promar Enterprises Company Ltd.	115
DCC Technologies/Discount Mac C.	93	Rock Computer	4
Dell Canada	2	SAIT	29
Digital Directory	118	Samsung	114
DollarHost	50	SBS Tech Services	3
DomainPeople.com	30	Simmtec Industries Ltd.	113
DW Technologies	115	SOHO Skyway	115
Easter Technology Distribution	114	Sonex Computers	115
EasyHost	115	Standard Computing & Web Servic	65
Eglobal Computers Inc.	53	Static Core	115
Elosoft	86	TCP - subscription ad	51
Eprom	66	Teldata Cabling Services	111
eSeeHosting.com	113	The One-Off CD Shop Inc.	115
Ever Lasting Business Solution	114	Toptech Computer Inc.	78
Eversource Technology Inc.	60	Training Listings	47
Extranc Technology Inc.	101	US Robotics	109
Factory Direct.ca	39	Vanco Computers	110
Firefly Books	103	VancouverCentral college	59
First Choice Recording Media I	114	Vastech Computer	108
Fly Computers	63	Viewsonic	69
Frontier Computer	27	Worldwide Computers	5
G4 Systems	115	www.inkjetmart.com	97
Generic Computers	68	Yamaha	58
Gigabyte Technology	25,10		
Hitech Exchange	112		
ICI Computer	22		
Imada PC Inc.	81		

The Computer Paper is not responsible for errors or omissions.
The Ad Index is printed as a courtesy to our readers and advertisers.

< PLATFORM NEWS >

Innovation still apparent at smaller show Continued from page 110

Xerox wins the race

Though Xerox's accounting procedures caused quite a stir immediately following PC Expo, there was also a bit of excitement at the show itself. On a stage set up at the Xerox booth, right in the middle of the show floor, onlookers watched as Gil Hatch (president of Xerox Office Systems Group) demonstrated the newly announced 45 page per minute (ppm) Document Centre 545 printer. Given a series of tests set up by an independent third party, the printer outperformed three other printers with higher rated speeds, most notably a Ricoh printer rated at 105 ppm. Xerox also announced the first printer for the North American market to use Emulsion Aggregation toner (developed at the Xerox Research Centre of Canada, in Mississauga, Ont.). Previously, the toner was only available in the Asian market through the Fuji-Xerox partnership.

Xplay hooks the iPod to your PC

Apple's iPod MP3 player turned a lot of heads when it was introduced—only problem was, it would only work with a Mac, leaving Windows users out in the cold.

Mediafour Corp. (mediafour.com/xplay/) has come to the rescue with Xplay, software that allows users with Windows 98SE, Me, 2000, and XP systems to hook an iPod up to their PC. The software treats the iPod like an external hard drive, and allows users to tweak their ID3 data tags using a dialogue on the PC.

AG Neovo toughens up flat panels

Flat-panel monitors are also big news these days, but you probably don't want to put a standard flat-panel onto your desk if you have small children in the same house, for fear of damaging the pricey peripheral. AG Neovo's new line of monitors may change your mind, though: both the M Series and X Series of monitors have a protective glass panel mounted over the delicate screen that can protect it even from fairly sharp blows. Despite having the extra layer in front of the screen, display quality is still excellent, and the viewing angle remains very wide, at 160 degrees (horizontal and vertical). Both monitors feature TV input, and the M Series also incorporates multimedia speakers. The M Series starts at US\$589. The 17-inch version of the X Series runs around US\$999, while the 15-inch version checks in at a lower price point. □

IOridge Tech. Ltd.

IOridge Tech.LTD
Tel : 604-437-8771
For Chiness : MicroSea : 604-649-7851
KoDoMo : 604-436-3222
Business Hour : Every day : 10:00-18:00
1682-4500 Kingsway Burnaby V5H2A9
(Crystal Mall at Kingsway & Willingdon)

