


INFO WORLD

FROM THE TEST CENTER

EXECUTIVE WORD PROCESSING

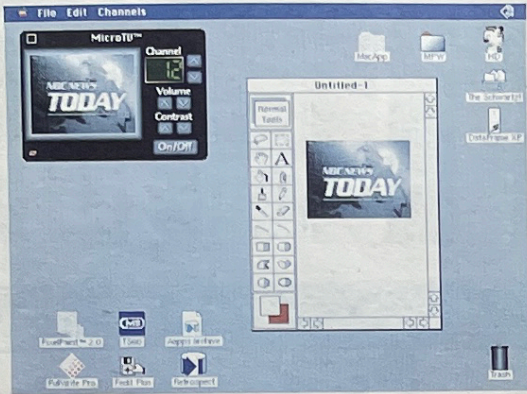
InfoWorld evaluates seven top-ranked word processors for busy people.
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AUGUST 7, 1989

THE WEEKLY FOR PERSONAL COMPUTING PROFESSIONALS

VOLUME 11, ISSUE 32



Aapps' \$395 Micro TV allows Mac II users to view real-time video images in a window while they're running another application.

Macworld Expo Focuses Attention on Multimedia

Bushnell Firm Shows Real-Time Video Card

BY LAURIE FLYNN

BOSTON — Multimedia has emerged as the focus of Macworld Expo here this week, highlighted by the debut of a \$395 real-time video card from Atari founder Nolan Bushnell's latest venture.

Micro TV allows Mac II users to view real-time television and video images in a window on the Mac screen while they're running another application,

said Russ Wetmore, director of product development for Aapps, Bushnell's start-up company.

Previously, such functionality cost several thousands of dollars and was available only in more sophisticated cards aimed at professionals, Wetmore said. Unlike other cards on the market, Micro TV has no on-board processor. At the low price point of Micro TV, however, Aapps hopes to make multimedia ca-

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FIRST LOOK

Many Lotus Users Will Find Release 2.2 the Way to Go

BY MICHAEL J. MILLER

If Lotus 1-2-3, Release 3.0 caused major shocks in the spreadsheet arena, Release 2.2 is an aftershock that may prove just as important to some users.

While 3.0 is a complete revision of 1-2-3, Release 2.2 simply builds upon Release 2.01, adding more sophisticated graphics

and linking, among other benefits. Release 2.2 is not as sophisticated as 3.0, but it does work on a much wider range of machines, requiring just 320K and two floppy disk drives (but you'll need more memory for large spreadsheets).

Release 2.2 adds a linking feature that lets you link values

See First Look, Page 93

IBM to Unveil Line of Speedier RTs

Five Workstations to Use New RISC Processor, Micro Channel Bus

BY ALICE LAPLANTE AND ED SCANNELL

After three years of lukewarm success, IBM will plunge full force back into the technical workstation market this fall by unveiling a complete family of RTs with a new architecture and accompanying software that will offer performance starting in the 18 to 20 MIPS range.

With the unveiling currently scheduled for October 17, IBM will unwrap desktop, tower, and 9370 rack-mounted configurations that will use IBM's Micro Channel Architecture. Users will be able to insert add-in boards from the PS/2 family into the new machines, sources said. A total of five new RISC systems are expected. (See "IBM Prepares to Release Five RISC Workstations," July 24, Page 1.)

IBM to Kill Model 60, Revamp 80

IBM is planning to revamp this fall its top-of-the-line Model 80 as well as phase out the existing Model 60, according to sources close to the company.

The systems affected are the tower configurations of IBM's 386-based and 286-based PS/2 line and are the only PS/2s not appearing on Storeboard's "Top Ten" list of best-selling microcomputers.

The new Model 80s will parallel IBM's Model 70 offerings, with 20- and 25-MHz 386 chips utilized in conjunction with larger disk drives than the Model 70 now offers, as well as more expansion slots, sources said.

Currently, the Model 50 Z is the best-selling PC in retail
See IBM, Page 8

The systems will be based on IBM's own proprietary RISC chip, which sources who have seen the systems said is "highly impressive."

"IBM is dead serious about

this market," said David Card, a senior analyst at IDC.

The new family's entry-level workstation, which has the footprint of a PS/2 Model 30, per-

See RT, Page 93

Quattro Professional to Ship in September

BY PEGGY WATT

SCOTTS VALLEY, CA — Borland International will unveil in September Quattro Professional, which crams enhanced graphics, database links, and

other updated features into 512K of RAM on vanilla PC systems, the company said last week.

"We wanted to run on users' current hardware," said Dick O'Donnell, Borland's director of corporate communications. The squeeze is made possible with VROOMM, Borland's Virtual Real-Time Object-Oriented Memory Manager already used in Reflex 2.0.

Quattro Professional will not ship upon announcement, breaking recent Borland policy, but shortly afterward, O'Donnell said. It will be priced higher

than the \$247.50 current version, which will stay on the market.

