

DOS 4.0's useful shell and file system includes a directory tree that lets you easily move, copy, and rename files.

Incompatibilities Hinder Useful DOS 4.0 Features

By Michael J. Miller

With DOS 4.0, IBM has added a number of features users were waiting for, including a graphics-based DOS shell, support for large hard disks, and expanded memory support. These features are in fact quite nice, but unfortunately, I found many incompatibility problems running major applications under the new operating system. DOS 4.0 can create partitions of up to 1,024 megabytes rather than the former 32-megabyte limit. It supports the Lotus-Intel-Microsoft Expanded Memory Specification 4.0. A new driver gives EMS functions to IBM's Expanded Memory Adapter. It lets some DOS functions store information in expanded memory, such as Buffers, for memory caching, and Fast Open, which lets

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Acius Skips 4th Dimension, 1.1 In Favor of Significant Revision

By Ed Scannell

BOSTON — Acius Inc. will withhold Version 1.1 of its 4th Dimension relational database for the Mac and instead ship a vastly improved Version 2.0 in December, the developer announced at Macworld Expo here last week. Version 2.0 of 4th Dimension will have approximately 100 new features, including a simpler user interface design, improved report generation,

data validation, and range-checking capabilities, said Guy Kawasaki, Acius' president. The company originally planned to ship Version 1.1 this spring but decided to hold off so it could add many more significant features, according to Kawasaki. "We have really improved the interface a lot. It's a lot more automatic," Kawasaki said. See Acius, Page 77

Dell Postpones Shipment of MCA PCs Firm Cites Lack of Demand for Micro Channel

By Paula S. Stone

Blaming lack of user demand for Micro Channel Architecture (MCA) machines, Dell Computer Corp. has postponed delivery of MCA computers for this year and will instead introduce models based on the AT bus. At an April press conference the company said that final configurations and pricing would be announced in August and that deliveries would begin in the fourth quarter. Dell's decision to delay shipments of MCA machines comes on the heels of the first shipments from Tandy of the MCA-compatible Tandy 5000 MC to

porate accounts for evaluation and to Radio Shack Computer Centers for display by the end of August. The delay is due to a shift in priorities to produce industry-standard computers that are in more demand than Micro Channel-compatible machines, according to Michael S. Dell, chief executive officer and chairman of Dell Computer. The company announced its 80286-based System 400 and 386-based System 500 in April in response to customer demand for MCA-compatible products that was increased by IBM's an-

nouncements of the Model 50 Z and the Model 70, said Dell. "MCA demand has now abated since customers' curiosity has been satisfied [after seeing the IBM machines]," said Dell. The shipment delay until next year is not due to problems with chip availability or technology development issues, he said. Chip supply is not the key issue in the delay, said Tim Bajarin, an analyst with Creative Strategies Research International. "User demand is just not there," Bajarin said. "If it See Dell, Page 77

Apple Rolls Out 4MB Mac II, Scanner

By Nick Arnett

BOSTON — Declaring a "second revolution" in Macintosh business computing, Apple Computer introduced the Apple Scanner, related software, and a beefed-up Mac II last week at the Macworld Expo. Apple chairman John Sculley said that the new hardware and related software, such as optical character recognition, will help take Mac business users beyond desktop publishing to more sophisticated information management. Apple unveiled a 4-megabyte version of the Macintosh II and a 4-megabyte expansion kit along with the Apple Scanner. However, to the surprise of corporate buyers who had been told to expect a Mac SE with 2

megabytes of memory and a 40-megabyte hard drive, the machine was not introduced. Sources said Apple canceled the introduction days before the show. Some corporate buyers had said to expect a 68030-based Mac II, which also did not appear at the show. The Mac II 4/40, with 4 megabytes of memory and a 40-megabyte hard drive, will cost \$7,269, the company said. A 4-megabyte upgrade kit is available now for \$2,399. Apple has "thousands" of the upgrade kits available, said Ap-



The \$1,799 Apple scanner will have Applescan and Hyperscan software bundled with it.

ple senior vice president Jean-Louis Gasse. The kits use different parts than Apple's smaller memory upgrades, which are heavily back-ordered. The Apple Scanner will cost \$1,799 and have Applescan and See Apple, Page 77

AT DEADLINE

DRAM Import Restrictions Relaxed

The Reagan administration's move last week to relax chip import rules will result in lower PC prices next summer, said industry component and PC manufacturers. The measure is expected to increase availability of 256K and 1 megabit DRAMs. It is also expected to ease short supplies. Shortages were created when chip makers slowed down production of 256K chips to move to the higher capacity 1-megabit chips, said Brian Dean, product marketing manager for memory and I/O products at STB Systems,

a Richardson, Texas-based board maker. The administration's action will not have an immediate effect, but users will see lower memory and PC prices in the summer of 1989, Dean said. In the next eight to 12 months, consumers will begin to see intense price cutting as chips become more abundant, said Les Wyatt, product marketing manager for Texas Instruments' Computer Systems Division, in Austin, Texas.