FireWire / USB 2.0 External Enclosure (Drive Kit)		
	FireWire Ext. Enclosure (Drive Kit)	\$149
	FireWire CDRW(32*10*40) / CDRW+DVD (Combo)	\$258/\$278
	USB 2.0 Ext. Enclosure (Drive Kit)	\$139
	USB 2.0/1.1 CDRW(32*10*40) / CDRW+DVD (Combo)	\$248/\$268
	FireWire+USB 2.0 (Combo) Ext. Enclosure (Drive Kit)	\$199
	FireWire+USB 2.0 (Combo) CDRW(32*10*40)	\$279
	FireWire+USB 2.0 (Combo) CDRW+DVD (Combo)	\$299
	FireWire Ext. Enclosure (Drive Kit)	\$149
	FireWire 40GB / 80GB HDD (7200RPM)	\$249/\$299
	USB 2.0/1.1 Ext. Enclosure (Drive Kit)	\$139
	USB 2.0/1.1 40GB / 80GB HDD (7200RPM)	\$239/\$289
	FireWire+USB 2.0 (Combo) Ext. Enclosure (Drive Kit)	\$199
	FireWire+USB 2.0 (Combo) 40GB/80GB (7200RPM)	\$299/\$339
	FireWire Ext. Enclosure (Drive Kit)	\$109
	FireWire 20GB / 30GB HDD	\$258/\$299
	USB 2.0/1.1 Ext. Enclosure (Drive Kit)	\$99
	USB 2.0/1.1 20GB / 30GB HDD	\$248/\$299
	FireWire+USB 2.0 (Combo) Ext. Enclosure (Drive Kit)	\$199
	FireWire+USB 2.0 (Combo) 20GB / 30GB HDD	\$348/\$399
FireWire / USB 2.0 Products		
	Gold Plated 6" 6-4pin Cable For i-Link CamCorder	\$15
	4 Port 1394 FireWire Card	\$38
	4 Port 1394 FireWire Card + 6" (6-4pin) Gold Plated Cable	\$49
	4 port 1394 Card + 6" (6-4pin) Gold Plated Cable + S/W	\$55
	\$79.00 Alpha WebCam Plus USB WebCam 30FPS, USB 1.1	
	\$29.00 Mini USB CF Card Reader	
	\$159.00-\$99.00 Nideo Combo Camera Digital Camera +WebCam	
	\$89.00 PCI TV Tuner Card with Remote	
	\$54.00 4+1 Port USB 2.0 Host Adaptor	
	\$58.00 Cardbus 1394 Adaptor for Notebook	

DAIWA

DAIWA DISTRIBUTION INC.

Unit 11-13, 13520 Crestwood Place
Richmond B.C.

V6V 2G3

Tel: (604) 244-9912

Fax: (604) 244-9986

Tech: (604) 244-9195

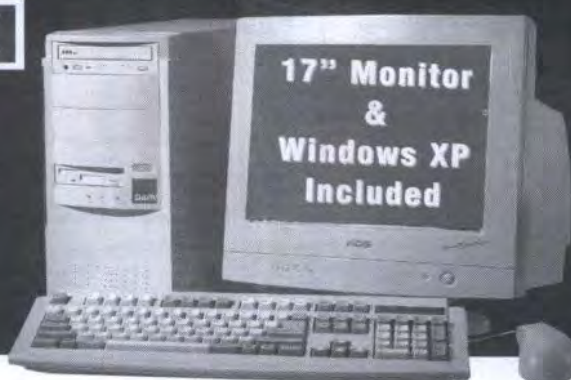
Website: www.daiwa.net

email:daiwa.bc@daiwa.net

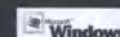
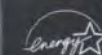


PANDEX

Pandex Computer Systems Distributor of



2 Year
Warranty



All Systems Include:

Panasonic 1.44 Floppy drive,
17" Mid Tower Case,
52x IDE CD ROM Drive,
GVC V.90 (Host Based) Voice Fax Modem,
GVC 10/100 Ethernet Network Card
MLi/Creative Labs Stereo Speakers,
Qtronix 107 Win 98 Keyboard,
Logitech PS/2 Wheel Mouse w/Pad,
KDS VS-7 17" SVGA Monitor,
MS Windows 98 SE / Me / XP
Two Year Parts & Labour Depot Warranty

