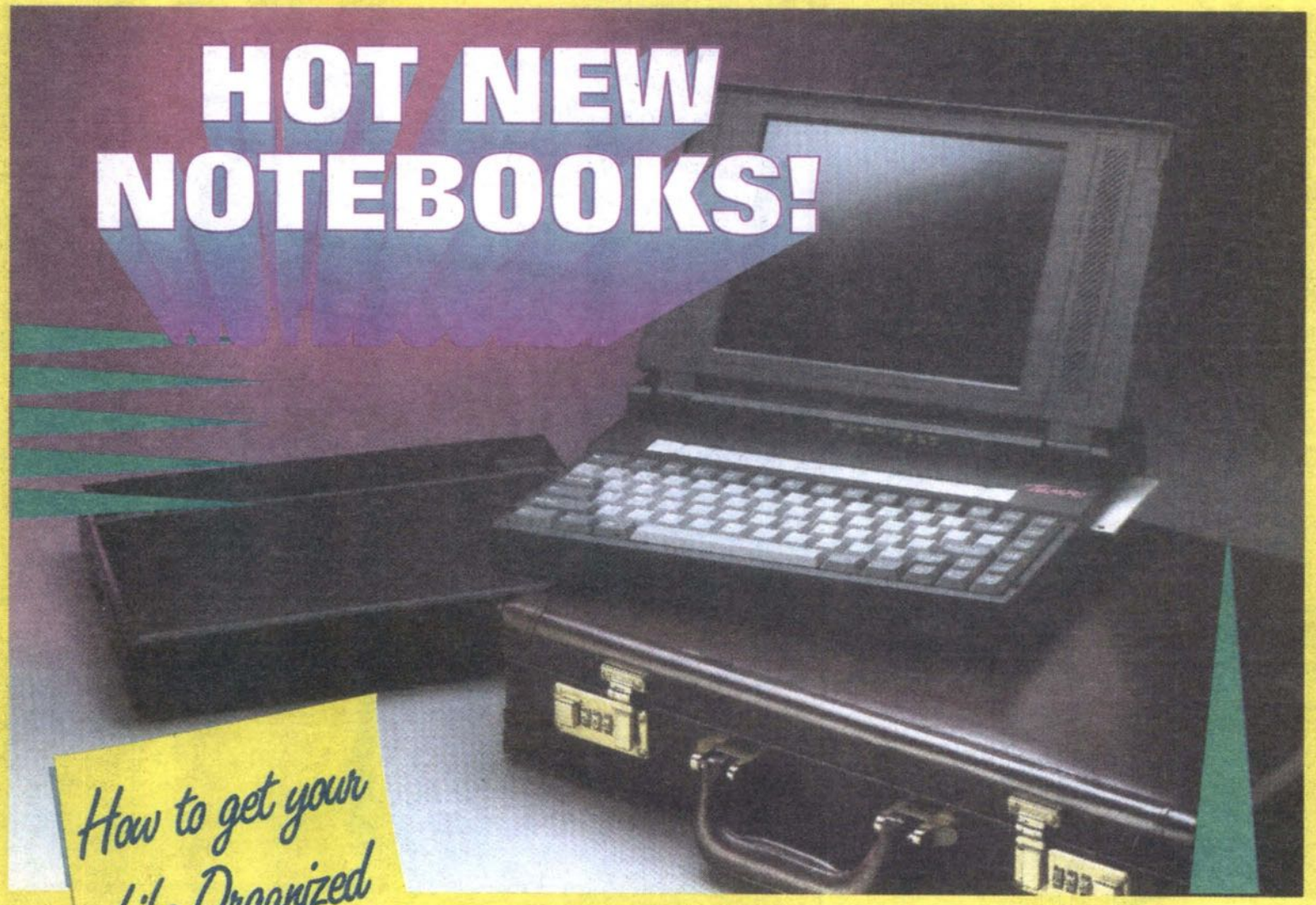
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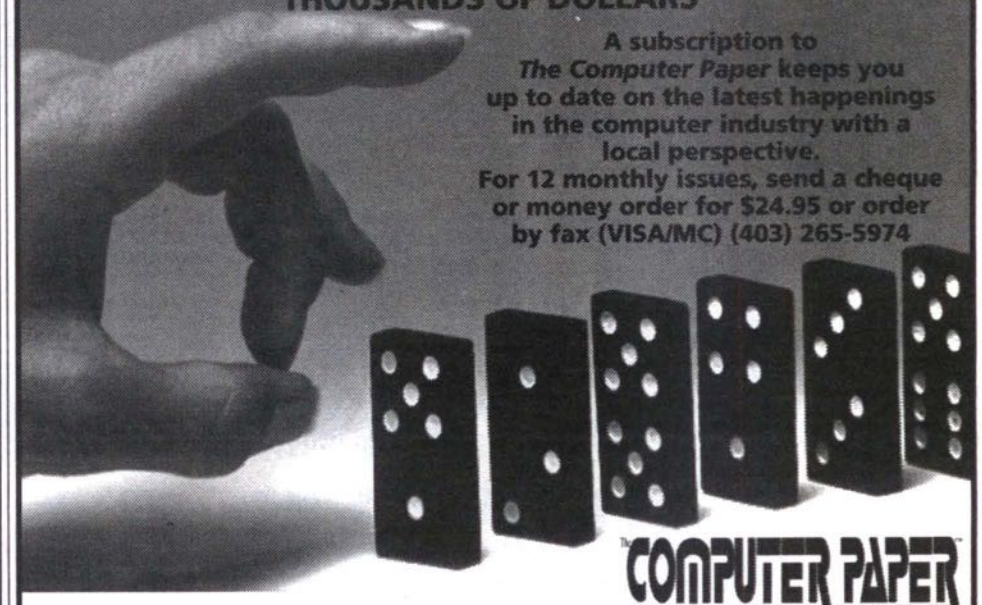
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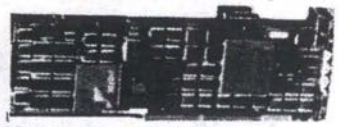
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Norton SI	40.8/48.7 (V 4.5)	40.8 (V 4.0)	40.4 (V 4.0)
Landmark	55.1/65.7 (V 1.14)	54.8 (V 1.14)	53.7 (V 1.14)
MIPS	8.31/9.95	8.31	Not Published
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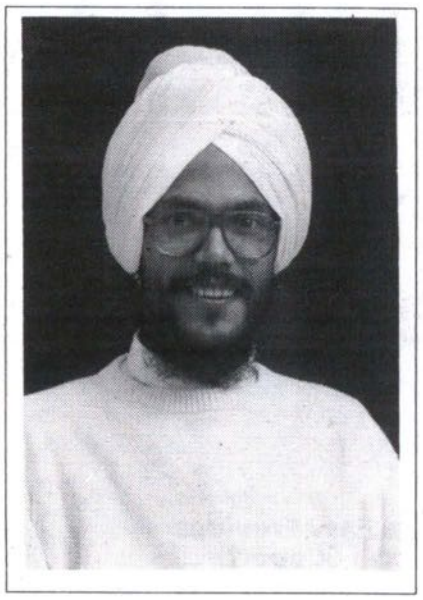
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From the Editor



Getting organized is a national pastime. An entire industry has been built on selling day-timers and paper-based organizers designed to get us organized. Computers can offer a real advance over these "low-tech" systems. With a computerized system, you enter your idea, appointment, address or project just once—then it is there forever, or at least until you change systems again or delete it. Many of the computerized systems also can be set up to remind you of appointments, birthdays or other events by beeping, or displaying a message every time you open up your organizer. If you are hooked up over a network, you can often cut and paste your ideas or information to your co-workers without having to re-key the information.

The down side of using a computer is that you are often locked into a desktop system for your ideas. Since creativity is not limited to when you are sitting in your office, notebook computers bring a great deal of needed mobility to computing. A new generation of go-anywhere, do-anything machines is arriving. This month we took a look at a broad range of products being offered—from the palmtop-sized Atari Portfolio and the Sharp IQ, through 8088's and 286's all the way up to the state-of-the-art 386SX from IBM. The options are expanding and the price differential between desktop units and portable computers is narrowing fast.

This month looks like Aldus month at *The Computer Paper*. The folks down in Seattle have been releasing products at a great rate. The new version of PageMaker for Windows promises to buy them more market share in the page layout battle. We also take first looks at the new FreeHand 3.0 for the Macintosh, as well as Personal Publishing, a "low-end" Macintosh package with some (we hope) trend setting "high-end" features. We also did a little house cleaning on our Mac articles in anticipation of the barrage of new products for the Macintosh with the release of System 7.0 in May. System 7.0 is a major upgrade of the Mac operating system, which will add many hot new features.

In the Windows area, we have a look at Professional Write Plus and a shareware personal information manager called Active Life. Our Personal Information Manager article covers two Windows products, Current from IBM and PackRat from Polaris Software—both excellent products, and *almost* good enough to tempt our reviewer, George Slade, away from his beloved DOS prompt.

And now for something completely different...this month we included an article called Take an Exercise Break. It is a series of short exercises designed to give an invigorating break to those who work extensively at a desk or on a computer. We hope you will find it useful.

Next month we tackle CD-ROMs. Some of the products we have been getting for review are very exciting. CD-ROM is a technology which uses the same basic disc and player that popular and classical music is being distributed on (no, unfortunately, you can't use your stereo CD player to access them). Instead of music, you get data—vast quantities of data, over 600 megabytes on the average disk. They are being used to distribute entire encyclopedias, complete with full color, sound and in some cases animations. They bring new meaning to the term "information overdose." Check out our June issue for more details.

Enjoy the issue.

Kirtan Singh Khalsa
Editor/Publisher

Editorial Schedule

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Contributing Writers
Graeme Bennett, George Slade, Steve McIlwain, Cathalyn Labonté-Smith, Gordon Harris, Daniel Werger, Robert Slade, Nancy Lorieau, Michael Arthur, Gordon Simmonds
Proofreader
Neall Calvert
Cover Art
Graeme Bennett
National Ad Sales
John Oliver (604) 733-5596
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Hari Singh Khalsa (604) 733-5596
Alberta Ad Sales
Patricia FitzGerald (403) 262-5737
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AMI Technology Correction

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We would like to take this opportunity to express our sincerest apologies to both you and your readers for this mistake. It was by no means an intent to mislead your readers in any way.

We assure you that extra special care will be taken in providing the correct information in future advertisements.

Respectfully yours,
T.W. Clarke,
Marketing Director,
AMI Technology Corp.

DacEasy Provides Local Support

In your March, 1991 edition of *The Computer Paper* you reviewed several Payroll Packages, one of which was DacEasy Payroll Version 4.1. In your review analysis you indicated that there was no installation, training, or support for this package. I would like to correct your error. We at HB Computer Systems (formerly Icon Technologies) are a Certified Consultant for all the DacEasy Products. We provide both installation, training, and support for all the DacEasy Line of Products, and have a fairly significant client base in the Lower Mainland who are using these products. Your printed correction as to this fact, I'm sure, will help the DacEasy Product Line become more readily accepted into the

COMPUTER EMPIRE
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486 System 25MHz
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Floppy Drives $20
Monitor $35
AT Mother-board $60

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• 1.2MB Floppy
• 40MB Hard Disk, 25ms
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• 16 bit VGA 1MB
• Enhanced Keyboard
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386 System 25MHz
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• 1.2MB Floppy
• 40MB Hard Disk, 25ms
• VGA 1024 x 768 14" Monitor .28mm
• 16 bit VGA card 512K
• Enhanced Keyboard
$1948 $1578 14" Mono Monitor
Lease to own $104/month

386 System 16MHz
• 1MB RAM (Exp. to 32MB)
• 1.2MB Floppy
• 40MB Hard Disk, 25ms
• VGA 1024 x 768 14" Monitor .28mm
• 16 bit VGA card 512K
• Enhanced Keyboard
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B.C. marketplace.
Thank you
Geoff Hamilton, VP Marketing,
HB Computer Systems

More on Payroll

I would like to take this opportunity to congratulate you and your staff on the success of the 4th Annual Survey of Payroll Software which appeared in the March issue of *The Computer Paper*. I found this survey concise and very informative. It will provide valuable information to business operators who are either considering automating their payroll processings or are currently using payroll programs.

However, I would like to bring to your attention two points which might affect readers' evaluations of PowerPay. Firstly, PowerPay does handle taxable benefits and provides the ability for users to define whether the benefits are taxable or not. Secondly, PowerPay provides very comprehensive information which allows users to prepare T4 Summary with ease.

Please clarify these points so that readers are properly informed. Your efforts in this matter are greatly appreciated.

Yours Truly,
Ben Choi, Marketing Director
PowerSoft Systems

Re: Where's the "Good Stuff"

Thank you for rating the BC Business Network (BCBN) the "best" of government on-line services — we obviously think writer Gord Harris' judgement is impeccable. We are continuing to improve BCBN to make it even more useful to our customers. The next six to nine months will see increased functionality, more profit-making information and greater ease of use.

One benefit of BCBN that did not come out completely clearly in Mr. Harris' writeup is that BCBN's Business Opportunities section includes not only government tenders for the four western provinces but also includes all the tenders on the federal Supply and Services Procurement Opportunity Board (it also includes investment opportunities and overseas sales leads).

Thus a subscriber to BCBN has access to federal tenders at no extra charge and does not need to subscribe separately to the federal bulletin board.

Thank you for an excellent publication. I have been reading it for over two years now and have found every issue useful and interesting.

Yours sincerely,
Marcis Esmits,
Director Corporate Information Management
BC Business Network

Weapons Not So Beautiful

In your March '91 edition, page 3, you ran an advertisement by CARDZ which referred to "The Beauty of Our Weapons" — the weapons being its computers.

I found this glorification of weaponry tasteless and horribly offensive, especially after the Gulf War in which thousands were killed.

I have appreciated your newspaper but will hesitate to read it in future, or use your advertisers, if you continue to run offensive ads.

Please let me know what you will be doing about this matter. Thank you.

Sincerely,
Lauren Rane

P.S. Looking up the address of your paper I looked again at the cover. Making fun of suicide is morbid and tasteless, too. How would you feel if you had recently had a loved one commit suicide and saw this cover staring out at you in a supermarket?? Please remember that it is people who read your newspaper, not artificial intelligences boxes!!

Dwight Jones, president of CARDZ Computers has informed us that the phrase "The Beauty of Our Weapons" is a quote from a Leonard Cohen poem. He has discontinued the slogan in his ads.

As for our cover, one person's morbid, tasteless statement is another's sense of humour. We are sorry that it offended you; it was meant to illustrate the frustration often felt by computer users in their interaction with their machines.

No NeXT

I was disappointed by the absence of the NeXT computer in the March '91 feature article "Desktop Publishing." I think Steve Job's NeXT deserves recognition in this field. The NeXT is what I consider the ultimate desktop publishing platform — TRUE WYSIWYG using Display Postscript; a 400 dpi laser printer, large screen, Unix (Mach) true multitasking operating system; a killer graphical user interface — all at a great value (see *MacWorld* January 1991 for a head-to-head comparison of the Mac and the NeXT). I'm sure you'll have to agree that the NeXT is hard to beat at any price.

Sincerely,
Bradley Head

Just for the record, the article did mention NeXT (two paragraphs appeared in the B.C. Edition, on page 43). NeXT was also mentioned in the Service Bureau survey in that issue. We do endeavour to give NeXT machines their fair share of coverage.

Nevertheless, whenever we omit any machines from our coverage, we risk offending someone. Though we try to cover as wide a range of computers as is possible, sometimes different machines slip through the cracks. The NeXT indeed is an interesting publishing machine. It has recently received some solid support in the Vancouver market with Advantage Computers (604-299-3881) *being designated as a dealer for the product. In addition, WYSIWIG Graphics* (604-684-5466) *is now providing Linotronic output for the NeXT.*

Missing From BBS List

As a long-time admirer of the service that your publication provides, I was excited at the prospect of the April edition being devoted to tele–communicating. Because the CATALYST BBS telephone number had changed to 420-6275 recently, I looked forward to the opportunity of including the new number in the April edition. I took advantage of the convenience of the *Mind Link!* messaging service to inform you of the new number, as soon as I read the April Computer Paper. Imagine my disappointment to find no men-

Would you like to recycle your toner cartridges but had a bad experience in the past?

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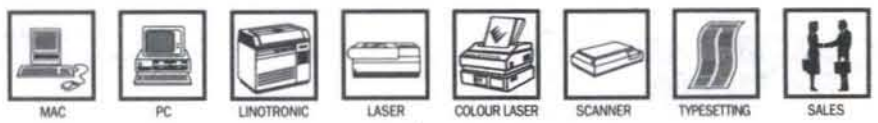
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Fax (604) 682-4103

Laser's Edge
(604) 662-3774





Mailbox con't

tion of the CATALYST BBS in your BBS listing.

Since PIX has a specified mandate to educate and assist volunteer organizations, community activists and non-profit groups to get modeming, we believe that we have a very special and valuable role to play. Also, as a volunteer organization ourselves, we appreciate any opportunity to inform people about our services.

We would appreciate it, if you could include CATALYST BBS in your future BBS lists. Thank you,

Peter T. Miller

President, Pacific Information Exchange Society.

We were perhaps overcautious in assembling our list this year. We took the original list from Mind Link! and then did our own confirmation calls. If we could not connect with the high-pitched whirr of a modem at the other end of the line, we excluded the number from the list. We called repeatedly and at various times of the day in an effort to be complete. No doubt we eliminated a number of popular boards whose lines were always busy. The reason we felt this caution was justified was that in the past, we have received a large number of complaints from people who inherit former BBS telephone numbers from BC Tel. It seems when people start a BBS they are very anxious to promote the fact; when they stop running one, they are less diligent about getting their names removed from the active list. See our updates to the BBS list on page 24 of this issue.

The Computer Paper *welcomes readers' comments. Letters may be edited for clarity and brevity.*





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What's **New**

Intel Intros Inexpensive i486SX Microprocessor

SANTA CLARA, CALIFORNIA, APR 23 (NB)—Intel has finally released an official description of the long-rumored 20MHz i486SX microprocessor that will be priced just about the same as the 33 MHz 80386 but will lack the built-in floating point math coprocessor of the 486 chipset.

While the new chip lacks the full 486's math coprocessor, most software makes no use of maths coprocessors anyway, including most spreadsheet operations, so the i486SX will complete most tasks as quickly as a full i486 of the same clock speed at a much lower cost.

The new chip is seen by industry observers as being a response to the development of less expensive and, most recently, faster 'clones' of Intel's 80386 microprocessor which are just beginning to challenge the chip maker's market share. It also allows Intel to stay one step ahead of the clone chip manufacturers who are known to be developing 386 chipsets of their own.

Computers built with the new 486SX could be sold for about the same price as a 33 MHz 80386-based system or possibly less because it is easier to build a computer with lower clock speed, yet, because most computer operations do not make any use of the coprocessor, many users would find the 20 MHz 486SX as fast or perhaps even faster than the 33 MHz 80386 microprocessor.

The initial list price for the 486SX is just $258 U.S. each in quantities of 1,000—about $100 less than the street price of a 33 MHz 80386 in single quantities, and far below the cost of a full 25 MHz 80486.

As a further comparison, street prices for 20 MHz i387 SX coprocessors are presently hovering around the $320 mark by mail order in single quantities. A 25 MHz i486 chipset from the same sources is now selling for nearly $700 each in single quantities.

There are no street prices for the new Intel chips yet but they are expected to be priced about the same as a 33 MHz i386 while providing more power.

Also announced by Intel was a companion chip, the i487 SX math coprocessor, which should be available this summer and carry a retail price of US$799.

Other chips rumored to be in Intel's product basket for a fall release include 50- and 100 MHz 80486 microprocessors, which may be out by the end of this year, and the 80586, a 64-bit microprocessor which Intel is discussing but says hasn't reached the final production design stage. Contact: Nancy Pressel, Intel, 408-765-4483.

IBM Launches 486SX System, Tinkers With PS/2 Line

WHITE PLAINS, NEW YORK, APR 23 (NB) — Within hours of Intel formally launching the anticipated 80486SX chipset, IBM brought out new PS/2 models based on the new technology, as well as three other new PS/2 models.

The company also dropped five PS/2 models and cut prices on others. IBM expects the new 486SX models to sell both as network servers and as single-user systems, a company spokeswoman told Newsbytes.

IBM said it has already begun shipping two Model 90 PS/2s based on the new 486SX chip. Two SX versions of the Model 95 are due to be available in July.

The Model 90 PS/2 486 SX-0G5, with an 80MB hard disk, sells for US$8,345, while the Model 90 486 SX-0G9, with a 160MB hard disk, sells for US$8,945. The Model 95 SX-0G9, also with a 160MB hard disk, will cost US$9,995. The Model 95 SX-0GF, with a 400MB hard disk, will be US$12,695, IBM said.

IBM also introduced two new versions of the PS/2 Model 95 with larger hard disk drives. Company spokesman Kevin Clark said the Model 95 XP 486-0JF and -0KF both have a 400-megabyte hard drive, the largest IBM sells. The 486-0JF uses a 25 MHz 486 processor while the 486-0KF model uses the 33 MHz version, he said. IBM also cut prices on existing Model 90 and 95 machines and doubled standard memory on these machines to 8MB. Standard memory on Model 80 machines was also doubled, to 4MB, with no change in price.

At the low end of the PS/2 line, IBM added the Model 30 286-E41, which comes with a 45MB hard disk instead of previous models' 30MB disk. This unit is available now at a suggested price of US$2,495.

Finally, IBM axed the PS/2 Model 50 Z, the PS/2 Model 65 SX, the Model 70-E61, and the Model P70 386-031 and -061.

Contact: Madeline Epstein, IBM, 914-642-5363.

Q: Whose Notebook is designed to fit your pocketbook?

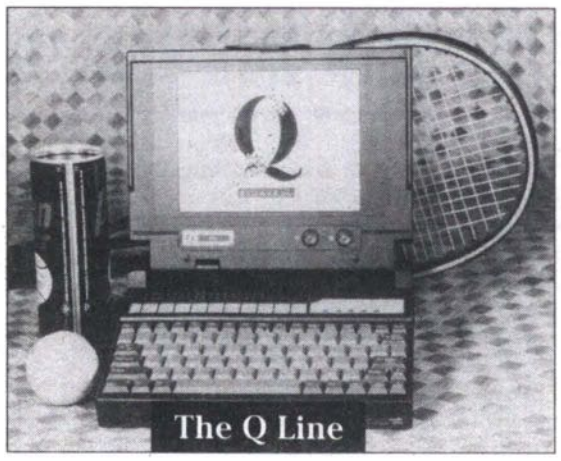
Answer: Q.

The Q 386 Notebook is here!

Experience the capabilities of a full-size desktop system in a compact, letter-size, slightly-over-6-pound Notebook! The Q 386 Notebook has a fast Intel 80386 SX processor and 2 MB of RAM onboard so you can run Windows. Full support for the Intel co-processor . . . high speed 20 MB hard disk with a 40 MB hard disk option . . . expandable memory to 4 MB . . . excellent screen display with a full 640 x 480 resolution, .24 mm dot pitch . . . serial and parallel ports . . . mouse port . . . high density 1.44 MB floppy drive, VGA and more!! The Q 386 Notebook lets you hook up to a full-size keyboard and monitor, talk to other systems through an optional modem, tie into networks, send a FAX and use other ISA compatible boards.

Light . . . yet fully loaded with all the features of a full-size desktop, the Q 386 Notebook is a heavyweight in its class!

Get your hands on our Notebook. Visit our downtown showcase today (Suite 304, 700 West Pender Street, Vancouver), or call the Q authorized reseller nearest you.



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Vancouver Tel. 736-3343

Barr Business Machines
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Vancouver Tel. 736-9111

In Victoria:

AMDICA Capital Corporation
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Comox Computer Sales & Business Services
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Comox Tel. 339-3688

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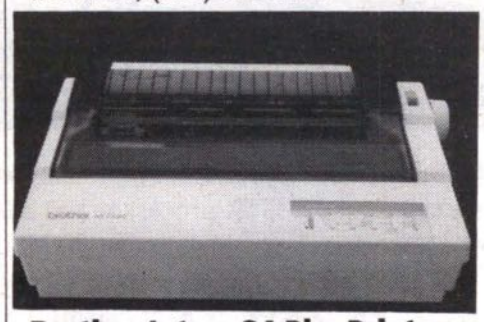
FIRST LOOK

What's New

New Accounting Modules for Paradox 3.5 Database

VICTORIA, B.C., APRIL 2 (TCP)—Adapta Software has released new versions of the eight modules in the AdaptAccounts family of advanced relational business applications for Borland's top-rated Paradox database management system. These new AdaptAccounts 3.5 modules are System Manager, General Ledger, Financial Reporter, Accounts Receivable, Accounts Payable, Inventory, Sales Orders and Purchase Orders. Prices are unchanged from the previous version and reseller discounts are available. Single-user versions are available with or without full source code, and module prices range between (US)$149 and $595. An eight-module single-user package is $2,395. Multi-user versions all include full source code and module prices range between $395 and $1,095. Upgradable Trial Versions that include the User's Guide and restricted operational software are available for $25 per module. A Menu Maker facility that provides a documentation and code-generating facility is also now available. It supports both single-user and multi-user systems and is included with many configurations. It's also available separately at $149 for the library version and $249 for the source version. Existing AdaptAccounts 3 users can upgrade to AdaptAccounts 3.5 for 20% of the regular price. Purchasers since March 1 receive free upgrades.

Contact: Peter Wolfe, Adapta Software Inc., (604) 658-8484.



Brother Intros 24-Pin Printer

VANCOUVER, B.C., APRIL 21 (TCP)—Brother International has introduced a 24-pin dot matrix printer it says is ideal for small business, home office or personal use for word processing, data processing, invoicing or graphics.

The Brother M-1324 prints at 216 cps draft elite and 72 cps letter-quality speed. It includes 7 resident letter-quality fonts, a built-in parallel interface (serial optional) and an 8KB memory buffer.

The M-1324 has very efficient paper handling capabilities including a push and pull type tractor feeder as well as an optional cut sheet feeder. Its "Paper Parking" function allows for easy switchover from continuous forms to cut sheet paper and vice versa.

Standard printer emulations are the Epson LQ-510/550, IBM Proprinter X24E and NEC Pinwriter P2200XE,/P2 Plus. These emulations make the M-1324 fully compatible with today's most popular software.

The Brother M-1324 has a suggested list price of $549 and comes with a two-year warranty on parts and labor.

Contact: (604) 273-8466.

DataTrain announces 17-inch color monitor for PCs, Macs

VANCOUVER, B.C., APRIL 21 (TCP)—DataTrain has announced a new high-resolution 17-inch color monitor it says is ideal for CAD/CAM, desktop publishing and graphics intensive applications.

The DC 617 supports 8514/A, Apple Macintosh II, Super VGA and VGA (maximum 1024 dots x 768 lines non-interlaced). MCGA, PGA and EGA graphics standards are also supported. The display provides virtually unlimited color and shading capabilities, with the clarity essential for sharp text and graphics. The 16-inch non-glare viewing area is designed for easy readability, thereby reducing eye strain. All important controls are conveniently located on the front of the monitor, which is supplied with a tilt and swivel stand.

Contact: Mick Watson, Vice President of Sales and Marketing, DataTrain (604) 273-4453.

Grand Tech Services Opens Vancouver Office

VANCOUVER, B.C., MARCH 11 (TCP)—Grand Tech Services has recently opened a repair center for computers and peripherals in Vancouver. With offices in Toronto and Montreal, Grand Tech is now across Canada, offering authorized warranty service for Star Micronics, A.L.R., Amstrad, Citizen, Samsung, N.E.C, and Zenith Data Systems. The company offers free estimates on all non-warranty repairs, a technical support hot-line, a parts inventory to suit every dealer and an array of service contracts to fit every budget-minded end-user. The new office is located at 8820 Osler Street, Vancouver (Marine Drive and 72nd Avenue). Contact: Cathie Westerterp, Grand Tech Services 264-1500.

School Administration Software for PCs

VANCOUVER, B.C., MARCH 11 (TCP)—Not all teachers get Apples, so Chancery Software Ltd. is developing an IBM version of its successful school administration package for Macintosh computers.

The company will receive a $245,000 repayable contribution from the federal government's Western Diversification Fund for the project. Kim Campbell, Justice Minister and MP for Vancouver Centre, made the announcement today on behalf of Western Economic Diversification Minister Charles Mayer. Total costs of the project are estimated at $850,000.

The firm will receive the funding based on reimbursement for eligible expenses once all conditions of the agreement have been met. The Western Diversification Fund was established to diversify the Western Canadian economy by encouraging new products, new markets, new technology, improved industry-wide productivity and import replacements.

Contact: Ralph Van Nes, Communications Manager, Western Economic Diversification, Vancouver, B.C., (604) 666-6256 or David Rebak, Director, Chancery Software Ltd., (604) 685-2041.

New, Focused Computer Show For Vancouver

VANCOUVER, B.C., APRIL 8 (TCP)—Industrial Trade & Consumer Shows Inc. (ITCS), a subsidiary of Maclean Hunter Communications and Canada's largest producer of computer shows, has entered the Vancouver market with the new, tightly focused, Vancouver Business Computer Show, which it says will be devoted to computer software, hardware and the relevant applications for government and business.

"Trends show VARs, computer professionals and MIS managers are turning away from mass-appeal business equipment shows," says Robert Grainger, ITCS Group Show Manager who produces the Canadian Computer Show as well as computer shows in Halifax, Quebec City, Montreal, Ottawa, Calgary and Edmonton. "Business people have got applications in mind and they want specific hardware/software solutions." Recognizing this need, ITCS has booked the newly refurbished Robson Square Conference Centre in downtown Vancouver for the show dates—Sept. 18 and 19, 1991.

Contact: Bruce Guerin or Blaine

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- To Quantum 105-MB w/64K cache (19ms) $225
- To 14-inch mono (amber or paper white) $30
- To 14-inch TVM paper-white VGA $180

VCS
386SX/16
$1190

VCS
386/25
$1525

ALL SYSTEMS INCLUDE

- 1 MB RAM (Minimum)
- 1 - 1.2-MB FDD
- 50MB HDD (17ms, 2-yr warranty)
- 1:1 IDE HDD\FDD controller
- 2 serial/1 parallel/1 game port
- Monochrome monitor
- Monographics card
- Small footprint case
- Enhanced AT-style keyboard
- 200-watt power supply

Our Guarantee

If you are unhappy with your system purchase return it within 7 days for a full refund, credit or exchange.
Upgrades or exchanges can be made without penalty during the first 30 days.

ALL VCS SYSTEMS COME IN MINI TOWER.

COMTEX

386/25
$1595

Express Micro

386/33
$2125
w/4MB RAM & 64K Cache

Upgrades

- To CTX5432 color VGA (640 x 480) $320
- To CTX 5468 color VGA (1024 x 768) $370
- Additional 1.44-MB FDD $85
- Each additional MB of RAM $75
- DOS 3.3 or 4.01 with system $75

VCS
386/33
$1955
w/4MB & 64K Cache

VCS
486/25
$3070
w/4MB & 128K Cache

HARD DRIVES

2 Maxtor 40-MB voice-coil HDD (28 ms) $260.00
2 Quantum 40-MB voice-coil HDD (19 ms): $285.00
1 Mitsubishi 40/64-MB voice-coil HDD (25 ms) $300.00
2 Quantum IDE 105-MB w/64K cache (17 ms) $505.00
2 Quantum SCSI 105-MB w/64K cache (19 ms): $585.00
2 Quantum 200-MB IDE (17ms) $895.00
3 Fujitsu 45-MB IDE (25 ms) $275.00
3 Fujitsu 90-MB IDE (25 ms) $475.00
3 Fujitsu 135-MB IDE (25 ms) $610.00
3 Fujitsu 180-MB IDE (25 ms) $745.00
(# preceding HDDs indicates warranty)

MONITORS

Amazing Color VGA (1024 x 768) $415.00
Amber 12-inch monochrome $110.00
Amber or PW 14-inch monichrome: $145.00
CTX5432 color VGA (640 x 480) $385.00
CTX5468 color VGA (1024 x 768): $420.00
Datatrain V505 paper-white VGA $155.00
TVM paper-white VGA (MG14): $215.00
TVM Supersync 2A (800 x 600): $445.00
TVM Supersync 3A (1024 x 768) $515.00
TVM Super VGA 4A (1024 x 768) $545.00
TVM 5A 15-inch MS (1024 x 768) $725.00
Mitsubishi 4525 MS (1024 x 768) $925.00
NEC 2A: $635.00
NEC GS2A (paper white) $250.00
NEC 3D: $825.00
NEC 5D $3110.00
Seiko 1450 (1024 x 768) non-interlaced $860
Seiko 1440 (1024 x 768) .. $698
ViewPerfect color VGA (600 x 480) $395
ViewPerfect color VGA (800 x 600) $405
ViewPerfect color VGA (1024 x 768) $465
(CTX & TVM monitors come with 2-year warranty)

VIDEO CARDS

Monochrome video card $30.00
Oak 16-bit VGA card w/256K $75.00
Oak w/512K $110.00
ATI Graphic Solution $55.00
ATI Graphic Solution w/game port $85.00
ATI OEM VGA Wonder Plus w/256K $190.00
ATI VGA Wonder Plus w/256K & mouse $235.00
Upgrade graphics card to 512K $35.00
Trident 1MB VGA Card $155

PRINTERS

DOT MATRIX
Roland 9101 (9-pin, narrow-carriage) $210.00
Roland 2416 (24-pin, narrow carriage) ..... NEW $320
Roland 2465 (24-pin, wide-carriage): $555.00
Fujitsu DL1100 (24-pin, narrow-carriage) $395.00
Fujitsu DL3450 (24-pin, wide-carriage) $525.00

PORTABLE
Canon Bubblejet $485
Canon Bubblejet w/CS Feeder $550

LASER
Roland LP800 ..... $1240.00
Roland LP1100 ..... $1720.00
HP IIP: $1095.00
HP III: $2295.00
NEC LC90 ..... $1995.00

LED
Okidata 400 ..... $869.00
Okidata 800 ..... $1100.00

LAPTOPS

Goldstar 386SX Laptop w/VGAL CD/40MB/1MB/Batt $2520.00
Datatrain 286/12 w/40MB/1MB/VGA $2095.00
Bondwell XT w/dual drives; 640K & DOS $625
Bondwell 310 286/12 w/40MB; 1MB & DOS $1195
Bondwell 310+ w/40MB & backlit CGA $1675
Olivetti 8086 w/20MB & backlit screen $1050

MATH CO-PROS

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AMD 80287-10 ..... $150.00
Cyrix 80387SX-16 ..... $345.00
Cyrix 80387SX-20 ..... $395.00
Cyrix 80386-25 ..... $485.00
Cyrix 80386-33 ..... $550.00

TAPE BACKUP

Colorado DJ10 (40-120) $330.00
Colorado DJ20 (250) ... $400.00

CD ROM

NEC CD ROM Player (Int) $775.00
NEC CD ROM Player (Ext) $835.00
NEC CD ROM Interface AT/XT kit $190.00

MOTHERBOARDS

286/12 OK $125
386SX/16 OK $440
386SX/20 OK $490
386/25 w/64K cahce OK $760
386/33 w/64K cache OK .. $1000
486/25 w/128K cache OK $1950
Each MBRAM with motherboards $70.00
(Two-year warranty on motherboards)

ACCESSORIES

KEYBOARDS
Focus 2001 (Tactile) $70.00
Focus 3001 ..... $90.00
Focus 5001 ..... $110.00
Maxiswitch $90.00
Northgate Omnikey 101 $120.00
Northgate Omnikey 102 $120.00
Northgate Omnikey Plus $135.00
Northgate Omnikey Ultra $175.00

MICE
Logitech BUS Mouseman $99.00
Logitech Serial Mouseman $80.00
Logitech Serial Trackman $115.00
Logitech BUS Trackman $135.00
Logitech Mouse w/Windows $169.00
MS Mouse w/paintbrush $129.00
MS Mouse w/Windows $175.00

MODEMS
Cardinal 2400-baud Int.. $99.00
Cardinal 2400-baud ext. $130.00
Cardinal 4800 SendFax $150.00
US Robotics 2400-baud Internal $155.00
US Robotics 2400-baud external $175.00
Complete Fax 9600 ..... $425.00

CABLES
Power cord ext. cable $9.00
Power cord $6.00
Modem cable $11.00
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Mono. Extension Cable $9.95
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Printer cable (8 foot) $15.00
Printer cable (15 foot) ... $20.00

MAY SPECIALS

EXPRESS 386SX/20 NOTEBOOK

- 20MHz, Zero Wait State
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- 20MB Hard Drive
- 1.44MB Floppy Drive
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- Serial/Parallel
- Battery Charger
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- DOS • 2.97 Kilos (6.5 lbs.)

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- Serial/Parallel
- Battery Charger • DOS

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Logitech grey-scale sanner $365.00
Chinon full-page scanner w/software $745.00

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Accpac Easy $64
Address Book Plus V3.0 ..... $69
Adobe Type Manager $85
Ami Professional $395
Autosketch $190
Bannermania $30
Bedford $135
Brooklyn Bridge $118
Calendar Creator Plus $59
Carbon Copy Plus $145
Chain of Command $125
Clipper V5 ..... $590
Close-Up $160
Crosstalk IV/XVI ..... $169/$140
dBase IV V1.1 ..... $534
dBase III Plus V1.1 ..... $490
Desqview 2.2/386 V3 $108/$178
Direct Access 5 ..... $75
Eight in One $55
Fast Back Plus $138
File Shuttle $90
First Publisher V3.0 ..... $128
Form Tool Gold $80
Form Filler V3 ..... $119
Foxbase Plus $255
Gofer $63
Grammatik IV $79
Harvard Graphics 2.3 ..... $338
Laplink III $118
Learning DOS (MS) $43
Lotus 123 V2.2/3.1 ... $395/$485
Managing Your Money $168
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Microsoft Quick C Compiler V2.4 ..... $78
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Microsoft Works 2.0 ..... $130
Microsoft Windows 3.0 ..... $105
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Microsoft Word for Windows $335
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Norton Commander 3.0 ..... $117
Norton Backup V1.1 ..... $120
Org Plus $115
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Paradox 3.5 ..... $575
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PopDrop Plus $85
PowerPoint for Windows ... $465
Printmaster Plus $45
Print Shop $48
Procomm Plus 1.18 ..... $90
Productivity Pack (MS) $52
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Professional Plan V1.0 ..... $78
Publish It $180
Q&A Write V3.0 ..... $168
Q&A V3 ..... $268
Quarterdeck QEMM V5.1 ..... $80
Quattro Pro V2.0 ..... $380
Quicken $44
R&R Report Writer $190
Rapidfile $235
Raven Script $135
RightWriter $76
Sidekick $80
Sidekick Plus $156
Sideways 3.3 ..... $65
Spinwrite II V1.1 ..... $97
Splash $80
Suzy V.3 (NEW) $35
ToolBook $415
Turbo C V2.0 ..... $124
Typing Tutor IV Plus $45
Ventura 3.0 Windows $595
WordPerfect 3.0 Office V3.0 $118
WordPerfect V5.1 ..... $278
Xtree/Xtree Pro ..... $35/$80
Xtree Gold $108

KIDS' EDUCATIONAL

Challenge of the Ancient Empires $42
Grammar Gremlins $38
Math Blaster Plus $41
Math Blaster Mystery $42
Math Rabbit $29
Midnight Rescue $42
Outnumbered $42
Read 'n Roll $39
Reader Rabbit $42
Spell It Plus $44
ThinkQuick $29
Treasure Mountain $42

GAMES CORNER

688 Attack Sub $40
Air Strike USA $41
Blue Max $49
Cardinal of the Kremlin $40
Chessmaster 2100 ..... $45
Code Name Iceman $47
Command HQ $57
Countdown $47
Crescent Hawks Revenge $47
Darkside $31
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Heroes Quest $55
F/A 18 Interceptor $44
F19 Stealth Fighter $57
Hard Nova $49
Hockey League Simulator $36
Interceptor $55
Kings Quest IV $45
Life and Death II $48
Links $49
MS Flight Simulator $45
Midwinter $47
PC Globe $59
Pictionary $37
Police Quest II $42
Populous $45
Quest for Glory II $55
Railroad Tycoon $48
Rise of the Dragon $52
Shanghai II $43
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WHAT'S NEW

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Custom Data Processing Labels

TORONTO, ONTARIO, APRIL 21 (TCP)—Photologic announces custom color printing of fanfold dataprocessing labels. Users can have any design or logo printed from a rainbow of colors on these self-adhesive labels. Many sizes are available.

These labels have a wide range of uses such as: shipping, mailing, price marking, bar coding, laboratory analysis, labelling of private label diskettes and other promotional applications. Any computer printer with tractor feed can be used to enter data on the label.

Labels include the choice of "Permanent" or "Removable" type adhesive. Small print runs starting at 2,000 pieces cost only pennies per label. Ordering is easy as the user may either supply artwork or fax a rough sketch of the required design. Price quotes and free samples are available.

Contact: Rick Hoffman, Photologic, (416) 513-1720.

STpad—Handwriting Recognition Introduced by Atari

TORONTO, APRIL 2, 1991 — Because handwriting comes naturally to everyone, Atari has announced the STpad, a keyboardless portable computer that allows the user to write directly on the screen. "Atari is very excited about being on the forefront of this emerging new technology," says Geoffrey Earle, general manager of Atari (Canada) Corp. "The STpad will make computers accessible to more people than ever before."

Based on a Motorola 68000 CPU with one to four megabytes of RAM, the STpad will run all previous Atari ST software and has the added bonus of handwriting recognition. Expected to be available in the third quarter of 1991, the entire device will be the size of an A4 piece of paper and only 3.6cm thick.

Atari has also shown a prototype of a new notebook-sized computer it calls the ST Book. The new STe-compatible machine runs the new TOS 2.05 and will come with built-in software. The ST Book (not the final name) comes with an 85 key keyboard, LCD display, and joypad. The ST Book has a serial, parallel, MIDI, DMA and expansion port, all reduced in physical size from previous ST models.

It is based on the 68000 CPU and will be available with either a 20, 40, or 80mb built-in hard disk. The ST Book is also equipped with a "silicon drive" that uses RAM/ROM cards in place of floppies. Both units are slated for Sept-Oct 1991 debut/release dates.

Contact: Atari, (416) 479-1266.

Buy and Sell Stocks on *Suzy*

TORONTO, MARCH 25 (TCP)—Investors will soon be able to buy and sell Canadian stocks through their personal computers via a new feature on the SUZY online information system.

The new online trading system, the first in Canada, will be offered through Marathon Brokerage, the national discount brokerage house. The system has already been approved by The Toronto Stock Exchange and is currently awaiting final approval from the provincial securities commission.

"This is an important step forward for the increasing number of Canadian investors who want to be able to buy and sell securities with maximum efficiency, economy and simplicity," says Paul K. Bates, president of Marathon.

Investors who have modem-equipped IBM or compatible personal computers will be able to buy and sell stocks from the four Canadian exchanges via the new *SUZY* system.

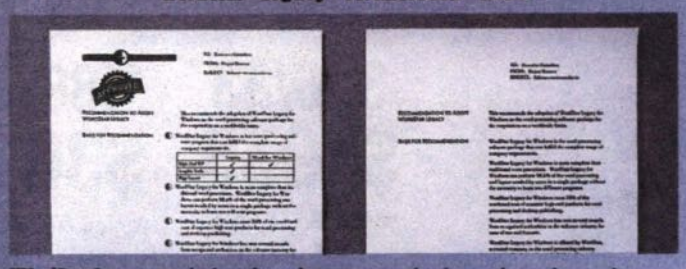
Contact: Stratford Software Corporation, (604) 439-1311.

SUZY Introduces Electronic Bookstore

VANCOUVER, B.C., APRIL 21 (TCP)—You'll find this library to be different from ordinary libraries. No waiting in line to check out your book(s), and nothing is unavailable because all copies are out. You don't have to go to the library and pay bus fare or gas and parking costs, and you may play your favorite music while you read, and even

OUR WINDOWS ARE BEYOND WORD'S.