Other sources who have seen the update to the nearly 2-year-old spreadsheet said it features dynamic links among worksheets and between graphs or database files; macro libraries; and fast background recalculations. Like Microsoft Excel, it offers linking instead of 3-D. One source likened its cell linking to a relational database.

Quattro Professional also draws heavily on technology from Surpass, the graphical,
See Quattro, Page 93

THIS WEEK



PERSPECTIVES. Bill Gates has turned Microsoft into the most influential PC software firm. Is the company getting too powerful?

REVIEWS. This week we test the Toshiba T5200 laptop.



AT DEADLINE

Mac SE to Get Superdrive And Price Cut of \$300

In response to slowing sales of low-end Macintoshes, Apple announced last week a \$300 price reduction on its Macintosh SE. The company will also incorporate its high-density Superdrive into the machine, allowing Mac SE users to read DOS and OS/2 files directly.

According to Apple, the Mac SE is the single best-selling microcomputer ever sold through PC retail channels, but the introduction of the 68030-based Mac IIx along with other high-performing Macs has slowed down sales of the Mac SE.

With the new price structure, a 1-megabyte floppy-based Mac SE is \$2,869; a 1-megabyte machine with a 20-megabyte hard disk is

Continued on Page 3

E-Mail, Fax Server Device Lets Users Share 4 Lines

BY PATRICK DRYDEN

A turnkey E-Mail and facsimile server that allows LAN users to share up to four fax lines is now shipping from The Network Connection.

The TNC 4000 Fax Server works with any LAN that supports Action Technologies' Message Handling Service, so that all or a few users can send, receive, and print messages without leaving their stations, said Jim Riner, The Network Connection's engineering vice president.

The 16-MHz 80386 tower unit with 4 megabytes of RAM holds one to four cards, each containing a 9,600-bps Group 3 fax and 1,200-bps data modem. The server displays line activity and lets an administrator route and resend messages, monitor call logs, and set up users, all

with on-line help.

The server is available now and costs from \$6,700 to \$10,300, depending on configuration.

The fax server utilizes the file server for messages and utilities and rejects incoming messages in case of network difficulties, Riner said. Local storage can be added for independent fax receipt.

Para-Mail from Paradox Development Corp. comes with the server for pop-up message control plus E-Mail. A 13K background utility lets authorized users send and receive faxes or telexes through MCI Mail or Easylink, Riner said.

Incoming messages with an added four-digit Touch-Tone code route automatically to defined users, Riner said, while others go to a secretary or fax administrator for manual routing.



The TNC-4000 can serve the fax and modem needs of an entire local area network.

ing. All messages can be printed, and a planned WORM drive option will allow off-line message archiving.

An activity log helps track inbound/outbound call activity for monitoring users and billing time or calls.

An optional SCSI scanner interface lets users capture print images to send.

The Network Connection, 1324 Union Hill Road, Alpharetta, GA 30201; (404) 751-0889.

Xircom Will Ship Token Ring Adapter Next Year

BY MARK BROWNSTEIN

Xircom Inc., makers of the external Pocket Ethernet adapter, said last week that it will introduce a similar Token Ring product in 1990.

In addition, the company said it is currently shipping a toolkit to allow developers to adapt Xircom products to any network operating system. Presently, the Xircom adapter works only with Novell Inc.'s Netware.

The Pocket Ethernet Adapter plugs directly into a PC parallel port, taking no internal slots. "You can't use any existing [device] drivers to make it work, since it's on a parallel port, and networks are designed to work with internal interface cards," said Steve Magidson, Xircom marketing vice president.

A network "assumes that it is going through the PC bus, and standard drivers won't work with adapters that attach to the parallel port," Magidson said. Although Xircom provides a

Novell-compatible driver for the Pocket Ethernet Adapter, the adapter won't work on other networks.

The Pocket Ethernet Adapter Driver Development Kit allows a LAN developer to take his existing drivers and adapt them to the Pocket Ethernet Adapter, instead of having to write the driver from scratch, Magidson said. The kit includes an object code library of functional interfaces to the adapter and source-code examples of how to use the kit.

The Token Ring Adapter will ship next year, contingent on release of the adapter chip set by Texas Instruments, Magidson said.

The Pocket Ethernet Adapter Driver Development Kit is priced at \$999. The Pocket Ethernet Adapter costs \$695. Both products are now shipping. Xircom Inc., 22231 Mulholland Highway, Suite 114, Woodland Hills, CA; (818) 884-8755.

Microwave Link Runs at Ethernet Speed

BY BARBARA DARROW

Network designers who need crosstown or cross-the-street links may be interested in a new 10-megabit-per-second microwave transmission system from Microwave Bypass Systems Inc. that can send Ethernet signals up to 4.3 miles between repeaters, according to company president David Theodore.

"People thought you

couldn't do local area Ethernet transmission over microwaves because it was too unreliable and you couldn't get the full 10 megabits," said an enthusiastic Doug Gold, networking analyst at International Data Corp., in Framingham, Massachusetts. "This proves them incorrect."