Discover Performance That's More Than Megahertz



**Dealers
Welcome**

1-877-BC-DAIWA

Altitude Computers
(Whistler)
905-3426

JB Computer Sales
(Vernon)
(250) 549-2041

Interaction
(N. Vancouver)
987-3472

TTM Computers
(Tofino)
(250) 725-1272

Genius Computer Center
(Cranbrook)
(250) 489-4080

Answers Technologies Inc.
(Langley)
888-7904

Ramsbottoms Computers
(Nelson)
(250) 354-4300

* Nominal charges for
installation and consultation may apply to special items
* All Pricing is already cash
discounted and subject to change without notice
* All trademarks are the property of their owners
* Products may differ from illustration

GOLD SERIES - Advanced Performance

- **MSI 6330 Turbo2** ATX Mainboard
- PC-133 128MB SD DIMM RAM
- ATA-100 20GB EIDE Hard Drive
- nVidia TNT-2 AGP Video Card 32MB RAM
- On-board Audio output



AMD Duron™
1.1G **\$950**
1.2G **\$970**



EXTREME SERIES - For Gamers

- **MSI 6380 KT3 Ultra** ATX mainboard
- PC2700 256MB DDR SDRAM - 333MHZ
- ATA-100 40GB 7200RPM EIDE Hard Drive
- MSI 8872 GeForce4 **Titanium** 4600 AGP video card
128MB RAM w/TV output
- Sound Blaster Live! Audigy Sound card



AMD Athlon XP
XP1800+ **\$1660**
XP1900+ **\$1800**
XP2000+ **\$1950**



PLATINUM SERIES - For DDR Performance!!

- **MSI KT266Pro 2A** ATX Mainboard
- PC2100 256MB DDR SDRAM
- ATA-100 40GB EIDE Hard Drive 7200RPM
- **MSI 8860 MX420 AGP video card**
64MB RAM w/TV output
- Sound Blaster 128 PCI Sound Card



AMD Athlon™
XP1700+ **\$1199**
XP1800+ **\$1210**

DIAMOND SERIES - P4 Power

Equipped with
DDR SDRAM!

- **MSI 6547** ATX Mainboard (**645 Ultra**)
- PC2100 256MB DDR SDRAM
- ATA-100 40GB 7200RPM EIDE Hard Drive
- **MSI 8871 GeForce4 Titanium 4400 AGP video card**
128MB RAM w/TV output
- Sound Blaster Live! 5.1 Dolby Digital Sound Card



Pentium 4
1.7G **\$1590**
1.8A **\$1640**
2.0A **\$1690**



Authorized Distributor

MSI
Link to the Future

www.msi.com.tw
www.msi.computer.com



845E MAX2-BLR (MS-6398E)

- 478-pin P4 CPU
- DDR Support (266MHz/333MHz)
- RAID /USB 2.0
- 5.1 Channel Hardware Audio
- PC2PC Bluetooth (The World's First)



MS 8872 (G4Ti4600-VTD)

- nVidia GeForce4 **Titanium**
4600 Chipset
- **128MB DDR SDRAM**
- Video-in/TV-out
- Impressive bundled
software included