WordStar® Legacy® vs. Microsoft® Word.



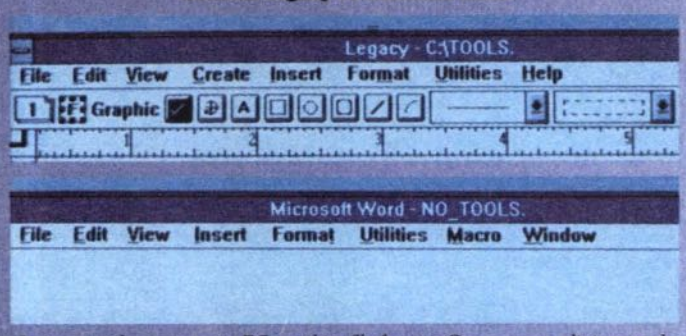
WordStar Legacy is a high end word processor with advanced page layout features. Place text and graphics exactly where you want them.

WordStar Legacy vs. Microsoft Word.



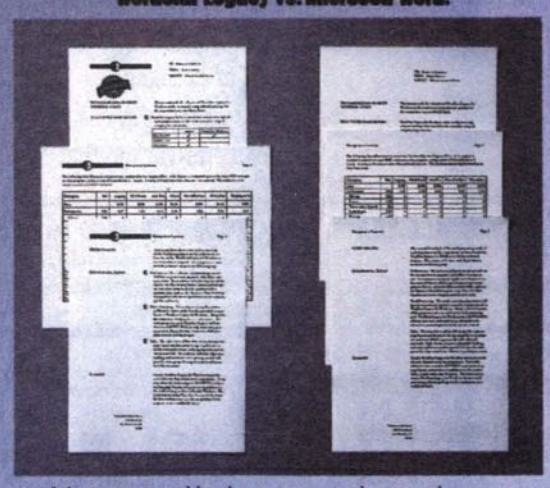
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WordStar Legacy vs. Microsoft Word.



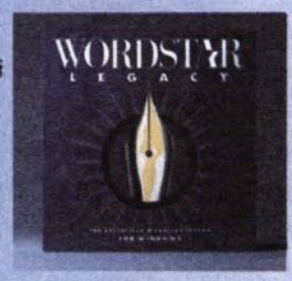
Mix portrait and landscape pages in the same document. And flow text and tables across pages and columns.

WordStar Legacy is the definitive word processor for Windows. Combining high-end word processing tools with advanced page layout and graphics in one easy to use program, it gives you the ability to create compelling documents.

Because WordStar Legacy is a single program, it's less expensive than buying separate DTP and WP applications, training and support costs are less, and its superior integration, DDE,™ and innovative tools make producing complex documents easy and cost effective.

Speaking of cost, you can upgrade to WordStar Legacy from your current word processor for a limited time for $155.00 CDN. Call 1-604-583-3668 (Collect) now...And find out why documents created in WordStar Legacy aren't just beyond Word's.

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(shudder!) smoke.

It's the new Electronic Bookstore on Stratford Software's *SUZY* information service and its purpose is to enable authors to make their works available to readers via computers and modems. Later, there are plans to make kits available to print and bind the books in an attractive, inexpensive, and easy-to-read format. Meanwhile, the books are set up for you to print them out on both sides of standard computer paper, and then stack the pages and read them like an unbound book, or bind them to suit your fancy.

Reader can help themselves to fiction, non-fiction and poetry books, all available in the library (authors retain their copyright to books in The Electronic Bookstore). These are original works which haven't (so far) been sold in bookstores, and Kent Lyons, INkeeper at The Electronic Bookstore, thinks you'll find them to be good reading. A "rebirth of literature"? Well, see what you think.

Contact: Stratford Software Corporation, (604) 439-1311.

WordStar Introduces Laptop Collection

MISSISSAUGA, ONTARIO., MARCH 18 (TCP)—WordStar International Incorporated (NASDAQ: WDST) today announced the WordStar Laptop Collection, a software bundle created specifically to increase laptop users' productivity. The collection includes *WordStar Laptop Edition,* Traveling Software's *LapLink Special Edition,* and Campbell Services' *OnTime.* For $350 CDN suggested list price, WordStar Laptop Collection provides users with software valued at more than $800 CDN.

"Laptops represent the fastest-growing sector of PC sales today, and we're addressing the needs of this market," said Ron Posner, WordStar's CEO. "WordStar Laptop Collection gives laptop users software designed to make them productive when they're on the road — or in their office."

WordStar Laptop Edition, a special laptop version of WordStar 6.0, offers comprehensive printer support and powerful, high-end features like Advanced Page Preview, style sheets, multiple symbol sets, built-in spelling checker and thesaurus, multiple editing, windows, pull-down menus or touch-typing commands, and macros. It also includes TelMerge, telecommunications software that lets users access data from distant hosts and electronic information services, and MailList, software that manages telephone and address lists. In addition, WordStar has included a QuickStart disk to get users up and running quickly.

Contact: David Patrick, Vice President of Marketing, WordStar International Inc. (415) 382-8000, Roy Poloni, National Sales Manager, WordStar Canada (416) 568-3440 or Eileen Ebner, McLean Public Relations (415) 377-0478.

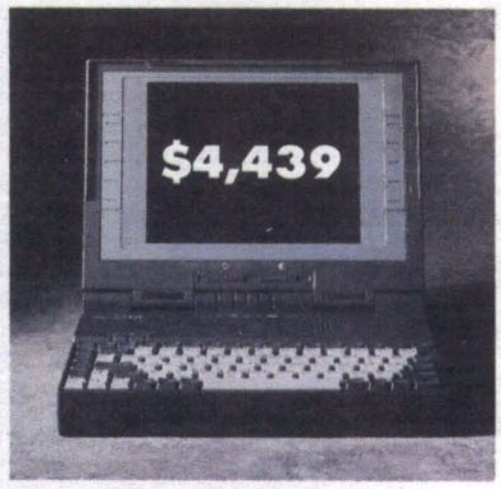
New IrisVision Video Controller

VANCOUVER, B.C., APRIL 18 (TCP)—Cardz Computers Inc. of Vancouver, B.C. has announced authorization for the sale of three new video technologies, including the new IrisVision video controller from Silicon Graphics, of Mountain View, CA.

Considered the most powerful video processor currently in production, the IrisVision set of two linked graphics boards uses a Weitek graphics processor and six Silcon Graphics proprietary ASIC



PENNY WISE



THE DELL 320N, 2Mb RAM
30Mb Hard Drive, 3.5" Floppy

POUND FOOLISH



COMPAQ LTE 386s/20, 2Mb RAM
30Mb Hard Drive, 3.5" Floppy

	DELL 320N	COMPAQ LTE 386s/20
Weight:	6.4 lbs	7.5 lbs
Size (W x H x D):	8.5" x 11" x 2"	8.5" x 11" x 2.2"
Processor Speed:	20MHz	20MHz
Display:	VGA Edgelit LCD	VGA Edgelit LCD
Disk Drive:	3.5" 1.44Mb	3.5" 1.44Mb
Hard Drive/Access Time:	30Mb(<19ms)	30Mb(<19ms)
Battery:	3 Hours	3 Hours
Keyboard:	85-key Enhanced feel 3mm	80-key 2mm
External Keyboard Port:	Yes	No
Dedicated Modem Slots:	Data/Fax Modem	Data only
Math Coprocessor Support:	80387SX Easy-to-access slide door	80387SX Must disassemble to install options
Service:	One-Year On-Site Replacement**	One-Year Return to Dealer / Place of Purchase

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In eight polls Dell's service won over Compaq, over IBM, over everyone.

At more than the price of a comparable Dell notebook, how can Compaq justify what it's charging? We know Compaq is not charging for superior service. In fact, while Dell computers have won an unprecedented eight *PC Week* Corporate Satisfaction Polls for PCs, servers and laptops, Compaq has won exactly one.

Dell notebooks will not overburden you or your pocketbook. With the touch and feel of a full-sized keyboard, Dell's power-packed notebooks are designed for heavy performance, not heavy weight. The 320N 386SX and 212N 286 come with the unparalleled service that Dell is famous for, including a 30-day satisfaction guarantee and replacement service.**

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1-800-387-5752
HOURS: 8AM-8PM EST MONDAY TO FRIDAY
OR FAX US

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DELL COMPUTER CORPORATION

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WHAT'S NEW

chips. Pricing is $3999 for the 8-bit version and $5299 for the 24-bit version. It is available for both the AT and MCA buses.

Also new is the HiColor VGA card from Pixel Engineering, Fremont, CA ($289). Featuring a capability of 32,000 colors derived from its onboard Sierra processor, it further enhances Pixel's Turbo VGA card built around the new Tseng Labs 4000 chips, which was already considered the fastest in its class. Pixel has also released its 8514/A 2 Mb card designed as a low-cost solution ($999) for those requiring a VGA resolution of 1280X1024 in such applications as Windows 3.0 or AutoCAD.

Contact: CARDZ, 1-800-676-3111.

Wrist Doktor Helps prevent CTS

VANCOUVER B.C., APRIL 18 (TCP)—Data-One Marketing Corp. has shipped a device it says can help prevent carpal tunnel syndrome (CTS). The Wrist Doktor is a computer keyboard wrist support that helps keep the wrist relaxed and comfortable. The C$19.95 device fits virtually any keyboard and comes with non-skid buttons to attach to the underside. The company also offers a companion product it calls Foot Doctor, a foot rest designed to reduce strain on the lower back, and Disk Wizard, a device that modifies 3.5-inch DSDD disks, allowing them to be formatted and used as high-density 1.44MB disks.

Deriving its name from the Greek *Karpos*, or wrist, the carpal tunnel is the passageway, composed of bone and ligament, through which a major nerve system of the forearm passes into the hand. These nerves control the muscles in this area, as well as the nine tendons that allow your fingers to flex. The wear and tear of repeated movement thickens the lubricating membrane of the tendons, and presses the nerves up against the hard bone. This process, called nerve entrapment, can be caused not only by repetitive strain, but by bone dislocation or fracture, arthritis, diabetes, and fluid retention as may occur in pregnancy—anything that narrows the tunnel and compresses the nerve.

CTS usually affects the dominant hand and begins with pain and tingling or numbness. As an occupational injury, it's brought on by repetitive work or movement, and frequently plagues data entry personnel, who spend long hours typing on their computer keyboards.

Data-One has announced the appointment of Trimex Marketing as its Canadian distributor. Contact: Vern Burg, Data-One Marketing Corp., (604) 852-6231, Trimex Marketing Inc., (604) 278-6700

New Power Line Conditioner

NORTH VANCOUVER, B.C., APRIL 21 (TCP)—ESP Electronics Systems Protection has released their newest manufactured Power Line Conditioner—MicroPC.

This six-receptacle unit has unique multi-stage protection circuitry that di-

Introducing the IRISVISION board set. Rocket 2D and real-world 3D for your PC.



Take advantage of high-performance workstation graphics for your PC.

Get ready to put all your designs on fast-forward with the IRISVISION™ board set from Silicon Graphics®.

The board set combines the Silicon Graphics Geometry Engine™ and six custom VLSI chips, to give you the most powerful PC graphics ever. Including the first real-time, real 3D computing environment for 386™ and 486™-based PCs.

It's easy to install and use; just plug the board set into two of your AT® or MicroChannel® slots, then prepare to see the world in a whole new way. IRISVISION dramatically accelerates your 2D designs, makes your wireframes move, and renders images in no time flat. Plus, its 3D capabilities give you the power to create and manipulate 3D designs in real-time.

For years, Silicon Graphics has been at the forefront of high-performance graphics. So it's natural that we're the first company to bring this enabling technology to PC users.

If your PC seems a little slow, and a little flat, discover the powerful, new world of IRISVISION graphics.

IRISVISION graphics run the software you're using now, only faster.

Many of the applications you're currently using run with IRISVISION, and VGA passthrough lets you continue to use your PC-based productivity applications. Plus, there are new, easy-to-use 3D applications that help you get the most from sophisticated IRISVISION 3D hardware.

Because the IRISVISION board set supports the industry-standard IRIS Graphics Library®, hundreds of breakthrough, workstation-quality applications are on the way from a multitude of PC® and Macintosh® developers, as well as some of the most established workstation software companies.

IRISVISION delivers workstation graphics at PC prices.

Three years ago, the only way you could have enjoyed the capabilities available through IRISVISION graphics was to spend about $75,000 on a high-performance IRIS® workstation.

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- Autodesk, AutoShade Release 2.0
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- Auto Simulations, AutoMod™
- Bechtel Software, Walkthrough
- CADAM, MicroCADAM 3D
- CADSI, DADS
- CADKEY, CADKEY Release 4
- Digital Arts, Digital Artist
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verts and attenuates all modes of power disturbances before they reach the equipment's sensitive circuitry and components. and because computer equipment is itself a source of electromagnetic power disturbances, this protection is bi-directional and eliminates power disturbances coming from and going to the equipment.

According to the company, the MicroPC has a UL1449 rating of 330, the lowest UL rating in the industry. Also, it has a rating of less than 250 volts in all three modes under the IEEE 587 Category B Impulse Test. With a clamping time in picoseconds, the device is said to eliminate even the most severe transients quickly, providing the electronic equipment with clean, disturbance-free power. This adds up to enhanced performance and increased reliability over a longer life expectancy.

The MicroPC comes with a 10 year, $2000 warranty.

Contact: Bill Robulack, ESP Electronics System Protection, (604) 980-2638 or (800) 663-8409.

Zenith Holds Open House

VANCOUVER, B.C., APRIL 23 (TCP)—Zenith Data Systems (ZDS) has moved and expanded its facilities in Vancouver. The company will be holding an Open House in mid-May at its new premises at 1600—750 West Pender St. For further information and a special invitation, call 683-8387.

Corrections & Clarifications

Compugraphic Fonts Cheaper on Amiga

Nancy Devitt Lorieau, well-known Amiga writer and enthusiast comments that despite our March, 1991 DTP article's contention that Compugraphic fonts for the Amiga are expensive, in fact these fonts are relatively inexpensive. In fact, PC users will find it cheaper to get Compugraphic fonts for the Amiga and then move them to PC disks.

Only in our Dreams

Ventura Software was as surprised as we were when we reported that the price of their popular PC publishing software had "plummeted" to $395. In fact, the price declined rather less drastically from C$1,095 to $935. Our overzealous copywriter added the enthusiastic exclamations that saw the "price plummet" and "dramatically decrease" *after* the main text had been (incorrectly) typed in. Oops.

Also, the "free upgrade" of the Mac version is more correctly termed an update, according to the company. Contact: Ventura Software, 800-822-8221 or 416-483-5228.

Headmax Update

In one of the more convoluted "Who's on first" episodes in recent history, many readers called to tell us that we had printed an incorrect number for NEO Marketing, distributors of the HeadMax Disk Cleaning and Diagnostic System mentioned in last month's B.C. Edition. We checked the number as supplied to us and found that we had, in fact, published it correctly. Could it be that the company had published a wrong number on its own literature?

Indeed, when we called, the person there told us that we had the wrong number, and that many other people had called, but he had no idea of what the right number was. Just before hanging up, we happened to mention the name of the person that signed the letter that had accompanied the original press release and suddenly..."Oh, I didn't those calls were for him! He's away getting married." So, if you had trouble reaching NEO Marketing before, call back. The number (really!) is (604) 254-9212.

No April Fool

Alert readers may have noticed that the cover of the B.C. edition of our *Telecom: The Next Generation* issue had time-warped us back to March, 1991. Despite the fact that some of you thought it made a rather subtle April Fool's joke, a much more plausible explanation is that March was such a good month for us, we decided to try it again. We'll go back to 12 months again next year, okay?

The Price is Right

David Maroun, editor of the Vancouver Area Rainbow Users Group newsletter, points out that remote PC access programs like those mentioned in George Slade's article "Computer Communications" (*The Computer Paper*, April 1991), aren't necessary if all you want to do is access another PC remotely.

Says Maroun: "To access an MS-DOS computer remotely, type CTTY=AUX at the DOS prompt on the host computer (the one your remote PC will be accessing). The computers must be hooked up via modem or null modem beforehand and the remote computer must be running a telecommunications program. MS-DOS has long had this little-known feature."

386SX BEST BUYS

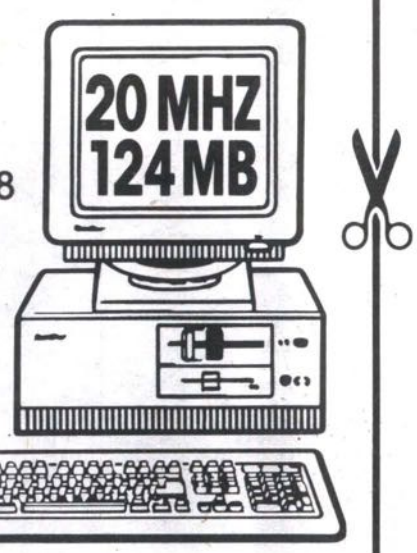
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NewsBytes

APPLE

Convert Between Font Types

FOSTER CITY, CALIFORNIA, APR 19 (NB)—Ares Software has started shipping FontMonger, a $99.95 type conversion and editor for Apple Macintosh systems. FontMonger converts between PostScript Type 1, TrueType, and Type 3 font file formats using proprietary algorithms which a company representative said provide "the highest-quality screen and printer characters for each type format."

A unique feature of this software is its ability to combine several type faces into a single font, permitting fast access to all fonts a user normally uses.

FontMonger also allows users to create small-cap and oblique typefaces from existing font files.

For further information, contact: Ares Software, P.O. 4667, Foster City, CA, 415-578-9090, AppleLink: D3829.

Contact: Russ McCann, Ares, 415-578-9090.

Monthly Journal For HyperCard Developers

LOUISVILLE, KENTUCKY, APR 16 (NB)—The Cobb Group has introduced a monthly how-to journal called *Inside HyperCard*, designed specifically for software developers. The 16-page publication is priced at $69 for the year, although a free issue is available to anyone who calls 502-491-1900 or 1-800-223-8720.

Contact: Melissa Haeberlin, The Cobb Group, 502-491-1900.

Truevision Video Presentation Software

INDIANAPOLIS, INDIANA, APR 18 (NB)—Truevision Inc., has announced Videoscript, which is described as "easy-to-use software which provides point-and-click assembly for composing video presentations using the Truevision Nuvista series videographic cards." The program uses the video effect capabilities of the Nuvista and Nuvista + boards to provide a variety of recordable 16-bit, pixel transitions for Apple Macintosh II computers.

The suggested list price for Videoscript is $495, and it is bundled with all Nuvista + cards ordered before July 15, 1991 in the US and August 1, 1991 outside the U.S. During this period, current owners of Nuvista and Nuvista + boards can obtain Videoscript for $85.

Contact: Cecia Booher, Truevision, 317-841-0332.

Apple VP Testifies In Senate Hearing

WASHINGTON, D.C., APR 19 (NB)—Apple Computer's Dr. David Nagel testified in support of pending emerging technologies legislation that provides for the creation of special radio bands for communications between computers, a system Apple calls DataPCS.

A couple of months back, Apple Computer proposed that the FCC or Federal Communications Commission, the federal agency which allocates communications frequencies and polices their use, establish a dedicated computer communications frequency band between 1850 MHz and 1990 MHz.

Speaking before the Communications Subcommittee of the U.S. Senate Committee on Commerce, Science, and Transportation, Apple's Vice President of Advanced Technology supported Senate Bill S.218, the Emerging Telecommunications Technologies Act of 1991.

"Apple and others in the computer industry strongly support the goal of S.218, which is to reallocate additional radio spectrum to ensure that the United States fully invests in its technological future, providing economic growth and world leadership," Nagel testified. "We have, however, a great sense of urgency regarding the need for swift action on S.218. Passage of this legislation will be the beginning of a lengthy process to identify frequencies for reallocation and sharing. This process should begin now."

The major move now underway to notebook or laptop systems would create a major market for radio communications systems which would allow users to carry a computer with them at work but always have access to a central information system, much like the Dynabook proposed by Alan Kay back at the Xerox PARC (Palo Alto Research Center) think tank which came up with other computer ideas such as the mouse.

Apple's Data-PCS would link computers in a radio network reaching up to 150 feet.

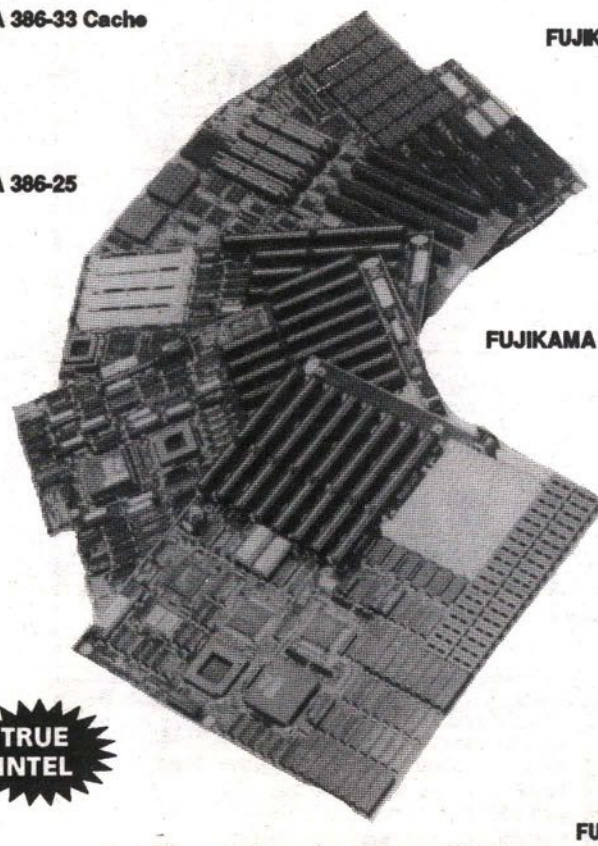
Although other companies have shown interest in this new technology, Apple Computer has been in the forefront of those pushing for the acceptance of standards that would allow developers to begin making plans to meet the needs of laptop user in the '90s.

Contact: Cindy McCaffrey, Apple Computer, 408-974-1578.

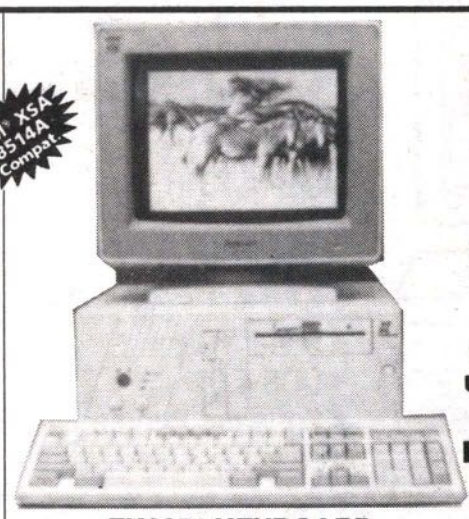
Apple Offers Employees Commuting Alternatives

CUPERTINO, CALIFORNIA, APR 18 (NB)—Taking the lead in helping to reduce the San Francisco Bay Area's choking traffic and decrease pollution, Apple Computer is offering its employees a series of innovative alternatives to driving the old Chevy to work.

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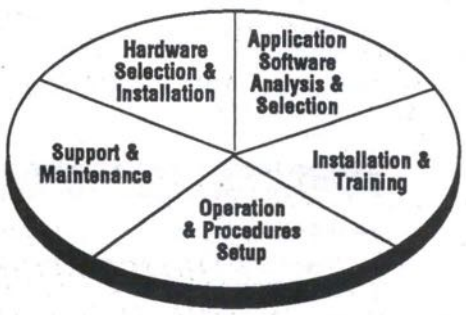
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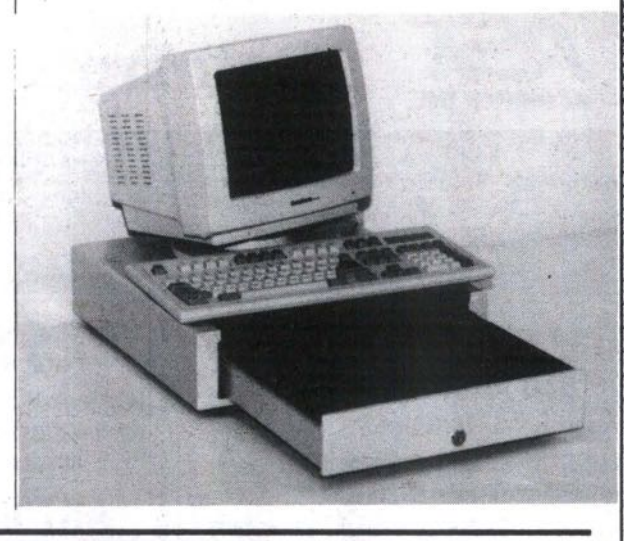
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The program offers employees commuting options, including free shuttle buses from Caltrain stations to Apple sites, a fleet of company bicycles, an electronic database of ride-sharing opportunities, telecommuting, and a guaranteed ride home in case of personal emergency.

To sweeten the offer, employees get a dollar credit in the company store every time they use one of the new commuting options.

"We want to make it easy for Apple people to get out of their cars and into environmentally responsible commute alternatives," said Glenn Barber, Apple's director of facilities. "We are committed to joining with others who are reducing vehicle emissions and traffic congestion, while not inhibiting the personal mobility of our workers."

Other environmentally-conscious corporate activities at Apple include product grants to environmental groups, internal recycling, a worldwide chlorofluorocarbon reduction policy, offering employee environmental volunteer and education programs, an ergonomics product design review, and a VDT emissions task force.

Contact: Christopher Escher, Apple Computer, 408-974-2202.

Apple Canada Sells Service Division

MARKHAM, ONTARIO, APR 11 (NB)—Citing a change of strategy and a need to avoid stepping on dealers' toes, Apple Canada has sold the service division it purchased five years ago. Datatech, a national service firm based in Toronto, bought the division for an undisclosed sum.

Robert Promm, executive vice-president of Apple Canada, told Newsbytes that Apple decided its being in the service business was bad for its dealers. "It was a slight conflict with what the dealer business proposition was," he said. "We needed to get off their turf."

In 1986, Apple bought Miscoe Data, formerly an independent computer service company based in nearby Mississauga, Ontario. It was the first time Apple had acquired another company anywhere in the world. At the time, Apple Canada President David Rae said the move was a key step for Apple in gaining acceptance among large business and government buyers.

Promm said Apple will encourage dealers whose customers need national service to work with Datatech. The purchase will expand Datatech's revenue base by about half, he added. Most employees of the Apple division will move to Datatech.

Contact: Robert Promm, Apple Canada, 416-477-5800.

ATARI

Mega STE Ships

Atari Canada has begun shipping the Mega 1 STE. The new model differs from earlier STs in that it has a faster 16MHz clock speed and an improved version of Atari's proprietary disk oper-

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NEWSBYTES

ating system, TOS.

The Mega 1 was originally expected to be exactly the same as the hard drive-equipped Mega 4 STE, minus the hard drive, host adapter, math chip and 3 megs of ram, however dealers report that the Mega 1 STE case has a new hard drive cover that is louvered so as to inhibit the installation of a hard drive.

Atari has indicated that it will offer an upgrade with either a 40 or 80 megabyte drive, host adapter, mounting rails and new hard drive case cover. Contact: Atari Canada, 416-479-1266.

Atari Introduces Professional Systems Group

CHICAGO, ILLINOIS, APR 12 (TCP)—From April 8-11th, Chicago's massive McCormick Place exhibition center played host to the best and brightest that computer-based publishing has to offer in the annual Corporate Electronic Publishing Systems (CEPS) trade show. This is a show where all the major players in the desktop publishing world come out to show their hardware platforms, software, printers, even paper stock for laser printers.

Alongside such notable neighbors as Linotype-Hell, NeXT, QMS and Xerox (who were showcasing Ventura Publisher in a booth that stretched the entire width of the show), Atari used the show to introduce its new Professional Products Group, and "Direct To Press" tools for every phase of pre-press work from document processing and design, to photo-retouching and imagesetter film output.

Several manufacturers demonstrated new wares in the Atari booth, including ISD, showing off the new color capabilities of its high-end Calamus SL DTP package and TMS Cranach Studio, an electronic image manipulation program for enhancing, retouching, and color correcting grayscale and 24-bit color images; Soft Logik, with its PostScript-based DTP solution, Pagestream 2; and Goldleaf Publishing, showing an impressive array of "new to North America" German imports for photo retouching, digital lithography, line art, OCR and page layout as well as its own Word Flair II graphical word processor.

For its part, Atari brought ten TT030-8 workstations complete with Epson ECC-900 color full-page scanners and SLM-605 laser printers.

Contact: Goldleaf Publishing, Inc., 415-461-4552 or Atari Canada, 416-479-1266.

CANADIAN NEWS

Canadian Associations Plan To Merge

TORONTO, ONTARIO, APR 18 (NB)—If their members give the go-ahead, Canada's two largest computer industry associations will merge later this year. The Information Technology Association of Canada (ITAC) and the Canadian Association of Data, Professional Services, and Software Organizations (CADAPSO) would become one national body representing the hardware, software, and services sectors.

"There are really too many associations in Canada that are concerned with issues that relate to the information technology industry," said Fruji Bull, president of CADAPSO. Bull told Newsbytes the merger would mean better use of the resources now divided between the two associations, and a stronger voice for the industry.

Janice Moyer, president and chief executive of ITAC, echoed that view, noting that ITAC and CADAPSO have submitted several joint briefs to government on industry issues recently, and "we do tend to have a stronger voice when it's two organizations speaking."

Although ITAC and CADAPSO have only about a dozen members in common, Bull said, the lines between their areas of interest have blurred a great deal in recent years. Hardware companies that were traditionally members of ITAC are becoming more and more concerned with software and services, and some have become associate members of CADAPSO, she said.

ITAC was formerly the Canadian Business Equipment Manufacturers' Association (CBEMA).

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If members approve the merger, the new group would likely have its head office in Toronto with a second office in Ottawa to handle government relations. Currently, ITAC is based in Toronto, while CADAPSO has its headquarters in Ottawa. No name has been chosen for the merger body, but both parties apparently favor including the phrase "information technology" in the new name. "There have been recommendations put on the table," Bull said, "and one of them is to keep the ITAC name."

Contact: Janice Moyer, ITAC, 416-493-8710, fax 416-493-8748; Fruji Bull, CADAPSO, 613-230-3524.

Document Exchange for HP, IBM VM, LANs

CALGARY, ALBERTA, APR 16 (NB)—Keyword Office Technologies has begun shipping new versions of its document interchange software for Hewlett-Packard minicomputers running the MPE and HP-UX operating systems, IBM mainframes running VM, and local-area networks. Earlier versions of Keypak run on Unix and Digital Equipment systems.

The Keypak software allows documents created with more than 45 different word processors to be exchanged without losing formatting information. The software is integrated with electronic mail and keeps track of user profiles to ensure documents are delivered in the right formats, a Keyword spokesman said.

Keypak HP MPE/HP-UX is now available on all Hewlett-Packard business computers. Keypak IBM VM, now available for IBM systems running the proprietary VM operating system, can be integrated with IBM's Professional Office System (PROFS) or OfficeVision, the company added.

Keypak LAN works with a variety of electronic mail systems in a local-area network. Janice Park, sales and marketing coordinator for Keyword, said that the new version provides the same functions as a version of Keypak bundled with the Network Courier electronic mail software last year, but will work with other E-mail packages. Microsoft bought Consumers Software of Vancouver, maker of Network Courier, earlier this year. The bundling agreement remains in place, she told Newsbytes.

Park added that Keyword has a co-operative software partnership agreement with IBM Canada, and hopes to develop marketing agreements with both IBM and Hewlett-Packard, as it did last year with Digital.

Contact: Janice Park, Keyword Office Technologies, 403-250-1770, fax 403-250-1964.

COMMODORE

Commodore Ready to Roll Out CDTV

Burnaby, B.C., APRIL 21 (TCP)—Commodore Canada is set to begin shipping its home multimedia computer (CDTV) May 10th. The CD-ROM-based CDTV unit looks like an audio compact disk player and connects to a television set and home audio system. However, it has the processing power of an Amiga computer, and can be upgraded with a full keyboard, mouse, trackball, and disk drives. Fifty CDTV software titles will be available within a couple weeks of its introduction, with close to 100 due by late summer.

The suggested retail price will be US$999. Contact: Duncan Fraser, Commodore Business Machines (604) 421-4443.

The Desktop Video Video

MILL VALLEY, CALIFORNIA, APR 16 (NB)—Jon Leland of Communications Bridges has released "The Desktop Video Video," a 22-minute production costing $189 which surveys all the latest developments in this rapidly-changing field.

"Desktop systems are becoming viable video production tools at the professional level," he told Newsbytes. "They're now capable of functions that used to cost hundreds of thousands of dollars. That's shocking news in a way, and it's just happened in the last year." Avid Technologies produces the best-

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selling high-end system right now, the Avid/1 Media Composure, but competition is coming from products like EMC2, Video F/X, and the EdiDroid.

EdiDroid, from LucasFilm, is being introduced at the National Association of Broadcasters show. Such "non-linear editing" equipment may cost hundreds of thousands of dollars, Leland acknowledged, but prices are falling rapidly, and they compete with tape-based systems which may cost $1 million or more. Video compression will help bring these systems into lower price ranges, he added.

At the low end, he said, the Newtek Video Toaster is bringing many people to the Commodore Amiga. "All the effects in my video were done with the Toaster. It's not an ADO, but it moves the pictures around." Leland says a new video by Todd Rundgren also used the Toaster. "The Toaster has a lot of software, and he got amazingly proficient," Leland says of the rock guitarist.

The problem for desktop video, however, is that sales channels are not yet established for it. Leland's video tries to address the problem. "One of the purposes of this video is to support dealer channels. There are no established multimedia dealer channels. You can go to a video store and buy video, and a computer store for computer equipment, but few people know how to put it together."

Some professional video dealers and computer dealers are putting together small divisions in the area, but bringing those dealers up to speed will be difficult, Leland says. "If you look at the presentation market overall, you used to have a choice between slides and overheads at the low-end or full-blown professional video at the high-end. There is now a broad middle ground between the two — 8-bit and 24-bit, and beta and 3/4 inch tape. You can do effects with an ADO or a Toaster or a Quantel Harry. There are solutions that speak to each unit. That's what we're helping people sort out." He compares the situation to print production, where a simple flyer can be created on a LaserJet printer or a magazine can obtain a slick production, depending on how much the user is willing to pay.

To order the Desktop Video Video, call 1-800-843-0048. Sponsorship support to produce the video came from Autodesk, Macromind, NEC Technologies and Sony.

Contact: Jon Leland, Communications Bridges, 415-383-3333.

GENERAL

Grips 2 Images Now Available On CD-ROM

SCOTTS VALLEY, CALIFORNIA, APR 17 (NB)—Meridian Data is now shipping a $49.95 CD-ROM containing more than 250 Government Raster Image Processing Software (GRIPS) images obtained from NASA, the Jet Propulsion Laboratory, the National Center for Supercomputing Applications, and the U.S. Army Topographic Laboratories.

The ISO 9660-compatible CD-ROM contains images covering a wide range of oceanographic, geologic, and weather subjects ranging from the Alaskan Hubbard glacier, Earth views taken during the Apollo 17 flight, and images gathered by the Voyager Viking missions.

The 140MB of images can be accessed on PC, Macintosh, or VAX computers.

Meridian Data is a major supplier of CD-ROM publishing systems and also publishes data discs such as the GRIPS series.

Contact: Sheri Elpern, Meridian Data, 408-438-3100, fax 408-438-6816.

Motorola Introduces New Low-cost Chip Line

AUSTIN, TEXAS, APR 18 (NB)—Motorola has announced a new family of low-cost embedded control microprocessors tailored for applications such as laptop and palmtop computers and laser printers, where manufacturing cost is especially important.

The new line of 32-bit chips is based on Motorola's venerable 68000 microprocessor and offers four different models with varying performance capabilities, according to a Motorola press release.

Jim Reinhart, marketing manager for Motorola's 68000 family, predicts that within five years Motorola will have a 68xxx chip at prices less than one dollar, and another that executes at more than 1000 million instructions per second (MIPS).

In order to manufacture the new low-cost chip Motorola said it stripped away all non-essential functions of the 68000, 68020, 68030 and 68040 processors, which are used in the Apple line of computers. The new chips will range from $2.95 each in quantities of 10,000 to $160 each for the most powerful version of the family.

Contact: Jim Reinhart, Motorola, 512-928-6000.

Spinnaker Buys Plus Developer

CAMBRIDGE, MASSACHUSETTS, APR 17 (NB)—Spinnaker Software has bought Format Software of Cologne, West Germany, the developer of Spinnaker's Plus hypermedia development software. The deal gives Spinnaker world-wide marketing rights to Plus, including the European market.

In September 1989, Spinnaker Software obtained marketing and distribution rights for Plus in North America and Japan. Plus comes in both MS-DOS and Apple Macintosh versions.

The company said that control of the Plus software will let it extend the package's functions and develop new database access tools to work with it. Spinnaker also said it is establishing an international organization to further develop the market for Plus.

Ron Goldfuss, chief financial officer at Spinnaker, told Newsbytes that the purchase gives his company its first direct presence in Europe. Spinnaker plans to maintain Format's development operations in Germany and retain the company's employees, he added.

Terms of the deal call for Spinnaker to pay Format Software US$1.8 million in cash and future deferred payments. Spinnaker obtained bridge financing for the transaction through a term loan agreement with Phemus Corp., an affiliate of Harvard Management Company and a major Spinnaker stockholder.

Contact: Ron Goldfuss, Spinnaker, 617494-1200 ext. 270; Michael Byers, Spinnaker, 617-494-1200 ext. 257.

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Grolier's Encyclopedia "Product Of the Year"

DANBURY, CONNECTICUT, APR 15 (NB)—Grolier Electronic Publishing has announced that its Grolier's Electronic Encyclopedia has been named the "1991 Product of the Year" by the Optical Publishers' Association. The award was presented at the recent Multimedia & CD-ROM Conference in San Jose, California.

The New Grolier's Electronic Encyclopedia (1991 edition), which lists for $395, contains 10 million words in 33,000 articles, more than 2,000 full-color photographs and illustrations, over 250 color maps, and high-quality audio excerpts from speeches and music as well as bird and animal calls.

The Optical Publishers' Association is an international trade organization dedicated to advancing CD-ROM technology.

A CD-ROM is the computer data equivalent of the popular CD audio discs and can contain up to 550 megabytes of data on a single disc—the equivalent of hundreds of books of text. A CD-ROM can also carry images and sounds, up to 16 hours of speech-quality sound, or 65 minutes of CD quality audio.

Contact: Grolier Electronic Publishing at 203-797-3500 or 800-356-5590, or Linda Kallman, Kallman Communications, 914-358-5153.

Computer Select CD-ROM Adds New Magazines

NEW YORK, NEW YORK, APR 17 (NB)—Computer Select has increased its full-text publication coverage to a total of 47 with the April issue. The latest addition to the subscription CD-ROM (compact disk, read only memory) database is *PC Sources*.

Computer Select plans to add full-text coverage of *WordPerfect Magazine, NetWare Advisor, DBMS, Personal Workstation,* and *The IBM Journal of Research and Development* in the near future.

The Ziff Communications publication carries both full-text and abstracts of more than 100 computer-related publications, with the April issue featuring an astonishing 69,428 articles. The CD-ROM's name was changed from Computer Library when Ziff Communications added over 30,000 hardware product descriptions, more than 38,000 software products, and 12,115 computer term definitions.

Computer Select replaces Computer Library, adding the massive databases covering companies and products, and is priced at $995 for a one-year subscription with monthly updates. For further information, contact Computer Library at 212-503-4400.

Computer Select is MS-DOS compatible, and conforms to the ISO 9660 CD-ROM disk format.

Contact: Toni Nevitt, Computer Library, 212-503-4423.

IBM WORLD

New PC: Radio Shack 286 Home Computer

FORT WORTH, TEXAS, APR 18 (NB)—Radio Shack has introduced the Tandy 1000 RLX, a 10 megahertz 80286-based PC clone for the home market. Suggested retail prices are $799.95 for the 1000 RLX with one diskette drive, and $1199.95 for the 1000 RLX with a 40 megabyte hard drive. Monochrome and color monitors are additional.

The unit includes one expansion slot, and comes with Radio Shack's DeskMate and DeskMate Home Organizer software.

Both systems include VGA graphics, a two-button mouse, two joystick connectors, microphone and stereo headphone jacks, and a real-time clock with battery backup. All internal components are designed to function without the need for a cooling fan.

Contact: Ron Trumbla, Radio Shack, 817-878-4969.

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Compaq Unveils New Prices, Monitor

HOUSTON, TEXAS, APR 16 (NB)—In an apparent move to stay more competitive with the rapidly falling prices of PC clones, Compaq has announced price reductions of eight to 34 percent on its PC systems, and up to 68 percent on certain hardware options.

The premium clone maker also announced a new pricing structure for its authorized dealers, cutting dealer discount on cheaper items. The firm also brought out a line of new, 'low emission' monitors.

Examples of the new prices include the Compaq LTE 386s/20 Model 30 reduced from $6,499 to $4,399; the Model 60 reduced from $6,999 to $4,799, and the Deskpro 386N now starting at $1,599.

"We believe that our new pricing policy will make Compaq products more competitive in the North American marketplace and will lead to increased sales of CPUs, as well as software and peripherals for dealers," said Ross Cooley, vice president for North American operations. "Customers continue to prefer purchasing PCs through the dealer channel. The changes implemented today more effectively reflect and support customer purchasing patterns in North America."

Meanwhile, Compaq's new $799 14-inch reduced emissions VGA monitor is touted as complying with the emission standards set by the Swedish national board for measurement and testing. Compaq also announced that its video graphics monochrome monitor now complies with the same guidelines.

Contact: John Sweney, Compaq, 713-3740484, fax (713) 374-4583.

IBM Plays April Fool's Joke on Itself

SYDNEY, AUSTRALIA, 1991 APR 8 (NB)—As it does all over the world, IBM in Australia produces top-line corporate brochures and reports. The latest IBM quarterly review, however, had an added feature—an unintended joke on IBM.

A lead article in the quarterly review profiled Big Blue's cooperation with one of Australia's leading banks—ANZ. The bank's chief, Brian Weeks, was interviewed, and talked of his bank's very large dealings with IBM, including the ground-breaking installation of the IBM 600J six-processor system. The article had a nice color picture of Brian Weeks in his crisp, efficient office, complete with oil painting on the wall and Apple Macintosh on the desk. And if that weren't bad enough, the IBM buyer is posing with his Macintosh mouse in hand.

PC Users Get The Beat

SAN FRANCISCO, CALIFORNIA, APR 17 (NB)—Ibis Software has introduced an interactive music education program called RhythmAce. The software is designed for novice to intermediate levels of rhythm training and offers a number of different exercise modes.

The areas covered by the progam include tempo, measures per drill, notation values, time signatures, mixed meters, and different levels of difficulty. Typically, a metronome is heard ticking, and the user plays back the rhythmic notation that is seen on the screen.

The three input options for the user are the computer keyboard, a Musical Interface Digital Instrument (MIDI) instrument, or any IBM, Logitech, or Microsoft compatible mouse.

Although the use of an internal sound expansion card is recommended when using RhythmAce, the program is designed to use the internal speakers of the microcomputer it is being run on.

RhythmAce retails at $99.95, and requires 640 kilobytes of RAM, DOS 2.0 or higher, at least one floppy drive, and CGA, VGA, EGA, or a Hercules/monochrome monitor.

Contact: Cindy Kear, Ibis Software, 414-546-1917.

Graphics Package Set To Debut

OTTAWA, ONTARIO, APR 12 (NB)—A Canadian startup will be showing a new graphics package at the COMDEX/Spring and PC Expo shows this spring that it claims offers better integration of charting, drawing, and text functions than competing software. Graphicway will be available for plain DOS systems at the end of April and for Windows in late May, according to Tilcon Software.

