

IBM PS/2 Price Cuts



IBM's price reductions include a 20 percent cut on its Model 50 Z equipped with a 60-megabyte hard drive, its most popular PS/2.

IBM Slashes PS/2 Prices, Ships Low-Cost Model 30

BY ALICE LAPLANTE

IBM sent a clear signal last week that it plans to compete with clone makers on price, when it slashed prices on two of its more popular PS/2s and unveiled a new Model 30 with an expected street price of under \$1,000.

"Because of their manufacturing efficiencies, they can afford to cut those prices and compete with anyone and any-

body out there, and they're doing it," said JoAnne Stahel, vice president of research at Storeboard, a market research firm in Dallas.

"I don't know how any reasonably sized business would choose a clone when they could have the real McCoy at a lower price," said Richard Rose, president of DataFlex, an Edison, New Jersey-based reseller. Rose

See IBM, Page 125

Quality Woes Nix Model 55 SX Debut

Customers won't see IBM's widely anticipated 386SX machine for at least a month, due to the machine's failure to pass IBM's quality-assurance testing, according to dealers and analysts who have been briefed by the company.

Dubbed the Model 55 SX and built around Intel's 16-bit version of its 32-bit 80386 chip, the system was due to be announced last week, priced between \$3,000 and \$4,000, according to sources. But in the week preceding the expected announcement — after invitations and even some of the systems

See Quality, Page 125

33-MHz Chip Redefines 386 Speed

Chip to Dominate High-Performance Market Until Emergence of i

BY RON COPELAND

CHICAGO — The multitude of systems using Intel's new 33-MHz 80386 chip announced today at spring Comdex will immediately boost performance of high-end 386 systems by 25 percent.

Intel has scheduled a press conference for today to announce immediate volume availability of its 33-MHz 80386 chip, sharing the limelight with the unveiling of the even more powerful i486 chip. (See "Intel i486 to Triple Performance of 386," April 3, Page 1.) At the same time, 10 to 20 systems using the 33-MHz 386 are expected to be announced at the show, Intel officials said. (See accompanying chart.)

Although the 33-MHz version of the chip offers no new functions, users and system vendors expect it to be popular with many for the performance gain it provides.

"We would be looking at using a 33-MHz machine for two different things," said Jim

33-MHz 80386 PCs Burn Rubber At Comdex

Systems	Pricing	Availability
Acer 1100/33	Unknown	Second quarter
ALR Flexcache 33/386	\$9,990	May 1989
ALR Flexcache 33/386Z	\$3,995	May 1989
AST Premium 386/33	\$6,995 without hard disk	May 1989
Everest Step 386/33	Unknown	Unknown
Legend 33	\$8,995 without hard disk	April 1989
Proteus 386/33MX	\$5,495 with hard disk	Second quarter
Micro Express ME 386/33	\$5,995 without hard disk	April 1989
Olivar System 386/33	Unknown	Second quarter
Tandon 386/33	Unknown	Unknown
Motherboards		
AMI H 386 AT/33	OEM pricing	April 1989
Mylex MX386-33	OEM pricing	April 1989

Yee, a network engineer at Southern California Edison's San Onofre Nuclear Power Plant. "Primarily, we would use it as a file server, to take advantage of the higher performance. The other use will be as a

CAD graphics workstation

"There's a slim minority of people who need that kind of horsepower now, but in a year or so trying to use OS/2 and at the same time will re-

See 33 MHz, Page

True OS/2 Applications Have Yet to Arrive

BY LAURIE FLYNN

The advantages true OS/2 applications promise are substantial, but don't expect those advantages to be taking substantial form at this week's spring Comdex.

"Intelligent" OS/2 programs will eventually use such features as multiple threads and customizable dynamic links between processes to bring more power and flexibility to the desktop, experts say. But two years after

OS/2's announcement, such features remain a promise.

"If you're looking for bold new applications that could only be done in OS/2, there isn't a lot out there," said Dave Liddle, chairman of Metaphor Systems. "If you go out and say, 'Let me look at something that's a real OS/2 application,' you'll [be shown] something graphical. But it's really hard to say that those things couldn't be done under Windows."

What attendees will likely see

this week are "warmed-up" DOS applications," said

Tarter, editor of *Softletter*, an industry newsletter.

So where does this leave the PC buyer trying to understand the advantages of migrating to OS/2?

According to experts, a checklist of the advantages can gain today from OS/2 is short and simple. What they're written from the ground up for OS/2 or migrated

See OS/2, Page

AT DEADLINE

Portable to Use 4-Megabit DRAM

What is believed to be the first commercial use of a 4-megabit DRAM will be shown this week at Comdex by Toshiba. The company will also introduce a high-speed 3-D graphics controller powered by its 80386-based portable computer, the T5200.