ECS ELITEGROUP
Authorized Distributor

www.ecsusa.com
www.desknote.net



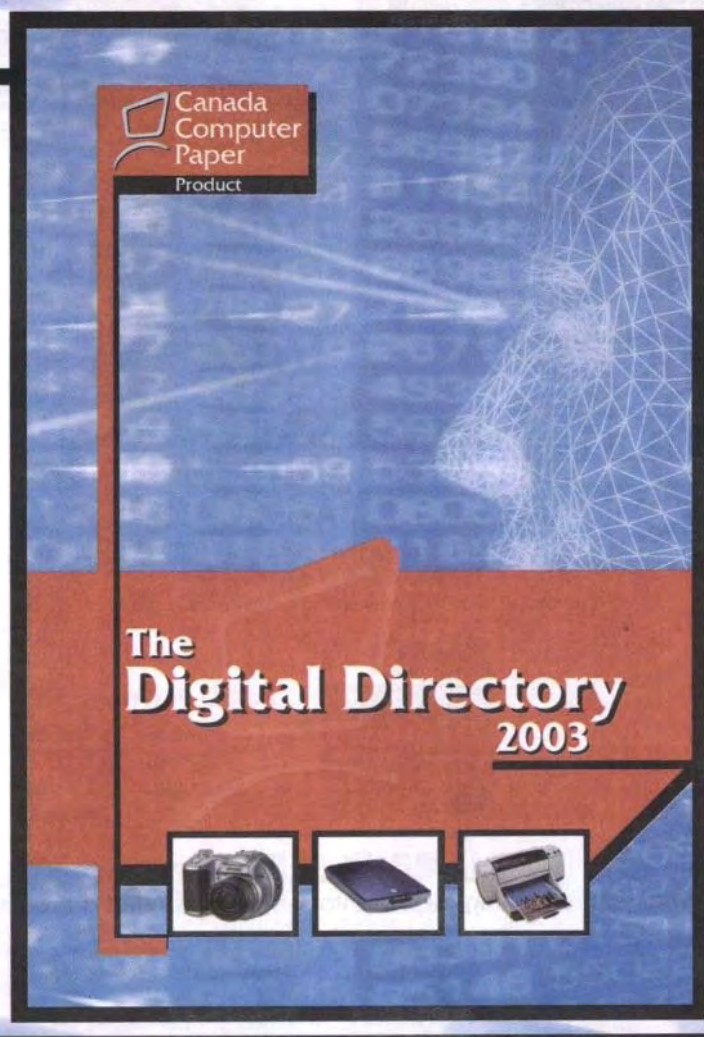
- **15" TFT XGA**
- Intel Pentium 4 (Northwood) CPU
- DDR SDRAM support (DDR266/333)
- 20GB - 60GB Hard Drive
- 8x DVD ROM (DVD/CD-RW Combo Optional)
- 56K Fax Modem
- 10/100 Ethernet
- IEEE 1395 Firewire
- USB 2.0 ports (2 ports)

Desknote A928
The future of
the Desktop PC

21999506

Presents

The Digital Directory 2003



FREE!

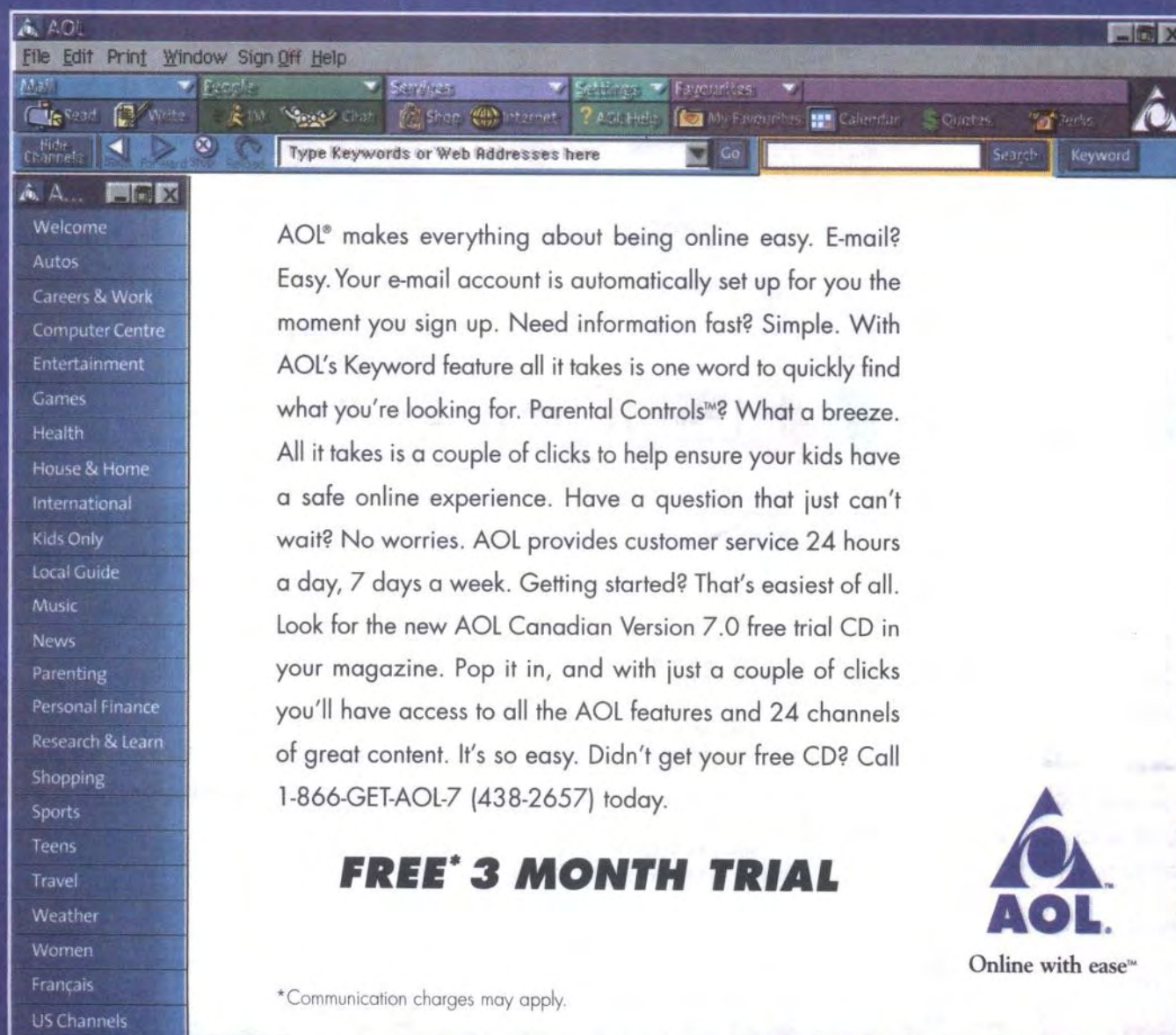
with any subscription to a Canada Computer Paper product