Peter Thorp, vice-president of Tilcon, told Newsbytes that Graphicway outdoes other packages in letting users work with charts and graphs, drawings, and text all at once. Business graphics such as bar and line graphs can be combined with drawings and text in the same document, he said, and functions work much the same way whatever the user is doing.

"I think the big advantage of our product is that you don't have to leave the presentation screen as you do the work and as you make the changes," he said.

A version of Graphicway for QNX, a Unix variant from Ottawa-based Quantum Software, is already available. Graphicway plans to ship the DOS version April 30 and the Windows version May 20. To begin with, the company will sell the software directly, believing it must build demand to get distributors interested.

The DOS and Windows versions will cost US$495 per copy, with volume discounts available. Tilcon is also offering a developer version at US$695 and a run-time version at US$149 for developers who want to embed Graphicway in their own applications. The QNX version costs US$599, with the run-time version priced at US$299 and the developer version at US$999. There are discounts for network versions.

Contact: Peter Thorp, Tilcon, 613-226-3417, fax 613-226-3631.

Delrina Expanding Support And Training, Ships New Tools

TORONTO, ONTARIO, APR 17 (NB)—Aiming to encourage integration of its PerForm Pro forms software into other applications, Delrina Technology has announced PerForm Pro Data Merge software, a developer's kit, a training program, and plans for a consultant support program. Delrina also launched software to allow users not running Microsoft Windows to fill in PerForm forms.

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WordPerfect Level II	May 17, 29	June 14, 24
WordPerfect Graphics	May 15	June 21
DOS Level I	May 7, 23	June 3, 18
DOS Advanced	May 14	June 11
Microsoft Word 5 Level I	May 2	June 7
Microsoft Word 5 Level II	May 28	June 17
Excel for Windows	May 7	June 26
Multimate Advantage	May 28	June 21
dBase IV Level I	May 10	June 7
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actually be integrated with other tools," Delrina spokesman Josef Zankowicz told Newsbytes. Data Merge allows properly formatted data from other sources to be merged with data from forms filled in using PerForm Pro. It has a list price of US$49 or C$59.

Delrina's developer's kit is meant to let developers build the Data Merge capability directly into their DOS applications. It can be used on a stand-alone system or a network.

Delrina also plans to begin a consultant support program in 60 to 90 days, Zankowicz said.

At the same time, Delrina announced Pro DOS Text Filler and Pro GEM Filler. These are designed to let users fill in forms created with PerForm Pro Designer & Filler, which runs under Windows, without having to use Windows. Both can run on standard DOS machines. Pro DOS Text Filler uses a text-based user interface, while Pro GEM Filler comes with a run-time version of Digital Research's GEM graphical user interface. Both sell for US$199 or C$239.

Delrina is also developing form filler software for the Apple Macintosh and for Microsoft's planned Pen Windows interface, Zankowicz said.

Contact: Josef Zankowicz, Delrina, 416-441-3676, fax 416-441-0333.

Magellan Most Popular PC Text Retrieval Software

WASHINGTON, D.C., APR 10 (NB)—A recent Government Computer News survey shows that federal users rate Magellan 2.0 over both Gofer and Agenda 2.0 for text retrieval. Magellan rated higher than the other two programs in many categories, including the number of supported file formats, flexibility, speed, documentation, and boolean searching.

The three programs all rated well, but Magellan and Agenda are both far more than just search utilities, with many added features.

Gofer, which is strictly a text search program, rated easiest to use and the best value, while Agenda tied Magellan in documentation and printer support categories.

Both Magellan and Agenda are from Cambridge, Mass.-based Lotus Development Corp.; Gofer is a Microlytics Inc., Pittsford, NY program.

Government Computer News regularly surveys government users of software and hardware to determine both their choice of products and the most important criteria for making a purchase. This survey is based on 263 responses from 4,000 workers sent questionnaires.

Compaq/Dell Ad War Spreads

AUSTIN, TEXAS, APR 17 (NB)—Dell Computer has been sued by fellow Texas clone-manufacturer Compaq for allegedly unfair advertising.

The lawsuit, filed in the Houston federal court, follows a similar action filed against Dell by Compaq in the United Kingdom. A judge there ordered Dell to alter or cease running its ads, which cited Compaq by name, in media originating in England.

The new U.S. suit complains that Dell's comparative ads—which show supposedly equivalent systems sold by Dell and Compaq, with the Dell price substantially lower—are unfair, and requests an injunction against such ads with unspecified damages. The suit says that it is improper to quote the list prices as the amount customers actually pay, that it is wrong to state that Dell systems offer the same functionality, and that the prices the Dell ads quote are incorrect in any event.

"We believe this lawsuit is an attempt to intimidate a smaller company that has become a more serious competitor," said Michael Dell, Dell's founder and chairman. "We intend to vigorously contest the charges," he added.

Contact, Michael Moore, Dell, 512-343-3535 fax 512-343-3312; John Sweney, Compaq, 713-374-0484, fax 713-374-4583.

Microsoft Revenues Up, Texas Instruments Down

SAN ANTONIO, TEXAS, APR 18 (NB)—Among the latest corporate earnings reports are those from Microsoft—the firm made $123.8 million in the last quarter—and Texas Instruments, which lost $54 million.

Microsoft reported revenues of $486.9 million for the quarter that ended March 31, 1991, a 57 percent increase over the $310.9 million for the same period of fiscal 1990. Net income for the quarter was $123.8 million, an increase of 65 percent over the $75.2 million for the corresponding period of fiscal 1990. Earnings per share were 98 cents for the quarter and $1.69 for the same periods in fiscal 1990.

TI's revenues for the first quarter of 1991 were $1,647 million, compared with $1,536 million for the first quarter of last year, with semiconductors accounting for most of the increase. Net loss for the first quarter was $54 million, compared with net income of $13 million in the same quarter of 1990. Loss per common share was $0.77, compared with earnings of $0.05 per share in last year's first quarter. The company had a loss of $0.80 per share in the fourth quarter of 1990. Loss from operations in the first quarter of 1991 was $35 million, compared with an operating loss of $2 million in the first quarter of 1990. The loss was blamed on lower semiconductor prices and heavy investments in new manufacturing capacity.

"During the weak semiconductor market environment, TI did something we have not done in the past: we invested counter-cyclically, in capital and in research and development, to be in a better position for the market upturn," said TI President Jerry R. Junkins. "This high level of investment is not without risk, and it is continuing to put heavy pressure on the bottom line."

Contact: Raymond Ferguson, Microsoft, 206-882-8080; Stan Victor, TI, 214-995-2984.

Computer Associates Intros ACCPAC Windows Version

WASHINGTON, DC, APR 17 (NB)—Computer Associates has announced that it will soon ship ACCPAC Simply Ac-

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counting, a low-end, $199 U.S. accounting program for Windows 3.0 environments.

Simply Accounting is intended for small business users and is the latest of a family of ACCPAC programs ranging from the $199 MS-DOS ACCPAC Bedford to the more advanced $395 ACCPAC BPI Accounting, and the modular ACCPAC Plus with core modules priced at $795.

ACCPAC Simply Accounting is designed as a first computerized accounting package for small business users or as a graphical interface upgrade for users of ACCPAC Bedford.

A translation utility will convert all ACCPAC Bedford files to ACCPAC Simply Accounting and the new program will be offered to Bedford users at a $99 discount.

Contact: Kristin Keyes, Computer Associates, 408-922-2310.

Microsoft-Apple War Widens

REDMOND, WASHINGTON, APR 18 (NB)—Microsoft has announced that it has learned that Apple intends to widen its copyright infringement lawsuit to include Windows 3.0.

The suit, originally filed in March 1988 and also including Hewlett-Packard as a defendant, alleged that Microsoft Windows 2.03 (as well as Hewlett-Packard's New Wave interface, which is basically an enhancement of Windows) infringed Apple's copyright by too closely resembling the Macintosh user interface.

Apple's intention to widen the suit to include Windows 3.0 was disclosed in a phone call from Apple's general counsel, a Microsoft spokesman announced.

"We are curious as to why Apple chose to add Windows 3.0 to the lawsuit at this time," said William Neukom, Microsoft vice president for legal affairs. "Apple appears to be having second thoughts about its strategy now that the case has been limited to only 10 alleged similarities between Windows 2.03 and the Apple system software."

Since the original filing of the lawsuit, Microsoft has maintained that it has not infringed any Apple copyrights.

Apple, meanwhile, is not commenting on Microsoft's claim, except to say that "all derivative works" of Windows 2.03 are at issue.

Contact: Marty Taucher, Microsoft, 206-882-8080.

FTC Widens Microsoft Investigation

REDMOND, WASHINGTON, APR 12 (NB)—Microsoft Corporation says the staff of the FTC (Federal Trade Commission) has decided to expand the scope of its investigation of the company. The investigation is based on third-party charges that the giant software firm is monopolizing the market for operating systems, operating environments, computer software and computer peripherals for personal computers.

Until now, the focus of the investigation had been an agreement between Microsoft and IBM dating back to November of 1989 which discussed future directions of OS/2 and Microsoft Windows. The FTC, which investigates antitrust and restraint of trade cases, is apparently interested in whether Microsoft was intentionally restricting the functionality and features of future versions of Windows.

At the time, Microsoft had been going to considerable lengths to re-assure software developers who had gotten wind of the upcoming release of Windows 3 that there was still a future for OS/2, and had stated that OS/2 would remain aimed at the network server and upscale workstation market. Presumably, the FTC read that as a conspiracy to restrict the powers of Windows. At the time, however, the announcement was not greeted with any surprise, since Windows is still based on DOS, and DOS cannot offer the same kind of multi-user throughput as OS/2.

"Microsoft is surprised and disappointed that the inquiry has been broadened," said Microsoft vice president, William H. Neukom, the firm's legal counsel. "We will continue to cooperate with this investigation. We believe that Microsoft has acted in a legal and ethical manner."

Contact: Marty Taucher, Microsoft, 206-882-8080.

IBM Briefings Tout OS/2

NEW YORK, NEW YORK, APR 16 (NB)—Still preaching the gospel of OS/2 in the face of widespread Windows worship, IBM is gathering customers, software developers, analysts, and reporters this week for a series of briefings on the operating system's future.

A key part of IBM's message is OS/2 2.0, the 32-bit version of the operating system due to be delivered later this year. In a statement, James Cannavino, IBM vice-president and general manager of personal systems, called it "a better DOS than DOS and a better Windows than Windows."

IBM President Jack Kuehler, addressing a gathering of IBM dealers in San Diego Monday, said: "The need for OS/2 in the marketplace remains stronger than ever. Quite simply, our customers need an operating system that will enable them to invest confidently in their future applications. OS/2 continues to be IBM's long-term strategy."

IBM will tout OS/2 as an "integrating solution" that, in the future, will be able to run applications written for DOS and Windows, as well as those designed expressly for OS/2, at once on a single machine.

Senior IBM executives are meeting with customers, independent software vendors, consultants, financial analysts and the press to address a wide range of hardware and software topics. At the same time, PC manufacturers and independent software vendors will talk about current and future OS/2 projects.

Contact: Tracy A. O'Neill, IBM, 914-642-5412.

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IBM Props Up OS/2 With New Prices, Promos

NEW YORK, NEW YORK, APR 15 (NB)—Hoping to create a pricing situation irresistible to those die-hard DOS users unwilling to upgrade, IBM is offering new pricing and promotional offerings for OS/2.

The price of a one-time license fee for OS/2 1.3 Standard Edition (SE), formerly $340, will be $150. OS/2 1.3 Extended Edition (EE), formerly $830, will be $690. IBM DOS users can upgrade to OS/2 SE 1.3 for $99 and OS/2 EE for $635.

James A. Cannavino, IBM vice president and general manager, Personal Systems, put it this way: "The programs and pricing announced reflect IBM's commitment to current OS/2 customers and our intention to bring OS/2 advanced technology to a wider audience of end users. As current industry trends continue and customers migrate to 386SX-based systems and higher, 32-bit OS/2 represents an opportunity to exploit the hardware's capabilities through its high performance and advanced functionality."

In other promotional efforts, from April 17 to Dec. 31, DOS customers may acquire OS/2 1.3 for $99 and may retain their DOS license. Customers who purchase OS/2 SE and EE 1.3 between April 17 and Dec. 31 will be eligible to upgrade to OS/2 2.0 this year at no charge. There will also be an upgrade promotion for OS/2 2.0 available to customers who purchased OS/2 SE and EE before April 17.

Contact: Tracy A. O'Neill, IBM Corporation, 914-642-5412.

IBM Says It Won't Kill DisplayWriter

WASHINGTON, D.C., APR 18 (NB)—Unofficial sources indicate that IBM will drop its long-time word processor DisplayWriter in favor of a new program being developed by XyWrite. IBM has reached a development agreement with XyQuest for a new word processor to be marketed by IBM.

A spokeswoman tells Newsbytes that IBM has not announced that DisplayWriter will be discontinued, but emphasizes that the product will continue to be supported and enhanced.

Industry observers point out that, since IBM is apparently getting a new, much faster word processor, it would only be logical if the new program were intended to replace the difficult-to-learn DisplayWriter which one IBM staffer, who insisted on anonymity, recently told Newsbytes was "the least intuitive software" he had ever used.

One editor of a major computer newspaper told Newsbytes that he had also heard that DisplayWriter was being replaced but that there was so little government interest in DisplayWriter that it wasn't considered very newsworthy.

IBM's DisplayWriter was one of the earliest word processors, starting life as a dedicated system, but has failed to keep up with industry developments and now, according to Computerworld, only holds about five percent of the market, compared to well over 50 percent for WordPerfect.

While XyWrite is a very fast, very sophisticated word processor, it is notoriously very difficult to learn, the same charge leveled at the less advanced DisplayWriter. The new program will reportedly run in either a graphical or text mode.

If XyQuest's new product is similar to XyWrite, it will be an "editor's" word processor, a very powerful tool for those who need to extensively format or edit documents, traits which have made XyWrite something of a standard in publishing offices.

Borland Offers *ObjectWindows* as a Standard

SCOTTS VALLEY, CALIFORNIA, APR 15 (NB)—Borland announced it has given ObjectWindows, a software interface designed to make programming in Microsoft Windows easier, to the standards group for Windows programing, the Object Management Group (OMG). The OMG is a non-profit group currently working on Windows industry standards with a 120 major industry supporters, including, including Microsoft, Hewlett-Packard, AT&T, Phillips, and Sun.

The focus of the OMG is to help maximize the portability, reusability, and interoperability of computer software. The ObjectWindows specification has been provided to the OMG's special interest group on class libraries.

Although Windows has become popular among end users, software developers find that programming for Windows without the use of object-oriented tools is extremely complex. By using ObjectWindows, developers can "inherit" the fundamental architecture of a Windows program and thus reduce the amount of code needed to write Windows applications, Borland said.

Contact: Jim Adams, Borland, TEL: 408/439-1880, FAX: 408/439-9343, John Slitz, Object Management Group, TEL: 303/444-8129, FAX: 303/444-8172.

Lotus Increases Sales, Decreases Earnings

CAMBRIDGE, MASSACHUSETTS, APR 18 (NB)— Lotus Development Corp. has reported net sales of $174.4 million in 1991's first quarter, a 5 percent increase over sales of $166.5 million in the comparable 1990 period. Net income totaled $6.6 million, or 15 cents per share, a 71 percent decrease from $22.8 million, or 53 cents per share, in the previous year's corresponding quarter.

During the first quarter, Lotus acquired cc:Mail, a privately held Mountain View Calif.-based firm specializing in local area network electronic mail services, sold Lotus Publishing Corporation to International Data Corporation and agreed to turn over the marketing and developments rights of its MCI communications program, Lotus Express, to MCI International.

In the announcement of the sales and earnings, Lotus also called attention to the fact that, during the quarter, it signed a marketing and development agreement with Hewlett-Packard to make Lotus 1-2-3 available on Hewlett-Packard workstations and shipped Korean and Taiwanese versions of 1-2-3.

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- WED 24 — **Nec Laptops** Will display their full line of laptops, with some fantastic specials!
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- TUE 30 — **Okidata** See why Okidata is one of the top rated printer Mfg. Laser and Dot Matrix.

MAY

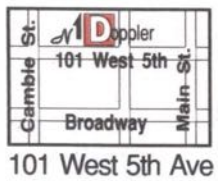
- THR 2 — **Symantec** The antivirus leaders, along with utilities, Norton products for Mac and IBM
- TUE 7 — **Wyse PC's** Hot new releases at clone prices. See Why Wyse is a world leader in Terminals.
- THR 9 — **PageMaker** Aldus will do indepth demos on the latest PC V4.0, Mac will also be covered.
- FRI 10 — **AST Canada** Innovative technology used to create some of the fastest 386 & 486 systems.
- TUE 14 — **Bedford** Computer Associates has a top small business acct. package. So easy to use.
- WED 15 — **Borland** Where do you start with Borland, there is so much. New products & upgrades.
- THR 16 — **Claris** The cornerstone of the Mac software market. See the full selection and whats new.
- TUE 21 — **Maximizer** Richmond Software will demonstrate the latest version of this great sales tracker.
- THR 23 — **Toshiba** A selection of new Laptops now including full colour. See what is hot in Laptops.
- TUE 28 — **ATI** A leader in video card and modem technology. Talk to the source direct!
- THR 30 — **SUZY** Learn this information system, Real Estate, Stock Markets and much more.

JUNE

- MON 3 — **Citizen** PC Magazine Editors Choice for economical 9 & 24 Pin printers. Full colour print.
- WED 5 — **Mitsubishi** The most fantastic full color sublimation printer. Monitors and Laptops.
- FRI 7 — **Corel Draw** The worlds leading Design software, if you hav'nt seen the applications- Be here!
- SAT 8 — **3M Canada** Inventor of magetic media for Data Carts & Disks. Fantastic instore specials!
- MON 10 — **FileShuttle** Get C Software will demonstrate File Shuttle under Windows. Fast & easy.
- WED 12 — **Super Calc** Now at a price under $150 you've got to check out this Spread Sheets' features.
- MON 17 — **WordStar** See the new Windows product There will be unheard of upgrade deals.
- WED 19 — **T Man** See how to fully automate your store Point of Sale to a computerized cash drawer.
- FRI 21 — **Lotus 123** It's a standard in the market, and we have your answers. Windows & Upgrades.
- TUE 25 — **Logitech** Scanning is so easy and inexpensive, 256K grey scale, new cordless mouse
- THR 27 — **Software Publishing** Professional Write for Windows

JULY

- WED 3 — **NEC CD ROM** State of the art graphics and retrieval that you will not believe. Applications!
- FRI 5 — **Broderbund** A wide selection of Business and Education, New product information. Rare opportunity.
- TUE 9 — **Generic CADD** AutoDesk will demonstrate one of the most powerful low cost CADD programs.
- FRI 12 — **Crystal** Report writers,Purchase Orders, History & more... All for ACCPAC.
- TUE 16 — **US Robotics** Some of the fastest modems on the market. A great way to learn all about modems.
- WED 17 — **CentralPoint** One of the leaders in utillity programs -PC Tools & Copy II PC. Get answers
- THR 18 — **Power Up** Check out Calendar Creator, Express Publisher, Labels Unlimited and many more.
- TUE 23 — **ALR PC's** Top selling USA built PC's Winning many awards for design and performance!
- FRI 26 — **Fox** Have questions or need information on FoxBase? Now is the time!
- MON 29 — **Kodak** From full function battery operated printers to a laser photocopier combination.
- WED 31 — **Fifth Generation** Hot new products!



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NEWSBYTES

Lotus spokesperson Richard Eckel told Newsbytes that the sales in the first quarter were held down somewhat by both customer anticipation of the release of 1-2-3 version 2.3 and Lotus' reluctance to flood the retail channel with versions of a program soon to be replaced. He also pointed to increased expenses due to the recent acquisitions of Samna and cc:Mail and increased expenditures on advertising and marketing as items impacting earnings. He added, "Although we expect the 2nd quarter to be another negative comparison with previous quarters, we are extremely bullish on the whole year. We expect the release of the Windows version of 1-2-3 in the 2nd half of 1991 to do extremely well and make the entire year a good one."

Contact: Susan Yeomans, Lotus Development Corp., 617-693-1540.

PORTABLES

Sun-compatible 64-bit Laptop Workstation

TOKYO, JAPAN, APR 11 (NB)—Matsushita Electric has developed a 64-bit laptop workstation, which is compatible with Sun workstations from Sun Microsystems. The firm is preparing to release the workstation next year, says the Nikkei newspaper.

The 64-bit microprocessor chip for this laptop was jointly developed by Solborn Computer in Colorado, U.S. It is the RISC chip (reduced instruction set computing).

Matsushita already released a desktop model of the 64-bit workstation this past February and they are reportedly selling well despite the price of 1.86 million yen ($13,300). Now Matsushita has decided to make the laptop version. Matsushita's desktop workstation operates at 25.5 MIPS (million instructions per second), which is 60 to 70 percent faster than existing 32-bit laptop workstations. Matsushita's laptop version is expected to be as fast as the company's desktop workstation.

Contact: Matsushita Electric, +81-3-3436-2691/Fax: +81-3-3437-2776.

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- DPC-3020, 20 MHz, 80386SX, 1Mb RAM, VGA video*
- DPC-3325, 25 MHz, 80386, 4Mb RAM, VGA video*
- DPC-3333, 33 MHz, 80386, 4Mb RAM, 64K internal cache*
- DPC-4425, 25 MHz, 80486, 4Mb RAM, 8K direct map cache, Intel designed*
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NEWSBYTES

Chordable Systems Shown At Lap & Palmtop Show

NEW YORK, NEW YORK, APR 17 (NB)—Three firms exhibiting at the Lap & Palmtop '91 Show held at New York City's Sheraton Center on April 16 & 17 demonstrated products built around a system of data input called 'chording.'

Chording is a system of keying using various key combinations on a small number of keys to generate all of the characters normally generated by a standard 101-key keyboard.

Chording technology was demonstrated by Infogrip, whose 'BAT' product is a 7-key unit designed to reduce the ergonomic strain on users of desktop computers, and by Microwriter who uses a 5-key system to allow a very small keyboard on its 1 lb. pocket 'Agenda' computer. The BAT, which does not contain any standard keys, may be used in conjunction with a standard desktop computer keyboard, while the Agenda contains full alpha numeric keys in addition to the chording keys.

A third firm, Select Tech Incorporated, demonstrated a prototype of its 'Walk-Around Chordable Computer.' The system is a combination of either the BAT or an Agenda with a miniature headset-mounted monitor called the 'Private Eye' and a miniature 8086 or 80286 carried over the shoulder. Douglas Platt, president of Select Tech, told Newsbytes that he expects production versions of the system to be shipping in the summer of 1991.

Commenting on the reasons underlying the development of the Walk-Around, Platt told Newsbytes: "In a pay phone an expensive color laptop is useless. The Walk-Around will allow people to function normally while still running Lotus 1-2-3, WordPerfect, or other MS-DOS software."

Platt also commented on the impact of chording, telling Newsbytes: "Chording can be learned very rapidly and, with proper training, can be very productive. Members of the the armed forces have received 40 1-hour training sessions and a number of this group are entering information at a rate that translates into 120 words-per-minute typing."

"Most people can learn chordic data entry in one hour and at the same time accelerate their typing speed," Infogrip's Bond added.

The Agenda has peripheral equipment for connection to either a Macintosh or MS-DOS computer for data exchange. Other peripherals such as fax modems are also available. Dion Croom, US director of sales for Microwriter, told Newsbytes that when the product, originally developed in England, comes to market in the United States, it will be under a different name.

Croom told Newsbytes that the ongoing use of the name 'Agenda' by Lotus Development Corporation has made the name change necessary.

Contacts: Ward Bond, Infogrip, 504-336-0033; Douglas Platt, Select Tech Inc. 215-343-0778; Dion Croom, Microwriter, 919-274-6040.

IBM Stirs up Portable Market

NEW YORK, NEW YORK, APR 12 (NB)—IBM's entry into portables with the Model PS/2 L-40SX, and the release of the PS/55 NOTE palmtop in Japan sent rumblings through the market that the value of laptops will fall. Maybe this is Chicken Little, but the first casualty was the Compaq SLT-286, which took a $50 hit to close at $2250. While its name may mean So Long Toshiba, the Toshiba portables have not taken any losses recently. It remains to be seen whether IBM can penetrate the market that seems to be owned by "Samurai" portable and laptop manufacturers.

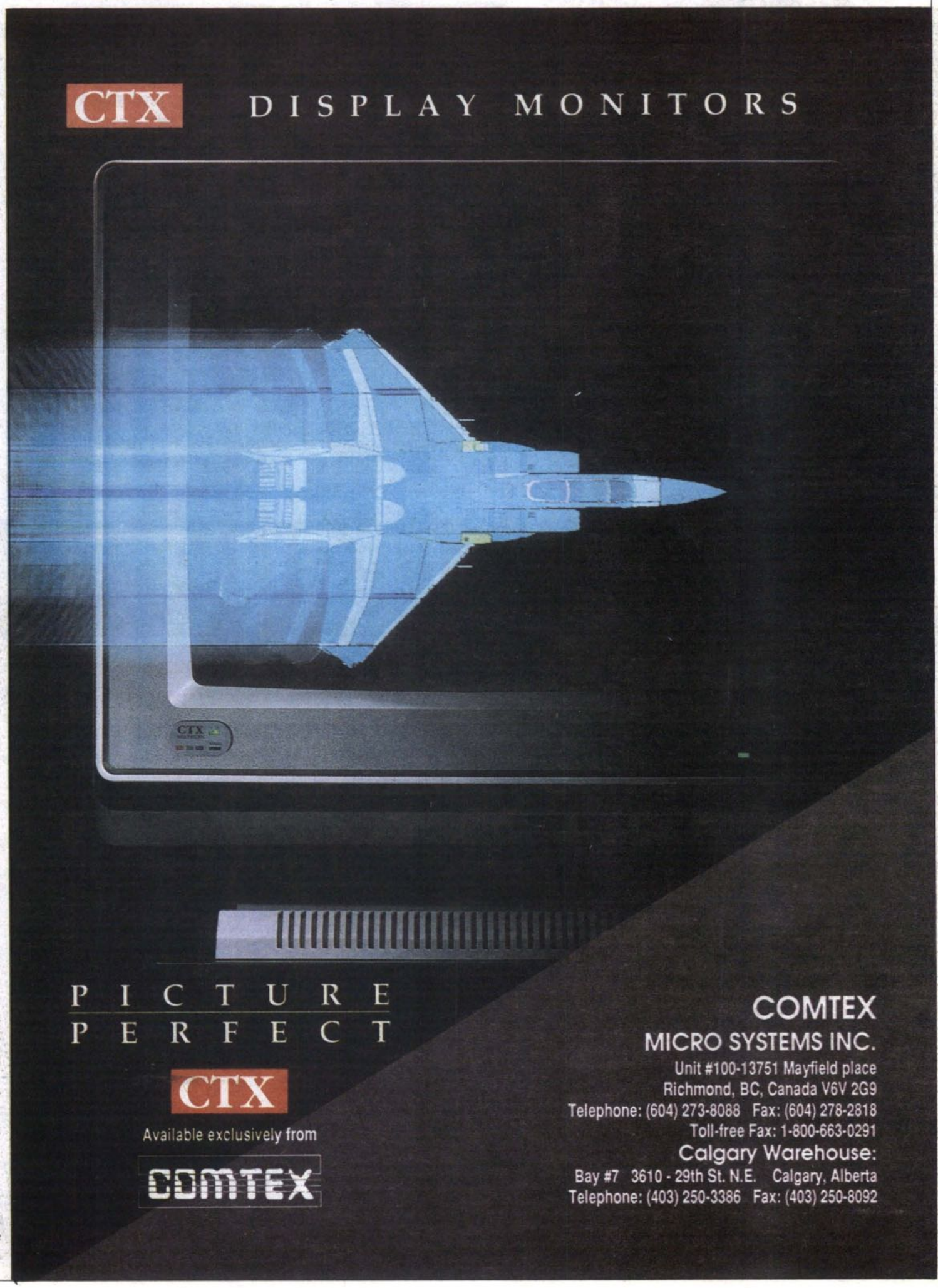
Poqet PC Comes With Free Lotus 1-2-3

SANTA CLARA, CALIFORNIA, APR 12 (NB)—Poqet Computer will sweeten its appeal to the business crowd by bundling the world's most popular spreadsheet package with its tiny personal computer. Poqet has announced that a free copy of Lotus 1-2-3 for The Poqet PC will be given away with each new purchase of the $1,450 Poqet PC. The software bundle applies to all merchandise purchased through Poqet dealers from April 15 to June 30.

The Poqet PC is a one-pound portable personal computer powered by two AA-size alkaline batteries. It comes with an 80-character by 25-line display, a 77-key keyboard and MS-DOS 3.3. Program and data storage is provided by two card drives which replace the disk drives found in larger portables.

Poqet Computer Corp., founded in 1988, is a member of the Fujitsu family of companies, and is privately held by its founders, employees and Fujitsu Ltd.

Contact: Matt Schmidt, Ketchum Public Relations, 408-747-1000.



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NEWSBYTES

Kyocera's Palm-top To Debut In U.S. & Europe

TOKYO, JAPAN, APR 17 (NB)—Kyoto-based office equipment maker Kyocera has announced plans to market its handwriting-input palm-top computer in the U.S. and Europe. The computer is called 'Refalo' and is already well-established in Japan.

The Refalo is a combination of an A5-sized computer and a business organizing notebook. Tipping the scales at just 650 grams, the unit is equipped with an NEC V30 chipset and MS-DOS 3.22 in ROM. Data can be ported to and from the unit using its built-in RS232C interface.

Data storage on the machine is via two IC (integrated circuit) card drives which take credit card-sized ROM (read only memory) cartridges that contain business application programs as well as accepting data for storage purposes. Bundled with the machine are ROM cartridges containing notepad, scheduler, address book, world clock, and calculator facilities. Interestingly, Kyocera is currently developing a radio pager system for the Refalo unit.

Kyocera first unveiled the Refalo computer systems at the Cebit '91 computer show, which was held in Hanover during March. Reaction to the system was very favorable, the company said.

The Japanese computer manufacturer said it plans to start developing business software for the Refalo computer in conjunction with European computer dealers. This is in preparation for a Fall '91 launch of the system in Europe, and a U.S. launch at the end of the year.

Contact: Kyocera, +81-33274-1551.

TRENDS

Gartner Group Predicts IBM Losing Control

STAMFORD, CONNECTICUT, APR 18 (NB)—Gartner Group predicts that IBM will not be successful in its efforts to encourage a majority of users to migrate to OS/2. The information technology industry research, analysis and consulting firm says that by 1995, OS/2's market share will only be half that of Windows. The prediction is based on a recent personal computing conference held by the Gartner Group.

The statement from Gartner further predicts that Microsoft Windows will lead the PC operating systems market by 1995 with a 41 percent market share of new installation, compared to 12 percent in 1990. They expect that OS/2 will garner 21 percent of new desktop operating system purchases in 1995, mostly in the large corporate market. Looking at other major vendors, Gartner predicts that Macintosh will have 20 percent of the market in 1995, Unix will have six percent and DOS will hang on to 10 percent of the market versus the 69 percent they have now. Other operating systems will account for two percent.

Gartner says that companies that are deploying complex, critical applications on PCs should use OS/2, but that most companies should adopt Windows and

Continued on page 78

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Fujitsu 180 MB Hard disk (VC IDE 20 ms 64K Cache)	$535
Maxtor 200 MB Hard Disk (VC IDE 15 ms 64K Cache)	$610
MiniMicro 14" VGA Monitor (640X480) w/Oak 256K Card	$225
Amazing14" Super VGA Monitor (1024X768) w/Trident 512K Exp. to 1MB card	$355
TVM 3A 14" Super VGA Monitor (1024X768) w/Trident 512K Exp. to 1MB card	$475
Seiko 1440 14" Super VGA Monitor (1024X768 0.28 d.p.) w/Trident 512K Exp. to 1MB card	$660
Seiko 1450 Non-Intel. VGA Monitor (1024X768 0.26 d.p.) w/Trident 512K Exp. to 1MB card	$810
NEC Multisync 3D (1024X768 0.28 d.p.) w/Trident 512K Exp. to 1MB card	$745
Upgrade Trident 512K to 1MB Card	$25

Math Co-Processors	Intel	Cyrix
80287-10	245	N/A
80387SX-16	365	315
80387DX-25	575	465
80387DX-33	685	575

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Fujitsu DL1100 w/Color Kit (2-Year warranty)	$410
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Panasonic KXP1180 9-Pin Printer	$195
HP Laserjet III	$2075

Modems

CPI 2400B Int. Modem	$75
VIVA 4800/2400 Send-Fax Modem	$90
ZOOM 4800/2400 Send Fax Modem	$95
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ATI (OEM) VGA Card (256K)	$135
ATI VGA Wonder Card (512K 1024X768) w/mouse	$265
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Trident TVGA 1 MB Super VGA Card	$130
Samtron 14" VGA Color Monitor (640X480)	$290
Samtron 14" Super VGA Monitor (1024X768 0.31 d.p.)	$365
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Dear Robert...

By Mike Beswick



Thank you for your letter. I'll cut it short—you want to know which computer to buy and do not want to spend too much. Further, I would guess that you do not want a lot of detail, just an answer that you could go into a shop with.

I do not know how far you have got into this yet, so please don't think that I am talking down to you, I am just starting at the beginning.

I take it very seriously being asked about your computer purchase, so I will try to make it easy for you. The good news is that it can be as easy as just going into a shop and buying the whole thing. If the machines described below don't satisfy you then you will have to read on to the end.

The Quick Answer

You can walk into a shop with these. I got hold of a recent local magazine and priced up a couple of good machines. Of course, you may find better deals yourself, so, go look.

If the text only gives you something to reject then at least it will have narrowed the field for you. Here goes.....

For all systems, add $15 for paper and $30 for floppy disks. Consider adding $40 for shareware (described later) and some games.

I can only recommend one brand name: WordPerfect which is a top-class word processor and costs a fair chunk of cash ($250). It will, however, do everything you want now and keep you going for a long time.

I use WordPerfect for letters and it has enough clever stuff for me to write all the playreading society newsletters with fancy columns and graphics. Beyond that there is a table feature; several people I know prepare invoices and other documents that require calculations. I use the Sort feature for my inventory and priority (to do) lists.

I would also recommend at least a 24-pin dot matrix printer, the technical details of which I will explain later. Such a printer provides high quality output for an acceptable price. You can get a $250 printer but you may not find it acceptable for business correspondence. You can pay $700 for the next step up in quality but the price per sheet may rise. My printer is a 24-pin, it cost $400 and it gives a quality that even I find satisfying. Only you can decide. I'll explain more later.

Answer 1. The Laptop

A laptop can be put in the car if you have a weekend away or an assignment. It will also fit better into your apartment as you can pack it away on a bookshelf when not in use. I have put a cheaper non-portable printer here as an example. I recommend a hard disk because you are not a real technical sort of chap and a hard disk makes life easy.

Laptop, 20MB Hard disk, 286 CPU	$2300
9-pin dot matrix printer	$ 250
DOS (usually comes free with laptop)	n/c
WordPerfect	$ 250
Grand Total	approx. $2800

Answer 2. The Desktop

A desktop computer needs more room in the house and cannot be moved easily. The screen and keyboard are bigger and easier to use so you get tired less quickly. As desktops are cheaper than laptops, I recommend that you buy a faster type of PC as the base system.

386SX system with 640KB RAM,	
3.5-inch floppy disk drive,	
40MB hard disk, VGA Color	$1900
Panasonic KX 1124 printer	$ 400
DOS	$ 85
WordPerfect	$ 250
Grand Total	$2635

Answer 3. The Deluxe

I'll try to keep the price down when I suggest a computer system for you. But as a wise man once said:

"People always want to do more than when they first buy their computers." It's true; so for your information I will put in a more expensive system here just in case your lottery ticket comes up. Notice how a couple of hundred here and there add up quickly.

The difference between the 386 and the 386SX above is the way they communicate with the other parts of the computer. The 386 sends and transmits twice as much in one go as the SX, thus the 386 cannot help but be faster at some things. Internally the chips are the same so a SX will run any 386 programs.

The extra RAM is to make sure that you can run the memory-hungry programs of today and tomorrow.

The DeskJet printer is like a poor man's laser; it sprays ink on to the page. It is more expensive to buy and to run but produces great quality output.

386 system with 1MB RAM,	
3.5-inch floppy disk drive,	
40MB hard disk, VGA Color	$2200
Larger hard disk	
(swap 40MB for 60MB)	$ 110
Extra 3MB RAM	$ 270
5.25-inch floppy disk drive	$ 100
Hewlett-Packard DeskJet printer	$ 700
DOS	$ 85
WordPerfect	$ 250
Grand Total	$3915

Answer 4. The Cheapest

I cannot sanction buying this computer but put it in here to let you know what buying cheap will cost.

XT system with 512KB RAM,	
2 floppy disk drives,	
monochrome text monitor	$ 750
Raven 9101 printer	$ 250
DOS	$ 85
Microsoft Works	
(basic word processing, spreadsheet,	
database and communications)	$ 100
Grand Total	$1155

First, the machine would be painfully slow. Today's programs are complex so to keep some speed you will have to limit yourself to older, less sophisticated programs. This is all right, there is a lot of good stuff about; it just isn't as good as the new stuff.

Not having a hard disk, you will spend much of your computing time exchanging disks. It's not such a big deal but it's nice not to have to bother. There are some programs that will not even start without a hard disk.

Having a text (non-graphics) monitor means almost no games. However serious we try to be, just about everybody likes games. For the serious ones, a text screen means no graphs or charts.

Hip Lingo

Before we get too far into this, let's have you sounding good. It is so much nicer to say "ram", "see-pee-ewe" and "doss" than "ar-ay-em", "sipew" and "dose".

8088	- eighty eighty-eight
286	- two eighty-six or two eight six
386	- three eighty-six, three eight six
386SX	- three eighty-six or three eight six ess-ex
486	- four eighty-six or four eight six
XT	- ex-tee
AT	- ay-tee
computer	- com-pew-tah (at least that's the way we Brits pronounce it!)
PS/2	- pee-ess-two
DOS	- doss
OS/2	- oh-ess-two
CPU	- see-pee-ewe
RAM	- ram (a lot of sheep talk here)

Your Decisions

You have two things in this life: hardware and software. Some think there is more to it—like art, literature, good health, family and the rest—but such people do not own computers.

Hardware is the computer, the plastic or metal case it comes in, the stuff inside the case and the printer. Your first hardware decision boils down to portable or not, powerful or not and how much do I want to spend? Your next hardware decision is what extras do I want to buy? Like a car, Corolla or Corona, two litre or 1600cc, fully loaded or economy. Add on: automatic transmission; halogen spots; super stereo and furry dice.

Software is the programs that make the machines do things. You can't do diddly without software but you have to pick the right one for you. Your hardware decision starts with your software decision. First decide what it is that you want your computer to do for you.

Software

Introduction

Without software the computer cannot work. When you buy a software program, you get manuals, good quality disks, little chance of problems with the program and often the right to upgrades (improvements) of the program as they occur.

There is some excellent stuff out there. I shall concentrate on the main types of programs; I consider these to be Word Processing, Database, Spreadsheet, Communications, Accounting, Operating Systems and Games.

The different types of programs are called "Applications," I suppose because they apply themselves to something.

Word Processing

For me, this is the most exciting (and useful) application as it makes writing and editing so much better than in the old days with typewriters, scissors and glue.

A word processor is a paragraph-based editor. You type your words without worrying about the margins, and the word processor works out when to start a new line or page. If you add or delete words in the middle of a paragraph then the words that follow are moved to make the page look right.

Word processors do lots more: they will decide when to start a new page; check your text for spelling; take a standard letter and a list of names and merge them to make a mass mailing; let you use columns, do calculations in your document; import graphics files from other programs and much more. If your word processor has a thesaurus, it can even offer synonyms for words. When you've typed in a letter, you just give it the command to Print, and bingo! Out pops the page from your printer.

Database

You can consider a database as a list of information with one line for every item in the list. The database program will allow you to enter the information (data), change it and access it in a variety of ways.

For example, in an office the list of personnel is a simple database. Each person has a name, telephone number, home address and section where they work. The database can be asked for reports such as a telephone book (alphabetic list of staff in each section) or a car-pool list (the people living in a certain area).

Spreadsheet

A spreadsheet is good at arranging and manipulating numbers. It is made up of cells (little boxes) arranged in columns and rows like an empty piece of graph paper waiting for you to write in the numbers. With arithmetic done on paper you use columns to line up the numbers and one row for each entry. Just so with a spreadsheet.

When you do your accounts on paper, you write numbers in special places on the sheet. You then do the calculations and write the answers in other special places. A spreadsheet lets you define the calculations and does them for you. My favorite use for a spreadsheet is to prepare blank tables that have all the formulae entered. All I then have to do is put in the raw data and the calculations are done.

Communications

To link your computer with another computer you need a modem, which is hardware. To control a modem you need communications software. This is a little difficult to describe but easy to use so I'll let you find out about it.

Accounting

An accounting package is designed for one purpose only, that is to keep your books in order. These run from simple check balancers to programs that can manage a medium-sized business. I don't use one personally, but friends of mine love them.

Operating Systems

An operating system (OS) handles the running and organization of the computer. Nothing works without this software.

The OS decides what to do with every key you press and is responsible for echoing the character on the screen. When

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you want to run an application program, the OS supports it. An OS must do file handling. You should be able to create, rename, copy and delete files as well as be able to organise them into folders or something similar.

The most famous OS is probably MS-DOS which stands for Microsoft Disk Operating System. You may often see it referred to as DOS. This is what most of us use; this is what I recommend to you.

Educational Stuff and Games

There is so much on the market: mathematics for children using world



records to keep them excited; dinosaurs for younger children; and for students you can buy cheap versions of the major programs that only work with small amounts of data.

One of my favorite educational games is the Carmen Sandiago series where I am the sleuth following a crook around the world. In the chase I have to refer to an encyclopedia and learn about other countries. Software like this is used in the teaching of English as a Second Language because it forces people to read and act on what they read.

For older children and so that you can fully realize your computer investment, you can: fly a fighter jet; drive a Corvette; hunt for the perfect partner; step into space to pit wits against Vohaul; play PacMan; take part in TV quiz shows and play golf.

My favorite silly game is Bert and the Snake where you move Bert to avoid the apple as it drops or the snake as it comes for you.

Points to Ponder

Here are some things to think about before you get the credit card out.

1. How much cash do you have to spend on this? As little as possible?! Be prepared to spend over two thousand, and, more likely, nearly three.
2. Where should the machine go? Look around the apartment and think about this; it may influence you later. You will have to see a few machines before you have a real idea of size. Do you want to carry the machine around with you or do you want it only for the house?
3. What do you need it to do now, in two years and maybe in five years?
4. What do you use at work? You may find it easiest if your PC is set up the same as the one at work.
5. What machines do your friends have? Your biggest source of support may be your friends, so it makes sense to have something similar. Talk with them anyway; they will have opinions and experience that is valuable to you.
6. Notwithstanding the above, buy an IBM PC compatible—a 286, 386SX or a 386; any one will do. I suggest at least a 386SX as it will stand a better chance of running the programs of the day for more years to come.
7. To get ideas, buy a magazine. American mags like *PC Magazine, PC World, PC Novice or PC Resource* have lots of adverts that will give you plenty of pretty pictures to look at. You will get your best local prices from Canadian mags; like *The Computer Paper.*
8. Price up a few sample machines. Make some scruffy notes and get prices from adverts you find in magazines and from dear old Yellow Pages.

I'll write again soon. You still have to know about the different PCs available, what you may want to add on to them, how to get trained, where to buy from and, if you have decided which sort of application programs you need, which programs to buy.