Toshiba will incorporate the chip into an 8-megabyte memory module in the T5200, expanding its memory to a maximum of 14 megabytes, the company said. Previously, the T5200 could be expanded to a maximum of 8 megabytes using the

current 1-megabyte DRAM in 2-megabyte memory modules.

The 3-D graphics controller is an expansion card that provides real-time display of 3-D graphics possible on high-end PCs.

The DRAM will ship to OEMs this month. The T5200 with the 8-megabyte memory module will ship in October.

— Patricia
Continued on Page

NEWSPAPER \$2.95



I spend a lot of my consulting time specifying and installing Appletalk LANs for first-time

LAN users. Many of my clients are unclear about how to get started with Appletalk, since they tend to confuse the Mac's built-in support for Appletalk protocols with its support for a physical Localtalk network. To them, the LAN is made up of the Localtalk wires, not the network protocols. This confusion has led me to develop a beginner's guide to Appletalk networking, which I have excerpted here. Even if you never install your own Appletalk LAN, knowing this basic information will make you better informed and better able to work with an in-house networking specialist or an outside consultant.

SEPARATING APPTALK FROM LOCALTALK.

Both Appletalk and Localtalk support are built into all current Macs. Appletalk is the name for the set of networking protocols supported by the Mac's firmware and operating system. Localtalk is the set of built-in serial ports, separate connectors, and wires that allow any Mac to be "LANed" quickly.

The Appletalk protocols conform to the International Standards Organization seven-layer network reference model (often called the ISO-OSI seven-layer hierarchical model) that is used to define the methods by which most LANs work. This model has been adopted by U.S. computer and networking vendors, and it forms the basis for all the networking software available today.

The ISO-OSI seven-layer hierarchical model consists of these functional layers: physical, data-link, network, transport, session, presentation, and application. Appletalk provides protocols that conform to layers two through seven (data-link through application). The first layer, physical, is the actual wiring scheme, and it is independent of how the other layers are implemented. In the case of Appletalk, the physical layer can be several different wiring schemes, which is where Localtalk fits in. Localtalk is level one on the ISO system: It's the shielded twisted-pair system that Apple sells. Other physical network setups that work with Appletalk include: Farallon Phonenet, which uses unshielded twisted-pair phone wire; DuPont's Fiber Optics Localtalk, which uses solid-state lasers and fiber-optics cable; and Ethernatalk, which uses coaxial cabling or twisted-pair wiring supported by Ethernet protocols.

Localtalk, Phonenet, and DuPont's system all use some kind of system connector that interfaces with the existing Localtalk-compatible serial ports (modem and phone) on all Macs. Ethernatalk requires Ethernet adapter cards or Farallon's new Ethernatalk Phonenet adapters that can be plugged into the Mac II's Nubus, the SE's slot, or connected to the SCSI port of the Plus.

Different cabling schemes have different capacities in regard to cable lengths and the number of nodes they can support. Localtalk comes in the shortest and lowest with a maximum end-to-end length of 1,000 feet and 32 connected devices. Ethernatalk comes in the longest and highest with an end-to-end length of over 20,000 feet (using repeaters) and 1,024 connected devices. Version 2.0 of the Appletalk protocols (available this

summer) will increase all of these limits across physical links.

Localtalk LANs are the slowest, too, limited to a maximum bandwidth of 230 kilobits per second, with a usable bandwidth of less than half that. Network speedup devices, like the Tops Flashbox and the Daynataik adapter, can theoretically push the bandwidth to a maximum of about 860 kbps using adaptive packet techniques. Phonenet shares these Local-

talk bandwidths, while the DuPont system and Ethernatalk can be much faster, with bandwidths approaching 10 mbps.

Picking one system to start does not limit you from changing to another one if you need more bandwidth, more devices, or bridges to other networks.