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you retrieve recently opened files faster by storing information in memory.

Another driver lets you use the 80386 chip in the model 80 to emulate EMS memory within extended memory, similar to drivers from Compaq, Quarterdeck, and Qualitas.

For novices, the greatest addition is the DOS shell called, simply enough, DOS Shell. It follows IBM's Systems Application Architecture design, meaning it has pull-down menus called by typing the F10 key, and optional mouse support.

The shell's heart is a file manager, which displays the directory in a tree structure and in a file-by-file list. You can run the shell in text or graphics mode, which displays icons next to the name of each program.

Within the file manager, you can copy, move, delete, and rename files; change their attributes; view them in ASCII or hex format; and run applications. You can even automatically open an application when you call a data file with certain extensions — for instance, anytime you choose a .Txt file, your word processor also loads.

The shell also lets you set up a menu to load applications, including basic password protection, and to run standard

DOS utilities.

In general, I found the file manager simple, clean, and functional — a distinct improvement on previous versions of DOS. This could make things tough for vendors of DOS shells and menu makers.

A new installation process, called Select, lets you set up options such as the DOS shell, Fast Open, and expanded memory support, and automatically creates Autoexec.bat and Config.sys. This is much simpler than installing earlier versions of DOS, though I still wish the documentation and help files gave better explanations of these rather complicated options, which typically involve significant trade-offs.

Although the new features sound nice, in practice I had many problems and incompatibilities while running DOS 4.0 on an IBM Model 80. Most of these problems are apparently in the new features because when I installed DOS 4.0 without expanded memory support, Fast Open, or the DOS shell, the related problems did not show up.

I expected some incompatibilities because of the larger partition feature, and I expected programs like Norton Utilities and Mace Utilities to have problems. But I didn't expect many of the other problems. The DOS shell in graphics mode is incompatible with most memory-resident programs, includ-

ing Sidekick Plus and Ready. Incorrect video displays are an obvious symptom. Loading the shell in text mode seems to solve the problem.

The expanded memory driver seems completely incompatible with programs such as Desqview and Paradox 386, and Windows/386 (Version 2.03 and early releases of Version 2.10) didn't work under DOS 4.0 — even without the DOS EMS driver. Microsoft says its updated Windows/386 2.10 will work.

IBM says it is working with the independent software vendors (ISVs) to help them correct many of these incompatibilities and notes that many ISVs had early copies of DOS 4.0 for months. In the meantime, IBM offers support and service, including an 800 number for dealers and major accounts, for one year following the program's official release (July 19). This service attempts to correct problems, and a recent "engineering change" fixes a potential problem involving use of Buffers in expanded memory.

On one level, DOS 4.0 seems quite a good value at \$150, considering that it includes DOS, a menu maker, a DOS shell, and an EMS driver. Users of existing versions can upgrade for \$95; the program has a 90-day usability warranty.

But because of the incompatibility problems, I simply can't recommend it until we see the inevitable fixes in applications and the operating system. If you must switch, check compatibility closely. I've grudgingly gotten used to compatibility problems with new versions of the Macintosh system, but that's one feature of the Mac I had hoped IBM wouldn't emulate.

*First Look examines new personal computer products before they have been through a formal review.*

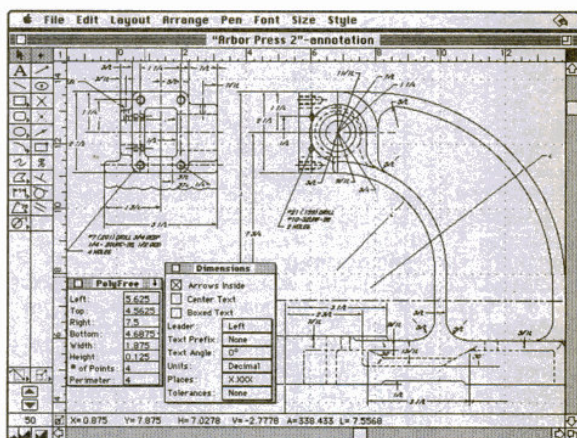
Acius

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The program performs five to 30 times faster than 4th Dimension, Version 1.0, "depending on where you are in the application," Kawasaki said.