Fare Thee Well,

Mike

Where to get more info

A great place to get information about computer hardware or software is BBS networks. Of all the purchases you can make, a modem is one of the few things you can get that will bring you help, current information, free software programs and the convenience of doing it all from the comfort of your room. Contact your local computer dealer for information on modems, telecommunication software and ask for some BBS numbers that you can dial. (*The Computer Paper* published a list in our April, 1991 issue.)

Most BBS's are free services sponsored by enthusiasts or clubs. Look for a 2400 baud Hayes-compatible modem, as these represent the best value and performance. Most telecommunications enthusiasts use programs called ARCHIVE UTILITIES that compress files before sending them to BBS's. This reduces the time needed "online" to transmit the file. If you receive one of these "ARC files" (called "downloading"), you'll need the archive utility to de-compress the files before you can use them on your computer. Several popular archive standards exist for different types of computers, including:

DOS: ARC, LHARC and PKZIP
Mac: STUFFIT, COMPACTER
Atari: ARC, LHARC
Amiga: ARC, ZOO.

Ask your dealer where you can get these (usually free) utilities.

Another good source of information is in magazines, especially those specific to your brand of computer. Some good examples of brand-specific magazines are:

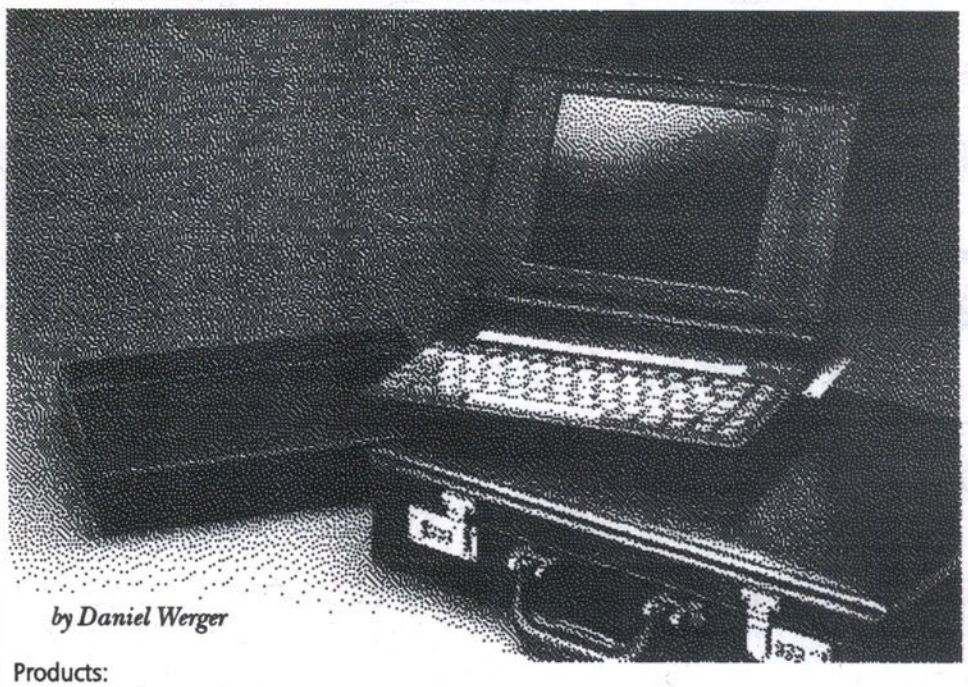
DOS: *PC World, PC Magazine*
Mac: *MacWorld, MacUser*
Atari: *STart, ST User*
Amiga: *Amiga World, Amazing Computing*

Non-brand-specific magazines such as *Byte* and (of course) *The Computer Paper* can help you to put the "big picture" into perspective, too.

Most magazines will periodically feature buyer's guides or other round-ups of the best of what's currently available in the way of software, hardware, etc.

Finally, you should consider joining a user's group. Most areas have plenty of active computer enthusiasts who are happy to answer questions and share information. Often clubs will distribute public domain or shareware "club disks" and club newsletters at meetings. Ask your local dealer about clubs in your area.

Notebooks



by Daniel Werger

Products:

8088/80C86 Systems
- Atari Portfolio
- Panasonic CF-170
- Toshiba T1000LE

80286 Systems
- Panasonic CF-270
- NEC Ultralite 286F
- Tandy 2810HD
- Zenith Slimsport 286

80386SX Systems
- Tempo LX
- Altima NSX
- Halikan 386SX PC
- IBM PS/2 Model L40SX
- Q 386 Notebook
- Datatrain DPC3816
- Samsung Notemaster 386S/16

Overview

This product review is a snapshot of 14 systems which range widely in size, capacity, weight and so on. The common thread that binds them is that they are designed to provide the user with a powerful, fully functional computer system which can be carried without the need for extra arms or a bevy of baggage handlers.

All the systems reviewed here can be construed as "notebooks" as they are all around 2 inches thick, 10-11 inches deep and 12 inches wide. I suppose if one wanted to nit-pick, a true notebook should be no more than 8.5 by 11 by 2 inches. I tend to use "notebook" more loosely, since the weight and overall cubic dimensions play a part. All machines had 1.44MB floppy drives. All had 20MB hard drives, except the IBM PS/2, which had a 65MB drive. All had 640 by 480 VGA backlit LCD displays except for the Panasonic CF-170, Toshiba T1000LE, NEC Ultralite 286F and the Atari Portfolio. Also, all had the capacity for internal modems except the Atari Portfolio. The range of processors include 8088, 80C86/9MHz, 286/16MHz, 386SX/16MHz and one 386SX/20MHz (Halikan). Seven of the CPU's were 386SX's. In terms of weight and size, the heaviest machine was the Zenith Slimsport 286 at 9.5 lbs. The lightest were the Panasonic CF-170 and Tandy 2810HD. The largest was the Zenith Slimsport 286, and the smallest were the Q 386 Notebook and the Atari portfolio. As well, almost every system has the standard serial, parallel ports, external VGA and keyboard ports, math coprocessor sockets. The weights mentioned include batteries.

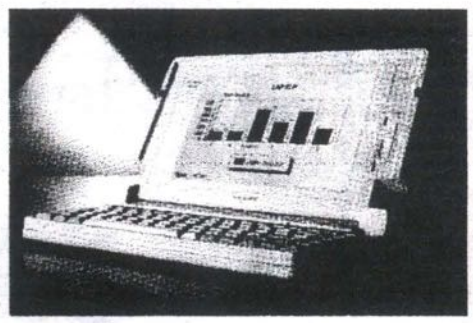
What's the *Real* Price?

Prices do vary. We based our evaluation on the suggested retail price (S.R.P.) provided by the distributor or manufacturer. The reality of the competitive marketplace is that prices are changing rapidly. Not only do dealers discount from S.R.P., but manufacturers are prone to lower their S.R.P. when the product is not selling. Keep this in mind when making your own evaluation. What did not seem a good deal at the S.R.P. we were given, may become a great value at a lower price.



Atari Portfolio

If all the other machines mentioned here are defined as notebooks, then the Portfolio is a "pocketbook". It has, in fact, many of the functions of the other units here, but its size is due to the lack of a disk drive, hard drive and backlit/sidelit display, and the fact it has a keyboard nowhere near full size. What it also has is a 8088 CPU, built-in Lotus 1-2-3 compatible spreadsheet, text editor, calculator, diary and address book. Everything is stored in ROM and RAM and, depending which RAM card you use, it can hold a sizeable amount of data. The screen is liquid crystal, has no internal light source, and displays 40 characters by 8 lines, with the option of a "virtual" screen of 80 characters across. Overall, the Portfolio really does not compare with any of the other machines listed here, but if the user does not need vast amounts of storage and doesn't need quick data exchange (floppies), then the Portfolio (at a list of $388) is a great alternative to the high-priced power of the other systems listed.



Panasonic CF-170

There is really nothing remarkable about the CF-170. It uses an 8088 processor, CGA display, and occupies 211 cubic inches. It is the lightest of the machines looked at here (6.1 lbs), but other than that, with a list price of $2999.95, it seems uncompetitive.



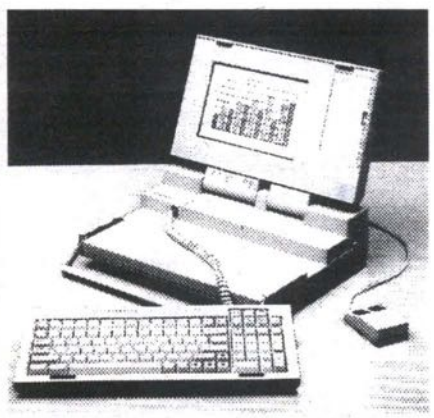
Toshiba T1000LE

The T100LE is a "traditional" notebook, running at 9MHz on an 80C86 processor. It has all the standard features of the other notebooks and is similar

Real Soon Now

Availability is a large issue for many of these new notebook computers. In more than a few cases, we got the one unit available in the whole of Canada to evaluate. Quantity shipments are not expected for one to three months on many of the models. In particular, although many vendors showed us units with 20 meg hard drives, 40- and 60MB drives are still hard to come by. One manufacturer's agent told us that both screens and hard drives were a bottleneck. No doubt, product availability will affect your buying decisions.-Ed

Altima Portables: The World's Best

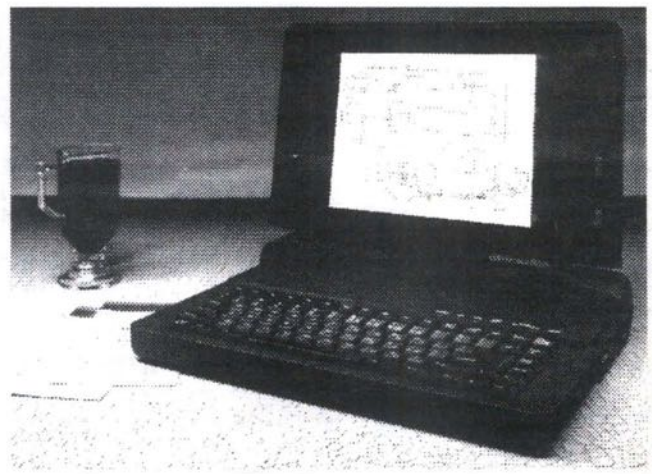


When you want the uncompromising power and flexibility of a desktop, but need the convenience of a portable, there is only one choice. Altima.

Altima portables are the **only** portables with a **detachable**, 101-key keyboard (including a numeric keypad). And standard features that are expensive options on other portables. Like a built-in, **2400 baud modem.** A PC **expansion** slot. A **40 MB hard disk**. Industry standard memory expansion slots. And a mouse too. Add to this a stunning **paper white** LCD display (you've got to see it to believe it) and a price tag hundreds (even thousands) of dollars less than the competition and you'll see why Altima portables are simply, the best you can buy. Period.

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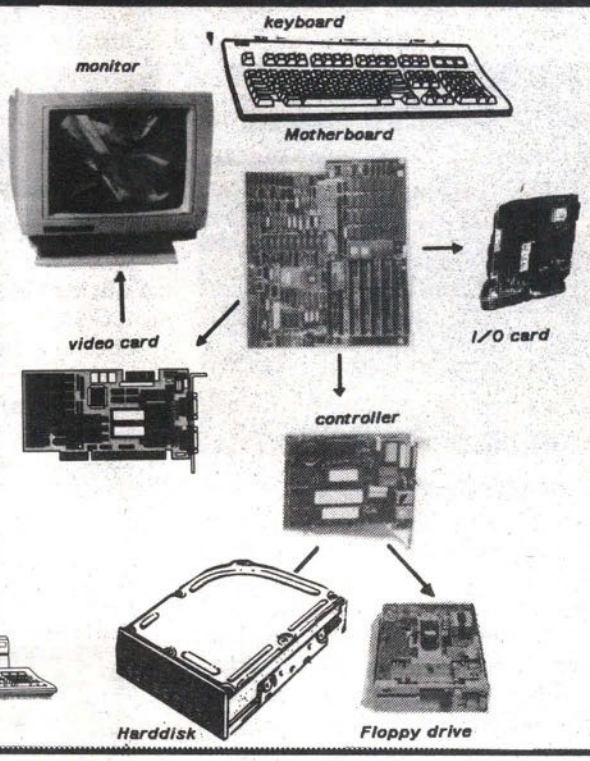
Altima NSX

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Check the computer form inside out, part by part, as long as they're the same model/brand, WHY SPEND MUCH MORE for just a fancier name plateon the front panel of the computer case?!

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MISCELLANEOUS

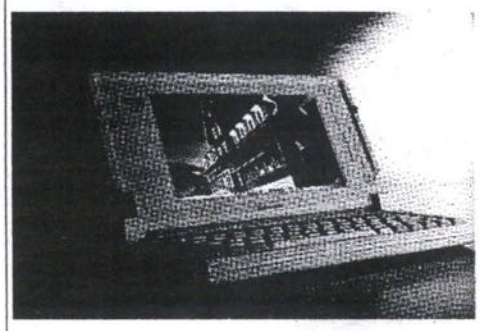
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NOTEBOOKS

to the Panasonic CF-170 and CF-270 in size, shape and design. Again the T100LE is well made, with a generous, comfortable keyboard, quiet operation, and adequate display. Special features include auto resume mode, pop-up window to change configurations and check battery gauge, intelligent power supply. Options include additional batteries, external 5.25 floppy drive and expansion unit. At a list price of $3,599, this machine does not stand out from the crowd, but does have a quiet sense of performance, and would be more than adequate for many non-CPU intensive uses (e.g. word processing, telecommunications).



Panasonic CF-270

The CF-270 is also unremarkable. A little heavier at 6.9 lbs, it has the same dimensions as the CF-170. Again, it seems a little out of place, in that at a list price of $4299.95, it offers an 80286 processor running at 16MHz. The display is standard 640 by 480 VGA. Both the CF-170 and CF-270 are well made, solid machines, but in light of many of the other systems here, they seem unlikely to attract attention.



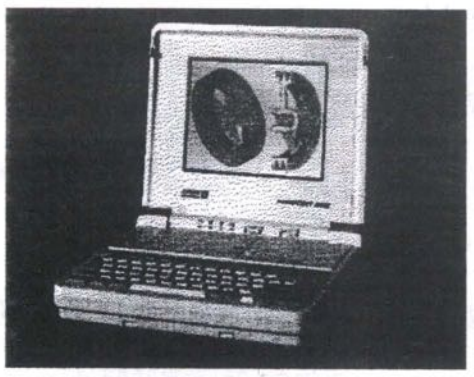
NEC Ultralite 286F

Although this notebook runs on an 80C286 processor, at 12MHz, it has an appeal because of the sleek casing design, compact keyboard and bright display. The weight is 6.5 lbs and it is the second smallest machine at 195 cubic inches (8.5 by 11.5 by 2). Like many of the others, it comes standard with 1MB of RAM expandable to 5MB. Unfortunately, the display is only a 640 by 400 by 8 gray level CGA-compatible. One unique feature not found on any of the other machines examined here is a "stand by" button located above the keyboard. This allows the user to throw the machine into temporary shut down mode, thus extending the potential battery life just that much longer. Although a 286/12MHz, the NEC is very attractive, a good buy for the non-power user. Another NEC product was just announced—the NEC Ultralite 286V. This *new* machine is a 286 12MHz with a 640 by 480 VGA display. The trick is: there is NO internal floppy, making it somewhat lighter and thinner. The price of this new product is $5,399.



Tandy 2810HD

The Tandy runs on a CS80C286 16MHz processor, with a 640 by 480 VGA LCD backit display. The casing is a gunmetal color and the shape is rectangular with rounded edges. The design is attractive —quite professional looking. This machine has all the features of many of the other units looked at here. Included are a 20MB hard drive, 1.44 floppy, serial and parallel ports, external video and keyboard connectors, etc. The hard drive is fast (23 msec.) and the display is clear and bright. The size (195 cubic inches) is very compact considering the floppy drive, and the weight is below average amongst the machines reviewed here (6.2 lbs). Overall, the Tandy 2810HD is an attractive machine for many purposes and with the company offering a 60 MB drive for the $3,499 list price, it seems competitive. Those who need good solid performance may find it's a good buy.



Zenith Slimsport 286

The Slimsport is similar in design to the Panasonic and the Toshiba, with a "clamshell" shape. For some reason, the Slimsport is not very slim! It weighs 9.5 lbs, making it the heaviest of all, and occupies 355 cubic inches, making it the largest of all. The most quizzical aspect of its design is that the screen and keyboard look disproportionately small in relation to the overall size of the box. It runs on an 80C286 16MHz processor and the display is a VGA 640 by 480 LCD. This unit includes a power management system in software that allows users to extend the lifetime of the battery beyond that found in normal usage. According to the manufacturer, a 40 megabyte hard drive is also available, and can be shipped now. Otherwise, it is an adequate notebook, although, compared to many others, not remarkable. Watch for newer models from Zenith which will remedy these shortcomings.

Continued on page 37

Three steps to choosing the right laptop or notebook computer.

One. Think about the work you will be doing with your computer. Make a list -- word processing, spreadsheets, data communications, whatever. Assign priorities. How do you see your needs evolving over the next few years?

Two. Consider where you will be using your new computer. List the places -- home, office, client's office, while flying, etc. Do you plan to bring it to other countries? How often will you physically carry it with you and what other devices, for example a printer, will you want to bring too? Will your new laptop be your main computer or will you be using a desktop system as well?

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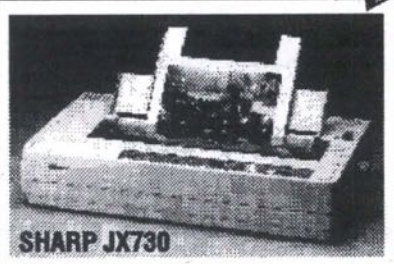
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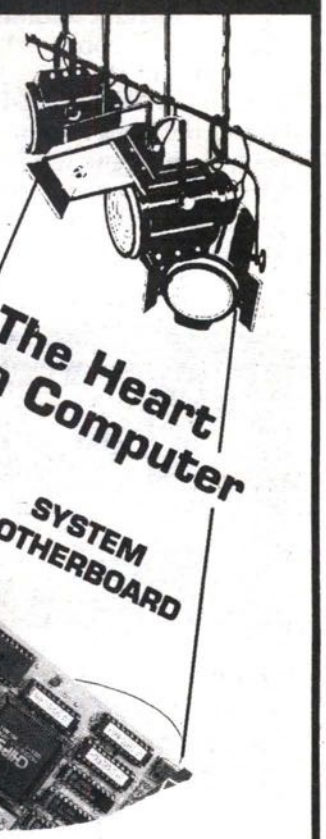
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- SYSTEM FREEZE due to overheating after long running time
- ELECTROMAGNETIC INTERFACE due to too dense electronic traces on-board surface
- DIFFICULTIES ON EXECUTING NEW SOFTWARE PROGRams due to no availability of updated technical support from motherboard manufacturer.

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Licensed Phoenix BIOS, 33MHz i486 Microprocessor with integrated coprocessor and cache controller with 8KB internal cache RAM
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NOTEBOOKS



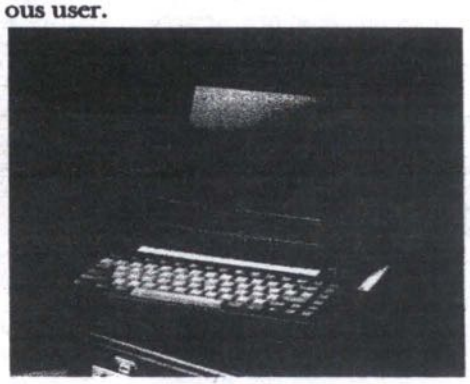
Altima NSX

The Altima NSX is probably the most interesting machine of all fourteen. Externally, the casing is rounded with a mottled, textured finish. The keyboard reminds one of Tektronix equipment (build to military standards). Very comfortable! The specifications of this 386SX 16MHz machine are not unusual, but some features which are optional on other machines are standard on the Altima. For example, 2MB of RAM instead of 1MB, 2400 baud SendFAX capable modem, 20 watt-hour removable NiCad battery pack. The Altima has the option to exchange the 20MB hard drive for a 60MB one. The screen is very readable, with brightness and contrast adjustmenst to suit many different lighting conditions. The construction of this machine is of high quality and could withstand the rigors of a hostile environment. In terms of weight and size, it is the second-heaviest machine at 9.3 lbs and occupies 308 cubic inches. The list price for this unit is $4548.95. If you want to be distinctive *and* productive, this machine is designed for both.



IBM PS/2 Model L40 SX

This is IBM's entry into the notebook arena, and in traditional IBM fashion, everything about this machine is done well. The first thing that strikes you is that it looks and feels like a 10-inch pizza box! The reason is the top is quite thin and two flanges on either side hang down almost the full height of the machine. There is a certain flex to the top and the amazing lightness (7.7 lbs) of the unit in relation to the size (288 cubic inches) is a little disconcerting. Once the machine is turned on, though, it's evident that this is an impressive machine. This particular model had 6MB of RAM (base model has 2MB expandable to 18MB), a 60MB hard drive and runs on a 386SX 20MHz Intel processor. The L40SX has a wonderful keyboard with 84 full-size standard spaced keys and although the keys are half-height, they have a very pleasant touch—they don't force you to question your keystrokes! It also has connectors for both a mouse and numeric keypad which can be attached directly. One curious note is that the VGA display seemed lacking in contrast, even after tweaking the controls. The price is impressive at $7195.00. Overall, a serious notebook, for the serious user.



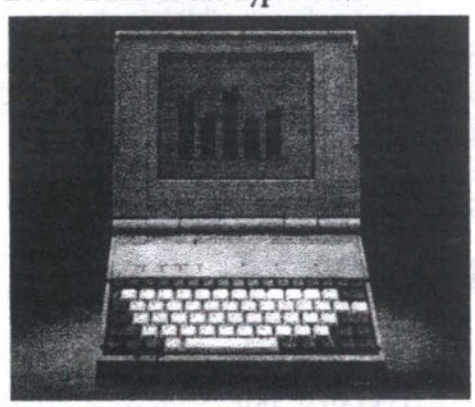
Everex Tempo LX

This Everex product is a favorite. It has sturdy construction with a black casing and a comfortable keyboard. Everex stands out, not because of the product itself, but because of the quality of all the items in the package—manuals, carrying case, power supply, etc. There is a sense of thoughtfulness in the whole package. The machine has all the features needed for running a range of applications. Quiet operation, bright screen, and good design are only some of the reasons for looking closely at this notebook. With respect to size and weight, the Tempo LX it is reasonably compact at 240 cubic inches and it weighs 6.9 lbs. At a list of $3799.00, it may not seem competitive, but we have seen the unit offered for considerably less.



Q 386 Notebook

The Q notebook is both the lightest and the smallest of all the machines reviewed here. It weighs in at 6.3 lbs and occupies 187 cubic inches. It has all the features of many of the other 386SX 16MHz machines. The casing design is black and conservative on curves. The display is VGA 640 by 480 LCD and like the others with black casings, seems bright, with good contrast. This model had 2MB of RAM, expandable to 4MB. Options include a 2400 SendFAX modem, math coprocessor, expansion box, etc. At a list price of $3,500, this is a machine which could support a wide range of applications and run fast enough not to frustrate the hyperactive user.



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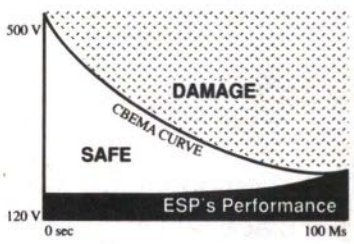
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COMPARING NOTEBOOKS

Configuration Tested:

machine	CPU	MEMORY	STORAGE	DISPLAY	INTERFACES	EXPANSION	INT.MODEM	PRICE
8088								
Atari Portfolio	8088	32 KB RAM	Cards up to 128K	40 col by 6 lines	serial/parallel	#yes	no	$388
Panasonic CF-170	8088	640 KB	20MB HD/1.44MB FD	640X200 CGA	serial/parallel/CRT	yes	yes	$2,999
Toshiba T1000LE	80C86 9Mhz	1 MB	20MB HD/1.44MB FD	CGA	serial/parallel/CRT	yes	yes	$3,599
286								
NEC Ultralite 286F	286 12Mhz	1 MB	20MB HD/1.44MB FD	640X400 CGA	serial/parallel/CRT	yes	option	$4,199
Panasonic CF-270	286 16Mhz	1 MB	20MB HD/1.44MB FD	640X480 VGA	serial/parallel/CRT	yes	yes	$4,299
Tandy 2810HD	286 16Mhz	1 MB	*20MB HD/1.44MB FD	640X400 VGA	serial/parallel/CRT	yes	yes	$3,499
Zenith Slimsport 286	286 16Mhz	1 MB	20MB HD/1.44MB FD	640X480 VGA	serial/parallel/CRT	yes	yes	$3,999
386								
Altima NSX	386SX 16Mhz	2 MB	20MB HD/1.44MB FD	640X480 VGA	serial/parallel/CRT	yes	yes	$4,549
Datatrain DPC3816	386SX 16Mhz	1 MB	20MB HD/1.44MB FD	640X480 VGA	serial/parallel/CRT	yes	yes	$4,630
Everex Tempo LX	386SX 16Mhz	1 MB	20MB HD/1.44MB FD	640X480 VGA	serial/parallel/CRT	yes	yes	$3799
Halikan 386SX	386SX 20Mhz	1 MB	20MB HD/1.44MB FD	640X480 VGA	serial/parallel/CRT	yes	yes	$4,295
IBM PS/2 Model L40 SX	386SX 20Mhz	2 MB	60MB HD/1.44MB FD	640X480 VGA	serial/parallel/CRT	yes	yes	$7,195
Q 386 Notebook	386SX 16Mhz	1 MB	20MB HD/1.44MB FD	640X480 VGA	serial/parallel/CRT	yes	yes	$3,500
Samsung Notemaster	386SX 16Mhz	1 MB	20MB HD/1.44MB FD	640X480 VGA	serial/parallel/CRT	yes	yes	$4,299

Most of these units will be available in 40 and/or 60 MB hard drive configurations.
* Tandy plans to ship this with a 60 MB hard drive for the same price.
# ROM expansion modules are available, but they substantially increase the size of the unit.

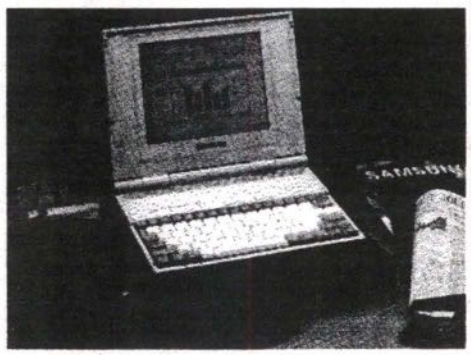
Machine	Weight	Depth	Width	Height	Cubic
8088					
Atari Portfolio	1.25 lbs	4	8	1.25	40
Panasonic CF-170	6.1 lbs	10	12.2	1.73	211
Toshiba T1000LE	6.5 lbs	10	12.2	1.7	207
286					
NEC Ultralite 286F	6.5 lbs	8.5	11.5	2	195
Panasonic CF-270	6.9 lbs	10	12.2	1.73	211
Tandy 2810HD	6.2 lbs	12.2	10	1.6	195
Zenith Slimsport 286	9.5 lbs	11	12.4	2.6	355
386					
Altima NSX	9.3 lbs	11	14	2	308
Datatrain DPC3816	7.0 lbs	8.5	11	2.1	196
Everex Tempo LX	6.9 lbs	10	12	2	240
Halikan 386SX NOTEB	6.5 lbs	8.7	11.7	2	204
IBM PS/2 Model L40 SX	7.7 lbs	10.7	12.8	2.1	288
Q 386 Notebook	6.3 lbs	8.5	11	2	187
Samsung Notemaster	6.5 lbs	8.5	11	2.2	206

machine with a 640 by 480 VGA LCD display. It weighs a little more than the average at 7 lbs, but is quite compact at 196 cubic inches. It has all the same features as the other 386SX's, with a good compact design. This model comes standard with 1MB of RAM, 20MB hard drive, 1.44 floppy, etc. The list is $4629.95. A good sturdy, comfortable machine.



Halikan 386SX Notebook PC

This model ran at 20MHz on a 386SX CPU. Made by Chaplet Systems inc., it is a fairly striking machine. Its most outstanding aspect is the slightly "new wave" design, brightness and contrast sliders, and pleasing curve-a-linear design. In terms of size and weight, it is slightly below the average (6.5 lbs/204 cubic inches), while offering all the features that are available on many other systems. The display is clear and sharp, although the black side panel looks a bit odd as the CCFT LCD display is set off to one side. Apparently, standard "C" size batteries can be substituted for the NiCad pack in a pinch. The ergonomics of the keyboard are comfortable for those who have generous fingertips. At a list price of $4295.00 it's a good system for many applications.



Samsung Notemaster 386S/16

The Samsung Notemaster is very similar to the NEC, Q 386 and Datatrain. It weighs approximately 6.5 lbs and measures 8.5 by 11 by 2.2 inches. It has the same squared design. It is a practical, efficient machine that would do well in both a technical or business environment. Again, like the others, a good overall system.

Summary

The first thing that should be mentioned is that a number of these machines are brand-new. The availability is often a big question mark on new products and you should call a local dealer before you rush out and buy—say, the IBM L40SX! Secondly, there may or may not be items included in a package sold by local dealers. Such things as windows 3.0, batteries, carrying cases, etc. are sometimes added or subtracted depending on the dealer's sense of the market.

Of all the machines reviewed here, three stand out as unique. The first is the Altima. It has a bit of a rebel feel to it—but with great sophistication. The second is the IBM L40SX. It has the classic sense of IBM about it. Expensive, yes, but if money is not a big concern, it is a machine that can perform and does it seemingly without effort. The third is the Tempo, because of the overall quality of Everex products and the simplicity of the design.

Many of these computers represent the leading edge of notebook/laptop technology. The future may bring more surprises with regards to such things as Intel's plans to integrate many of the existing separate components onto one chip. Elements like RAM, video processing, math coprocessing, I/O, etc., will be

Continued on page 41

Notebook.

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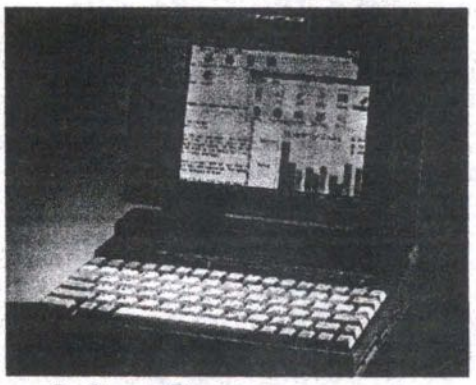
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The Twinhead SuperNote



By Graeme Bennett
Product: SuperNote notebook computer
Manufacturer: Twinhead Corporation, 1537 Centre Pointe Drive, Milpitas, CA 95035 (408) 945-0808
Configuration tested: 2MB RAM, 16MHz 80386SX processor, monochrome VGA graphics, 40MB hard disk, 3.5-inch 1.44MB floppy disk, one parallel, two serial ports
Size: 11"W x 8.5"D x 2.08" H
Weight: 6.6lbs. (including battery, excluding adapter)
Battery Life: 2.5 hours ("D" cell Ni-Cad)
Price: C$4132

The Twinhead SuperNote is typical of many of the so-called "third-generation" portable computers: small enough to fit handily in a briefcase, speedy 32-bit 386SX processor, 32 shade VGA circuitry driving a "Tri-film" cold cathode fluorescent tube (CCFT) LCD, and state-of-the-art power management that the company claims guarantees accurate charges in every environment. There's a connector for an external VGA monitor with 800x600 resolution, two serial ports and a parallel port that doubles as a connector for an external floppy drive.

The screen is paper-white and clearly visible from a wide range of viewing angles. Despite the manual's claims that "you can set the angle of the screen wherever you wish," the maximum angle is about 45% past center. While this is not all that unusual, we wish more laptop and notebook makers would design screens that could fold completely backward to facilitate the use of external monitors.

The 80 keys on the SuperNote's keyboard feel like mechanical switch keys and emit a pleasant, subdued click. The cursor keys are laid out along the lower right side in an "__|" shape with the cursor-left and -right keys to the left of the up and down keys.

To help conserve battery power, the SuperNote has a button near the power switch labelled "STAND BY". This button turns off the LCD screen's backlighting

Continued on page 41

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MEMORY	2MB RAM Standard Expandable to 6MB, supports SHADOW RAM
HARD DRIVE	41MB (18ms)
FLOPPY DRIVE	1.44MB 3 1/2"
INTERFACES	1P, 1S, VGA Monitor Port, Ext. D. Port, Ext. Keyboard Port
EXPANSION SLOT	1 Proprietary
KEYBOARD	85 Keys,
DISPLAY	640 x 480 LCD 0.27 Dot Pitch, 16 Grayscale, Background Reversable
OPTIONS Ram Upgrade	
2MB SRP	$400
4MB SRP	$800
POWER SUPPLY	NiCad Battery & AC Adptr./Recharger
DIMENSIONS (WxDxH)	12.5" x 12.4" x 2.36"
WEIGHT	10.9 lbs.

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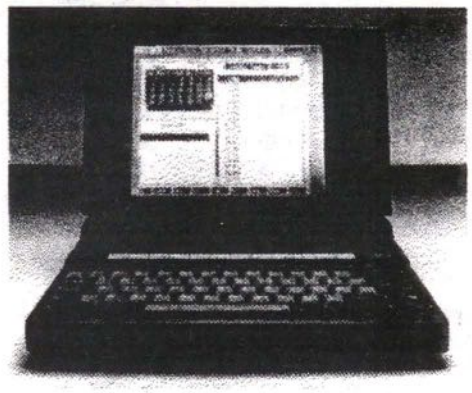
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The Commodore C286/C386-LT

Commodore Aims High with C286/C386-LT's

by Nancy Lorieau



Commodore, better known for the manufacture of the Amiga and C64 computers, has been an also-ran in the business of producing PC clones. This may soon change.

With the production of the C286/386-LT line of notebook computers, Commodore is taking a direct run at the top-of-the-line and, for a change, is competing in the area of performance as well as price.

And what a price! The street price of the C286-LT is under $2500 Canadian, and a C386-LT can be had for about $3,500.

Both models weigh in at less than 7 pounds and measure approximately 12 by 10 by 2 inches; both utilize an 82-key keyboard with an embedded numeric keypad and 12 function keys; both utilize a built-in sidelit liquid crystal screen with a crisp display, virtually no streaking or ghosting, and CGA, EGA, and MGA emulation; both utilize a VGA controller mode which provides 640 by 480 pixel resolution when plugged into an external color monitor. (The display on the C386-LT is slightly more gray and more crisp than that on the C286.)

The C286 and C386-LT are designed to utilize the Connor 40-megabyte hard drive, in addition to a 3.5-inch 1.44 meg internal drive, but are currently shipping with Connor's 20 meg version. The reason for this is that all larger Connor drives are currently utilized by Compaq (which owns 30 percent of the company).

A Commodore spokesman said they will incorporate the larger drive (at a higher price) when it becomes available and may provide an upgrade path for current owners. MS/DOS 4.1 is included in the basic purchase price, as well as, in Canada, Version 6 of PCTools Deluxe. (Some U.S. purchasers get Windows 3.0.)

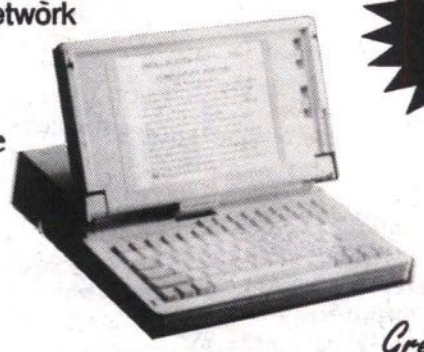
At a Glance:

List Price:	C286-LT - $3,800 C386-LT - $4,500
Size:	12 x 10 x 2 (inches)
Weight:	6.8 (pounds)
CPU/Clock Spd. (MHz)	C286-LT - 80286/12 C386-LT - 80386/16
RAM: Std./Max.	1 megabyte/5 megabyte
Display:	Sidelit LCD CGA/EGA/MGA emulation onscreen 640 x 480 VGA w/external monitor
Battery:	NiCad - 2 to 2.5 hours
Hard Drive:	20 megabyte
Floppy Drive:	1.44 megabyte
Software:	MS/DOS 4.01/PC Tools Deluxe, Ver. 6
Internal Modem:	2400 baud (optional)
Expansion slots:	2 proprietary
Math Coprocessor:	Optional
Carrying case:	Yes

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Available Peripherals

The C286 and C386-LT have two proprietary memory slots. To fill them, Commodore offers memory expansion modules ($699 for 2 megabytes, and a 2400 baud internal modem ($529). Also available are spare batteries ($219) and a spare transformer ($265).

One of the things I like best about these computers, though, is the fact that they can be utilized with most third party products. One line deserving of special mention (and recommended by Commodore) is the XirCom line, distributed in Canada by Keating Technologies (505 Hood Road - Unit 20, Markham ON L34 5V6; Telephone 800-565-3284).

Xircom offers "plug and play" adapters for Arcnet, Ethernet and Token Ring local area networks (LANS) which allow laptops to be connected to these networks through the parallel port. The company also offers a parallel port multiplexer, or splitter, which allows one parallel port to be split into two with no loss of transfer speed.

Good Marks Overall

Commodore gets a B+ for expandability. Both models come with 1 megabyte of RAM on board and are expandable to 5 meg. Both include a math coprocessor socket.

I liked the feel of the keyboard, the availability of twelve function keys, and the fact that the keys do not seem as cramped as on some notebook computers.

The embedded key features are very easy to get used to.

One feature I was especially interested in (but which was not implemented in the models I tested) was the ability to automatically access foreign key maps, a particular asset in bilingual Canada.

The company advertises a two-hour life for its rechargeable NiCad battery pack, but by utilizing the computers' memory-saving features, I was able to obtain an average battery life of more than 2.5 hours.

I would recommend these two computers to most buyers with only one word of caution. In spite of the power and many features of the C286 and C386-LT, Commodore offers only a 90-day limited warranty for repair or replacement. If their product is really as good as they say it is, the company should be prepared to stand behind it a little more solidly.

Nancy Lorieau is a communications consultant, writer and editor specializing in technical and business publications. She also has six cats, seven kids and five computers.

Notebooks continued from page 38

combined onto one chip, making the size decrease and the overall speed increase dramatically. The three major stumbling blocks for further reductions in size and weight for notebooks are; the fact that the keyboard must fit our fingers; the battery must supply enough power; and there must be a standard floppy drive of some kind. The keyboard will always be a constraint to the width and depth. The battery and to a lesser extent, the floppy drive, will always constrain the weight.

Another aspect to choosing a notebook is its ability to withstand harsh environments and regular physical abuse. No matter how careful you may think you can be, moving any computer around will result in bumps and grinds. If your intention is to simply replace an office desktop machine with a notebook so you can take your "office" home at night—then any of the above machines will survive the journey from work to home and back again. On the other hand, if your in and out of plane seats, cars, boats, offices, bars, etc., you should choose a system that is put together to endure this type of ruggedness.

Finally, The bottom line is that the machine you choose must; run your software; be light enough to carry in a briefcase or over the shoulder; be readable under a number of lighting conditions and; be low enough priced to not break the budget OR be impressive enough to cause attention (ego!). All of the machines reviewed here fit two or more of those criteria.

For further reading, see the Jan. 1991 issue of *The Computer Paper*. Here you'll find reviews of the Toshiba T1200XE, Sanyo MBC-17NB, Sharp PC-6220 and Intra LT-286SX laptops, plus "Bridging the Laptop Gap," a discussion of ways to transfer files between portables and non-MS-DOS computers. The What's New section of that issue also carried details of Samsung's 386SX NoteMaster notebook and Mac-compatible laptop offerings from Colby.

Also, most online information services have ongoing discussions of the subject. For example, GEnie has an entire area (called a RoundTable or RT in GEnie parlance), specifically about Laptops. Laptops RT SYSOP Dave Thomas, tells us that the sixth edition of STREET.$$$ has just been published in Library 10 of the Laptops RoundTable—Page 656.

It is a compilation of the advertised U.S. retail prices of 92 widely advertised portable, laptop, notebook, and handheld computers. A total of 162 computers are listed though some of the newer ones are not widely advertised as yet. Of the 92 with listed street prices, 66 show a new low price; some of these have dropped dramatically in the last three months. Listing was prepared from the advertisements of twenty-nine retailers in seven magazines.

Also newly released is the Second Edition of COMPUTER.DES, a listing of 109 laptop/portable computer and peripheral manufacturers. It includes their address, phone number(s), product type, and trade name as appropriate.

Check them out! Files 3730 and 3729.

TwinHead Notebook continued from page 39

and slows the CPU speed, saving a great deal of power. (Pressing this button also consistently crashed Windows, whether we were running on battery or AC power, so use with care!)

The manual is very good, printed in two colors with numerous illustrations. Several sections are included that clearly speak to first-time computer owners and other inexperienced users. We found no typographical errors.

The system includes DOS 4.01 and battery watch, disk caching, password and file transfer utilities.

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AD #2

NOTEBOOK COMPUTERS

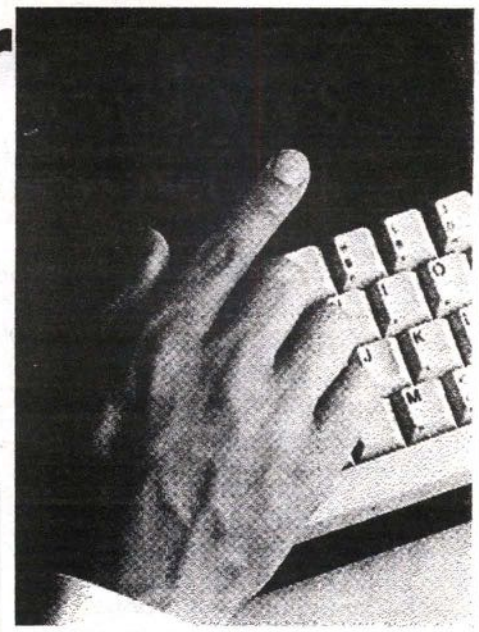
The Psion Mobile Computer

By Graeme Bennett

Product: Mobile Computer MC400
Manufacturer: Psion PLC, London, England
Distributed by Real Data Systems Inc., #120 – 1575 West Georgia St. Vancouver, B.C. V6G 2V3 (604) 683-7226
Price: C$1995
Weight: 4.3 pounds
Dimensions: 1.9" x 12.4" x 8.9"
Battery Life: 60 hours (8 AA alkaline cells)

The Psion MC models 200 and 400 differ from the vast majority of other portable computers in that they have a proprietary operating system, built-in graphical interface, multi-tasking system software and an integral touch pad which allows you to interact directly with the graphics displayed on the high resolution screen. For example, you can pull down a menu simply by pointing at it.

The MC computers utilize so-called Solid State Disks as their primary storage medium, which (besides being considerably faster than conventional drives) permits them a design feature I wish all portables had. When I tapped the "ON" key after the machine had been turned off, it instantly resumed at the last point it was at. If you had been typing a letter into the built-in word processor, the contents would be just as you left them. The only other machines I have seen with this



marvelous innovation are the not-commercially-available prototype pen-based computers from GO Corp. (Actually, the Psion and the GO user interfaces are extremely similar in general functionality and overall look and feel, although I'd give the award for elegance to GO.)

The Psion MC models 200 and 400 also have an unusually long battery life (75 and 60 hours respectively) and a built-in high-level programming language called OPL. One thing's for sure: the Psions don't suffer from a case of "Me-too-itis."

The MC400's screen is a 640x400 pixel black and white Retardation Film LCD, while the MC200 uses a 640x200 Supertwist LCD. Aside from this difference and the greater battery life of the MC200, the machines share identical specifications and features.