The Annual 2003 Digital Directory is a compilation of all Canada Computer Paper's advertisers, exclusive supplier and manufacturers to the Canadian high tech industry. You will get a comprehensive guide to industry resources, knowledge and factoids and valuable coupons for your office, home or workshop! Sign up for a NEW subscription and receive a Digital Directory absolutely FREE!

For more information on
The Digital Directory and other products
see www.canadacomputes.com or call 416-923-4200

AOL's friendly toolbar is the first step in seeing how easy the Internet can be.

Once you've connected with our easy-to-install CD, you'll realize just how easy we make it for you to enjoy all that the Internet has to offer.



The screenshot shows the AOL 7.0 desktop environment. At the top is a menu bar with 'File', 'Edit', 'Print', 'Window', 'Sign Off', and 'Help'. Below this is a toolbar with icons for Mail, People, Services, Settings, Favourites, Read, Write, IM, Chat, Shop, Internet, AOL Help, My Favorites, Calendar, Quotes, and Tools. A search bar is located below the toolbar with the text 'Type Keywords or Web Addresses here' and buttons for 'Go', 'Search', and 'Keyword'. On the left side, there is a vertical menu with the following items: Welcome, Autos, Careers & Work, Computer Centre, Entertainment, Games, Health, House & Home, International, Kids Only, Local Guide, Music, News, Parenting, Personal Finance, Research & Learn, Shopping, Sports, Teens, Travel, Weather, Women, Français, and US Channels.

AOL® makes everything about being online easy. E-mail? Easy. Your e-mail account is automatically set up for you the moment you sign up. Need information fast? Simple. With AOL's Keyword feature all it takes is one word to quickly find what you're looking for. Parental Controls™? What a breeze. All it takes is a couple of clicks to help ensure your kids have a safe online experience. Have a question that just can't wait? No worries. AOL provides customer service 24 hours a day, 7 days a week. Getting started? That's easiest of all. Look for the new AOL Canadian Version 7.0 free trial CD in your magazine. Pop it in, and with just a couple of clicks you'll have access to all the AOL features and 24 channels of great content. It's so easy. Didn't get your free CD? Call 1-866-GET-AOL-7 (438-2657) today.

FREE* 3 MONTH TRIAL

AOL
Online with ease™

*Communication charges may apply.

MDG

www.mdg.ca

SHOP EARLY BACK TO SCHOOL EVENT

FREE DIGITAL PICTURE/ WEB/ CAMCORDER CAMERA

Take on the go as photo digital camera.
Video e-mail, video calls,
live images to your messages.
Edit or broadcast live video
and audio over the Internet.
Video monitoring, plus photo
and video editing software.
With MDG system purchase.