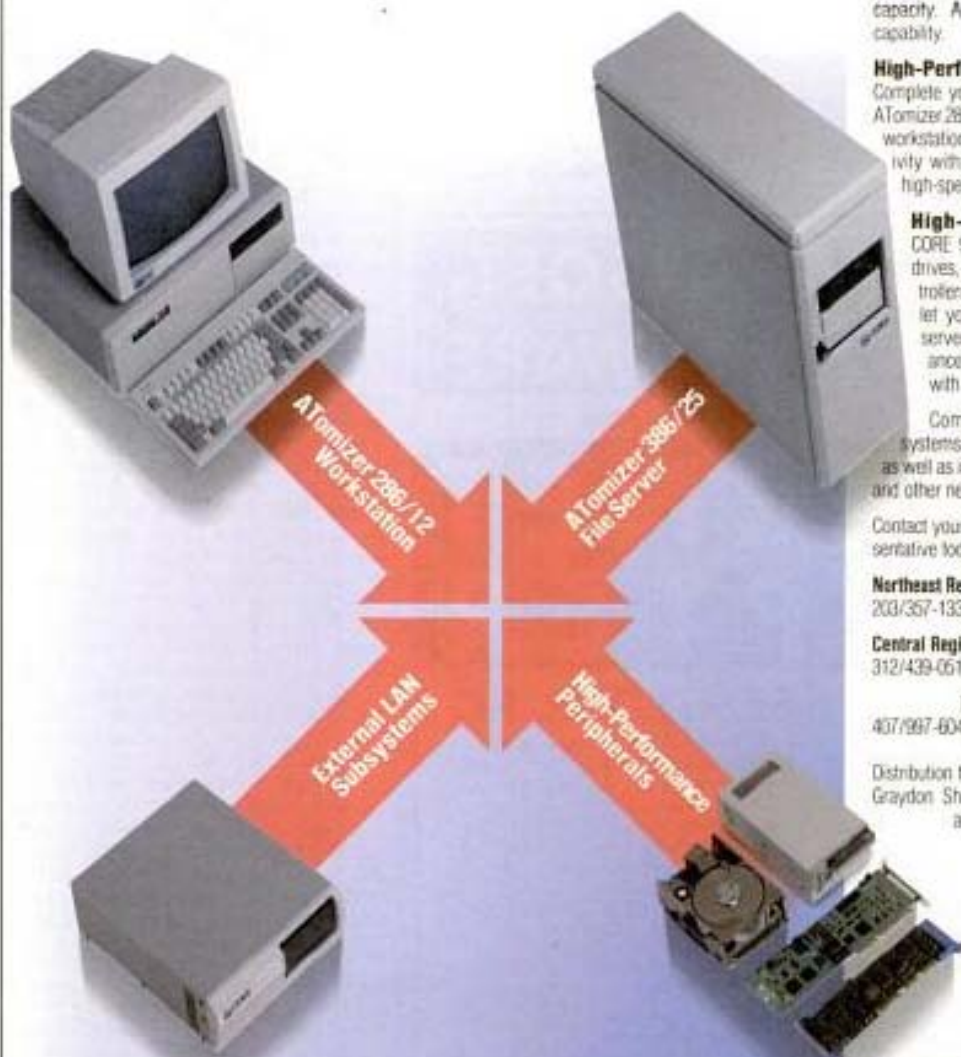
Builders of new LANs should concentrate on a file server (for shared files and software) and shared printer to start with. Once these are installed, you can consider

electronic mail, shared modems, network bridges and gateways.

With file servers, the hardest decision to make is between a distributed server, like Tops, or a centralized server, like Appleshare, Jasmine's Diskserve, Pacer Software's PacerShare, System's Alisatalk, 3Com's 3+Share, or Novell's Netware Mac. If your demand central access control of sh

See High-End Focus, Page

The Network Hardware Solution.



Famous CORE Reliability. CORE servers, workstations, subsystems and peripherals give you the reliability needed to protect your network investment.

Powerful File Servers. The ATOMIZER 386/25 and 386/25 floor-standing file servers provide mini-computer performance in a five full-height or ten half-height drive bay and up to 2.8 gigabytes of capacity.

The ATOMIZER 386/20 desktop file server (shown) provides up to 1.4 gigabyte capacity. All offer uncompromised performance and capacity.

High-Performance Workstations. Complete your network configuration with the ATOMIZER 286/12 full-size and small form factor workstations. Both increase user productivity with fast system performance and high-speed network throughput.

High-Capacity Peripherals. CORE 90 to 700MB, 9 to 16mm hard drives, high-speed 10 or 15MHz controllers and external LAN subsystems let you upgrade a system to server without sacrificing performance. Protect your valuable data with CORE-type backup units.

Compatible with such operating systems as Novell, Star LAN and as well as industry-standard cabling and other network components.

Contact your nearest dealer or CORE representative today.

Northeast Region: 203/357-1339

Southern Region: 407/997-4077

Central Region: 312/439-0611

Western Region: 213/312-1111

International Sales: 407/997-6044 FAX: 407/997-4077

Distribution through GBC Distributors, Graydon Sherman, Ingram, MICRO and Vitronix. In Canada, contact Markham International.