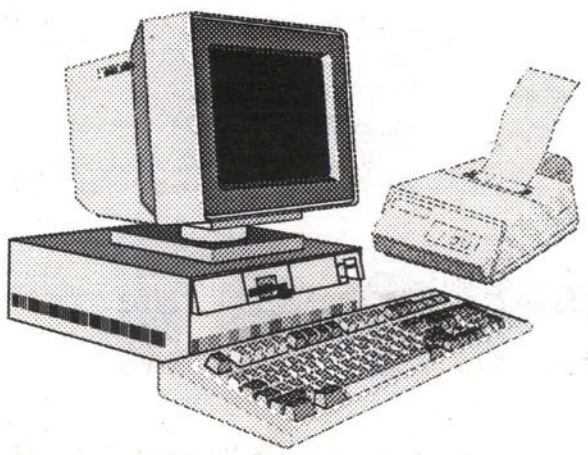
The 3-minute Test

The MC400 easily passed what I consider to be the acid test when evaluating new technology: I managed to get it up and running in less than three minutes flat. Inside ten minutes, I had virtually mastered each of the various applications...all without looking at the manual. The only time things got tough was when I accidentally pressed the "PSION KEY" and CAPS LOCK together and found myself temporarily in NUM LOCK mode. Of course, just pressing the keys again toggled the function off. When it came time to turn the machine off, I once again resorted to the index of the 308-page manual, and found that the secret key combination was "PSION-CONTROL-1." Other than that, the Psion's operating system is the very picture of dummy-proof computing.

Along the bottom of the main screen is a row of icons (see Figure 1): a notepad for text processing, a calendar for diary, date and time-management, a Rolodex for your personal database, an adding machine for doing numerical calculations, an alarm clock for scheduling and appointment-keeping, an icon of a group of windows signifying file management, another of a cable connecting the Psion to a desktop PC; this is a file transfer utility for exchanging data with other PCs. Although not usually visible, there are also icons for user programs written in the system's OPL language and a System icon. Lastly, there is a picture of a telephone handset inside a VDT. This is a terminal program, complete with XMODEM transfer capabilities—in short, a fairly complete suite of personal infor-

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* Prices & specifications subject to change & while quantities last

mation management tools in a compact, easy-to-use package even an executive could learn. So, what is there to dislike?

The LFF

My Least Favorite Feature is, surprisingly enough, the touch pad. Although I'm a confirmed mouse-aholic, I found that my fingernail got rather uncomfortable after an hour or two of pointing and pressing. I suspect luxuriantly-nailed female executives may find the touch pad even more bedevilling. I tried using the ball of my finger, but the pressure necessary to "click" a selection caused further discomfort as my finger bent backwards repeatedly. Pointing with the eraser tip of a pencil was very comfortable; of course the constant dragging and pressing soon adds up to eraser rubbings all over the touch pad. As you may have guessed, I'm really stretching to beef about the touch pad. It's not *that* uncomfortable; in fact, the 2- by 6-inch pad is surprisingly responsive.

Friendly Interface

Handily, the Psion's operating system includes keyboard equivalents for most functions. Users familiar with Microsoft Windows, GEOS/PC or the Macintosh will feel right at home here. There's even a HELP option to aid beginners in getting the hang of things. Windows have all the usual resizing and dragging methods, and pressing the PSION Key in conjunction with a number key will drop down the corresponding menu. Once dropped down, the cursor keys and ENTER key allow easy navigation and selection of menu items.

Like Windows, tasks can be shrunk to icons, and in best Macintosh tradition, every application shares the now-ubiquitous Edit menu's command key equivalents Z, X, C and V for UNDO, CUT, COPY AND PASTE. All applications share the same commands for opening, saving and printing files. Other common functions are intelligently integrated, such as pressing ESC for CANCEL, ENTER for OK, etc.

Files and directories are kept in an MS-DOS compliant format, and all the usual DOS file management functions are available.

The Psion's designers obviously borrowed heavily from the design of the Macintosh user interface when they came to the problem of text selections. Any graphical wordprocessor user will feel "write" at home with techniques like pressing SHIFT to extend a text selection, or CONTROL-SHIFT to select text word-by-word, rather than letter-by-letter.

The system is equipped with parallel and serial ports and comes with Epson and Canon BJ10e printer configuration files. The manual also describes how to configure custom drivers for other printers, although this is not a task for the faint-hearted.

I experienced no bugs or software glitches during my tests; the hardware also looks to be durable and well-manufactured. The screen is not backlit, which may be a problem for some users, but this design contributes greatly to its impressive battery life.

Compatibility

The issue of compatibility is relatively unimportant in that the Psion has no trouble in exchanging data with desktop PCs via its built in LINK software and a simple serial port connection (A 5.25-inch disk of PC Transfter software is included). When equipped with the optional pager, modem or fax modem, the Psion is further liberated. You can even configure the Psion to be switched on via the serial port (hmm!).

Other unique options are available, too, including one I would have dearly liked to test: just above the keyboard, a button labelled RECORD is teasingly inactive. Apparently, an optional Digital Voice Processor Expansion Module allows you to attach voice annotations to alarms and diary events, to be played back through the system's 8KHz audio chip. The module allows real-time compression and decompression of voice and the speech can be edited, making it more useful than conventional dictation machines. The company says that 8 minutes of speech may be stored in just 64K bytes.

OPL

Sorry folks, but I couldn't bring myself to tackle OPL for the purposes of this review. My first thought was "why have they chosen to include a programming language that few people have ever heard of?" However, on closer examination, OPL would appear to be a snap for anyone with a little programming experience to pick up.

From the manual (a separate 236-page volume), it looks to be a compiled BASIC-like language that supports named procedures, modular design and inline 8086 assembly code. Programs you write can be installed—complete with icons—as a standard application. Several trivial examples of code are given in the manual.

According to the distributor, the Psion

continues on page 46



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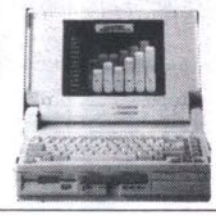
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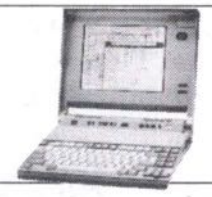
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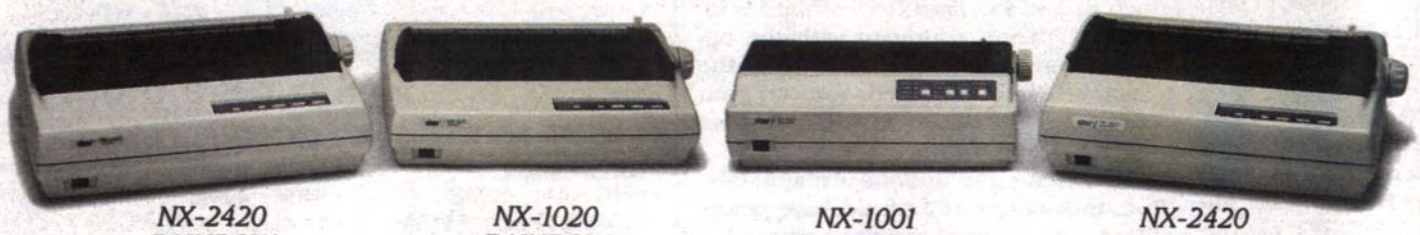
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Psion Computer

continued from page 43



computers are very popular as mobile data collection units and a wide variety of data collection programs have been written. These programs, and supporting hardware like barcode readers, are available from the company. Psion also sells a C$259 spreadsheet application.

Conclusion

Machines like the Psion, Atari Portfolio or the Sharp IQ units are best used for the applications built into them. Users with clearly-defined needs may find that the built-in software tools are enough, but users with more generalized purposes may find that, despite the foibles of MS-DOS, the vast array of PC software available lends an undeniable advantage to DOS laptops.

All in all, the Psion is an impressive unit that is easy to use and flexible enough to find its way into a variety of vertical market niches. According to Psion, it is targeted mainly at executives and salespeople on the road. Although its proprietary operating system virtually assures it the kiss of death in today's DOS-bound market, it deserves a look as a solid and innovative alternative to MS-DOS-based portable machines.

PERSONAL INFORMATION MANAGERS

by George Slade and Steve McIlwain

The name "personal information manager" suggests a computer program that helps to manage your personal information—a database of addresses, to do lists, day timer functions, etc. The key word here is *personal.* There are as many different bits of information that need to be managed as there are people. Just as each personal computer is set up differently, each person will have different information management needs. It would seem then, incorrect to attempt to compare personal information managers on a best-worst scale. I may have certain needs which one program addresses and you may have different needs which another program addresses. Direct comparisons of PIMs are unfair at best and dishonest at worst. Each PIM is so different and addresses different functions. As a reviewer I may see value in one function that is of no value to someone else. And, I may see no value in a function that to another person there is great value. So you should look very carefully at your own requirements for a PIM, and then select the programs that have the functions that meet your needs. At last, here is a category of software where it is best to not listen to your friends or consultants. Make your choice based on your needs and the program's functions.

Here we look at four PIMs, each with a different approach to managing information and each worth considering.

Product: The Maximizer ver. 2.1 Contact and sales management software.
Publisher: Richmond Software Inc., 420 - 6400 Roberts Street, Burnaby, B.C. V5G 4C9 Phone (604)299-2121 Fax (604)299-6743
System Requirements: PC XT/AT or compatible, 1.3M bytes disk space required, DOS 2.1 or higher, 512K bytes available RAM, 80 column dot matrix printer
Price: MSRP $295, LAN version $695
Key Features: Auto dialer, Letter writing, Reminders, Contact tracking, Long-term free support, Mass mailing, Personal expenses management, Diary, Spell Checker, Calendar, MaxMerge (database merge utility), Personal record keeping, Calculator
Of Interest To: Sales managers, sales people who do direct sales, or any professional with clients or contacts to track.

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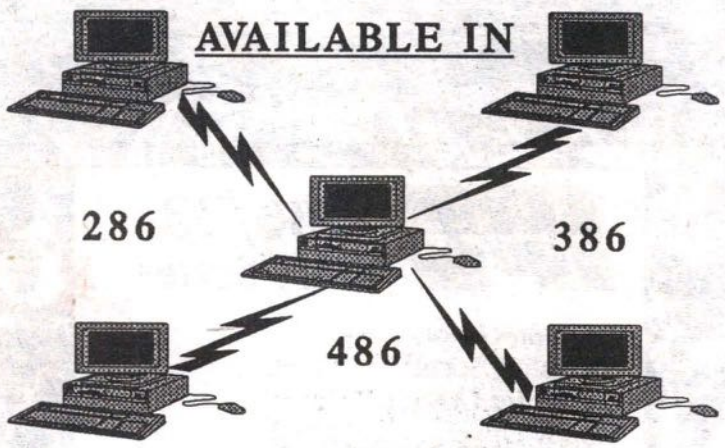
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PIMS



Overview

Maximizer is a customized database application program for sales, marketing, and follow-up purposes. It can aid a sales person in following through on the many different requests for information and call-backs that occur in a sales cycle. Customer information is attached to notes, dates, descriptions and contacts. The user can track what happened in the past with a particular customer and what is to happen in the future.

Operation

Maximizer is a simple, menu-driven custom database application. The user enters name, address and other information in the database. Each time a contact is made with a person, their records are updated with new information from the new contact. Each phone call or letter is tracked with notes to show what transpired.

If you spend most of your computer time managing contacts, you can get full benefit from Maximizer. If you spend most of your time in other applications and are in need of a program that will quickly schedule time, there are other PIMs available that can stay memory resident and are easier to access.

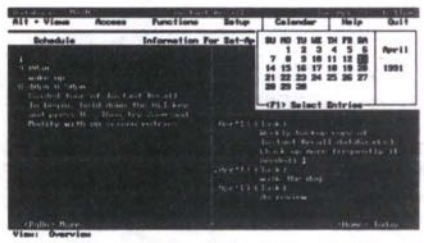
Conclusion

I can usually spot a person who uses Maximizer. If they say they will call me back on a particular day, they do call back on that day. They also have all the information about our last contact at their finger tips.

Maximizer is an excellent marketing and sales management package. Maximizer will keep a sales person on top of more customer requests than can possibly be handled manually. Thus customers will sense a more individual and human approach rather than a mass market, computer aided approach. Maximizer excels in the area of information management for a sales situation, but this does not limit the program to sales people only. If your business brings you in contact with many people on many different issues, Maximizer will help you organize. There is no doubt that the investment for this product will pay off in any direct sales or marketing environment. If one wants to increase productivity and professionalism in their sales force, or any professional relationships, Maximizer will go a long way in obtaining these goals.

(At press time, a release from Richmond Software arrived stating that a new research study by Market Intelligence Research Corp (415-961-9000) has the Maximizer leading PC-based individual sales lead tracking programs as well as in the LAN-based area. They have 44% of the market for individual users, and 25% of the LAN market. The study also notes that it is the youngest of the sales automation software companies and it is the only non-U.S. firm to hold a strong market position.—Ed)





Product: Instant Recall ver. 1.2, Personal information manager
Publisher: Chronologic Corporation, 210-5151 North Oracle, Tucson, AZ 85704 Phone (602)293-3100 Fax (602)293-0709
System Requirements: IBM PC, XT, AT, PS/2 or compatible, 512K RAM, DOS 2.1 or higher, Hard disk or 720K floppy
Price: MSRP $99.95
Key Features: Auto dialer, Clipboard to move text to other programs, Reminders, Alarm message pops over other programs, Calendar, Calculator, Overdue entry notification, Automatic conflict checking, Quick timer for billing, On-line context sensitive help, Mailing labels, Password protection, TSR capability
Of Interest To: Those in need of a time management program that can schedule time quickly.

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Overview

Instant Recall is the Sidekick of the '90s. What Sidekick did to computers in the '80s, Instant Recall can do in the' 90s. Instant Recall is mainly a time management program that controls appointments, people, and things to do. By using Instant Recall one can simply enter a desired schedule and Instant Recall will prompt you as time goes on.

Operation

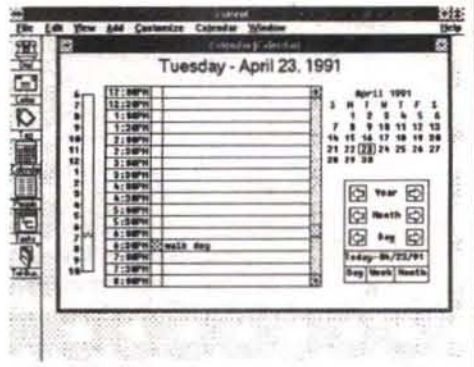
I found the most effective function of Instant Recall to be the scheduling and alarm function. You can enter appointments and deadlines into Instant Recall and set the alarm for different times and then get on with working in other applications. When the time comes for a reminder or alarm, Instant Recall will pop up over what you are doing and remind you what to do.

Instant Recall can stay memory resident. If you find yourself in other applications most of the time, Instant Recall offers easy access from other programs for quick time scheduling.

Conclusion

Instant Recall is a worthwhile time management program that integrates name and address information with time management. The program is very well thought out and has been tested with different environments like DesqView, Windows, Novell and 3COM.

Product: IBM Current, ver. 1.1, Windows-based personal information manager.
Publisher: International Business Machines Corporation, P.O. Box 1328, W Boca Raton, Florida 33429-1328
System Requirements: IBM PC XT-286, AT or compatible, DOS 3.30, 640K RAM, Hard disk, IBM EGA or VGA display or compatible, Windows 2.00 - 3.0 optional - SAE version of Windows included, Mouse optional
Price: MSRP $471
Features: Custom categories (databases), Custom templates for letters, Custom file connections, Letters to single or multiple recipients, Multi-font reports, Spell checker, Attach images to records, Import/Export - ASCII, DIF, dBase, Call in Excel information from outside Current, Phone Dialer, Alarm, Letter and phone logs, Outlines, Calculation fields, Tutorial



Of Interest To: Current is of interest to those in need of a full-featured personal information manager.

Overview

Current stores information in "Categories." Several are included and you can build you own. "Connections" can be made between items within a category and between items in different categories. Current lets you look at your information in several different "Views" (formats): Book, Calendar, Diagram, Gantt chart, List and Report. "Filters" allow you to search for information in a view. The details of each record are easily accessible from any view.

Operation

Operating on a 16 MHz 386-based machine with 4Mb of RAM, Current presents no unreasonable delays and performs well. Performance on a 10 MHz 286-based machine is also satisfactory. Current's Windows interface makes every option easily accessible.

Current's real power is its flexibility. Almost every feature can be customized to your specific needs. You can even define your views and add them to Current's menus so that you have easy access to information that you need repeatedly.

Current allows you to design your databases and even attach images to a record. Images could be used in banking or security applications. You could attach a facsimile of a signature or a snapshot to a person's record. Real estate people can record a picture of a house, floor plans, or even a map on how to get to the property.

One of Current's strongest features is its "Connections." These are links be-

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tween pieces of information. For example, a salesperson might include a "product sold" field in their contacts category. The salesperson could then look under a specific product and find each person who bought the product.

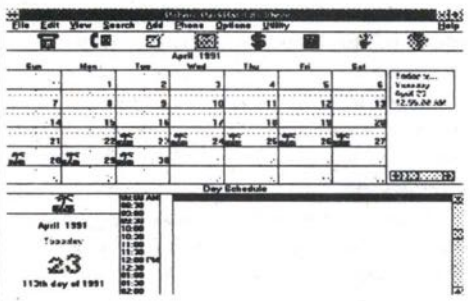
Current might be your choice if you want more from your reports. Current allows you to create templates for letters and merge information to the template. By selecting a template your letter is complete when you view it. Current's multi-font capabilities provide reporting power.

Conclusion

If you use Windows a lot, this package is useful. With adequate memory, you can quickly access Current while in other applications.

If you are only a part-time Windows user, you may not get full benefit from this package. Your personal information manager should be in the environment that you are in the most. When not running Windows, you do not have quick access as you would with a DOS-based memory-resident PIM, such as Instant Recall. Unless you are in a situation where you would be in the program most of the time, such as a salesperson, Current may not be as useful to you. If you are in other non-Windows applications most of the time, a memory resident PIM that can be accessed anywhere may be more effective.

Current is a full featured PIM that can keep even the busiest person organized. With Current's customizing capabilities, its uses are limited only to your imagination.



Product: PackRat ver. 3, Personal information manager for Windows.
Publisher: Polaris Software, 1820 S. Escondido Blvd., Suite 102, Escondido, California 92025 Phone (619)743-7800 Fax (619)743-9964
System Requirements: Microsoft Windows 3.0, IBM PC AT, 286 and above compatibles, EGA, VGA or Hercules graphics adapter, 640K RAM, 200K RAM for PackRat
Price: MSRP $569 CAN.
Features: Password protection, Quick dialer, Gantt charts, Alert reminders, Windows Dynamic Data Exchange, Time management facility, Track financial transactions, Phone log, Expenses, Automatically compute cost of time-related items, Print labels and envelopes, Tutorial, Custom reports
Of Interest To: Windows users that are in need of a full-featured personal information manager.

Overview

PackRat stores your information in data files that you open. You can have one or more data files open at a time. Information items (appointments, contacts, etc.) are stored in "Facilities." Information can be related within one facility or between different facilities by using "Keywords" or you can manually attach any item to another item. An extensive search feature allows you to search for information within and across facilities.

Operation

PackRat operated flawlessly in all test situations. It is easy to enter appointments and the different calendar views make it easy to see your day, week or month. An excellent Alert feature can be set to warn you of important tasks even if you are in other Windows applications. The screen can be customized so that you have easy access to frequently needed information.

One feature that some might find useful is the ability to save information in separate data files, yet still be able to open more than one file at once. For example, you can put all the information for your company's golf tournament in a separate file so that you don't have to search through everything to find information.

PackRat also can transfer information with Casio Boss or Sharp Wizard so you have access to information when your computer is not handy.

PackRat uses the power of other Windows applications for word processing and spreadsheet needs. Tasks such as mail merges have to be done using Word. Included with PackRat are macros for Microsoft Excel and Word for Windows that allow you to track activity of Word and Excel documents in PackRat.

Conclusion

You can't find a better time management program for Windows than PackRat. The features it lacks are made up for with integration with Microsoft Word for Windows and Excel. Still, the addition of a good word processor to write simple letters to contacts and do mail merges would make the package more complete for those who don't have Word for Windows or Excel. Other than this, PackRat has very few limitations.

George Slade and *Steve McIlwain* are senior partners in ISR Software Review Corporation, a company specializing in independent testing, evaluation and review of MS-DOS-based products. For further information phone (604)538-0517.



PIM for Real Estate

Real estate agents looking for the ideal personal information manager might want to have a look at Top Producer Contact Manager *by Top Producer Systems, (604) 270-8819. It has links to the Vancouver Real Estate Board's online system, as well as appointment and task scheduling, and activity tracker and postcard printing.-Ed*

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AD #5

PERSONAL INFORMATION MANAGERS

The Sharp IQ-8300M Electronic Organizer

By Graeme Bennett

Product: IQ-8300M Electronic Organizer (also known as the Wizard in the USA)
Manufacturer: Sharp Electronics, 335 Brittania Road East, Mississauga, Ontario L4Z 9Z9
Configuration tested: 128KB (User area: approx. 110KB), IQ-793A Mac interface software/hardware
Size: 7-1/32" W x 3-13/16" D x 3/4" H
Weight: 290 g (including batteries)
Battery Life: approx. 95 hours, average use
Price: $519.95; Mac interface & software $149.95; PC interface & software $169.95;



If part of your everyday business activity involves meeting people, you have probably had too many business cards pressed into your palm to keep track of. Today's business people often rely heavily on "Day Timer"-type organization books and various desk and pocket organizers to keep track of their schedules and take notes with. Further, who doesn't need to do numerical calculations once in a while?

So, at the very minimum, people trying to conduct business in a professional fashion really need to carry around a calendar (with room for daily and weekly notes), a telephone book, a notepad, a stack of business cards and, if they still have any room left in their pockets, a pocket calculator.

To really have his or her act together though, a person should also have a timepiece that can calculate time-zones around the world, be able to whip together outline summaries of complex subjects or tasks; maybe even network with the office from remote locations. And of course, they'd *never* miss a birthday or anniversary.

Why, having all these abilities would make a person a veritable *juggernaut* out there in the business world. (Can you tell what this is all leading up to?)

Of course, any portable computer could perform all these tasks! But they are too big, too intrusive to really go *anywhere*. As people who take casual photos can tell you, the likelihood of having your camera with you at the moment a picture opportunity arises is inversely proportional to the size and weight of the camera. So it is with bulky laptop or notebook computers, with their clacking keys and briefcase stylings. No, the perfect executive organizer would fit neatly in a breastpocket and look like a checkbook.

This pretty much summarizes the design concept of the Sharp Electronic Organizer. It performs all the above-mentioned functions (requiring an optional RS-232 connector and modem to telecommunicate), neatly interfacing to a desktop PC or Macintosh to transfer its data as desired.

Resembling an overgrown calculator with its alphanumeric keypad, the dark gray-and-black IQ-8300M does not particularly behave like a computer. Once turned on, twelve color-coded buttons take the user into the different organizer areas: Calendar, Weekly, Daily, Schedule, Tel, Outline, Memo, World, Home, Business Card, Calc and Card.

World and Home are time zone maps; as shipped, Card is a demonstration of the built-in Help facility for the other functions, however, it is also where you would plug in other applications on optional IC cards. A dozen or so other cards exist, including Time Expense Manager, Thesaurus Dictionary, 8-Language Translator, Money Planner, 3-D Spreadsheet, BASIC Scientific Computer Card, and English-French and English-German Bilingual Dictionaries. You'll be so organized you'll know when you've got the time to kick back and enjoy the Tetris or Chess cards.

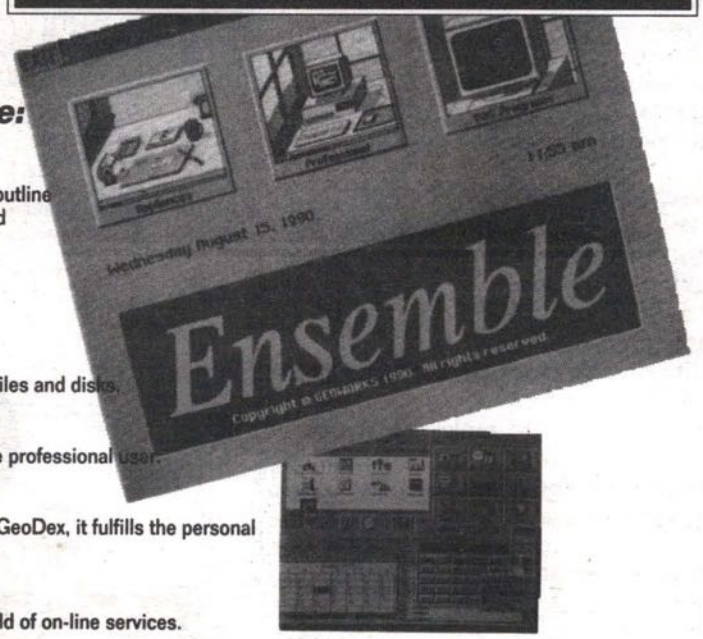
In a fine example of technological gimmickry, the IQ-8300M's Help function allows you to discover features of the

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Rave reviews:

PC World (Nov. '90): "GEOS could be the biggest thing since Windows."

PC Magazine (Nov. '90): "You owe it to yourself to understand GEOS and the choices it offers."

InfoWorld (Nov. '90): "GEOS appears to be superior to Windows in everything but size, visibility, and the number of available applications."

Computer Paper (Jan '91) "I could not find a single bug in PC/GEOS."

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unit by touching icons of the various modes. When you slide a different IC card into the unit, a clear plastic window shows the new card's icons for this touch-screen function. Unfortunately, this gee-whiz feature appears to be one of the reasons the IQ-8300M's LCD screen occupies only about 60% of the top half of the unit. The 40-column text display (a 30-column mode is also available) has all the usual symbols, although lower case letters do not descend below the baseline of the row and some symbols, such as the apostrophe key, are only available via a special symbol menu (accessed by pressing the SMBL key). The keypad is far too small to type with any speed or normalcy, although two-finger typists won't mind. I had the best success by pecking away with one finger of each hand.

Once you've typed in memos, names or other data, it is a simple matter to search sequentially, by letter(s) of a title, or by keywords in individual entries.

For example, if one of your Memo entries was titled "Things to Do" and its second line said "Buy diskettes," you could search by title (i.e., type "thing" and press the SEARCH key, or search for the word "disk" and press SHIFT-SEARCH. There's even a Seek Search function that lets you hunt for data from other modes than the one you are in.

Features

As with most consumer electronic devices these days, there are plenty of nifty features built in. A "Secret" mode, for example, lets you password-protect sensitive data. The extended calculator functions include square root, power [$(4^3)^2$] and reciprocal [$\frac{1}{6} = .125$] functions, plus a "paperless printer" mode that allows you to see and edit the calculation sequence from which the answer is derived.

A Clipboard function allows you to cut and paste data from one area to another. There's a User Dictionary where you can store commonly used words or phrases. Pressing SHIFT-OPTION brings up another menu where Printer, Unit-to-Unit, Cassette Tape, PC Link and Terminal functions are available.

Unfortunately, you can't just connect any old printer. You must use the proprietary Sharp CE-50P, a thermal printer. (Boo, hiss.) The Unit-to-Unit function (which requires a proprietary data transfer cable) allows two connected Organizers to transfer one or all entries in a particular mode. A tape recorder can be used to dump all entries in a mode via the Cassette option, however, the Cassette interface connects only to the CE-50P printer. (Double boo, hiss!)

To connect a modem or null modem, you require another proprietary cable, this one being an RS-232 level converter priced around a hundred dollars. Sadly, I was told that I could not use the particularly similar interface included with the Organizer Link (versions are available for transferring data to/from PCs or Macs). This serial interface is yet another proprietary level converter cable, only this one connects the Organizer to your computer's modem port. (Despite what I was told, I suspect this cable could be used if an adapter was added with the appropriate pin-to-pin assignments and gender-bending.)

The Terminal has some clever features, including a virtual 80-column screen that scrolls sideways, up and down to simulate a standard 80x25 display. an autodialing directory, upload and download of Memo data, MNP support and a wake-up function that automatically turns on the Organizer whenever it is accessed by the remote computer.

Design Considerations

A few problems exist with the overall ergonomics of the unit. For a unit apparently designed for non-computer-literate folks, the warnings on the dummy IC card ("CAUTION. Make sure the application card is face down [silver band forward] before insertion!") are poor, in light of the fact that there is no silver band on the dummy card shipped with the unit. How's Joe Computerphobe supposed to know what is or isn't a "real" IC card?

> As people who take casual photos can tell you, the likelihood of having your camera with you at the moment a picture opportunity arises is inversely proportional to the size and weight of the camera. So it is with bulky laptop or notebook computers.

When you type in new entries, you must press a separate key labelled ENTER to store them. This is fine, exceptit's not in the same place as the usual ENTER key on a keyboard, nor does it perform the usual function (typically used semi-interchangeably as a RETURN key. This ENTER key should really be labelled STORE, as that is its only function. A SHIFT key is also unlike its capital-letter-making counterpart on other keyboards. This SHIFT key performs command functions most people would associate with ALT or CONTROL keys. While I can appreciate the need to design more than one function to each key, I think that the terminology for these functions seems unnecessarily confusing.

I could never get completely comfortable with the key layout of the IQ-8300M. Call me crazy, but cursor keys in the top row, just right of center, are *weird*. Also, the color-coded key labels that show the alternate SHIFT key functions are positioned directly between the first and second rows (remember, these are different than the shifted characters one gets by pressing the "standard" SHIFT key). Other people in our office intuitively understood that the designations related to the row of keys below them, but for some reason, whenever I looked at the first row of alphanumeric keys, I automatically associated them with the first row of blue letters directly *below* them, probably because there are already "standard" SHIFT key designations—labelled in a different color—above the first row. (Left-brain thinkers probably don't have these problems.)

Continued on next page

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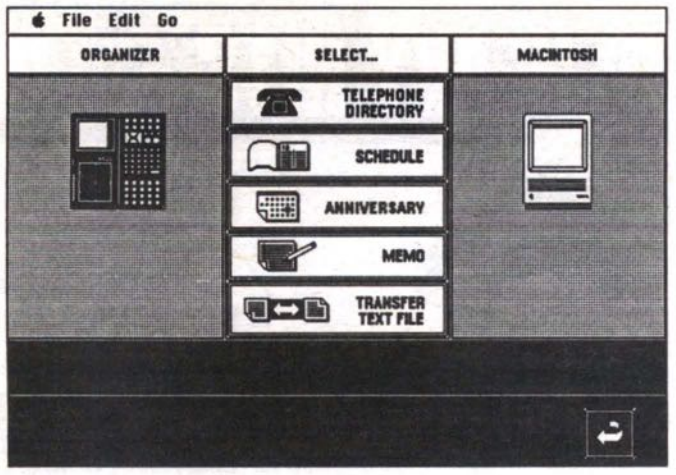


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AD #6



Data Transfers to Computer

With the optional IQ-793A interface and software package, Macintosh computer users can enter Schedule/Tel/Memo data on their Macs and download it to the IQ-8300M Electronic Organizer. (A PC version is also available.)

Data entered on the Electronic Organizer can also be uploaded to the Mac and converted into formats readable by virtually any spreadsheet or database product, including Works, Excel, Full Impact and Wingz.

Written by HyperCard guru Danny Goodman, the software is in the form of—surprise!—a HyperCard stack. It comes ready to run with a copy of HyperCard 1.2.2 and the previously-mentioned cable that performs the necessary level conversions between the Mac's RS-422 and the IQ-8300M's RS-232 serial ports.

Considering that Danny Goodman is supposedly such a HyperCard expert (he wrote "The HyperCard Programmer's Handbook"), it is strange that the product suffers from such annoyances as menus that don't behave the way they should (i.e., you can't select a menu next to the one you're looking at by holding the mouse button down and pointing to it, as you can in every other Mac program), and program flaws like the one that causes the whole computer to lock up if the program goes looking for an Organizer that can't be found. Luckily, Bob Cotter of Advantage Computers reports that virtually any Mac terminal program can be used in place of the supplied software, which, by the way, works fine once everything is hooked up correctly.

Also, considering that Goodman writes for a living, it is odd that this product's manual makes absolutely no mention of whether the Electronic Organizer and Mac should be on or off when connecting the two units via the interface.

Cotter, who loaned us a unit for evaluation, connects his IQ-8300M with the Mac's power on, and reports that he has experienced no problems. He leaves the interface connected to his Mac even when the IQ-8300M isn't attached, and simply turns off the Electronic Organizer when connecting the two. However, common sense dictates turning off any electrical devices before connecting or disconnecting cables if you want to be completely safe.

In CompuServe's Macintosh Systems Software Forum (GO MACSYS), there is a freely-available program called HC-WIZ.BIN that takes HyperCard's address stack and moves it to the Sharp (called the Wizard in the U.S.) via its organizer link software. Another program found there enables the transfer of data from the HyperCard program Focal Point to the Wizard. CompuServe members (including Danny Goodman) regularly discuss Sharp Wizard-related topics in the message base here, too.

Conclusion

The IQ-8300M is fairly easy to use once you get the hang of typing on its minuscule keypad, and the sometimes-confusing labels on the keys, but like the overgrown calculator it resembles, you'll need to consult the manual to fully exploit its many features. With its easy storage and retrieval of approximately 2,580 names and numbers, 1,820 Schedule mode or 810 memo mode entries, this machine lives up to its billing as an Electronic Organizer. The rest, as they say, is up to you.

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COMMENTARY

Retro Computing:

A Cure for Creeping Elegance?

Editorial by Graeme Bennett

You've probably heard the joke that a camel is a horse designed by a committee. Well, software designed that way often becomes even more ungainly .

Driven by a well-intentioned attempt to have the most features, high-end software may become so unwieldy, complicated and confusing that users reject it in favor of simpler offerings. A similar phenomenon allowed fax to become the dominant telecommunications standard, while E-mail is clearly more efficient.

It has been postulated that the reason that OS/2 never really caught on was its poor performance, induced by a huge bulk of features. In a classic case of "creeping elegance," Microsoft's OS/2 designers kept adding feature upon feature until the sheer bulk of the program became unwieldy for all but the most power-hungry—and patient—users.

(Other, more cynical observers speculate that Microsoft convinced the other big software houses to write for OS/2, then deliberately killed it, giving themselves a huge headstart on capturing the major share of the market they *really* cared about all along: Windows 3.0.) Now, imagine a less capable version of OS/2. Is it called OS/1? Nope! Windows 3.0 is, of course, a perfect example of retrograde.

Cut the Bells and Whistles

There is an interesting parallel here to the automobile industry. Studies have shown a considerable backlash against excessive bells and whistles that confuse or intimidate the operator. Chrysler, for one, has responded with new, leaner-looking dashboard controls that have at least the look of utter simplicity. It is accepted that consumers will not choose a product that makes them feel stupid and inadequate (although the continued success of a certain character-based and command line-oriented operating system seems to refute that theory).

This may in part explain the extraordinary success of videogames like the Nintendo, while manufacturers of low-cost "home" computers scratch their heads and (rightly) claim that their systems are comparably-priced and offer greater expansion and flexibility.

Less is More

Few—if any—programs that increase in size and complexity become faster. One can only hope that the new features gained, more than offset the performance losses. Frequently, software upgrades that add esoteric new features at the cost of system performance cause users to eventually return to older, speedier versions. Reportedly, the new enhanced graphical interface on version 5 of Norton Utilities for the PC has caused many users to retreat to the safe haven of good old character-based version 4.

Corel Draw is another example of a PC program that traded speed for elegance. Version 2.0's LOAD and SAVE operations take about 20 to 40 pecent longer than those of version 1.21.

Similarly, the new FileMaker Pro for the Macintosh is over twice the size of the now-discontinued version that preceded it. The sluggishness and memory demands, ever-hungrier for RAM and disk space, make these upgrades of questionable value.

Despite the touted benefits of a graphical user interface, I know many PC veterans who are simply not willing to take the performance loss that comes as part of it. Their character-based applications are displaying perhaps 80 columns by 25 lines, or 2000 characters on a screen. When they switch to a GUI, they suddenly have 307,200 pixels to push around on a screen now expressed as 640-by-480.

Why Fix it if it ain't Broke

It is conceivable that Apple's much-delayed System 7.0 may suffer a similar fate to that of OS/2. Long perceived as having the best graphical user interface on the market, Apple has been under fire recently from those who claim that Windows removes the last reason that anyone would have for choosing a Mac over a PC (an argument that anyone who has tried both systems would probably disagree with).

Now Apple is placed in the rather uncomfortable position of having to prove itself better (again), and restate the Macintosh advantage. The difficulties of trying to provide a superior operating system without inducing unmanageable levels of complexity, incompatibilities and bugs has proven challenging, to say the least. But is Apple doing this for the users, or the analysts?

Many corporate Mac users claim they are not going to upgrade at all. Their current system software gets the job done, and they can't afford extra down-time while they hunt down bugs and software conflicts caused by the upgrade. "If it ain't broke, don't fix it."

One suspects that Apple's machinations are as much intended to convince Wall Street of its continued viability, as they are to serve its current users.

Devolutionary Trends

So what about new users? Look at the market success of Apple's Mac Classic, a machine more like their original 1984-vintage model than any of their recent models. Apple has proven that the mass market doesn't want features, expandability or power as much as familiarity, comfort and a low, low price. Even the Classic's name smacks of devolution.

This theory seems to be borne out by the similar popularity of IBM's new low-end PS/1 offering. More popular than the PS/2 that preceded it, might Big Blue's next computer be an even bigger success if they continue the retro trend and name it the PS/0?

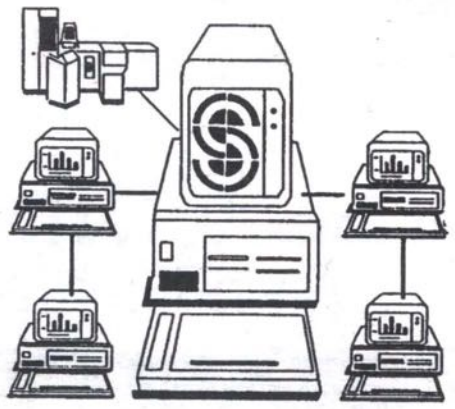
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AD #7

WINDOWS REVIEW

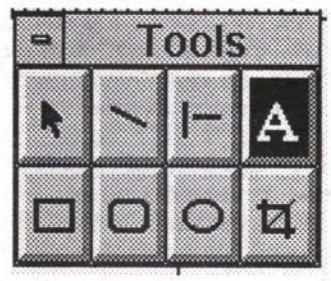
Aldus PageMaker 4.0 for Windows

by Nelson Ruest

Manufacturer: Aldus Corp, 411 First Avenue South, Seattle, WA 98104-2871 (206) 622-5500
System requirement: *Min:* 286 AT with 2MB RAM, 20 MB hard disk space, Windows 3.0
Recommended System: 386 PC, 4MB RAM, 20MB Hard disk.
Price: $955
Features: Includes free copy of Adobe Type Manager for Windows

As most of us have either discovered for ourselves or read in industry publications such as *The Computer Paper*, Microsoft's Windows 3.0 has revolutionized the way we use PCs today. And while there are several applications available for Windows 3.0, few use its memory management, graphical and command integration features to full advantage. As more second-generation applications appear for Windows 3.0, we discover new features for this amazing graphical user interface.

With PageMaker 4.0 for Windows, Aldus releases a second generation of its page-layout program for Windows 3.0. This product really takes advantage of Windows' features. First, the installation is completely run through Windows. Selections are made in dialogue boxes (like any other graphical application) and messages are clear and to the point. Thus installing PageMaker is much easier than it ever has been before. Aldus has also taken advantage of Windows 3.0 memory enhancements. PageMaker now requires a whopping 1.5 MB of RAM to even run. However, the more you have the better PageMaker will perform. In terms of hard disk space, PageMaker installation requires about 8 MB. This varies according to how many filters, templates and tutorial files you choose to install.



PageMaker's new toolbox sports a bold new look.

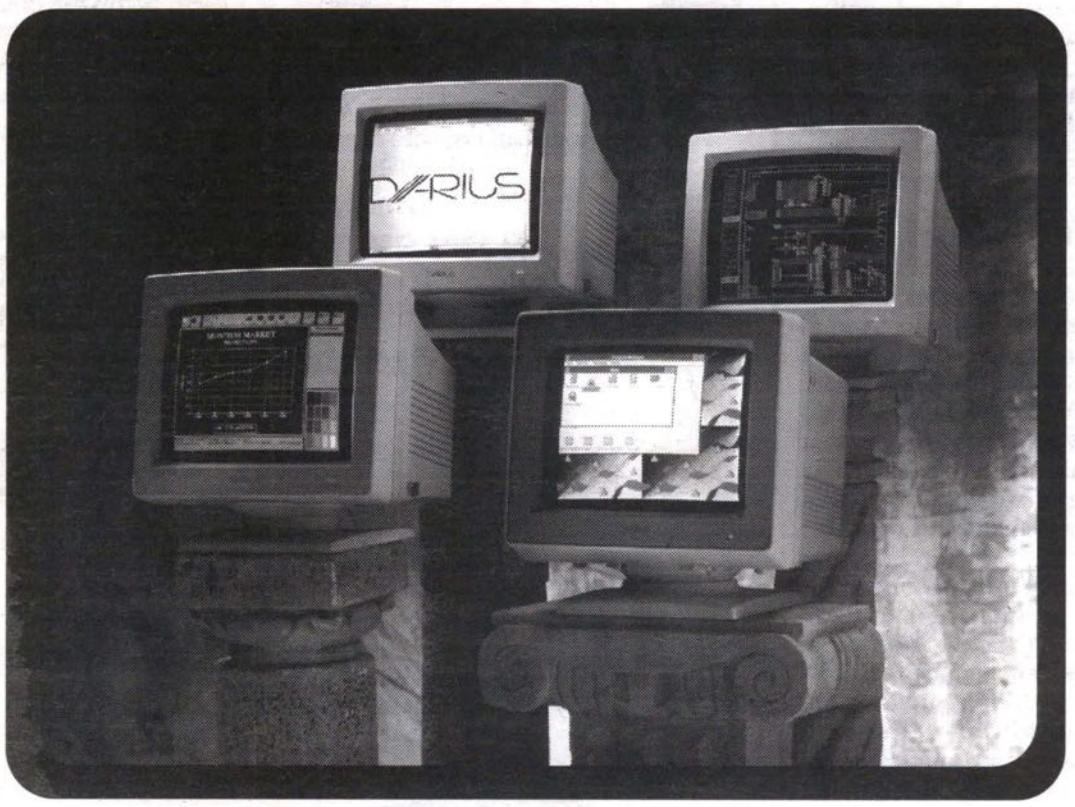
New Features

The very first thing experienced users of PC PageMaker will notice is that PageMaker 4.0 uses a new menu and multiple window structure. This design is required to support many of PageMaker's more powerful new features. For example, the old Line and Shade menus have been integrated into a new Element menu. This makes more sense than before. Additionally, PageMaker supports multiple menus just as it does on the Macintosh. The Type menu now includes a Font item, which, when selected, displays an add-on menu listing all of your fonts. A drawback of these add-on menus is that, unlike the Macintosh, Windows does not support scrollable add-on menus. So if your typeface selection includes more fonts than can be displayed on your screen at once, you will not be able to see the bottom selections. This is only a minor inconvenience since all fonts can be accessed through the Type Specs item in the Type menu. Most users shouldn't even notice this problem.

With PageMaker 4.0, Aldus turns their page-layout program into a much more professional design tool than ever before. PageMaker has always been popular, first, because it ran within the Windows environment and second, because of its 'paste-up' approach to document design. Most people who have done manual paste-up find PageMaker easy to use since it provides them with an *electronic* pasteboard. These features alone managed to bring PageMaker full acceptance within the IBM PC world.

New features such as a *Story Editor*, enhanced *Style Sheet* and *Typographic* controls, more keyboard shortcuts, *Long Document* management tools, a *Table Editor* and a hot link to *Microsoft Excel* spreadsheets make PageMaker 4.0 a truly powerful page-layout program. It still doesn't have everything you may want in a layout program, but version 4.0 goes a long way towards satisfying anyone's needs.