One Microwave Bypass system already links Boston University (BU), Harvard, and MIT, forming part of the New En-

gland Academic Research Network (NEARNET).

Connecting Ethernet installations at the three schools, this implementation is faster and cheaper than traditional 1½-mbps T-1 microwave links, said Kent England, director of networks and systems engineering at BU. The BU-to-Harvard leg costs about \$30,000.

England and his colleagues ruled out optical fiber because there were no existing lines. "Getting rights of way would have been virtually impossible," he said. T-1 microwave links were deemed too expensive and slow. "With T1 you have to put devices on each end to convert Ethernet to T-1 — there's more hardware and more complexity," he said.

"With the high speeds of Ethernet on microwave we can do network file systems like NFS, window protocols like X Window," England said. "If I'm at Harvard, I can fire up some X Window displays from my BU workstation. I can have a window controlled by that workstation and a window controlled by a server somewhere else in the building."

According to Theodore, Microwave Bypass' advantage is its combined networking and microwave expertise. "If you go to some microwave engineer and start talking about TCP/IP, his eyes will glaze over. And microwaves are the great unknown to LAN guys," he said. LAN people like the system because they can run their "native Ethernet" without worrying about microwaves at all, he said.

Microwave Bypass Systems Inc., 25 Braintree Hill Office Park, Braintree, MA 02184; (617) 843-8260.

Utron Ships 386/SX Diskless PCs for Ethernet, Arcnet LANs

Six diskless workstations, which are aimed at Ethernet and Arcnet networks that require diskless security but want the power of a 386, are scheduled to ship this week.

Utron Inc.'s Purple series of diskless PCs includes 386/SX models running at 16, 20, and 25 MHz and 286 models running at 12, 16, and 20 MHz. Each comes with 1 megabyte of RAM, a Netware or "universal" remote boot ROM, Ethernet or Arcnet interface, and monochrome, EGA, or VGA video adapter, said Sherman Tuan, Utron general manager.

A 386SX Ethernet unit costs \$2,095 for monochrome, \$2,295 for EGA, and \$2,395 for VGA, Tuan said. Arcnet models



For power without the disk, Utron's diskless PCs include 386/SX and fast 286 models.

cost \$200 less.

Remote boot utilities and drivers for Netware 2.0 and 2.1 or later are included. Memory upgrades to 8 megabytes, monitors, and keyboards are options. Utron Inc., 243 Charcot Ave., San Jose, CA 95131; (408) 943-1920.

— Patrick Dryden

Emerald Ships 3Xmate Cards With Wider Variety of On-Board Modems

BY STUART J. JOHNSTON

Emerald Technology Inc.'s 3Xmate 5250 remote emulation products are now available with a wider variety of on-board modems.

In addition, the company said it will ship a new laptop product later this month.

The 3Xmate line consists of single-board internal modems with built-in auto-dialers designed for use with PC, XT, and AT compatibles, as well as PS/2 Micro Channel machines. The systems have built-in RJ-11 telephone jacks and come with software for IBM 5250 terminal

emulation, said Allison Cole, director of marketing.

The 3Xmate-V32, which costs \$1,895, provides V.32 compatibility at 9,600, 4,800, or 2,400 bits per second (bps), V.22 and Bell 212 operation at 1,200 bps, and Bell 103 operation at 300 bps, Cole said.

The 3Xmate/2-48/24 costs \$1,695 and provides both a 4,800-bps Bell 208 A/B mode and a 2,400-bps Bell 201 B/C mode.

Emerald's \$995 3Xmate-Laptop product works with the entire line of Toshiba laptops, providing V.22 operation at speeds ranging from 300 to 2,400 bps, Cole added.

All three systems operate in either full- or half-duplex modes.

The V32 and the laptop provide both synchronous and asynchronous operation, while the 2-48/24 provides only synchronous operation, Cole said.

Emerald Technology Inc., 18912 N. Creek Parkway, Suite 102, Bothell, WA 98011; (206) 485-8200.



Emerald's 3Xmate internal modems come with 5250 terminal emulation software.

Telenet and Infonet Offer Services To Reduce Long-Distance Fax Costs

Telenet and Infonet recently announced global fax transmission capability for their packet-switching networks, significantly reducing the cost of sending a long-distance fax.

Telenet's service is available through Telemail or through separate Telenet fax-only accounts, the companies said.

Infonet's Notice-Fax capability will become part of the company's Notice-Desktop and Notice-PC products, which allow PC users to connect with the service's host computer.

The fax system uses Infonet's network, rather than more ex-

pensive international telephone lines. Vice president of product marketing Mike Radice claimed a 3K fax from the United States to Japan costs \$3.85 on Infonet and \$5 using a fax machine and telephone long lines.

The \$150 Notice-Desktop and the \$75 Notice-PC are currently available from Infonet, 2100 E. Grand Ave., El Segundo, CA 90245; (213) 335-2600.

Telenet Communications Corp., 122490 Sunrise Valley Drive, Reston, VA 22096; (800) 835-3638.

— Yvonne Lee