Products listed are registered trademarks of their respective manufacturers. CORE Atomizer and Atomizer are registered trademarks of CORE International.



Just Announced: Duplexing On MCA!

© Copyright 1988 CORE International, Inc.

Thought Dynamics' Fetch is a memory-resident program that lets you catalog and find files quickly. Version 5.10N is the network version. When you create a new file, Fetch pops up and asks for notes. Later, you can search for any text in the notes. Because it has less to look through than string-search programs, Fetch is very quick. It is also more accurate, since it only searches notes, not file contents. The program gives you a wide latitude in both spelling and organization of search queries.

In a network environment where people are using files created or updated by others, the capability to sniff out files makes the package worthwhile by itself, but the folk at Thought Dynamics have added a few other features that make it even more useful. Foremost is the capability to keep track of multiple file revisions by having Fetch create, number, and organize revisions. This feature could be improved by making it more automatic, but the product is still a lifesaver in environments where different people are reviewing and revising the same document through the network.

The Fetch packaging appropriately features an eye-catching photo of a snarling Doberman bursting through a PC. Like a dog bred for a particular purpose, Fetch is great at doing what it was made to do — finding your lost files — but at other times you'd rather it left you alone. With every file created, it asks if you want to make a note, which is fine when you do but a real bother when the application being used is creating its own

working or temporary files. Fetch has an "Ignore" table, which can be revised, that tells Fetch which files you never want to make notes about. After time, you'll probably eliminate all the annoying pop-ups, but we would prefer a "Pay Attention" table that would instead allow us to tell Fetch which types of files we want to make notes about.

The Fetch developers couldn't resist adding a few extra bells and whistles. Among these is a special symbol library

that allows you to add Greek, math, and foreign language symbols to documents from a Fetch menu. Another is the capability to use Fetch as a pop-up notepad. Fetch also has a report generator and several utilities that allow fairly extensive customization.

The documentation is clear and even includes a little humor. The technical assistance is excellent.

At \$495 for a 12-user network license (the stand-alone version is \$79.95), Fetch

may be a bit pricey for smaller users, but it will pay for itself in larger systems that do a lot of file sharing. It is available from Thought Dynamics, 1142 Manhattan Ave., Suite CP-310, Manhattan Beach, CA 90266; (213) 371-7471.

Patrick Ellis is the publications manager and microcomputer administrator at EQE Inc., a San Francisco consulting firm specializing in earthquake engineering and seismic risk management.