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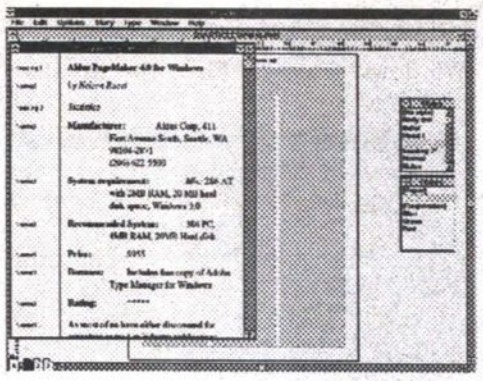
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WINDOWS REVIEW



PageMaker 4.0 now supports multiple windows and includes a Story Editor.

Editing Stories

The Story Editor is one of PageMaker's strongest features. It consists of a simple word processor built into the PageMaker framework. This means that if you wanted to, you could write, proof and layout an entire publication without ever leaving PageMaker 4.0. While this is possible, it is not necessarily desirable.

PageMaker's Story Editor is simple to use: triple click with the pointer tool on a text block or select it and press Control-E. A new window opens to display text in word processing format. This window includes a spelling utility with a very powerful dictionary (though most of the typographic and graphic design terms used in this article were not found in this dictionary); it includes a powerful search and replace feature (which even supports searching for text attributes such as bold or italics) and it lets you make major corrections quickly and easily. But it does not include sophisticated word processing features such as glossaries and automatic entries.

I still believe that the best way to start a PageMaker layout is to use a real word processor to enter text. Once the story is placed into a PageMaker layout, the story editor is good to perform minor changes and final proofs of the document.

Style Sheets

Style Sheet controls have improve immensely in PageMaker 4.0. Paragraphs can now be aligned to a baseline grid, making sure that your columns always balance across the page. Headings can be tied to the following text to avoid having the headline appear on one page and the following text on another. Major headlines can support page breaks before making sure that major stories are always on a new page. And ruling lines can be applied to paragraphs to create striking effects.

But the most powerful new feature supported by PageMaker Style Sheets is a *following style*. This feature, like most of PageMaker's word processing features, originated in Microsoft Word. It means that you can create a style and assign another style to follow it. For example, Subhead 1 could be followed by Body Text. The effect of this is that when you assign Subhead 1 as you type text, the Body Text style will automatically be assigned to the following paragraph as soon as you press Enter. This makes the usage of Style Sheets much more comprehensive.

Typographic Controls

Along with new style controls, PageMaker 4.0 supports new typographic controls such as kerning, font width changes, tracking and letterspacing. Each of these features is new to PageMaker. Kerning can now be performed in 1/100ths of an em. This would not mean much in PageMaker 3.0 since we could never really see a typeface properly once it reached a certain size, but in PageMaker 4.0 along with the free Adobe Type Manager (to see the typeface as it appears on paper), proper kerning is easily achieved.

The Type Specifications dialogue box now includes the ability to change the width of a font. For users with limited font selections, this width control adds a lot in terms of design ability. Each font can be stretched or condensed by 5% to 250% of its original width. Each typeface can also be sized from 4 to 650 points in 1/10th of a point increments. With the ATM, these features are even supported on HP LaserJets.

Users of PageMaker 3.0 will remember that the Type menu contained a feature called Spacing which never seemed to work properly. Not only does word and letter spacing work in PageMaker 4.0, but it works extremely well. Version 4.0 also includes a new *tracking* feature which lets you globally kern words in positive or negative increments. Once a word is properly set, it can then be rotated in increments of 90 degrees. All in all, these typographic controls alone warrant the change from 3.0 to 4.0.

New Shortcuts

Version 4.0 also includes several new shortcuts which really speed the operation of PageMaker. You can move from page to page with the F11 (PgUp) and F12 (PgDn) keys. F9 will always return the Pointer tool. Control-key combinations are available for each text style, paragraph alignment and kerning or tracking feature. The Story Editor uses the same cursor movements as Microsoft Word (as did PageMaker 3.0). And each new feature includes its own shortcut.

Perhaps the most striking new feature for cut and paste is the *power paste*. This feature lets you copy a selected object and paste it in specific movement increments. For example, you need to make a form which has 10 boxes each spaced 2 picas apart. In PageMaker 3.0, you have to move each of these manually into position. In 4.0, create the first box, select it, copy it and while it is still selected, use Control-Shift-P to paste and move it into position. Then paste in all the others automatically into their own position by using the same shortcut. This 'step and repeat' procedure is one of the reasons Quark XPress became so popular.

Long Document Controls

PageMaker 4.0 now supports documents with up to 999 pages. PageMaker 3.0 users will know that this is somewhat of a joke. Even though PageMaker 4.0 supports outside links to original documents such as text and graphic files (not copying them into PageMaker format as before), a 999-page document in PageMaker could easily exceed 30 megabytes in size. Unless you have removable hard drives, this is a most impractical way to use PageMaker. (We have documents

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WINDOWS REVIEW

PageMaker 4.0 continued from page 55

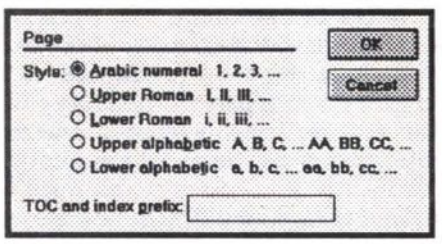
with only 70 pages which exceed 8 megabytes in size, because of the graphics.)

There are ways to get around this problem. PageMaker 4.0 includes a *Book* feature which lets you link several publications together into one. Once these are linked, you can create Table of Contents or Indices across the entire *Book*. And for Prefaces and other special book sections, PageMaker finally lets you use different number schemes such as lowercase or uppercase Roman numerals.

Table Editing

Tables have always been difficult to create in PageMaker. Users had to use tab settings to design tables and hope that the text was entered properly. If not, tables became even more difficult to create. PageMaker 4.0 includes a Table Editor. This *separate* program lets you create new tables or import them from word processors or spreadsheet programs. Once created, the table can be placed in PageMaker. The problem with the Table Editor is that to maintain the table features exactly as created, you must import the table as a *graphic*. If the table needs editing, you must return to the Table Editor and update the table link in your publication. This method is an improvement over PageMaker 3.0, but it is by no means the best possible solution.

On the other hand, users of Microsoft Excel will be thrilled with PageMaker's *hot link* to Excel spreadsheets. Spreadsheets or charts created in Excel can be linked to PageMaker publications. Each time you change the Excel spreadsheet and re-open your publication, PageMaker will automatically update the placed spreadsheet or chart. This implementation of *dynamic data exchange* (DDE) in PageMaker lets us hope that more is to come in future releases.



Page Setup now supports new number formats, but pages cannot be renumbered inside publications.

PageMaker vs. Ventura Publisher

Many of PageMaker 4.0's new features are implementations of controls found in Ventura Publisher. Long document controls, live links to original files, ruling lines tied to text, inline graphics (graphics linked to text), Table of Contents or Index generation, etc... are all features which are expected to challenge Ventura's long-time leadership in the long document market. While these features are nice to have for special occasions (the times where you need to make a long document and PageMaker is all you have), they are by no means as comprehensive as Ventura's.

Even though PageMaker supports tables, it still doesn't handle side-by-side paragraphs. Its page and column break controls are not nearly as sophisticated as Ventura's. The ruling line features are nice to have, but less than easy to use (especially for ruling lines above paragraphs) and PageMaker supports only one of these while Ventura supports three.

PageMaker 4.0 is a great product. But the division between PageMaker and Ventura still remains. PageMaker is an excellent product to use for short, complex documents but Ventura Publisher is still tops for creating long, consistent publications. The rule of desktop publishing still applies: *Consider your documents needs carefully before choosing your page-layout program.*

Overall Rating

Aldus outdid themselves with PageMaker 4.0. Its controls and ease of use are even better than before. It still leads the publishing world in terms of magazine or newsletter layout controls. For professional short publication layout (1 to 100 pages), we recommend PageMaker 4.0. It's fast, looks great on the screen (sometimes publications look better on-screen than on paper), and provides users with sophisticated layout tools. PageMaker 4.0 definitely gets a five-star rating.

Nelson Ruest is a systems consultant and trainer for Resolumons Enterprises. Resolumons specializes in systems consulting, systems implementation and publishing training for the corporate communications industry. He can be reached at 604-683-1599.

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AD #9

AT&T, the OSF, and the course of UNIX

STReport, No.7.14, 04/05/91
by Michael Arthur

In May 1988, seven of the most influential Unix developers, including IBM, Hewlett-Packard, DEC, and German computer maker Siemens Inc., announced the formation of the Open Software Foundation, or OSF. The stated goal of the OSF is to openly develop an alternate systems/software standard for Unix. The catch: AT&T, the owner and licensee of Unix, has refused to join the OSF, and in fact, is developing a new version of Unix with Sun Microsystems.

To understand why these large computer companies (any one of which owns a significant segment of the Unix market) are rebelling against the originator and principal owner of Unix, AT&T, it is necessary to go back to the beginning.

Unix was originally made to be a multiprocessor standard, with its licensees having equal access to a growing operating system which would be managed and improved by AT&T to take advantage of the latest innovations in computer technology.

But as time went on, AT&T did not compile such a good record of keeping Unix up to date. This resulted in Unix derivatives like Xenix and Berkeley Unix arising to meet these needs. These Unix dialects weren't that compatible, and Unix users were forced to fragment. Things remained stable for a while, but as innovations in user interfaces, graphics, and Unix itself emerged, the need arose for a new version of Unix which would both take advantage of these innovations and merge these "Unixes" into a cohesive, well-defined standard.

Seeing this need, AT&T announced that it was making such a system, in Unix Version 5.4, which would merge Berkeley Unix 4.2/4.3, AT&T Unix Version 5.3, and Microsoft Xenix, therefore establishing a solid Unix standard, and would also use a new graphic user interface for Unix, called Open Look. One small detail: Open Look was developed by Sun Microsystems, and they alone are helping AT&T make its new Unix. This means that Sun would become the most important Unix licensee (and the most profitable).

Another detail: Sun was also developing the SPARC, a new RISC (Reduced Instruction Set Chip) processor, and AT&T had mentioned that Unix Version 5.4 might take advantage of its special features.

So, faced with the problems of Sun being allowed to set the course of Unix in an exclusive partnership with AT&T (thereby becoming the leading Unix company), as a powerful, yet proprietary Unix lured users away, these leading Unix vendors took the only reasonable option. Instead of sitting passively by while AT&T and Sun lived happily ever after, they decided to make their *own* Unix.

Hence the Open Software Foundation, an independent corporation funded by its supporters that would devise a comprehensive Unix standard covering the areas of graphical user interfaces, enhancements to Unix, and other aspects of Unix. After development of their platform, the OSF would back it up with the things that they felt were lacking from AT&T. These things included:

1) Reasonable, stable licensing terms
2) A vendor-neutral decision process
3) Equal vendor influence in (and access to) specifications
4) A hardware-independent Unix standard that would evolve in a quicker, more rational fashion than AT&T Unix had.

Also, when the OSF's alternate Unix standard has been developed, all of the OSF's member companies will migrate their entire Unix product line to it, in order to further support it. And as each member of the OSF has a greater share of the Unix hardware market than AT&T (and the OSF is quickly gaining new members), the united force of these Unix vendors could be great enough to wrest control of Unix away from AT&T.

AT&T has not reacted favorably to this, ridiculing the OSF's plans, and joining other industry analysts in taking a very dim view as to what the OSF could accomplish. But surprisingly, Sun Microsystems itself has considered joining the OSF. In order to end all speculation about their chances of success, the OSF immediately began development on its Unix.

First on their agenda was a standard Graphical User Interface. The OSF's requirements in this issue were that the interface be based on X/Windows, a standard Unix windowing system, and that the interface be completely hard-

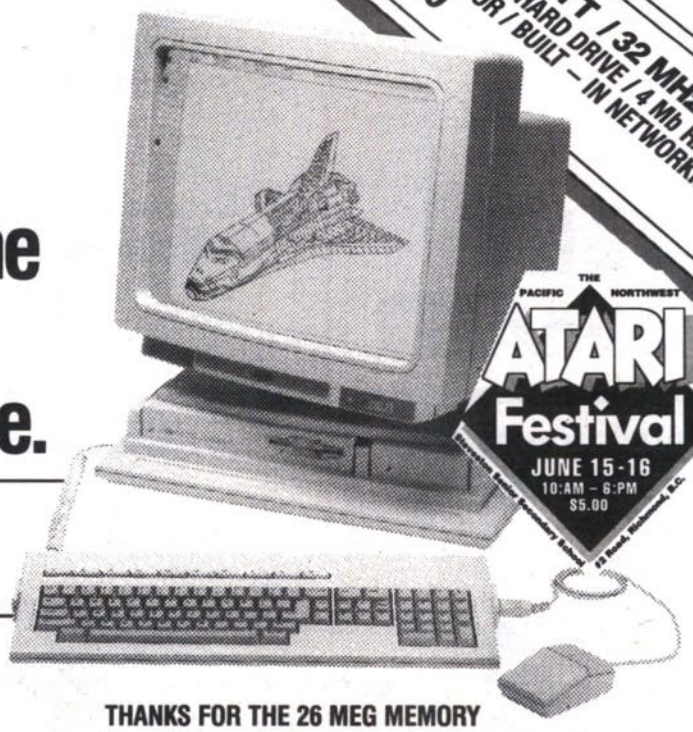
Continued on p. 59

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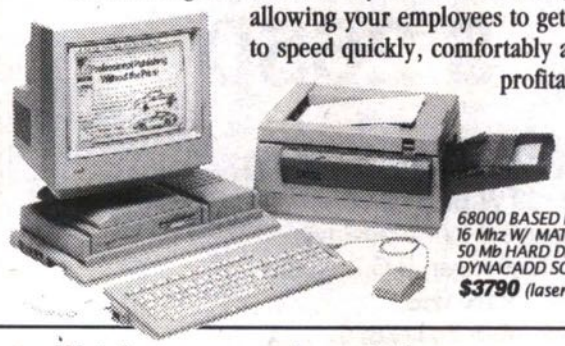


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Canada's CADalyst Magazine Sold to U.S. Firm

by Allan Earle

A Vancouver newsletter that over the last seven years has become the world's widest read monthly magazine in the CAD (Computer Aided Design) industry was taken over last week by a U.S. publishing firm based in Eugene, Oregon for a reported $2 million.

CADalyst magazine, AutoCAD's official journal, with a monthly paid circulation of 40,000 copies at C$5.95 per copy, permanently closed its offices on Broadway at Burrard that employed 20 people, April 12.

One staffer had just returned that day from a month-long vacation and heard the news for the first time, according to David Cohn, senior editor and the only employee to be retained as a regular part of the new U.S. staff.

Founder and former owner Lionel Johnston, who started the publication as a four-page newsletter seven years ago in April, sold it to Aster Publishing Corporation because, "It needed more financing (than I could afford) to expand into the markets that were opening for the magazine," Johnston says. "This basically dictated what I had to do."

With 13 magazines and yearly revenues of nearly $30 million U.S., Aster Publishing is the largest magazine publisher in the Pacific Northwest, including Washington, Idaho and Oregon.

Aster also has offices in Chester, England, Cohn explains. "So we are looking at the European market now with a European edition to the magazine and an advertising office out of Chester for that market," says Cohn, who will be moving to Bellingham, Washington and telecommuting from there. *CADalyst* is Aster's first paid-circulation magazine. Its other 13 are pharmaceutical publications with controlled circulations.

Over the past three years, *CADalyst*'s growth rate has been 40 to 50 percent annually. That incredible increase is expected to rise with Aster's influence. According to Cohn, "the new owners will allow us to do a major subscription drive. We're predicting an increased circulation to about 60,000 by the end of this year and a hundred thousand a year from now."

Johnston had been actively looking for a *CADalyst* buyer since last September but only started sending literature to publishers around the first of the new year.

What are his new plans? "I have a commercial project in virtual reality that has to do with the theatre." This interest in virtual reality is evident in the April issue of *CADalyst*, which focuses on features like "Discussing Virtual Research," an interview with a leading scientist in virtual reality research; "Meeting Reality," a report on San Francisco's first annual virtual reality conference; and "Expand the Envelope," in which the core developers of Autodesk "Cyberspace" discuss the future. Cyberspace is a type of virtual reality, also known as computer-generated reality, or the notion of a user entering into a computer and interacting with it. This term was coined by Vancouver resident William Gibson in his first science fiction novel, *Neuromancer*, for which he won the Hugo, Nebula and Philip K. Dick awards. The current *CADalyst* contains two Gibson-penned features. Gibson also writes screen plays.

Unix continued from p. 58

ware-independent. The OSF listed 26 organizations whose products it would consider as candidates. Among the ones considered were Hewlett-Packard (New Wave), Digital Research (X/GEM), Microsoft (Presentation Manager), Carnegie-Mellon University, and Sun Microsystems' Open Look interface. It finally chose to create its own interface, called OSF Motif, by combining the Presentation Manager's "look and feel" with features from other GUIs made by DEC and Hewlett-Packard.

The OSF then considered what standard of Unix it should base its operating system on. After considering A/IX (IBM's version of Unix) and Berkeley Unix, it finally decided to make its OS a combination of other systems. While it uses Mach, a dialect of Berkeley Unix that supports multiprocessing, for its main kernel, A/IX is used for most system functions. The OSF has recently been focusing on advanced distributed processing (which allows you to run one copy of the same program on two or more computers at the same time), and has been considering several system standards.

The OSF estimates that it will have its alternate Unix standard ready for commercial distribution before 1992, and has already sent beta copies of its operating system to its member companies. However, as AT&T is now shipping Unix Version 5.4, many computer vendors are choosing to support it instead of the OSF's Unix. Now that AT&T has spun off its Unix Software Division as a separate, autonomous company, AT&T Unix is also beginning to gain new momentum in the computer industry. However, AT&T has not been able to rally much support for Open Look; even the companies who use AT&T Unix are beginning to back OSF Motif as the standard GUI (Graphical User Interface) for Unix programs. With both camps gaining support, the question becomes whether AT&T Unix will be able to hold off the OSF and dominate the course of Unix, or if a group of Unix vendors will be able to muster enough support to dethrone AT&T.

With the advent of OS/2, the computer industry finally began to take a look at multitasking operating systems, and noticed Unix, with its powerful capabilities. As such, Unix has become very important, having the potential of eventually guiding the microcomputer industry into the 21st Century. Now the issue is not only if Unix can overcome the MS-DOS, Macintosh, and OS/2 alternatives, but also whether it can withstand the dissension within its ranks to establish a worthy standard.

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AD #10

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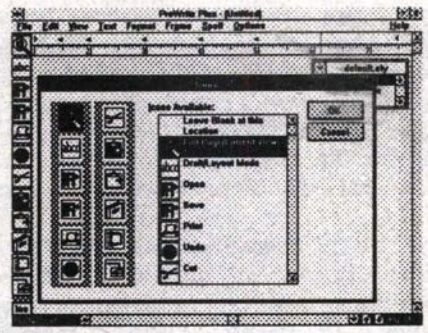
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According to PC World Magazine April 1991, "Despite its name Professional Write Plus inherits almost nothing from SPC's Professional Write. It's based instead on Ami Professional — SPC licensed the code from Samna(before Lotus bought Samna), halved the price and stripped some features to fit the executive word processor mold"—Ed..

It was the end of a very long day of word processing; I couldn't alphabetize one more bibliography for another owl-eyed student without screaming. Microsoft Word 5.0's menu was already beginning to etch into my new white screen. I thought I could never take on another word processing program during the spring essay frenzy, until I saw Professional Write Plus for Windows 3.0 by Software Publishing Corp.

You see, I had become disillusioned by word processors: the upgrade Word 5.5 was a disappointment, merely Works stuffed into the character-based Word; Word for Windows was okay for straight typing, but was clumsy and prone to crashing; Ami Professional was short on features (even austere), and I'd love to get a chance at WordPerfect for Windows, but it hasn't been released yet. So now you can understand my enthusiasm upon seeing a totally new product, with some unique features. Following is an overview of the program's outstanding features.



Icon Bar

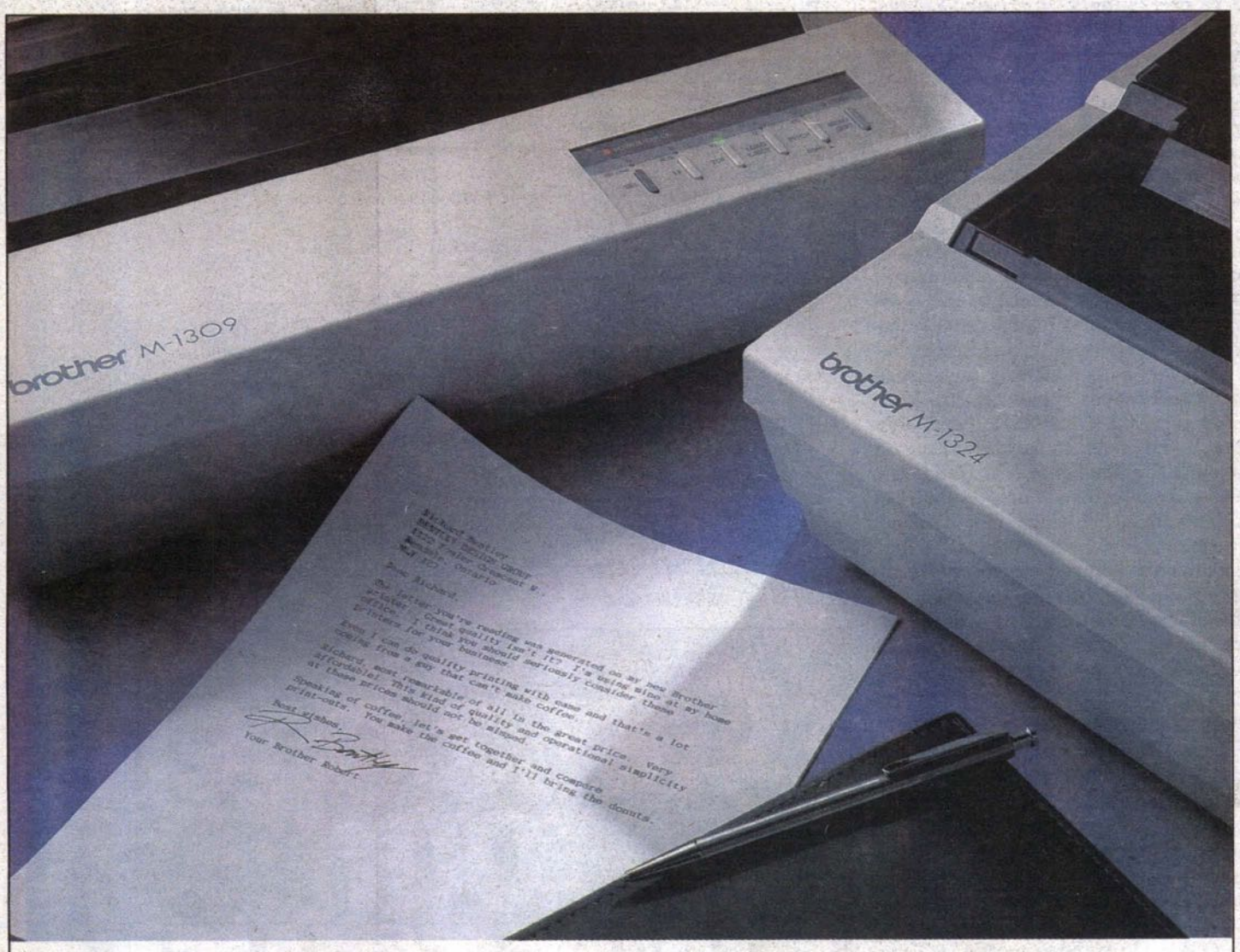
Professional Write Plus has a pale yellow polka-dot background and a row of simple, but not simplistic, icons down the left side of the screen. The vertical icon menu is unprecedented in PC word-processors, and has the upscale look of what one can find on the NeXT computer.

The icons are customizable, with room for twelve in the stack and over forty to choose from. The icons are Software Publishing's solution to the clutter of menus found in other Windows word processing programs. Common tasks can be completed with a simple click on an icon; for example, you can save, import & export, spell-check, cut & paste, search & replace, and print with this quick technique.

Styles

Professional Write Plus gives the new user a headstart with their style box. Anyone who has ever tried to create stylesheets in other word processing programs (and given up) will find this feature very attractive. For instance, the default.sty has sophisticated styles to choose from, like bulleted paragraphs. A feature I have not seen elsewhere is an automatically numbered list.

Styles are applied by clicking on the style desired in the style box or by using the function keys listed by each style. Software Publishing has included twenty sample styles that you could modify to your needs, including styles for multi-columns, memos, fax sheets, and press releases as well as the more common letter, report and legal formats.

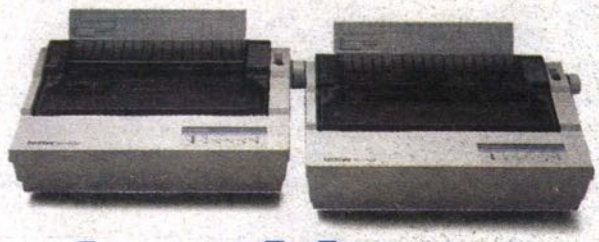


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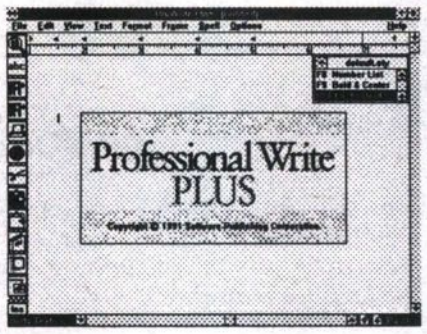
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While I'm on the topic of formats, Professional Write Plus' Layout dialogue box includes all the margins, a tab ruler, headers and footers and a thumbnail sketch of the page, all of which streamlines setting up a document. Columns (the bane of word processing operators), are tamed in this program. You can have up to eight columns set up automatically in the Layout mode, and you could even insert columns in the headers and footers (though why anyone would want to do this, I don't know). While Professional Write Plus is missing an automatic table-making feature, such as you could find in Word for Windows, you could, with much fiddling, adapt the columnar format to use as a table.



Grammatik

Grammatik for Windows is included in this program, as a standard tool right next to the spell-checker and thesaurus that can be executed from within the word processor. After the grammar-check is complete you can exit Grammatik and it takes you back into your document. It would be advisable for other word processing packages to follow their example. I have used Grammatik before with Word for Windows and found all that exiting, saving, and re-opening files a very strenuous finger ballet. (For a more complete review of Grammatik for Windows see my review in *The Computer Paper*, August '90, p. 39.)

I remember that before I got my spell-checker, I thought my spelling was flawless, but I was wrong. The same thing happened when I got Grammatik; I was not infallible. If you think you don't need a grammar-checker, you're also probably wrong.

I had some difficulties getting the grammar-checker to work in the program, as the option was grayed out in the menu. Software Publishing's technical support was a little surprised, as this had never happened to their program before ("Honest") so it would likely not happen to you. But if it does, get it straightened out with them as I did.

Network

Professional Write Plus includes a front-end E-mail for use with Novell. With the right bits and pieces of Local Area Network software, this feature can make sending E-mail painless—just a matter of selecting the address from a list box. This E-mail program can send graphics and stylesheets along with the document through the network, so that the document looks the same to the receiver as it did to the sender. The E-mail can be used as part of a Wide Area Network (WAN) with the help of a gateway program to the PROFS system, which links universities together by mainframe computers.

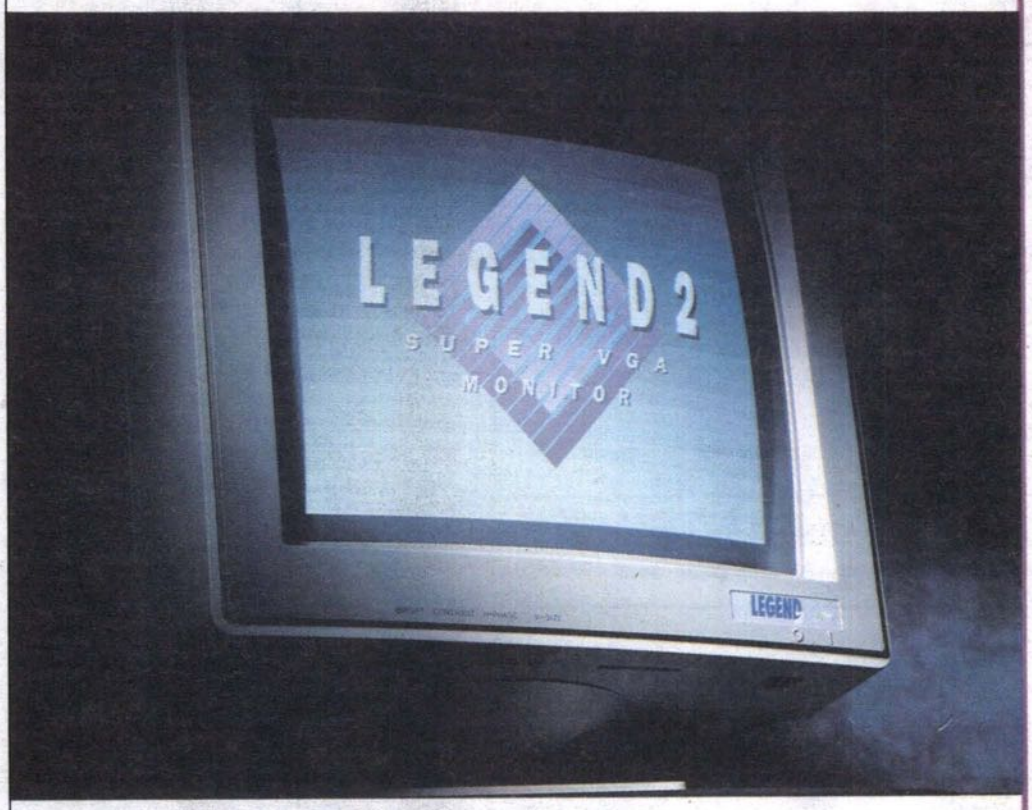
Another feature that makes this program very suited to network use is their version of those sticky yellow notes that still can be found in the best of automated offices. A user can insert a cute note that will pop up a private message to another user: irresistible.

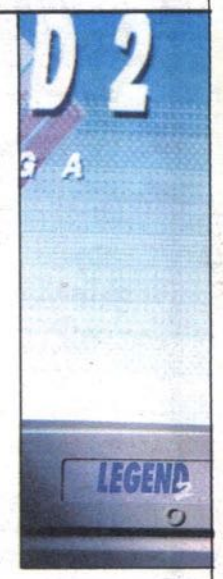
What They Left Out

Professional Write Plus has done a good first release of this product, but there is room for improvement. Sure, you get good value for your money, as Professional Write Plus is a few hundred dollars less than the most popular program, (which is WordPerfect, if you haven't heard already), but there are a few features that are conspicuously left out that I miss dearly, like automatic table of contents, automatic indexing, outlining (which gives the user a collapsible view of headings), and redlining (used for revisions). Also, I find the spell-checker less clever than others, as it would not give a list of suggestions for most spelling errors it came upon.

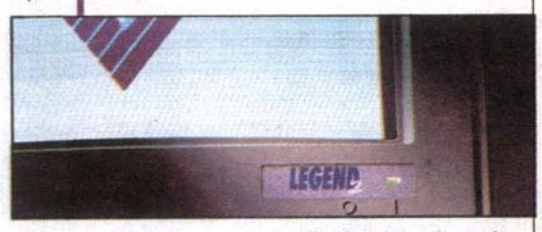
Documentation can be improved on, as the alphabetized manual could use a comprehensive companion manual that explains procedures like the installation more clearly. I mention the installation directions specifically because of the problems in getting Grammatik to work; information on the autoexec would have been good. However, the Grammatik manual is adequate and the Lan Administrator's Guide was a thoughtful addition.

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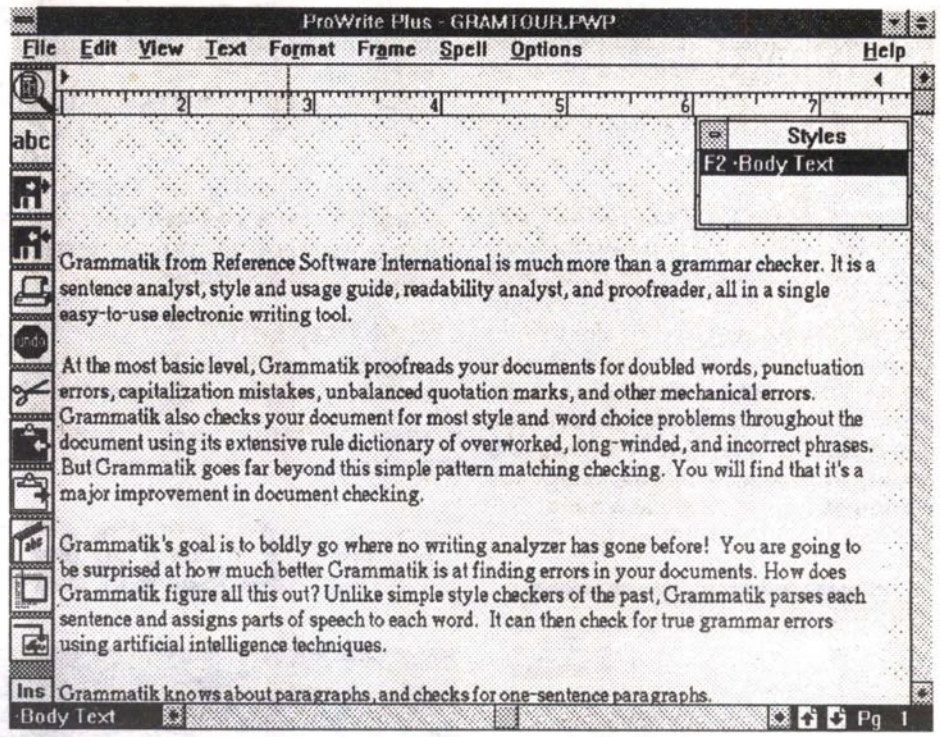
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A Professional Finish

Professional Write Plus has all the features of a word processor that we've come to expect: thesaurus, spell-checker, auto footnotes, importing and sizing of graphics, online help, plus the addition of Grammatik, E-mail, and generous templates. One feature I find nifty is that the Undo has an option of up to four levels, good for when you are noodling around and want to undo everything. With a conventional word-processor that undoes only the previous task, you would have to remember not to save the document, exit it, then bring it back and find your place.

The conversion capabilities of this program including text, spreadsheets and databases, while not as seamless as promised by Software Publishing at a local users' group meeting, are nevertheless very impressive. I was able to take a Word 5.0 document with style sheet attached and convert it to Professional Write Plus, and it kept at least 50% of the styles and the fonts.



Though the stylesheet was only half there, Professional Write Plus is still an improvement over other WPs that don't even try to include extras like stylesheets in their conversion programs, (which means you have to reformat the document, or even write a new stylesheet for it in the adopted program).

Professional Write Plus includes graphics import for the most common formats, i.e., CGM, ClipArt, PCX, MAC, HP PCL and PostScript. Once imported into the program, the graphics are handled nicely by the Frame icon menu, and can be panned for clipping within the frame; a useful trick.

Yes! I would trade in my Microsoft Word 5.0—as well and as long as it has served me—for Professional Write Plus, if I had six meg to spare on my hard drive. When we were installing this program on the spousal computer (a 386), the program kept begging for more space. On my lowly PC-compatible AT 286 computer, it would not be practical. Of course, this is true of any Windows 3.0 program on an AT.

Cathalynn Labonte-Smith is a freelance writer specializing in computers. She also contributes to *The Vancouver Sun*'s High Tech section.

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MacWatch

Macintosh product reviews

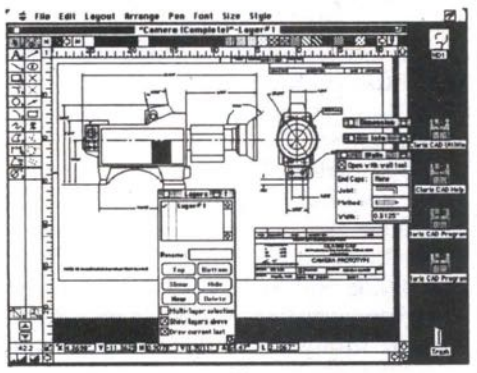
by Graeme Bennett

Claris CAD 2.0

Product: Claris CAD 2.0
Manufacturer: Claris Canada, Suite 202, 250 The Esplanade, Toronto, Ont. M5A 1J2 (416) 941-9611.
System Requirements: Macintosh Plus or up with 2MB RAM, hard disk, System 6.0 or later, or AU/X.
Price: US$799.

The newest version of the Mac's most mainstream 2-D CAD application adds over 100 new features and a unique Graphic Guide, which monitors your mouse motion relative to the screen and tells you when a mouse action will place an object accurately. By displaying guidelines, guide points and a cursor that displays small icons when it moves over object centers, intersections etc., the Graphic Guide helps Claris CAD strike a comfortable balance between powerful features and ease of use. Performance is good; most engineers will find that Macintosh CAD is easier to use than its PC cousin and 20 to 40 percent faster.

Floating "minimizable" palettes (see below) provide quick, user-configurable access to commonly used drawing utilities. Online help is included, as are extensive tutorial materials.



The program's palettes can be "minimized" so that just their titles are visible.

In addition to the Getting Started booklet, User's Guide, Quick Reference and New Features Guide, the package includes a 47-minute "how-to" videotape and tutorial manual, plus free support on Claris' Technical Hotline.

The package does not directly support DXF and IGES drawing formats, but an optional US$299 Graphics Translator is available that allows import and export of these industry-standard file types.

QuicKeys 2

Product: QuicKeys 2 V. 2.0.1
Manufacturer: CE Software Inc., 1854 Fuller Road, P.O. Box 65580, West Des Moines, Iowa 50265 (515) 224-1995.
System Requirements: Macintosh Plus, or up with System 6.0.3 or later installed.
Price: US$99.95.

If you're like most Mac users, you'll find yourself doing the same actions over and over. You may change type styles or open the Chooser and select the proper printer. All of that takes time, mouse movements, menu selections and more. What if you could do a whole series of actions with one keystroke or menu selection? Not only could you save time, but it would free your mind from the numbing effects of repetition. QuicKeys 2 takes over the mundane and lets you be more creative.

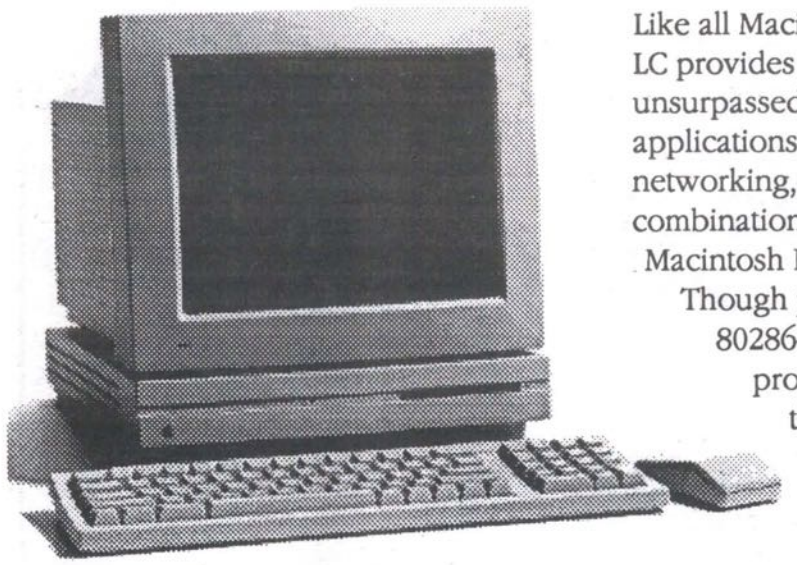
Despite the fact that every Macintosh ships with a macro recorder utility (the embarassingly underpowered MacroMaker), QuicKeys has long offered superior features and performance. With version 2, the venerable utility gets even better.

One of the most powerful features of QuicKeys 2 is its ability to watch your actions, create a sequence of QuicKeys, and assign to it a single keystroke. You can then repeat your actions at any time by pressing the keystroke. QuicKeys 2 provides two methods for recording your actions: "Record Sequence" and "Record Real Time."

When you select "Record Sequence," QuicKeys 2 converts each of your actions to an appropriate QuicKey. If you record double-clicking on a window's title bar and then drag it, QuicKeys 2 creates two QuicKeys—one for each action. This makes it possible for you to

Continued on p. 64

Macintosh LC Colour System



Like all Macintosh™ computers, the Macintosh LC provides users with the benefits of unsurpassed ease of use, thousands of graphical applications that work well together, built-in networking, and an easy growth path. This combination significantly differentiates the Macintosh LC from the competition.

Though priced similarly to many leading 80286-based systems, the Macintosh LC provides performance comparable to that of 80386sx machines (source: Ingram Laboratories Benchmark Report, July 1990). Moreover, the Macintosh LC provides all the advantages of Macintosh.

The Macintosh LC can support an Apple //e ® card which enables you to use nearly all Apple //e software. While in the Apple //e mode, the card supports not only 5.25" and 3.5" drives, but also printing to a LaserWriter ® over LocalTalk™.

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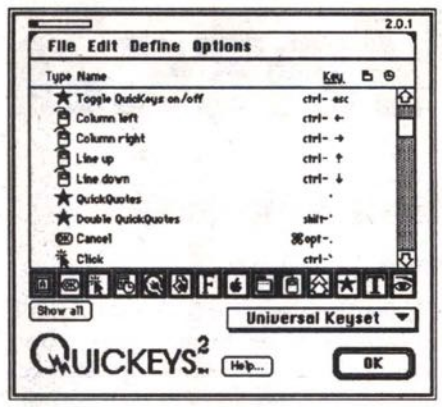
edit the sequence, adding additional actions or pauses.

When you select "Record Real Time," QuicKeys 2 records each of your actions exactly as you perform them. QuicKeys 2 does not convert your actions into QuicKeys when you make a "Real Time" recording. As a result, you cannot edit it.

Most Mac users eventually start to favor keyboard commands over mouse-clicks, especially during keyboard-intensive word processing and data-entry chores. QuicKeys can help here, too, by allowing you to assign new Command Key equivalents to menu commands. You can even use it to change or even deactivate key commands.

QuicKeys can assign keysets to specific programs, or universally, as shown here ▶

For example, I have always been prone to accidentally striking the Help key that is annoyingly positioned so close to the Delete key on the Mac's extended keyboard. In many programs, this brings up an unwanted Help dialog, which must be closed before work can be resumed.



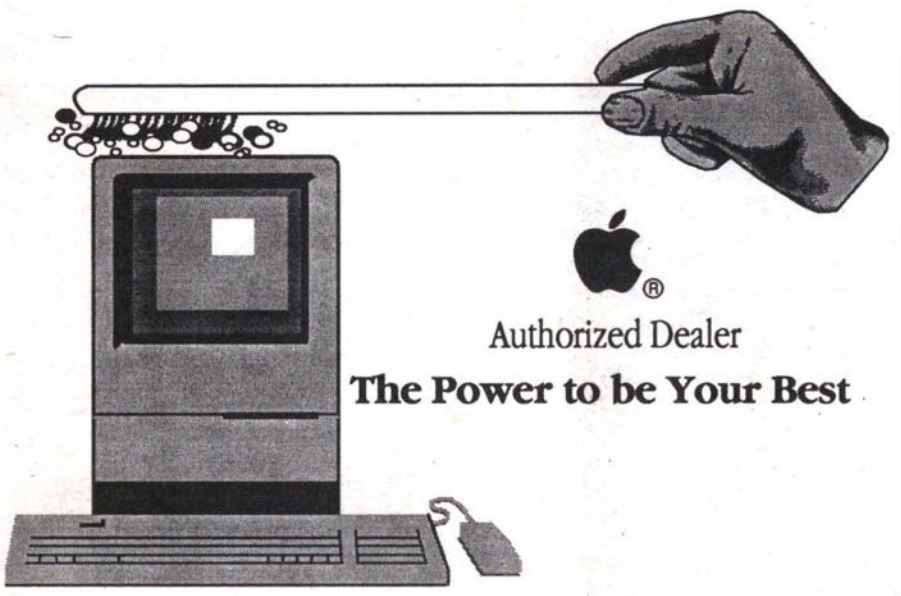
Using QuicKeys 2, I can re-assign the function to Shift-Help or Control-Help as I please. QuicKeys can also be used to assign functions to the keyboard's fifteen function keys, which Apple's utility inexplicably does not.