MICROSOFT 2002 BUNDLE INCLUDED

FULLY INTEGRATED, EASY-TO-USE SOFTWARE BUNDLE O.E.M. VERSION.

SOFTWARE TITLE:	MICROSOFT ESTIMATED PRICE FOR RETAIL VERSION:
MICROSOFT WINDOWS XP	\$309.00
MICROSOFT WORD 2002 (WORLD'S BEST-SELLING WORD PROCESSOR)	\$499.00
MICROSOFT WORKS 2002 (SPREADSHEET, DATABASE, CALENDAR...)	BONUS
MICROSOFT MONEY 2002 (INCOME, EXPENSE TRACKING, BILL PAYMENT)	BONUS
MICROSOFT ENCARTA ENCYCLOPEDIA 2002 (36,000 ARTICLES)	\$44.95
MICROSOFT PICTURE IT! PHOTO 2002 (EDIT PICTURES)	BONUS
MICROSOFT EXPEDIA® STREETS & TRIPS 2002 (ROAD MAPS)	BONUS

TOTAL PRICE FOR RETAIL VERSION: \$852.95
YOUR COST WITH MDG VISION OR
HORIZON SYSTEM PURCHASE: \$0.00

VISION 2400 DDR SHOWN: \$2995

SIX MONTHS NO PAY
NO INTEREST O.A.C.*



ROGERS or
COGECO
INTERNET ON
CABLE SERVICE

Self-Installation	\$80 ⁰⁰
Two Months Internet Service	\$89 ⁰⁰
Total Retail Price:	\$169 ⁰⁰
With MDG PC Purchase:	\$0 ⁰⁰



INTERNET
WITH AOL FOR
SIX MONTHS
UNLIMITED*
WITH ANY MDG
SYSTEM PURCHASE

MDG PCs USE GENUINE MICROSOFT® WINDOWS®
www.microsoft.com/piracy/howtotell

CORPORATE & GOVERNMENT HOTLINE:
905.712.9464 ext.228
MONDAY TO FRIDAY 9:00AM - 5:00PM

HOURS: MONDAY TO FRIDAY 10:00AM - 7:30PM SATURDAY 10:00AM - 6:00PM EASTERN TIME (CANADA WIDE SHIPPING)

1-877-926-8634

VALUE 1700 XP

INTEL® PENTIUM® 4 PROCESSOR AT 1.70 GHz

- 256MB SDRAM Memory
- 40GB Value Hard Drive
- 12x8x32 CDRW-ROM Drive, 1.44MB Floppy Drive
- Value Keyboard, Value Mouse
- 32MB 4xAGP Video
- 3D Audio PRO Sound
- Mid Tower with Power Supply
- Value Amplified Stereo Speakers
- 17" SVGA Monitor
- Microsoft Windows XP
- 6 Months Unlimited AOL Internet Service Included*
- FREE Digital Camera

REGULAR PRICE: \$989

\$889

SIX
MONTHLY
PAYMENTS:
N/A

HORIZON 1700 DDR

INTEL® PENTIUM® 4 PROCESSOR AT 1.70 GHz

- Genuine Intel® D845GLAD Motherboard, Intel® 400MHz BUS, 4 USB 2.0 ports 4 PCI, DDR 266 ECC up to 2 GB, Intel® Rapid BIOS Boot, Express BIOS Update
- Intel® 845GL 400 MHz Chipset & ICH4
- 256MB DDR 266MHz Memory
- 40GB Ultra ATA-100 Hard Drive, 7200RPM
- 24x10x40 CDRW Drive, 1.44MB Floppy Drive
- Microsoft Internet Keyboard
- Microsoft Intelli Scroll Wheel Mouse
- Intel® Extreme 32-bit 3D Graphics
- MDG Horizon ATX Mid Tower 320W
- AC'97 Audio w/Sigmatel's Stereo Codec
- 600W P.M.P.O. Speakers with Subwoofer
- 17" 230hp Samsung Monitor
- Microsoft Windows XP, MS 2002 Software Bundle
- 6 Months Unlimited AOL Internet Service Included*
- FREE Internet on Cable Offer
- FREE Digital Camera