High-End Focus

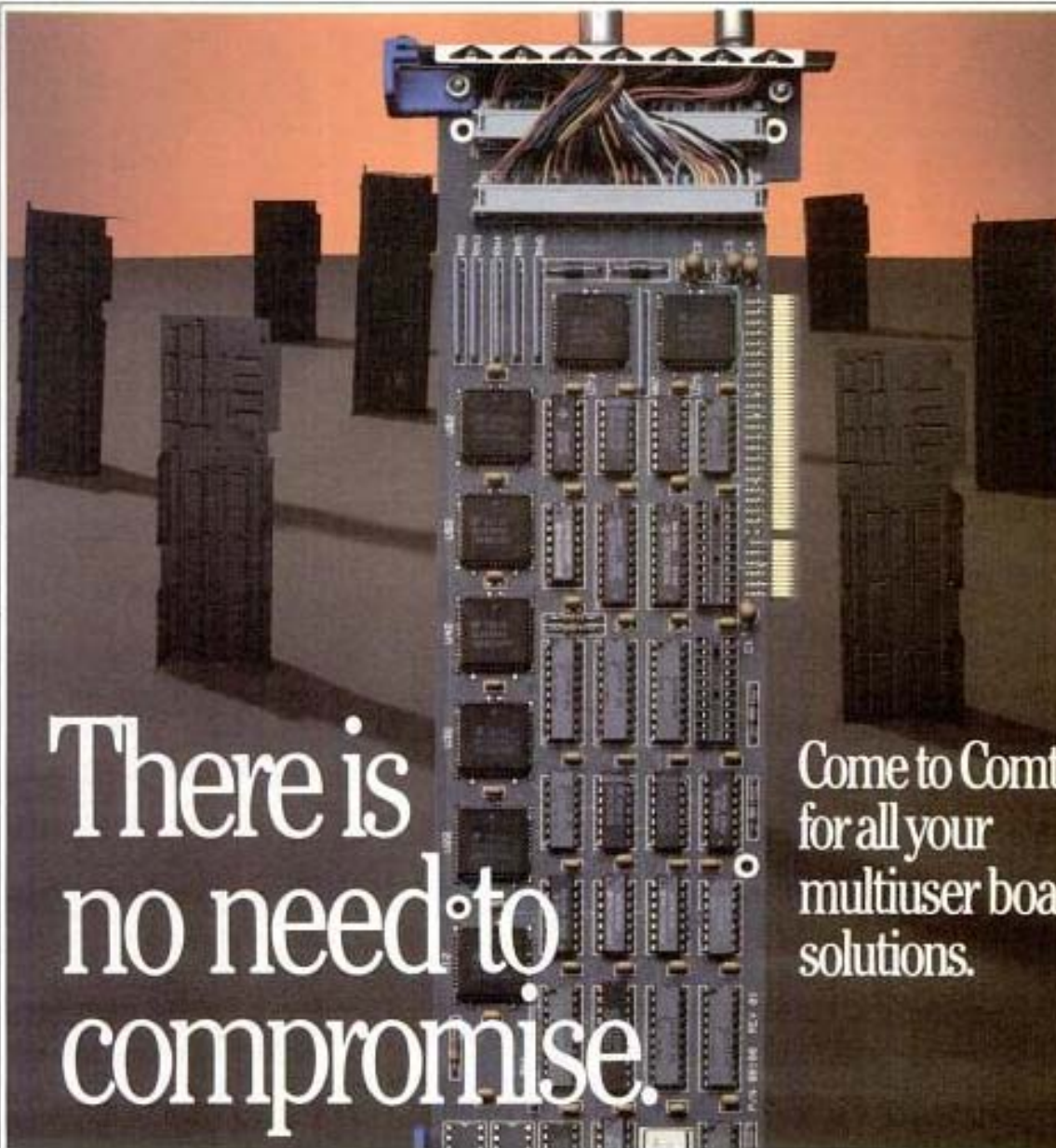
Continued From Page 57

files and applications, as well as centralized file backups, then Appleshare is a good choice to make. The other centralized Appletalk file servers have limitations: They are either very new (Novell, Jasmine), require a VAX as a file server (Alisa, Pacer), or are in a state of product-development flux (3Com). Beginners are best off sticking with a well-established product.

Appleshare takes over a Mac on your network, turning it into a specialized access device that provides shared and private disk space for all the other Macs on the LAN. Appleshare also supports connected PCs over the LAN.

About the only distributed file server product worth considering is Tops, published by the Tops division of Sun Microsystems. If your LAN needs don't include detailed central control of data and applications and you don't require a central tape-backup scheme, then Tops is the network of choice. It allows every Mac or PC connected to the LAN to share files. Tops has a bit more connection flexibility than does an Appleshare-based network, but it lacks Appleshare's significant access control and security facilities. □

Don Crabb is the director of laboratories and a senior lecturer for the University of Chicago's department of computer science. He can be reached on Applelink at A0199 and over the Internet at decc@anubis.UChicago.edu. The views expressed are his own.



There is no need to compromise.

Come to Control for all your multiuser board solutions.

DEMAND THE LATEST TECHNOLOGY

From the first multiuser serial board for the PC™ in 1982 to the first multiuser serial board for the PS/2™ in 1987, CONTROL offers you the latest technology to keep you on top of things. Our full-time staff of programmers insure drivers for compatibility with the latest software. We include drivers free with each board sold.

YOU DESERVE THE BEST SUPPORT

You pay no more for lifetime support at CONTROL. Call toll free and talk to engineers, programmers, technicians, and managers. Our **30 day money back guarantee** tells you we stand behind our products with confidence. Our satisfied customers keep buying our boards.

GET MINI PERFORMANCE AT A MICRO PRICE

Whether you need additional ports for your 386, AT™-clone, or IBM PS/2™ CONTROL is your multiuser hardware link. Don't pay extra for more power than you need. Meet your price/performance specifications. With our family of products, you can match the power to your project:

- HOSTESS™ and HOSTESS/MC™ a non-intelligent board for low-end multiuser systems
- HOSTESS 550™ and HOSTESS 550/MC™ a board with buffering to increase performance
- ULTRA 186™ multiple ports with intelligence on board to off-load the system CPU
- SMART HOSTESS™ and SMART HOSTESS/MC™ the high performance intelligent multichannel board to design your custom

There is no need to compromise. Buy HOSTESS™ & MC Master Communication Multiuser Serial Boards.

Call toll free or write for information.
Control Corporation
2675 Patton Road P.O. Box 64750
St. Paul, MN 55164

OEM pricing and Dealer discounts available

Call 1-800-333-1010



PC, PS/2, and AT are trademarks of the IBM Corporation.

DOCKET ALARM

Find authenticated court documents without watermarks at docketalarm.com.