Because QuicKeys is a market leader, it is well supported by other packages, too. The newest version of Aldus FreeHand (see below), for example, includes a demo version of QuicKeys 2 and a set of macros that can help streamline that program's operation. (The QuicKeys 2 demo is a full working version of the program, except that it only works for 30 days from its date of installation. It is also available from other sources, such as CompuServe and GEnie.)

The only drawback of QuicKeys is a slight but noticeable slowdown in the speed at which the drop-down Apple Menu appears. On a Mac IIci with 100 QuicKeys installed, this delay is nearly five seconds, but considering all the time QuicKeys can save you, that's not too great a price, is it?

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Personal Press

Product: Personal Press 1.0
Manufacturer: Silicon Beach Software, a subsidiary of Aldus Corporation, 30 St. Clair Ave. West, Toronto, Ont. M4V 3A1 (416) 925-1288.
System Requirements: Macintosh Plus or up.
Price: US$299.

Rumor has it that Aldus' purchase of Silicon Beach was strongly influenced by the potential of the low-end DTP package called Personal Press that the company was then working on. Now that the package is out, how does it stand up to Aldus' high-end offering, PageMaker?

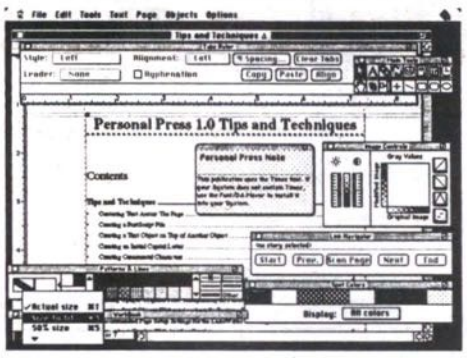
For starters, Personal Press features free rotation of graphics and text, a spelling checker and thesaurus, even direct scanner support (including Digital Darkroom-style controls over the brightness and contrast of grayscale images). Import modules are provided for virtually all of the popular Mac word-processing file formats. PageMaker text and graphics can also be imported.

The program supports the notion of "plug-in modules," allowing new features to be added at any time.

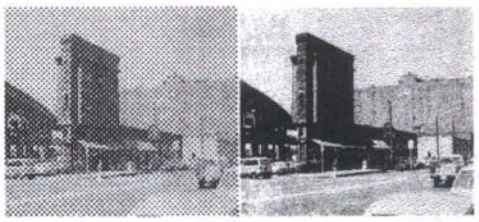
Personal Press sports an innovative interface that uses what the company calls "proxies" to provide interactive feedback when performing key operations like importing text and graphics, aligning objects, scaling, etc. You can attach the electronic equivalent of posted notes to your document, and keep commonly used elements in an on-screen Workbook.

Such niceties as auto-hyphenation and text wrap around graphics are handled well by the program, which has so far proved stable and reliable in my tests. (In the Macintosh DTP forum on CompuServe, there is a Personal Press topic that describes some minor bugs with the program's Tabs Ruler and Text Settings dialog box options, but I have not been troubled by them. The messages also point out some of the program's omissions, such as its

MACINTOSH REVIEW



Personal Press makes heavy use of floating palettes. In this extreme example, the working area is almost completely covered! Fortunately, palettes can be "minimized," as in the case of the Workbook (lower left), showing only its Title Bar.



Advanced Halftones produced by the program can make any 300-dpi printer perform better than you might have believed possible—compare the conventional printout on the left with the same TIFF image output by Personal Press.

inability to group or lock objects, or open multiple documents. PageMaker is also missing these features.)

For many, Personal Press' most useful feature will be AutoCreate, which automatically assembles stories and graphics into pre-built templates. (Several are included with the program, or you can build your own.) With its interactive on-screen previews, you can get an advance look at stories and graphics before you place them on the page and actually assemble a document simply by pouring text and graphics into the various boxes on a "thumbnail sketch" of your page. Indeed, this all makes the process so easy that (to borrow a phrase from the program's package), it's the best bet "for people who thought page layout was for someone else."

When it comes to printing, Personal Press borrows another innovative feature from Digital Darkroom in the form of Advanced Halftones. Using a special dithering algorithm (technically, it's called error diffusion), the grayscale images this program outputs from 300-dpi devices (even non-PostScript ones) is nothing short of amazing The program also supports the definition and printing of spot colors.

It's no wonder that at the product introduction staged by Aldus, one wag put up his hand: "How much does it cost PageMaker users to *downgrade*?"







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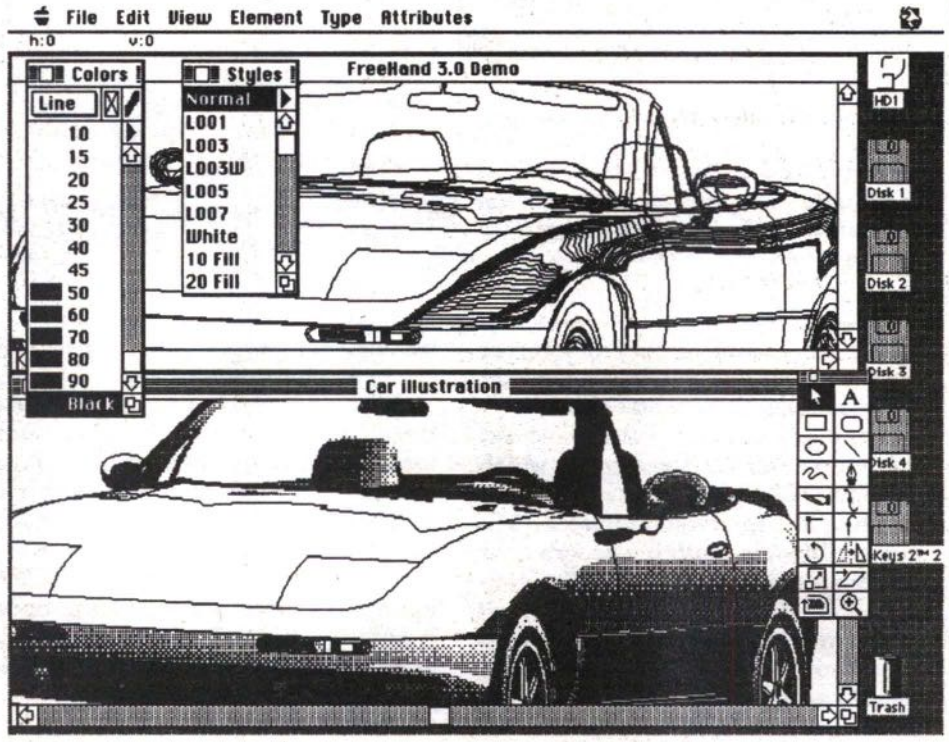
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MACINTOSH REVIEW

FreeHand 3.0

by Graeme Bennett

Product: Aldus FreeHand 3.0
Manufacturer: Aldus Corporation, 30 St. Clair Ave. West, Toronto, Ont. M4V 3A1 (416) 925-1288.
System Requirements: Mac Plus or up, hard disk, 2MB RAM, System 6.0.3 or later
Price: US$595.



Unlike other PostScript drawing programs for PCs or Macs, FreeHand lets you draw in keyline mode (top) or preview mode (bottom).

Alright, I confess. I've always been a FreeHand fan, so this review might sound a bit biased. One of the things I've always loved about the program is that, unlike Adobe Illustrator or CorelDRAW on the PC, it has the option to draw in Preview mode. The others force you to draw in "keyline mode," where you can only see the outlines of the objects. With complex drawings, this black-and-white view can become confusing and clumsy (see below, top window). Of course, keyline mode is much faster, but in either mode, FreeHand 3.0 is noticeably faster at screen redraws than its predecessor.

Although FreeHand's look and feel is largely unchanged, numerous subtle changes are evident in version 3.0. Coming, as it does, half a year after Illustrator 3.0, FreeHand appears to have incorporated many of that program's innovations. You can now perform the conversion of both Type 1 and Type 3 fonts to editable outlines, and freehand drawing is now much smoother (ironically, previously one of the program's weaker areas). You can choose to have Illustrator-style "handles" on bezier curves, and points may be selected in grouped objects with an Option-click. Also like Illustrator 3.0, FreeHand can now create compound objects with transparent "holes" in them.

Blended objects now automatically reblend themselves when one is moved or altered (when you think about it, this is an amazing feature!), and important functions like the selection of colors, styles and layers are now available in on-screen palettes, as opposed to the previous versions, which has them hidden away in menus.

The new version fixes my Least Favorite Feature, which was the previous version's inability to select an object directly behind another. With FreeHand 3, you can step through the stack of objects simply by holding down the Control key as you click. Another im-

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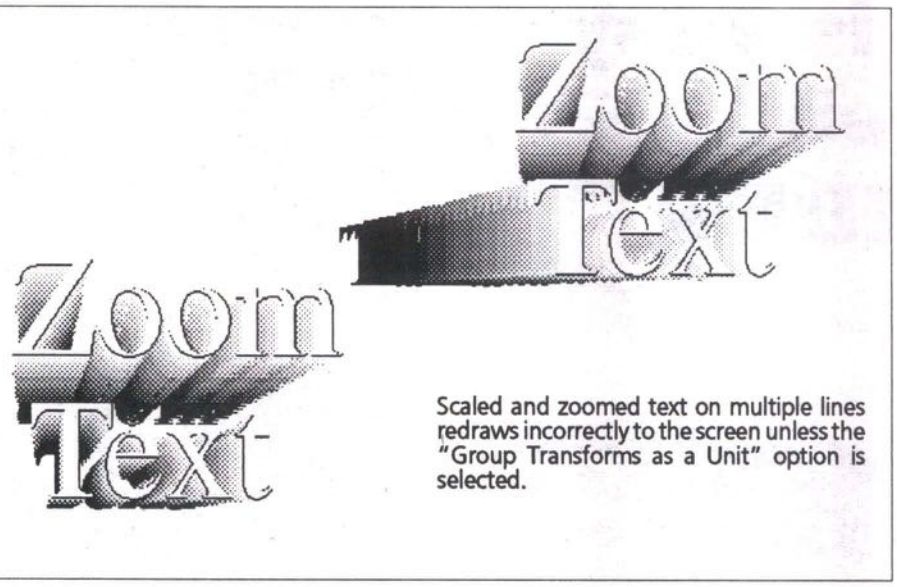
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proved FreeHand feature is its display of text effects such as shadows, inlines, outlines, zoom text etc., all of which are now visible as you work. Only the custom PostScript fills are not previewed, although the method for accessing these, too, has been improved considerably.

Screen Glitches

A bug in the program occurs when a Zoom Text block consisting of two or more lines zooms to a size other than 100% (see below). Strangely, even a 1% change in the "zoom to" value produces a radically different screen display.

Version 3.0 improves FreeHand's already-considerable support of multiple drawing layers. Layers can now be named, and moving objects from layer to layer is as simple as dragging the names around in the Layer list. When it comes to printing, layers can be specified as non-printing, and the program can now apply traps by spreading basic lines or fills automatically. The program ships with new printer description files that Aldus says will minimize unwanted moiré patterns on color separations, plus extensive documentation including booklets called *Tips from the Pros* and *Aldus FreeHand and Commercial Printing*, a guide to color trapping, color monitor adjustment strip, *Learning Aldus FreeHand* tutorial manual, user's manual, quick reference guide and context-sensitive online help.



Scaled and zoomed text on multiple lines redraws incorrectly to the screen unless the "Group Transforms as a Unit" option is selected.

When the zoomed text is moved around on the screen, bizarre angles are misapplied to the bottom line of text on the screen. (Printing is not affected, and the program never crashed or misbehaved in other ways.)

Additionally, when the resulting block is moved around, unsightly blobs of zoom (ugh!) are left scattered around the screen. Luckily, a workaround is easy. Just create a group and select "Element info." Click on the "Group Transforms as a Unit" option and the block will zoom, scale and redraw all text properly.

Another new feature in 3.0 allows text separated by a carriage return to have two different paths when it is joined to a circle. Half the text curves along the top and half along the bottom of the circle automatically if the two text segments are separated by a carriage return.

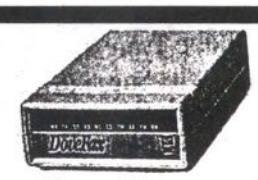
Version 3.0 fixes a bug that had plagued me in the past. In low-memory situations, fonts in version 2.02 sometimes acquired strange kerning values between certain letters, despite the fact that they appeared correct on-screen, and were not kerned or otherwise transformed. Once their kerning tables had been corrupted, these incorrectly spaced characters would print that way from different computers, with different copies of the font, running different copies of FreeHand 2.02. Happily, files that previously exhibited this behavior now print correctly under FreeHand 3.0.

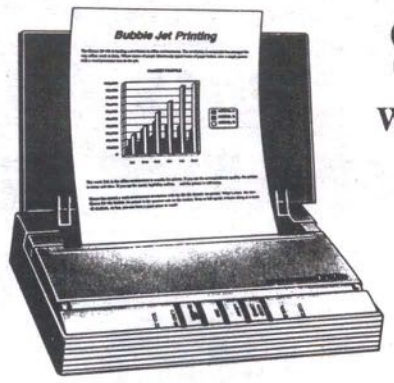
Several important new features appear in this version, including support for the importation and separation of full color 24-bit TIFF graphics as well as EPS, PICT, PICT II, black-and-white and grayscale TIFF and paint images.

Printing from the program is much faster with the new version, and complete color separation facilities are provided, including support for high-end OPI prepress systems. It also performed well on QuickDraw printers (especially with Adobe Type Manager installed), printing the special text effects with little or no loss of quality. Although not specifically mentioned in the manual, the program is also compatible with TrueType (unlike Adobe Illustrator 3.0).

FreeHand remembers up to 99 Undo and Redo steps. I wish all programs offered this, as it allows you the freedom to try out radically different variations of a design, then backtrack if it doesn't work out. In many ways, this feature is a paradigm for the concept of computer-aided design itself, where the machine allows us to tweak and modify a design with more agility than the "old methods" did.

FreeHand 3.0 once again ups the ante of PostScript graphics power tools. For better or worse, it has substantially changed the way I design, just as the computer itself has in a larger context. For this reason, as well as its streamlined and comfortable user interface, improved speed and rock-solid reliability, I recommend FreeHand 3.0 most enthusiastically.

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Take an exercise break

A well-designed work station can help prevent fatigue from occurring. But simple exercises for just a few minutes a day during office hours also can work wonders. With just a little activity you can stimulate circulation, relax a bit, and improve your sense of well-being.

You don't need to go anywhere to do these exercises. So choose the ones you feel most comfortable doing at your desk and do them often. It's best to start with a breathing break.

Breathing Break

Take five to ten long deep breaths, inhaling through your nose and exhaling through your mouth. Close your eyes and concentrate on your breathing. Let your shoulders drop, drop your chin to your chest and feel your neck relax.





Vision Break

Our eyes are important messengers to our brains. Often, close visual work can create muscle tension which becomes chronic if not relieved. These basic exercises can help prevent eyestrain, a common cause of headaches.

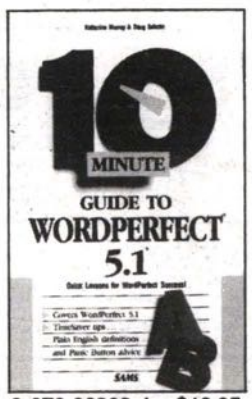
a. Blinking and yawning are two natural responses to tension. Intensive close work can decrease your blink rate, so remember to blink. Yawning supplies a burst of oxygen and lubricates your eyes.

b. Give your eyes a chance to rest. About once an hour, look away from work documents and the VDT. Focus on an object 20 feet away or more.

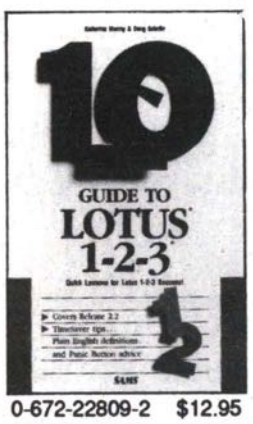
c. Briskly rub your hands together; then, making shallow cups, gently place palms over both eyes. Without pressing down on your eyes, make sure no light comes in. Hold palms in place for 30 seconds at a time.

d. While palming, roll your eyes to the left five times, then to the right another five times. You can also do this exercise with your eyes open.

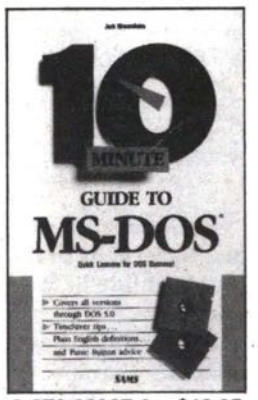
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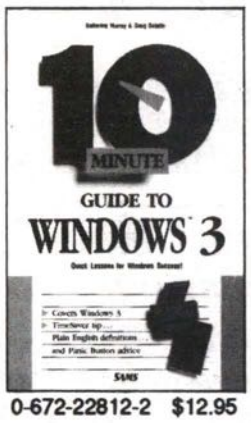


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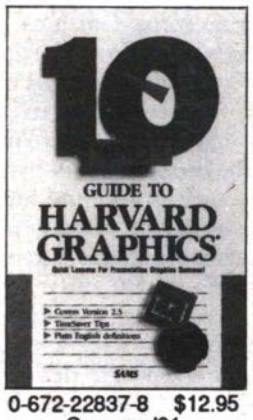


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HIGH TOUCH



Eye Massage

The Chinese have known for centuries that daily eye massage can relieve visual tension. When you find yourself up to your eyeballs in work, close your eyes for a moment and try these.

a. Press gently with your thumb and forefinger on either side of the bridge of your nose, massaging up and down three times.

b. Use both thumbs to press gently just below your eyebrows. Hold for three to five seconds.

c. Place index or middle fingers on top of your cheek bones, just under the center of your pupils. Massage in light circular motions eight times.

d. With your thumb against the side of your index finger, apply gentle pressure above the eyebrows and at several points around the eye.





Hand and Wrist Relief

a. When typing, position your wrists in an even line with your forearm; hold your arms at a 90-degree angle from the elbow, or drop your elbows slightly if that's more comfortable.

b. After a few hours at the keyboard, stretch arms out to your sides and over your head. Massaging hands and wrists will relax tightened muscles and improve circulation.



c. Holding your wrist in your opposite hand, massage by pressing muscle against the bone.

d. Use your fingers and thumbs to massage the inside and outsides of your opposite hand. Massage the space between fingers, and each finger toward the nail.









Limbering Up

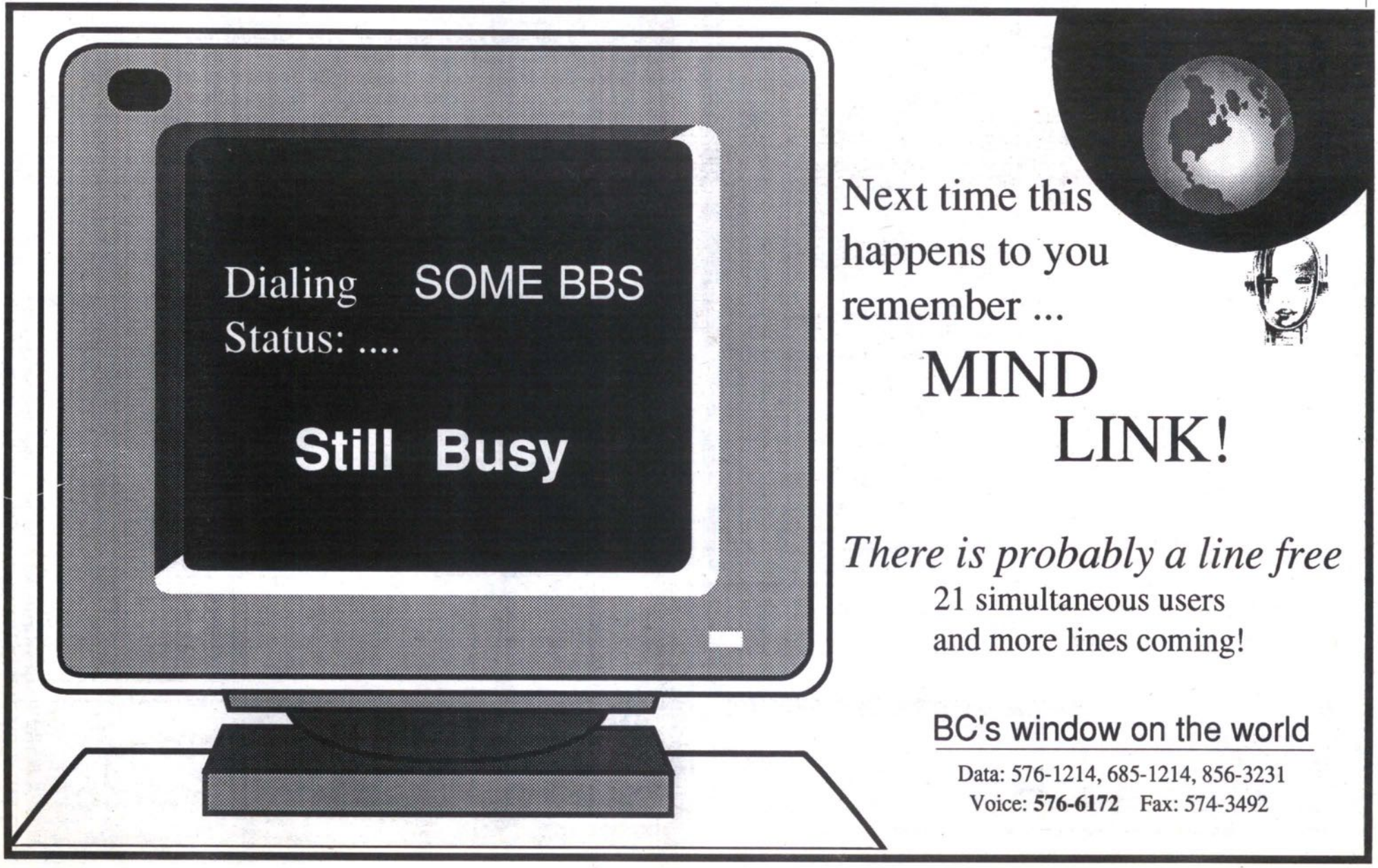
Sitting for a long period forces many muscles into a fixed position that can cause fatigue and stiffness. The following exercises loosen up these muscles. Walking and stretching is also important. Try to walk and use stairs instead of escalators or elevators whenever you can.

NECK RELAXER
While breathing deeply, slowly tip your head from side to side three times. Bring your head back to upright, then turn it, looking over your shoulder three times to each side. Drop your chin to your chest and then raise it back as far as you can.

MIDDLE/UPPER BACK
Hold your right elbow with your left hand. Gently push the elbow toward your left shoulder. Hold the stretch for five seconds, then repeat with left elbow.

BACK/SIDE
Interlace fingers and lift arms overhead, keeping elbows straight. Press arms as far back as you can. To stretch sides, slowly lean to the left, then to the right.

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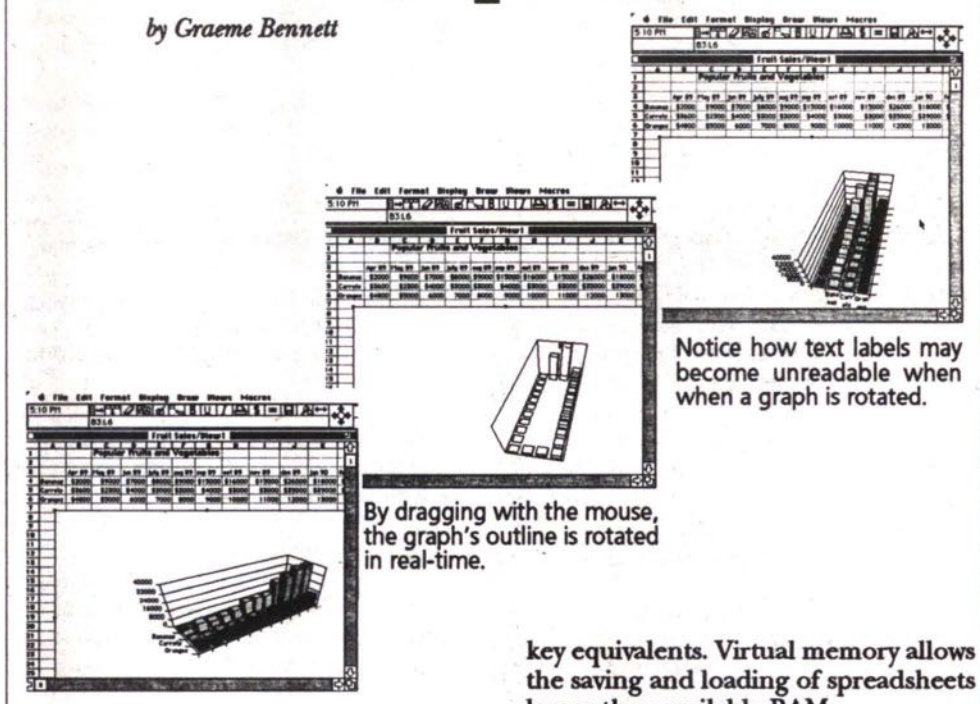
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MACINTOSH REVIEW

Full Impact 2.0

by Graeme Bennett



Notice how text labels may become unreadable when when a graph is rotated.

By dragging with the mouse, the graph's outline is rotated in real-time.

Product: Full Impact 2.0
Publisher: Ashton-Tate, Suite 330, 1275 W. 6th Ave., Vancouver, B.C. V6H 1A6 (604) 736-7886.
System Requirements: Macintosh Plus or newer with one 800K floppy drive and hard drive. At least 2MB of disk space is required to use the program's virtual memory feature.
Price: C$295, upgrades $64.

The Means To Excel

Full Impact 2.0 marks an important upgrade to Ashton-Tate's entry into the Macintosh spreadsheet market, an area dominated by Microsoft's Excel, which is said to command nearly 90% of total sales. Version 2.0 adds speed enhancements to an elegant and sensible user interface; reduced (although still large) file sizes; 8-color graphics; better printer support; Excel file import/export capabilities; and flashy new charting functions, including 3-D and on-sheet graphics.

An integrated macro language provides a programmer-friendly environment for writing custom applications. All menu commands have customizable key equivalents. Virtual memory allows the saving and loading of spreadsheets larger than available RAM.

Wild Graphs

Full Impact's pie, bar and stacked bar-graphing features are versatile and powerful. Like the company's PowerStep spreadsheet product for the NeXT, Full Impact's 3-D bar charts or 3-D surface charts may be rotated interactively with a simple click-and-drag to adjust the viewing angle and perspective.

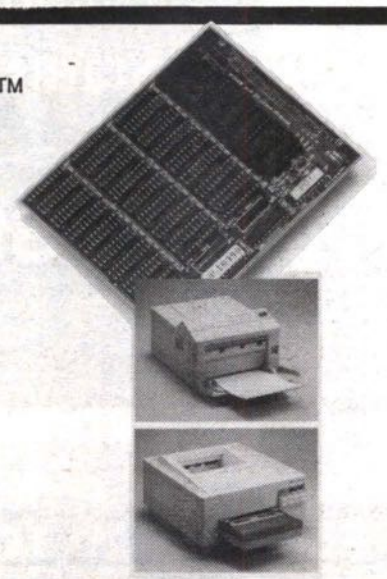
Graphs may be combined with a worksheet on a single page, or overlaid on the same chart. To further enhance a page, annotations and highlights may be added with Full Impact's drawing tools, making it a useful program for presentations, too.

Of Some Import

As you might expect from a company famous for database software, Full Impact sports superior database functions. Full Impact can import or export data from Mac or PC dBASE-series programs; 1-2-3 (versions 1A and 2A); Excel 1.5 and Excel 2.2 (export in Excel 2.2 format only); SYLK; DIF and TEXT formats.

A significant inclusion is a "Function

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Pack" which, when installed, adds all of Excel's functions for complete compatibility—with some enhancements, too. For example, Full Impact can have multiple databases in a single document, while Excel cannot. Full Impact can sort an unlimited number of fields in a database range, compared to Excel's three-field limit and Wingz's single field.

The virtual-memory feature allows the saving and loading of spreadsheets that would choke Excel (a Full Impact worksheet can have up to 524,288 cells), but be warned: the drive the documents are on must have at least 2 megabytes of free space for this feature to work efficiently.

Comparative Tests

Full Impact boasts an intelligent recalculation feature said to improve performance by recalculating only the part of a spreadsheet that has changed. Indeed, in three out of four tests, Full Impact bested Excel's performance.

In a comparative test of spreadsheet recalculation times, Full Impact was slightly faster than Excel on a worksheet with 20,000 cells, but strangely, slower than it on a sheet with 10,000 cells. In both of these tests, Wingz came out on top with the best overall speeds.

In some of the more esoteric math functions such as logarithms and random numbers, Full Impact was over twice as fast as Excel, and slightly faster than Wingz. In typical real-world circumstances, though, Full Impact's speed lags slightly behind its competition, but not unacceptably so.

A Few Snags

While installing Full Impact, I had some problems that caused me to realize that the program's installation procedure is rather under-documented and its error messages too terse.

The entire "Installation Manual" is a mere sheet of heavy paper inserted into the front of the User's Manual. The description of the procedure within it offers nowhere to look if there are any problems; an appendix of the manual lists only brief meanings of error message numbers.

I found that Full Impact is incompatible with the 24-bit display mode of the Radius DirectColor/GX video card I was using; the A-T rep verified that the program is not compatible with 24-bit displays. Changing the Monitors (Control Panel Device) setting to 256 colors or thousands of colors solved the problem.

Limitations

Though not serious limitations, there are a few features I'd like to see in Full Impact. For starters, the program limits you to seven linked worksheets. By comparison, Excel and Wingz have no limits to the number of links. It would be useful if Full Impact's Icon Bar (much like the ones in Excel 3.0 or Word for Windows) could be hidden when not needed, as can a word processor's ruler.

Also, when competing products like Wingz offer dazzling charts in 24-bit color, it seems a bit duff to have only eight colors available. It is possible to paste PICT format images in 32-bit color format into Full Impact documents as annotation, but in light of the above-mentioned 24-bit color incompatibility, the value of this seems somewhat dubious.

Conclusion

In overall performance, Full Impact beats Excel, although Informix's Wingz is the performance champ. Easier to use than Excel or Wingz, Full Impact produces better-looking spreadsheets and charts in less time. And unlike Wingz, Full Impact can save in Excel format.

Although all three products share similar list prices, recently advertised prices place Full Impact almost a hundred dollars less than its competition (*and* at least one Mac mail-order company even promises a free copy of FullWrite Professional!). Full Impact provides ease of use, good value and spreadsheet capabilities that most users will never outgrow.

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TVM MD-14 5A (14" .28dp, 1024 x 768)	$687

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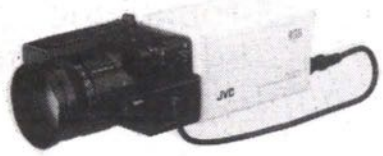
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NEWSBYTES

Continued from p.

as a mere formality.

Despite severe lobbying from a number of quarters, however, the legislation has been approved without any amendments, a situation that could cause problems when it comes to software development.

At issue is the contentious topic of reverse engineering. Almost all software developers use this technique to dissect newly developed software in the hope of gaining an insight into how it works. Then, by the normal process of human learning, other software for the computer can be developed.

Reverse engineering of software is a technique used to 'decode' programs which are supplied without the original source code. The technique, though controversial, is widely used by competing software houses to allow them to design their own packages. Though widely criticized, many developers argue that, without the facility to legally reverse analyse software, rapid development of applications software could be stifled.

Some industry experts argue that reverse engineering borders on plagiarism, while others say that development of software for new platforms—such as the NeXT workstation series—would be severely curtailed if reverse engineering were outlawed.

According to some industry experts, software developers could not complete their assigned jobs without using some degree of reverse engineering. "It's like re-inventing the wheel every time," one software developer told Newsbytes.

The industry majors appear to be worried about the impending problem as well. Dec, IBM and Philips have lobbied EC officials this past few months, arguing that reverse engineering should be outlawed. Bull and Olivetti, meanwhile, sided with the idea that reverse engineering is a necessary part of the development of software.

EC officials threw out nine amendments to the draft legislation, meaning that any technique is now illegal. Perhaps worse still is the specter of EC investigation squads descending on software development companies to investigate whether any reverse engineering is taking place.

Alarm System For Dozing Drivers, Sleepy Pilots

LAS CRUCES, NEW MEXICO, APR 17 (NB)—Energy Optics has announced plans to modify a recently developed 'loss of consciousness monitor' system for use by long-distance drivers and pilots. The device was initially developed for, and has been accepted by, the U.S. Air Force, which has lost 18 pilots and their aircraft since 1982 due to gravity-induced loss of consciousness.

The military version is designed to detect both blackouts resulting from gravity forces and dozing. It consists of a small infrared scanning module about an inch long and the diameter of a pencil which is mounted on the oxygen

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mask and aimed at the pilot's eyes. The unit is wired to an electronics package slightly smaller than a matchbox, which is plugged into a power supply.

Whenever the pilot's eyes stay closed or remain open without blinking for a programmed interval, an alarm sounds, the plane's base is alerted and the automatic pilot takes over, maintaining a straight and level flight until the pilot regains control.

The proposed device for drivers and civilian pilots will consist of the same elements—one clipped to the headgear and the other plugged into the cigarette lighter. The alarm will be programmed to sound much sooner than the military version.

Energy Optics has invited the American Trucking Association, the International Brotherhood of Teamsters, and the General Aviation Association to participate in modifying the military version in order to assure the civilian version best meets the needs of prospective users, according to Edward Laughlin, Energy Optics president.

Contact: Gordon Molesworth, Molesworth Associates, Green Valley, AZ, 602-625-0035.

TELECOM

Hayes Smartcom III Version 2.0

NORCROSS, GEORGIA, APR 11 (NB)—Hayes Microcomputer Products has announced a new version of its Smartcom III communications program. Version 2.0 now supports local area networks, the Z-modem file transfer protocol, and mice, all at a reduced price of $199.

For networks, the program supports the sharing of a single modem or multiple modems on many popular services, including equipment from Novell, 3Com, and J&L. The program also supports network printers through any redirector using the standard Basic Input Output System interface. The program also supports the new X.32 standard, known as dial-up X.25, providing the equivalent of up to 4 virtual connections to remote computers using a single communications port and an X.25 modem such as Hayes' V-Series or Ultra 96 products.

The product is being shipped worldwide. Prices range from $199 in such countries as Israel, to C$299 in Canada, HK$1,999 in Hong Kong, FF1,299 in France, and DM 385 in Germany, to UKP 129 in the United Kingdom, and 325 Swiss Francs in Switzerland. Multiple copy licenses are also available.

Hayes also announced that its Smartcom Exec communications program, Version 2.1, now supports 5 languages. Spanish, German, French, and Italian are supported in the same package, as well as English. Version 2.1 also supports the Prestel format used in England and the Teletel format used by Minitel terminals. That program will ship in June at $129.

Contact: Peggy Ballard, Hayes, 404-840-9200.

GEnie Gets A Book By Glossbrenner

YARDLEY, PENNSYLVANIA, APR 16 (NB)—Alfred Glossbrenner, the leading producer of telecommunications books, has finally come out with "Glossbrenner's Master Guide to GEnie," a 616-page tome with a floppy disk which could do for GEnie what a similar Glossbrenner volume has done for Compuserve: increase usage. The disk shipped with the book is for the IBM PC, but it can be exchanged for a Macintosh or Atari ST version.

Glossbrenner writes that GEnie is now engaged in a three-cornered fight which could determine the future of consumer telecomm services in the U.S. Its competitors—CompuServe and Prodigy—are larger.

But GEnie has many advantages, particularly its US$4.95 per month Star*Services plan, introduced last year. Star*Services offers access to over 100 online services, including an online encyclopedia, electronic mail, stock quotes, airline reservations and shopping, for a flat fee of $4.95 per month. Prodigy offers a US$12.95 monthly deal with limited mail capabilities, while CompuServe recently raised its monthly minimum fee and continues to charge hourly rates for all services.

Contact: Alfred Glossbrenner, FireCrystal Communications, 215-736-1213.

UNIX

WordPerfect For AT&T 3B2 Ships

OREM, UTAH, APR 12 (NB)—WordPerfect Corporation has begun shipping WordPerfect 5.0, the first version of WordPerfect for the AT&T 3B2 Unix workstations since WordPerfect 4.2. There are now WordPerfect 5.0 versions for five Unix platforms: Unix System V 386, SCO XENIX, Sun SPARCstations, IBM RS/6000, and the AT&T 3B2.

WordPerfect 5.0 features text-integrated graphics, better printer support, a macro editor, style sheets, and a master document feature that allows organizations to easily standardize document styles.

Priced at $495 for single users, with multi-user software prices starting at $995, WordPerfect 5.0 for AT&T 3B2 requires 1.8 megabytes of RAM memory for the first user and 500 kilobytes for each additional user. Free upgrades are offered for those who have purchased WordPerfect 4.2 between January 15 and April 30, 1991.

For further information, call WordPerfect's Unix Products Division at 801-222-5300.

AutoCAD Release 11 For SPARCstation

SAUSALITO, CALIFORNIA, APR 19 (NB)—Autodesk has announced that AutoCAD Release 11 and its integrated solid modeling extension are now available for SPARCstation customers.

The software incorporates all of the innovations designed into release 11 along with a series of special SPARC features. The SunView user interface is now supported, with support for Open Look due sometime in the second quarter of 1991. The company reports that Open Look support is effected by a driver update that will be available at no charge to all release 11 SPARCstation customers.

Approximately 500,000 copies of the computer-aided design (CAD) software have already been sold.

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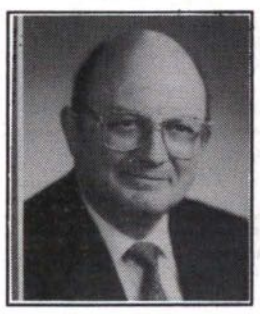
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According to the company, the SPARC version of release 11 supports Autodesk's optional Advance Modeling Extension (AME), which offers solid modeling functions that empower designers and engineers to build and analyze complex, three-dimensional models quickly and accurately, without leaving the AutoCAD session.

According to the company, once a computer model is created, AME will analyze it by calculating its mass properties. AME geometry can be used in desktop manufacturing applications to drive computer-controlled machines that create the actual prototype or part.

Contact: Andrew Zarrillo, Autodesk, 415-332-2344.

NCR Ships Document Management System

NEW YORK, NEW YORK, APR 18 (NB)—NCR has begun shipping its image-based Document Management System (NCR DMS), a general-purpose imaging system that runs on its System 3000 hardware. NCR DMS allows organizations to convert paper documents to electronic form for storage and processing.

NCR DMS is meant for paper-intensive areas such as claims processing, patient record-keeping, credit card application processing, personnel record-keeping, patent processing, and order entry. Company spokeswoman Connie Olasz told Newsbytes the system is meant "for very high-volume image users, people that have to turn around lots of documents."

NCR sells the software, which runs on the Unix operating system, with System 3000 hardware and accompanying peripherals such as monitors, printers, and document scanners. Olasz said prices would range from about US$800,000 for a typical 20-workstation system up to some US$3.5 million for a 120-workstation system.

Contact: Connie Olasz, NCR, 513-445-1139.

Sanyo To Offer Mips Workstation

TOKYO, JAPAN, APR 18 (NB)—Sanyo Electric will release its first workstation, a machine with a Mips RISC (reduced instruction set computing)-based microprocessor early next year, according to the Nikkei newspaper. The price of this workstation is expected to be around 2 million yen ($14,300).

Sanyo is also thinking of joining the ACE group, which is a multinational computer alliance created recently by 21 computer makers, according to the report.

Competition in the workstation market is fierce in Japan. A total of 350 billion yen ($2.5 billion) worth of workstations were sold in fiscal 1990. Sales are expected to double in fiscal 1993 if there is a recovery in financial markets, such as banks and securities firms.

Contact: Sanyo, +81-3-3835-1111.

New Mips RISC Chip Chosen As ACE Platform

SUNNYVALE, CALIFORNIA, APR 11 (NB)—RISC (reduced instruction set computing) architecture from U.S.-based Mips Computer Systems has been chosen as the hardware base for the new ACE (advanced computing environment) announced April 10th. Called ARCS (advanced RISC computer specification) the chip family from Mips has recently had an addition—the R4000 which will ship later this year.

The 64-bit R4000 includes CPU, integer processor, floating point coprocessor, memory management unit and primary cache unit, all in the one chip. Mips develops the chips, but doesn't make them—instead licensing a number of chip fabricators to do the job. Mips is best known for its supply of computers to other manufacturers who add their own badges (called OEMing). Mips says it plans to have an ACE machine available for OEM use late this year, though majors like Compaq will design their own from Mips-licensed processor chips.

One feature of the Mips RISC chips which is claimed to increase speed is "superpipelining," a scheme in which instructions are paired so two are sent each clock tick. The 64-bit data path might seem excessive, but Mips points out that this will become essential through the '90s, especially as graphics applications exceed the 32-bit addressing limit of four gigabytes (which is less than a minute of broadcast video). In fact, the cache bus is an amazing 128 bits wide, to accommodate the processor speed.

1991 SCO Hardware/Software Directory Published

SANTA CRUZ, CALIFORNIA, APR 22 (NB) — SCO, the Santa Cruz Operation, has published the 1991 edition of the 'SCO Directory: the Guide to Software, Hardware and Services for the SCO Environment.' Available at $24.95 from SCO authorized resellers and distributors, the directory is billed as the major reference tool for those seeking SCO Unix-compatible programs and hardware.

The nearly 1,000-page directory contains a comprehensive index and is divided into applications sections which feature complete contact information for every company and 100-200 word descriptions of the products. The directory does not list prices and to locate an SCO dealer, call 800-SCO-UNIX. The directory can also be ordered directly from SCO at that number.

The Santa Cruz Operation (SCO), can be contacted at 400 Encinal St., PO Box 1900, Santa Cruz, CA 95061, 408-425-7222; fax: 408-458-4227. In Canada: SCO Canada, 800-461-6962, fax 416-922-8397. Contact: Barbara LoFranco, The Santa Cruz Operation, 408-425-7222, fax: 408-458-4227)

New "Auto Club" For Computer Owners

IRVINE, CALIFORNIA, APR 22 (NB) — The American Computer Association (ACA), a non-profit group, is the computer owner's equivalent to the auto club. For an annual fee year ($60 for the first year, then $45) the ACA offers phone support, up to three visits a year by a computer technician, advice/discounts on the purchase of computers and computer equipment, and training classes on computer management and maintenance, said Ken Logan, chairman of ACA.

"It's a unique concept but a logical one," said Ken Logan. "For small to medium businesses without skilled technicians on staff — or for home operators — it's reassuring to know help is just a phone call away. And we're not beholding to any commercial interest," he added.

Although many computer malfunctions can be solved over the telephone, if necessary ACA will send out an expert from one of it's prescreened, independently operated computer service contractors in Orange and Los Angeles counties, according to the group. The first 20 minutes is free to members, and three visits can be made annually. Further repair work is available at a 10 percent discount for members.