REGULAR PRICE: \$1397

\$1196

IMMEDIATE
PICK-UP

SIX
MONTHLY
PAYMENTS:
\$199.33

VISION 1700 DDR

INTEL® PENTIUM® 4 PROCESSOR AT 1.70 GHz

- Genuine Intel® D845EG2 Motherboard, Intel® 533MHz BUS, 6 USB 2.0 ports (4 back 2 front) 6 PCI, DDR 266 up to 2 GB, Intel® Rapid BIOS Boot, Express BIOS Update, Instantly Available PC, AGP 4x ATX (8.2"x12"), Hardware Monitoring
- Intel® 845E with 533 MHz Chipset
- 256MB DDR 266MHz Memory
- 40GB Ultra ATA-100 7200 RPM Hard Drive
- 16xDVD Drive, 1.44 Floppy Drive
- 24x10x40 CDRW Drive
- Microsoft Internet Keyboard
- Microsoft Optical Mouse
- ATI RADEON™ 64MB Video Card/TV-OUT
- MDG Vision Deluxe Mid Tower Front USB 320W
- SoundMAX 3D Sound, SPX & mic. pre-amplifier
- Atec Lansing AVS300 3 Speakers w/Subwoofer
- Perfectly Flat 17" 200hp Samsung Monitor
- Microsoft Windows XP, MS 2002 Software Bundle
- 6 Months Unlimited AOL Internet Service Included*
- FREE Internet on Cable Offer
- FREE Digital Camera

REGULAR PRICE: \$1797

\$1561

IMMEDIATE
PICK-UP

SIX
MONTHLY
PAYMENTS:
\$260.17

VISION 2000 DDR

INTEL® PENTIUM® 4 PROCESSOR AT 2.0 GHz WITH 512K L2 CACHE

- Genuine Intel® D845EG2 Motherboard, Intel® 533MHz BUS, 6 USB 2.0 ports (4 back 2 front) 6 PCI, DDR 266 up to 2 GB, Intel® Rapid BIOS Boot, Express BIOS Update, Instantly Available PC, AGP 4x ATX (8.2"x12"), Hardware Monitoring
- Intel® 845E with 533 MHz Chipset, 512K Cache
- 512MB DDR 266MHz Memory
- 80GB Ultra ATA-100 7200 RPM Hard Drive
- 16xDVD Drive, 1.44 Floppy Drive
- 24x10x40 CDRW Drive
- Microsoft Internet Keyboard
- Microsoft Optical Mouse
- ATI RADEON™ 64MB Video Card/TV-OUT
- MDG Vision Deluxe Mid Tower Front USB 320W
- SoundMAX 3D Sound, SPX & mic. pre-amplifier
- Atec Lansing AVS300 3 Speakers w/Subwoofer
- Perfectly Flat 19" 200hp Samsung Monitor
- Microsoft Windows XP, MS 2002 Software Bundle
- 6 Months Unlimited AOL Internet Service Included*
- FREE Internet on Cable Offer
- FREE Digital Camera

REGULAR PRICE: \$2295

\$1894

IMMEDIATE
PICK-UP

SIX
MONTHLY
PAYMENTS:
\$315.67

Tax not included. Intel, the Intel Inside logo and Pentium are registered trademarks and Celeron is a trademark of Intel Corporation. All products 3% cash discounted, prices subject to error and change without notice. Systems may not be exactly as shown. Promotional offers can not be combined and claimed at the same time. *Six months no pay or six monthly payments options on approved credit only. ©Rogers Communications Inc. Used under license. Rogers Hi-Speed Internet is not available in all areas. Some price restrictions apply, including a \$10 extra surcharge per month for non-cable subscribers. Cable bill must be in good standing to apply. Available to new Rogers Hi-Speed Internet customers only and cannot have been a customer within the 90 day period prior to purchasing a qualifying MDG system. Customer is responsible for the cable modem. Immediate pick-up may not be available in every case due to overwhelming responses, rain check available. *Communication charges may apply. Can not be combined with any other offer. Limited time and quantities offer. Store hours may vary.