Contact: Ken Logan, American Computer Association, TEL: 714/549-3633, FAX: 714/752-9316

NEWSBYTES News Network is the largest independent computer industry news service in the world, published continuously since May, 1983, with 4 U.S. and 7 international bureaus in London, Brussels, Toronto, Tokyo, Hong Kong, and Sydney, Australia, devoted to gathering the week's most significant microcomputer and consumer technology news. NEWSBYTES was honored to receive the "Best Online Publication" award from the Computer Press Association. Editor In Chief: Wendy Woods. Janet Endrijonas, Dana Blankenhorn, John McCormick, John and Barbara McMullen, Steve Gold, Peter Vekinis, Ken Takahashi, Naoyuki Yazawa, Paul Zucker and Sean McNamara, Keith Cameron, Norman Wingrove, Kirill Tchashchin.

CANADIAN EDITOR: Grant Buckler, 52 Yonge Street, Kingston, Ontario, Canada, K7M 1E5, (613) 548-4213, (613) 548-3315.

TELECOMMUNICATIONS

BBS List Update

A handful of corrections came in from our April 1991 BBS Listings.

We omitted several numbers for the CARDZ BBS, which is, according to Cardz President Dwight Jones, the second-largest BBS system in Canada. According to Cardz, they have nine 2400/4800 baud lines (734-5901), four HST 14.4 kilobaud lines (734-5400), two V.32 9600 baud lines (734-5800). The BBS has a variety of online services including information from Byte magazine and a brilliant sysop from BCIT to keep everything up to date. Contact Cardz by voice at 1-800-676-3111 or the BBS line for your modem speed.

Other numbers to add to the BBS list include:

Nitro Fire BBS, 576-2167. Drag racing and motorsports, 2 new lines, on-line games, adult section. 2400-bps/MNP-5.

Catalyst BBS, 420-6275. Run by the Pacific Information Exchange Society (PIX). Peace, Disarmament, Ecology and Human Rights.

Airspace BBS, 270-6475. Smoking, health. 2400-bps

Badlands BBS, 433-5072. Games, Adult, some files. Local message bases. Up to 2400-bps.

GEnie Changes All Vancouver Area Access Numbers

General Electric's information service GEnie has changed its Vancouver area access number as of April 22, 1991, due to a site relocation. The new number for 300/1200/2400-bps asynchronous access is (604) 683-6992. Subscribers can call 1-800-231-0091 for more info; new users can sign up by calling GEnie Customer Services at 1-800-638-9636.

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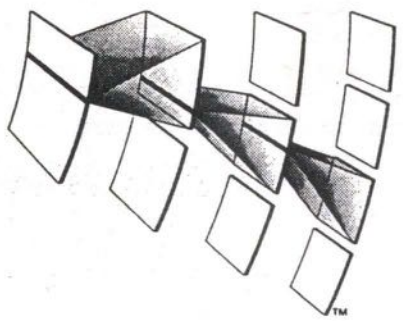
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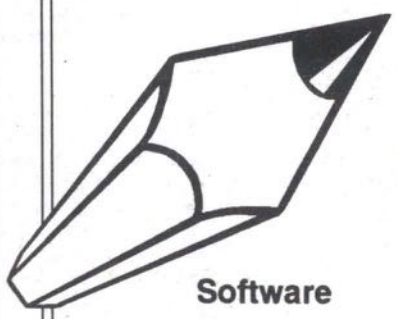
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- Tactile enhanced keyboard

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- 1MB memory, exp. to 32MB on-board
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Math Co-proccessors

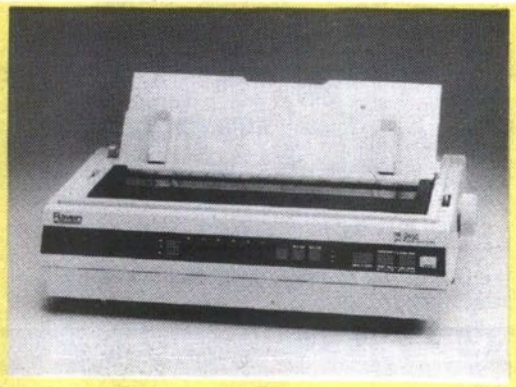
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MAY 16
Two New Software Development Opportunities
Doug Kind / James Stephenson

JUNE 20
Software Marketing Success
Dave Bowen

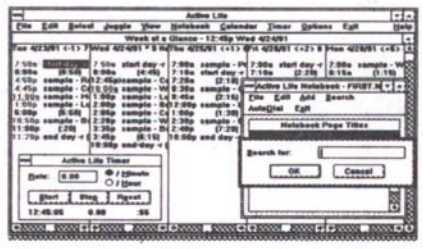
JULY 18
There Must Be A Better Way
Paget Press founder, Peggy Thompson

682-2034



WINDOWS SHAREWARE

Active Life



I have found in five years of distributing shareware programs that many programs are end-user specific. Appointment calendar programs are just one of the many business aids that fall under this umbrella. It seems that no matter what features an author incorporates into his program, each purchaser (or potential purchaser—shareware utilizes the try-before-you-buy concept) has other ideas or requirements.

According to these user-specific needs, there are 6 basic functions that an appointment scheduler requires. It must be "networkable" because a secretary or receptionist will probably be doing most of the scheduling, yet it must have a "look ahead" feature.

An appointment "nag" feature, month overview and pocket-size (3" x 5") and binder size (8 1/2" x 11") daily print-outs are absolute musts. Time-slot designations must be definable (15 minutes to one hour) and encompass the 24-hour clock to accommodate appointments outside of the "8 to 5" business routine. "Notes" to accompany an appointment must display and print to brief the executive about the impending engagement.

Active Life for Windows meets almost every requirement of mine plus many enhancements of the minimum requirements. For example, the "nag" feature is so well done, it is almost unbearable. Its saving grace is that once the nag starts, the one-minute auto-repeat can be turned off for, say ten minutes, while you complete the current task.

The month overview has been supplemented with week, multiple month and year overview. You can overview several months and find that your future looks bright (or dim).

It will print out daily and weekly schedules and overviews. The documentation even suggests printing out daily on one side and turning the sheet over to print an overview on the reverse for quick reference.

Time organization is fabulous. Schedule any amount of time over 10 minutes; select the task; then select the time required to complete it. There is no work time limit, although you can select default start and quit schedule times. Note features are not only available, but can be cardexed and exported to the autodialer.

Birthdays and other events are stored as notes and auto-repeat from year to year. Daily events such as backing-up your data can be auto-initiated. Schedule your system back-up at 12:15 each day, insert a back-up tape before leaving for lunch, and when you return, your data is safely archived.

Recurring events can be defined as daily/monthly/yearly or every "x" days/months/years. You can even specify an event, such as every Monday for 6 months, then every other Monday for 3 months.

Active Life archives the completed assignments and indicates incomplete ones. You can reschedule or push forward an event as required.

If your requirements include "multi-person" scheduling, don't look for it in Active Life; it isn't there. The "notes" file should activate automatically, if a note is attached to an appointment.

In Active Life, an indicator announces a note that must be retrieved separately. Although no software is perfect, when it comes to business applications, Active Life is pretty good shareware and is one of the few that runs in Windows. If you are a Windows fanatic, you will enjoy Active Life.

Shareware programs may require separate payment to the authors if used after a reasonable trial or evaluation period.

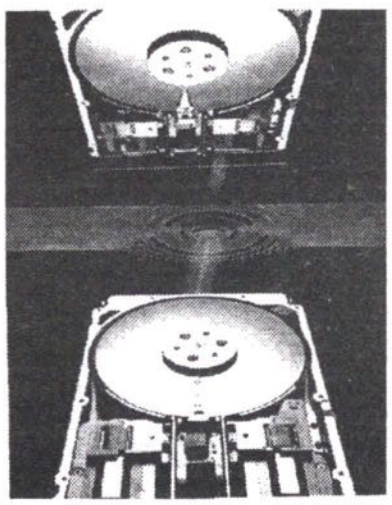
Gord Simmonds is the owner of SIM-COM Services (854-3475), a company in Abbotsford specializing in shareware products, and an Associate (Vendor) Member of the Association of Shareware Professionals.

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CALENDAR

Computer Calendar



EVENTS

CANADIAN COMPUTER SHOW, Toronto, Oct. 21,22,23,24
CANADIAN HIGH-TECHNOLOGY SHOW, Montreal, Apr. 30, May 1;Toronto, Oct. 22,23
CBTA, Edmonton, Sept. 18,19,20
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ELECTRO, New York, Apr. 16,17,18
HOME BASED BUSINESS SEMINARS by H.A. (Buzz) Bezanson. HOME MADE MONEY (How To Successfully Start a Home Based Business). North Vancouver 986-8888,
EDUCATING THE NEXT GENERATION OF PUBLISHERS: AN INTERNATIONAL CONFERENCE, Cdn. Centre for Studies in Publishing, SFU at Harbour Centre, 515 W. Hastings St. May 3- 4, 1991. Brings together leaders in publishing industry and professionals engaged in teaching of publishing. 291-5078.
FALL COMDEX, Las Vegas, Oct. 21,22,23,24,25
INFO, New York, Oct. 1,2,3
MONTREAL COMPUTER SHOW (SIIM '91), Montreal, June 5,6,7
NETCON, Sept. 26,27
PC EXPO, June 25,26,27
PUBLIC LEGAL EDUCATION SOCIETY. Free class on computers and thelaw for sellers, buyers and users. 438-4041.
QUEBEC BUSINESS COMPUTER SHOW, Quebec City, Apr. 3,4,5
SPRING COMDEX, Atlanta, May 20,21,22,23

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CALENDAR

Computer Calendar

to 24th, 1991. Telephone (416) 252-7791. Industrial Trade & Consumer Shows Inc.

Apple B.C. User Group, Vancouver Lawyers John Swift and James Hatton.

Vancouver AutoCAD User Society, 7:30 p.m. B.C.I.T. Burnaby, B.C. Robert Cheek 684-9311. May meeting—Low End CAD, Room 110, Industrial Teacher Education Building.

Hands-On Troubleshooting, Maintenance & Repair of the Macintosh, Vancouver, B.C., May 15-17, 1991. Sheraton Landmark, 1400 Robson Street, Vancouver, B.C. V6G 1B9. (604) 687-0511.

Open Systems Computer Show, May 15, 16 & 17, 1991, Metro Toronto Convention Centre. Sponsor: Uniforum Canada. CMN, Creative Marketing Network Inc., Norman Evans or Julie Byrnell (416) 539-0694.

The Spark Information Technologies Sector, Monday May 13, 1991, Science World British Columbia, 1455 Quebec Street, Vancouver, B.C. 7:30-9:00 p.m. Dr. David L. Parnas. 436-3574.

USER GROUPS

BCIT-UNIX System Management. Using SUN OS (BSD/System V) 5 days, starting June 10, June 17 or June 24. Applicants must have basic UNIX experience or BCIT Introduction to UNIX course completion. Cost $425. Register by calling 434-1610.

Amiga User Group (PaNorAmA), BCIT, Rm 129-1A. Gen. Meeting 2ndWed 7:30; Programmers 4th Wed 7:30. Bill Wagstaff, 597-1746.

Apple/ABCCS Meetings location: Burnaby Lake Clubhouse, Burnaby Sports Centre, Sprott St. & Sperling Ave.

Apples B.C. Computer Society. Computer User Group for all Apple users, call 275-4983 information line; for membership info: Kiyo Masuda, 437-9935.

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CALENDAR

Architect User Group (Macintosh). Call Glen Schiller or Kal Gill, Byte Computers, 738-2181.
Astute—Atari ST. Meets 1st Tues., 7:30 Hastings Comm. Ctr. Dennis 420-8710.
ATARI USERS! Vantari, P.O. Box 3614 Main Post Office, Van., B.C., V6B3Y6. Bill Sutherland 988-1450, Don Hatch 433-8055. Meets 2nd Wed., 7:30, Hastings Comm. Ctr., 3096 E. Hastings.
Beaver Valley Commodore Club, 1st Tues., Montrose School Library. Call John Vink 367-6426.
B.C. Regional Users Group Society of Hewlett-Packard Users.
B.C. Unix Users Group Dinner Meetings. 681-4473.
Chilliwack Commodore Computer Club (C.C.C.C.) - 976, Supporting Commodore Amiga, P.O. Box 413, Sardis, B.C. V2R 1A7.
DATA PROCESSING MANAGEMENT ASSOCIATION, DPMA dinner meetings 4th Tuesday every month, Stanley Park Pavilion. Next meeting April 23rd @ 5:30 p.m. PETER FUGLEM, Acting Manager of Planning, Development and Research, with the Ministry of Forests will be speaking on: Different Types of Systems — where the Ministry plans to go next technically. Contact Frances Dickson or Suzette Havens — 660-8668 to register or Gail Nicols — 660-9533 for information.
DESKTOP PUBLISHING USER GROUP — bi-monthly meetings. For information, call Karole Doner, 929-4916.
FORTH-BC meets 7:30, 1st Thurs/month, Rm 1A-324, BCIT main bldg.
Discussions, demonstrations and information for programming/applying FORTH (hardware and software).
Greater Victoria Personal Computer Users' Assoc., PO Box 5309, Station B, Victoria V8R 6S4. General meeting last Wed. Also, special interest group meetings 382-3934.
Independent Computer Consultants Association, Box 820, Station A, Van., B.C. 682-2747. Fax 925-1336.
Kaypro User Group/Vancouver Portable Computer Club, 3rd Mon., at Kwantlen College Richmond (DOS & CP/M) 271-1519.
Laboratory PC User Group, Rm 2J38, BC Children's Hospital, Vancouver. 7:00 pm, every 2nd Wed. - $10/year 737-1305.
Macintosh Owners - ABCCS contact: John Miller 433-1795.
MacWest Computer Society, 2 monthly meetings for members, plus PD copy session. General Meetings - 2nd Wed., 7:30 pm.
MacWest New User Meeting - 3rd Wed., 8 pm, Guildford Pub. Lib., Surrey. PD Copy sessions & meet Ridge Computer User Group, 2nd Tues. of every month, M.R. Sr. Secondary 7:30
NewViews User Group, 322-6198, POCO, 1379 Laurier, Hyele Creek Centre.
NeXT Users Group, 275-5902 Lawrence Clark - last Wed. of every month
ORACLE Users Group, 1055 W. Hastings 222-1047 Lawrence Clark - every 3rd Wed. of each alt. month
Pacific Information Exchange, P.O. Box 67366, Station O, Vancouver, V5W 3T1.
Port Coq. Computer Club—Commodore, Amiga & IBM, 1st & 3rd Tues
7:30, Rm. 104, George Pearkes Jr. Sec. School, 1390 Laurier Ave., Port Coquitlam, Mike Evans 942-4286.
Smart User Group, Brian Wiebe 588-8065.
Software B.C., #400-1190 Melville St., Van., B.C. 684-7432.
Meetings at Benedict's Restaurant, 1177 W Pender St., Vancouver, 3rd Thurs, 5:30.
T.I. 99/4A Computer B.C. 99er Users Group, Every Thurs 7-10 pm, Cameron Rec Ctr., Bby. Ron: 522-2598. 1st Thurs. Tutorials, 2nd Thurs. General, 3rd Thurs. Tutorials, 4th Thurs. Copying Prog.
TRACE (Richmond Atari Club), Thompson Comm. Ctre, 272-5789 1st & 3rd Mon. 7:30-9:30.
Vancouver ACM/SIGGRAPH Computer Graphics, 1st Wed. Call Susan Mair, 228-3938.
Vancouver AutoCAD Users Society, BCIT, Bldg. 3A, Room 110, 1st Wed of the month, 7:30 pm. Contact Dave Toews, 530-6426 for info.
Vancouver Clipper Developers Assoc., 1st Tues., 7 pm, 800-1190 Hornby St., Van, 685-6645.
Vancouver Color Computer Club, 3rd Tuesday, Discovery Park, 3700 Gilmore Way, Burnaby, Contacts: Jordan Dobrikin 420-6081; Steven La Favor 467-0923.
Vancouver dBase Users Group, 2nd Wed., 7 pm. 800-1190 Hornby St. Van, 685-6645.
Vancouver Electronic Publ. Assoc., 1115 W. 11th, Vancouver, V6H 1K4 (mail). For info, call 733-9080 (leave msg).
Vancouver Netware Users Group, Les Lebbrant 275-8684. Meets 1st Mon.
Vancouver Portable Computer Club (VPCC), AMO 17, Jay Siegel, 4251 Lancelot Dr, Richmond, B.C., V7C 4S4, 271-1519.
Vancouver PC User Society, Science World Auditorium, 6:30 pm, 2nd Thurs. $30/yr. 734-0060.
Van. Sinclair Users Group, Timex-Sinclair, 2nd Fri, Killarney Comm. Ctr., Gerd Breunung 931-5509.
Vantari, Box 3614 Main Post Office, Van., BC V6B 3Y6. Judy Harcus 873-1941; Don Hatch 433-8055; 2nd Wed., Hastings Comm. Ctr., 3096 E. Hastings.
VersaCAD User Group, 2nd Tues. Call CADD Solutions Inc., 681-4686 for info.
Wang System Users, 736-8841 ext 227, J.-P. Doiron.
Can't find it here? For information on courses and programs throughout B.C. and elsewhere (both online and off), contact Discovery Training Network, 300—475 West Georgia St., Vancouver V6B 4M9, 604/660-2303, or 1-800/663-1383 (toll-free in B.C.), or plug into their database.

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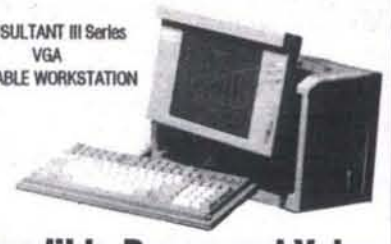
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Super VGA Boards From ATI

MARKHAM, ONTARIO, APR 22 (NB) – ATI Technologies has launched the VGA Wonder XL line of Super VGA display adapter boards for IBM PS/2 and close compatible PCs. The adapters can display as many as 32,768 colors with resolution of 640 by 480 pixels, or 256 colors at up to 1,024 by 768 pixel resolution.

Based on ATI's VGA Wonder+ adapter, the VGA Wonder XL uses the same speed optimization techniques, but ATI said it offers performance improvements of as much as 50 percent over the earlier product.

ATI also said the board is the first on the market to support a video refresh rate of 72Hz, which the company claims make the screens more readable and so reduce eyestrain.

The board incorporates Color Depth Enhancement (CODE), a custom blending technique designed to make imported 24-bit color images look better when displayed in 15-bit color.

The VGA Wonder XL sells for US$299 with 256KB of memory, for US$349 with 512KB, and US$399 for 1MB of RAM. The 256KB and 512KB versions can easily be upgraded to 1MB of RAM, the company claims. Contact: Susan Verrechia, ATI Technologies, 416-756-0718, fax 416-756-0720

Microsoft Mail Version 2.1

REDMOND, WASHINGTON, APR 23 (NB) — Microsoft has announced Microsoft Mail version 2.1 for PC networks. The electronic mail (e-mail) package supports all PC networks, including the Microsoft Windows graphical environment, the company claims.

Microsoft Mail is based on The Network Courier, which achieved the highest overall rating for a PC local area network (LAN) e-mail program in the March 1991 Software Digest Ratings Report.

The Network Courier is a product of Consumer Software, a company Microsoft acquired very recently, according to Lisa Wilson of Microsoft. According to Wilson, two benefits of Microsoft Mail 2.1 are it's improved management capabilities and its added flexibility.

"Companies with an e-mail network on a main frame system do not have to change to a different e-mail system to connect an existing PC network e-mail if they have Microsoft Mail. Microsoft Mail 2.1 has a broad set of gateways to connect to mainframe e-mail systems, and provide total connectivity," she said.

Licensed users of The Network Courier will be offered a free upgrade to Microsoft Mail 2.1 for PC networks. This includes a server enabled for remote access as well as fixes for problems in previous versions. Current users will be notified of the upgrade through a mailing expected to take place immediately. Microsoft has said it will honor all existing support and service agreements with Network Courier customers. Contact: Lisa Wilson, Microsoft, Tel: 206/882/8080, Fax: 206/883-8101

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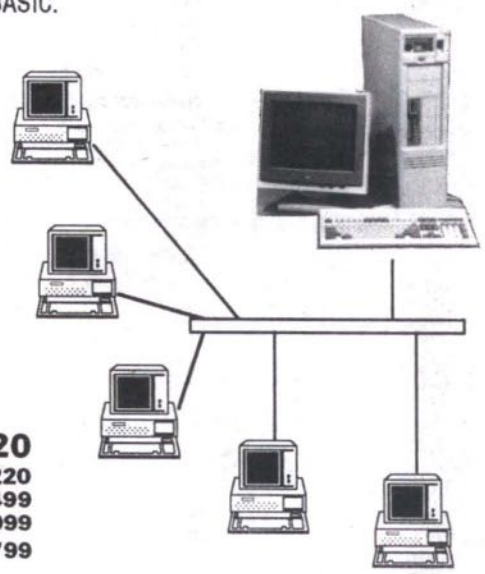
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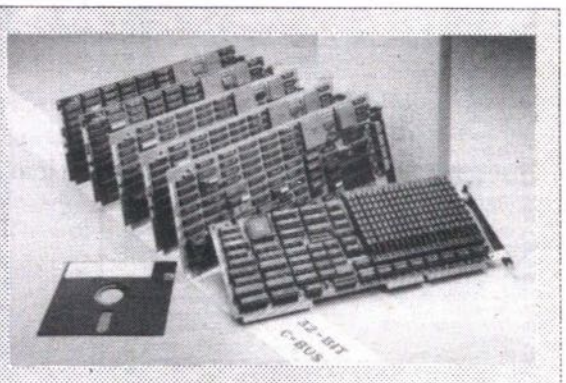
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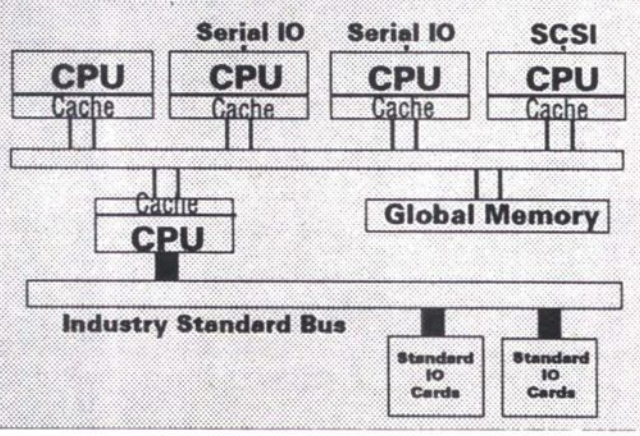
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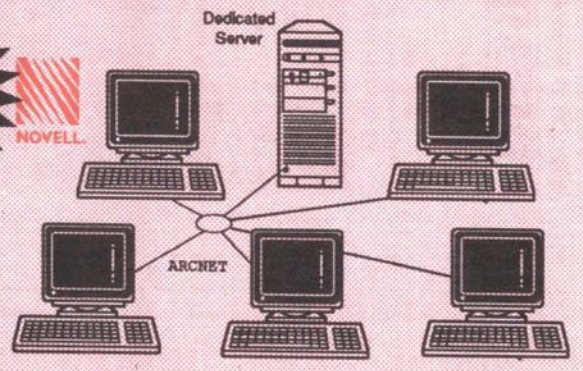
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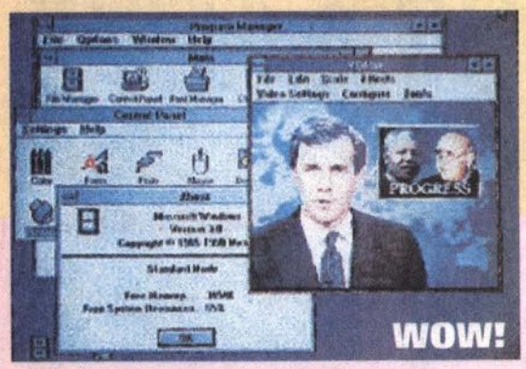
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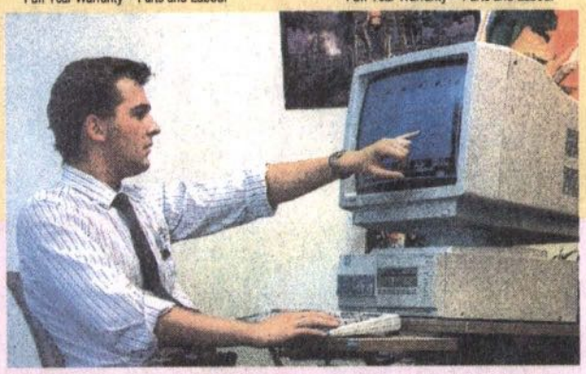
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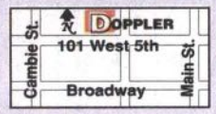
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MAY 1991

Vol. 2 Issue 2

ANOVATION

A Monthly Newsletter From ANO Office Automation

Sharp Dressed Pages



Come on, admit it. You are a "Do-It-Yourselfer" at heart. And, like most of us, can't resist dreaming about the extra control, satisfaction and, of course,the cost savings we can achieve if "we" were doing it. If you are one who has not yet succumbed to the wiles of do-it-yourselfer desktop publishing, it is time to take another look at how far the tools have progressed and reevaluate how you can make them work for you.

We have compiled a few general questions you should ask yourself about your publishing needs - and your business's resources required to meet those needs through a desktop publishing system.

HOW MUCH IS ENOUGH?

If obtaining some degree of publishing self sufficiency is your goal, first ask the question "How much do I need?". This question depends on the nature and scope of your business, your current computer experience, hardware stock - and how much you are now doing (or are not doing) that can be transferred to computer based publishing.

At a basic level most of your current day-to-day business communications such as letters, price lists, order forms, proposals, and the occasional newsletter are easily accomplished with a modest system. Your investment will pay back even sooner if you have your own existing equipment and are just adding, say, a laser printer, software and training to the package.

(Continued on page 2 . . .)

INSIDE

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ON VACATION

This will be the last issue of ANOVATION until August. So have a great summer and we'll see you in two months.

RESOURCE ECONOMICS

More than just the resources you will spend on equipment, software and training are the new ways you and your staff will have to work. The reallocation of resources and responsibilities is sometimes difficult. The sales/marketing team may want to produce new sales support documents, a proposal and estimate just as your company newsletter is due on the press. Most people find that there are so many things that can be done on the system that it becomes a little competitive for time on the system and or its designated operator.

The true value of Desktop publishing is usually the dramatic increase in both flexibility and turn around time you can achieve when you only have to communicate your requirements to a co-worker, or just move them directly onto the screen of your computer.

> "The true value of Desktop Publishing is usually the dramatic increase in both flexibility and turn around time."

LETS TALK TERMS

Here is a list of terms used in the lingo of Desktop Publishing translated into plain English and illustrated with relevant issues.

DPI DOTS PER INCH

Number of dots a laser printer can produce in one square inch. This is relevant for quality of image. The higher the number the better the image quality of your graphics. 300 DPI is a standard in the industry and printers at and around this resolution produce crisp type and graphics for most needs. Higher resolution laser printouts of up to 2,400 dots per inch (on photographic paper) can be obtained through service bureaus around town for your high quality newsletter, brochures, flyers, proposals etc.

CAMERA-READY ART

The pages you create for your printer to use in traditional offset printing. The printer literally takes a picture of your artwork and creates photographic negatives to make the printing plates used in the process. Always talk to your printer about the job first, until you are very experienced. Even veteran graphics people take the time to consult with their printer - so should you. Your printer will tell you the best way to produce the artwork for your specific project and printing method. Yes there are quite a few methods. Be prepared to learn lots. Some things you can do on the computer that look fine to you just won't translate well into print.

GRAPHIC FILES

Postscript

Postscript is a page description language that drives your (and anybody else's') Postscript laser printer. What this means is the computer file created that the printer where each word, line and graphic should go is consistent from printer to printer either your 300 DPI laser printer or the service bureau's 2,400 DPI imagesetter. The output file is, therefore, said to be device independent.

EPS

Encapsulated Postscript Files produce the best quality graphics since the Postscript page description language creates graphics which may be scaled to any size and still retain all their original detail. File sizes are also relatively small compared with other graphic formats.

TIFF

Tagged Information File Format. These kind of picture files are of the "raster" variety. That is they are composed of individual blocks of black or white scaling them down makes them look better, but scaling them up creates less quality images. There is a real file size limitation for this format with even small images translating into very large files.

CD-ROM

Compact Disk Read Only Memory - Similar to the now nearly universal musical CDs these cousins use the same laser technology to store vast amounts of graphical images, or fonts on them for your convenience literally thousands of images are readily available. Frequently these disks have 600 Mega Bytes of files on them, enough to fill up just as many ordinary floppy disks.

IN REVIEW

Desktop pubishing is quickly becoming a standard function (in some shape or form) in homes and offices around the world. The ability to combine graphics and text in a document that would rival anything a typesetter could produce is making it very attractive indeed.

As well, today's hardware which best suites DTP is falling in price rather rapidly. Such items as 33MHz 386 systems and laser printers are now within reach for many home and small business users.

If you would like to go as far as to produce a newsletter, or simply want to spiff up your price list, there is something to fit both your needs and budget. Good luck and happy publishing !



EtherNet Explained



• Network Corner •

By
Carmine Di Marco

Making a decision on which type of network scheme to use is a very difficult one indeed. With all the possibilities it can sometimes be a little overwhelming.

In this, our first of a series of articles on network computing, we will cover the Ethernet (also known as linear-bus) network topology. Our primary focus will be on what it is, and what networks does it best suit. If you have any questions on this or any other matter on networking, please feel free to talk to a network consultant at any one of our 9 locations.

WHAT IS ETHERNET ?

In its most common form Ethernet networks under Novell, LAN Manager, Banyan Vines, and LANtastic have a main trunk of cable with off shoots which attach to the workstations and file servers (see Figure 1). The trunk is referred to as a linear-bus because it is a single line which is being constantly poled by all stations.

Each workstation has a network interface card (NIC) attached to the trunk. The NIC constantly monitors the network for signals. If a workstation has a request, it checks for a clear line and transmits the request.

Should two or more stations send out a request at the same time, the signals will collide. Each station will then be given a scheduled retransmission time.

This is known as a contention scheme with CSMA-CD (Carrier Sensitive Multiple Access with Collision Detection), and is defined by the IEEE specification 802.3. This specification is very important. Without it manufacturer's could theoretically create their own standards, thus raising havoc for end users.

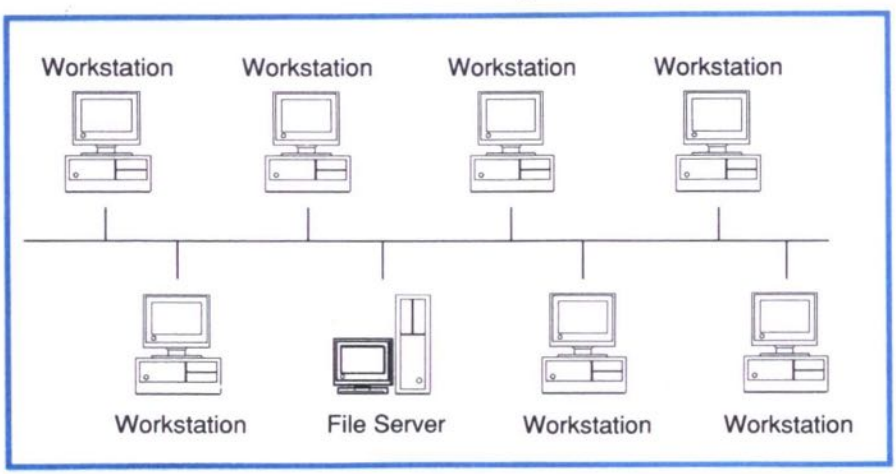


FIGURE 1: A standard linear-bus topology.

HOW IS IT DIFFERENT ?

Ethernet differs from ARCnet and Token Ring by the way the line is poled. As was discussed earlier, under the linear-bus scheme, each station monitors a single line or trunk for a clear signal. When it gets the go ahead the NIC makes the transmission.

ARCnet and Token Ring use what is referred to as a token passing scheme. With this type of topology a token is passed around to each station. If the station has nothing to transmit the token is passed on to the next NIC. Since only one station has access to the network at a time, their is no collisions in transmission.

Over all there are no major performance differences between linear-bus and token passing topologies. Raw specifications (Mbps transfer rate), however, would dictate that Ethernet and Token Ring are the faster of the three. These specifications are important only under certain conditions.

PROFESSIONAL

TRAINING

British Columbia Institute of Technology (BCIT)

Date	Course	Course #	Duration	Fee
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June 05	WordPerfect Level III	53661	4 wks.	$ 161.
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June 06	WordPerfect Level II	56133	4 wks.	$ 161.
June 06	Lotus 1-2-3 Level III	53687	4 wks.	$ 161.
June 10	ACCPAC A/P	56100	4 wks.	$ 161.

Call BCIT at 434-1610 to register.

ANO / CCI Professional Training

Date	Course	Location	Fee
May 01	PageMaker Level I	Richmond	$ 165.
May 02	Windows 3.0 Level I	Richmond	$ 165.
May 07	WordPerfect 5.1 Level I	Richmond	$ 165.
May 08	Quattro Pro Level I	Richmond	$ 165.
May 09	WordPerfect 5.1 Level II	Richmond	$ 165.
May 11	Intro. to Microcomputers	Richmond	*FREE*
May 14	Intro. to DOS	Richmond	$ 165.
May 15	Ventura Publisher Level I	Richmond	$ 165.
May 16	Word for Windows Level I	Richmond	$ 165.
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June 20	Quattro Pro Level I	Richmond	$ 165.
June 25	The Maximizer Level I	Richmond	$ 165.
June 26	Bedford Level I	Richmond	$ 165.
June 27	MS Word 5.0 Level I	Richmond	$ 165.

Call your nearest ANO office for further information.

DISADVANTAGES OF ETHERNET

There two obvious disadvantages to Ethernet. First off, the IEEE 802.3 standard only supports line or trunk cable distances of just under 700'. This is easily avoided by using either multiple network cards in a single file server, or repeaters that retransmit the signal after a certain distance.

Secondly, should the trunk cable experience problems the entire network will crash. On larger networks over longer distances finding the problem with the trunk could be difficult. This, however, is not a common occurrence and shouldn't really have any bearing on your buying decision.

ADVANTAGES OF ETHERNET

Generally speaking, Ethernet is ideal for small networks (under 30 nodes) which have relatively light traffic requirements. It is very quick under these conditions and acts as an ideal backbone for internetworking other LANs in the same premises.

Ethernet is also much less expensive to cable since only one dedicated cable run is required. Under token passing schemes each station has a dedicated line which is attached to expensive hubs or multistation access units.

IN REVIEW

Ethernet is quickly becoming the most popular network protocol. Its cost effective cable and hardware requirements, and performance specifications make it the ideal solution for small to medium sized networks.

END

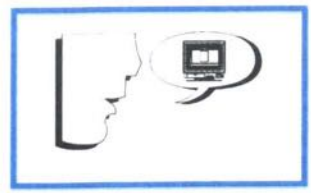
MAXIMIZING LANTASTIC

Here are a few tips on loading the network version of The Maximizer onto a LANtastic peer-to-peer network.

1. You must be using Microsoft DOS 4.01 or higher (we haven't tried Digital Research DOS 5.0 so no guarentees there).

2. SHARE must be loaded on initial boot up.

3. If the version of the Btrieve runtime included with your Maximizer is lower than 5.1 than you must up grade. This is available through Richmond Software.



TECH • TALK

WITH
KEN NG

We thank Mr. Steve White of Richmond Software for his insight on this matter.

DUPLEXING vs MIRRORING

Q. What is the difference between disk duplexing and mirroring ?

A. The difference is quite simple. With duplexing you have two hard drives and two controllers. When data is written to one drive it is simultaneously written to the other drive. This is common in fault tollerant networks where down time is critical. Should one drive cut out, the second drive will continue to function without interference to the user(s).

Mirroring is quite similar except that it uses two hard drives and only one controller. Consequently, should the controller or the primary hard disk fail so will the system. However, downtime is minimized since only one of the drives or controller need be replaced.

Of the two methods, duplexing makes more sense.

GIVE YOUR FAMILY A *HEADSTART*



Putting together a home computer system can be both confusing and expensive, when adding in all the software and extras that you may need. Ideally, a home system should come with all the bells and whistles built right in, with a little room for future requirements. All at a price that won't send you to the poor house.

The HeadStart CD series from Magnavox / Philips meets the above criteria with flying colours.

Available in a 286 and 386sx versions, the HeadStart offers everything home computer users of every age could want. Standard features include a 3.5" 1.44MB floppy drive, one 5.25" 680MB CD-ROM drive with full audio capability, VGA graphics adapter, VGA colour monitor, 2400bps internal modem, 3 button mouse, headphones to listen to music, and 52 different software packages with full documentation (22 applications plus 30 games). Each 286 includes 1MB of RAM and a 40MB hard disk, while the 386sx versions includes 2MB of RAM and an 80MB hard disk drive.

One of the most unique features of this system is the CD-ROM drive. Like the CD for your stereo it can play music using standard compact discs in full stereo sound. Just pop in your favorite disk into the system, select CD Player from the HeadStart menu using the mouse and up comes a full colour image of a home CD system. Click on the play button on the screen and enjoy. Plus you can continue to use your system normally while the CD is still playing.

Some of the more notable applications which are provided with the HeadStart (on compact disc of course) include all 21 volumes of Grolier's Electronic Encyclopedia with graphics, PC Globe (world atlas with graphics and statistics), The Manhole adventure games with full stereo sound, Mavis Beacon Teaches Typing, Borland's Quattro 1.0 spreadsheet, Deluxe Paint II (for the artistic computer user) and Q&A 3.0 word processor/flat file database.

The intuitive HeadStart Environment makes learning on the computer that much simpler. By using pull down menus and the mouse, first time users will find starting programs and getting around easy and fun.

All in all the HeadStart is the best home computer system money can buy. The software selection and hardware provided is like nothing available on the market today. Ask your ANO rep for our special introductory pricing on the HeadStart 300CD (286) and 500CD (386sx).



PEAK PERFORMER

Today's question is not whether to backup your hard disk, but rather how to go about doing so. With the shear size of applications growing, and the popularity of networking becoming stronger, the need for a reliable tape backup system which still fits the budget is becoming paramount.

Whether you're networked or running stand alone, one of the best products on the market today for backup purposes is Mountain's FileSafe 8000Plus line of subsystems. Available for both IBM compatibles and PS/2's, the 8000 line offers both reliability and performance.

HIGH CAPACITY

Utilizing DC2120 extended length cartridges, coupled with Mountain's proprietary MACH controller and FileSafe software, between 80 and 304MB of data can be stored on one tape. Making it the ideal solution for your growing needs.

Plus, if you are already using a QIC-40 format compatible drive(such as Mountain's 4000 family or the Colorado Jumbo), the 8000 series can read tapes which they have created. Thus making the upgrade path that much easier.

MACH PERFORMANCE

Most reasons for not backing up is that it takes too much time. Any user of the 8000 will atest that speed is definitely not an issue.

Utilizing Mountain's own MACH2 controller, up to 6 Megabytes of data can be stored in one minute using the MT-101 format. With its unique "format on the fly" feature, you won't have to waste your time pre-formatting tapes before backing up your data.

EASY TO USE

FileSafe, the standard tape operating software used on all Mountain tape storage platforms, provides a consistent user interface.

FileSafe combines the power to perform sophisticated data management tasks with the flexibility that allows you to define tape operations that meet your own individual data management requirements. You can specifiy any level of selective file or full image backup and easily program a Mountain tape system to perform unattended backup operations.

The software can be operated through menus or from the command line, making FileSafe equally productive for novice and advanced users. Context sensitive on-line help screens can guide you through all of FileSafe's features, virtually eliminating the need to refer to the user manual.

NOVELL APPROVED

With Novell Netware being the number one network operating system of choice for PC LAN environments, it only makes sense that the 8000 series is tested and approved by Novell Inc. . The FS8000 is also compatible with PC LAN, LANtastic, MS Net, and 3Com LAN operating environments.

For more information on this or other Mountain tape backup systems please contact the ANO office nearest you, or mail in your reader response card.



ANO TO OFFER CGA APPROVED PHILIPS, ROLAND, & TOSHIBA

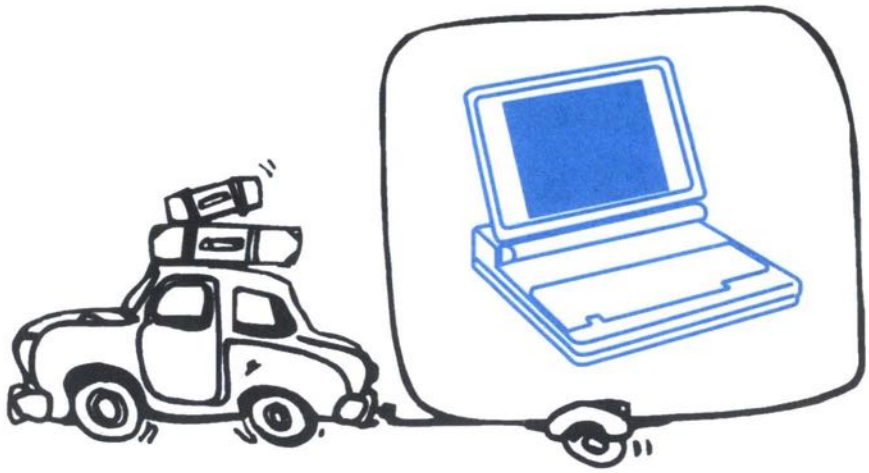
With the backing of Philips Electronics, ANO Office Automation has been selected as a preferred vendor to students of the CGA Associations' Program 90.

Program 90 requires second year students to invest in a personal computer. The ciriculum covers everything from the insides of a PC, to spreadsheet and word processing technology. A superb set of documentations plus full phone support is provided to each student.

" We are very excited about this opportunity.", exclaims Toby Chu, CEO of ANO Office Automation,"Historically we have been strong in the educational marketplace, however, this opens up channels previously unavailable to us."

Representing the Philips' line of PCs, Toshiba portables, and Roland/ Panasonic printers, all 9 ANO locations will be involved in this nationwide undertaking.

Take Your Show



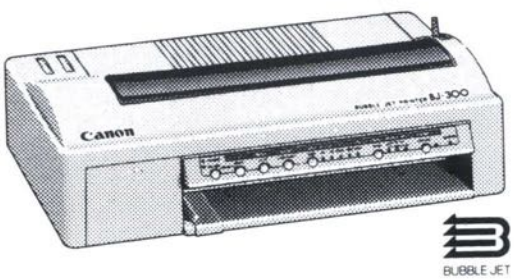
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ANOTATIONS

SIMPLY WINDOWS

In an April 15th press release, Computer Associates of Garden City, New York announced the second quarter release of Simply Accounting for the Microsoft WIndows 3.0 operating environment. Listing for $ 225 Canadian, this entry level package will offer small businesses a simple transition into computerized accounting. Bedford users will be able to move their data into this new system via an upgrade utility. Further information is available from Computer Associates at (604) 733-2343.

40 MEG SHORTAGE

Due to an industry wide shortage of 2" 40MB hard drives, all manufacturer's of notebooks are experiencing difficulties in meeting the demands for higher storage capacities. Currently only two major drive manufacturer's are supplying 40MB versions - Conner and Prairie Tech. Notebook's from AST, Sharp, and Toshiba are so far back ordered that exact dates of arrival cannot be made. We apologize for any inconvenience this may be causing our customers, however it is out of our control.

1 MEG WONDER

ATI Technologies of Ontario is now shipping all of its award winning Wonder Plus VGA video boards with 512K standard memory expandable to 1MB on-board. To users this means that more colours can be accessed concurrently in higher resolution modes.

OOOPS!

In the April 1991 issue of ANOvation we wrote that The Maximizer from Richmond Software (Burnaby, B.C.) was incompatible with LANtastic. Well we were wrong. See the subsection in Tech Talk entitled "Maximizing LANtastic" on page 5 for tips on setting up The Maximizer on LANtastic.

END

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