The delay probably won't hurt Acius in the Macintosh database market since Ashton-Tate's Dbase Mac and other competitors have failed to establish a dominant share of the market, according to observers at last week's show. However, since Acius' introduction of 4th Dimension last year, several companies have announced new relational databases for the Macintosh.

Acius reportedly will offer its Skeleton prototype database application with Version 2.0. Skeleton lets developers build applications without programming procedures, said one observer.



The new Claris CAD, built on Mac Draw II technology, offers a variety of sophisticated drawing tools for drafting and technical design tasks.

Claris Announces 2-D CAD Program for Mac Interface Based on Mac Draw II

By Rachel Parker

BOSTON — Claris Corp. joined the growing number of high-end computer-aided design publishers last week by announcing Claris CAD for the Mac at Macworld Expo here.

The 2-D drafting and design package, created by Claris with CASE of Cincinnati has a user interface and menus built on Mac Draw II, enabling users familiar with Mac Draw II to quickly learn the more sophisticated program.

"By understanding tools, methods, and modifiers, users can access the many combinations of functions easily," said Kyle Mashima, director of marketing for Claris.

Claris CAD's design features include geometric construction tools such as fillets, chamfers, polygons, hatching, and double lines. To speed the drawing process, Claris included such geometric constraints as end point, intersection, center, point-on, and corner.

Dimensioning tools are of-

fered to help designers quickly document the physical specifications of a part, such as height, width, and angle measurements. Dimensions can be measured from a single point or from point to point within the object, the company said. Dimension notes can also be edited using different fonts and type sizes.

Claris CAD will help the Macintosh reach a broader group of designers and drafters than PC CAD packages, the company said. "We want to give computing tools to people who can pick them up and use them," said Bill Campbell, president of Claris. The ties to Mac Draw II will enable resellers to guide users to the appropriate drawing or drafting package.

Claris CAD is scheduled to be available in the fourth quarter for \$799. Mac Draw II users will be able to upgrade to Claris CAD for \$299.

Claris Corp., 440 Clyde Ave., Mountain View, CA 94043; (415) 960-1500.

Dell

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was, Dell would have an MCA machine ready tomorrow."

The demand is for systems compatible with the existing installed base of PCs, said Bajarin, who expects Dell to introduce a 25-MHz 386-based PC in the near future.

"Earlier this year, an MCA-compatible machine looked viable for Dell [to market]," Bajarin said.

While Dell said demand for MCA machines has ebbed, Tandy Corp. said it is seeing high interest in the MCA-compatible market. "We're getting a steady

stream of inquiries from companies interested in 'OEMing' the Tandy 5000 MC," said Mark M. Yamagata, Tandy Electronic's senior director of marketing.

These OEMs would sell to Fortune 500 corporations that are looking for an alternative source for PS/2 Models 50, 70, and 80 computers that offers quality products, service, and support, Yamagata said.

"It's too early to tell [about MCA demand]," said Mike Hoyle, product manager for Wells American of West Columbia, South Carolina, which recently introduced a PC with an MCA bus option. "Consumers haven't gotten around to placing orders yet. We're getting a lot of inquiries about it."

Dell Delays PC Shipments

Higher than expected PC demand is responsible for manufacturing backlogs and a resulting four-week delivery delay for systems from Dell Computer Corp.

At the same time, Dell recently stopped advertising the Dell System 100, which was announced five months ago, because the product has not been approved by the FCC and is not available. "Timing for FCC approval is based entirely on FCC schedules," said Dell spokesman Brian Fawkes. "The 8088-based machine was a new design for us," he said, giving no technical reason for the delay.

Deliveries of the Dell System 310 and Dell System 220, also announced in April, are being delayed at least four weeks. This doubles the two-week delivery schedule that was typical for Dell, Fawkes said. The older Dell System 200 and Turbo PCs are still being delivered in two weeks, he said.

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Apple

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Hyperscan software bundled with it, the firm said. Applescan and halftoning, while Hyperscan moves scanned images directly into Hypercard stacks. (See related story, Page 2.)

In his keynote address, Sculley said Apple has been following "the strategy of a Trojan horse, getting ourselves into companies and educational institutions, and once we're in there, they can see we do more."

Desktop publishing was the first "revolution" that got Apple in the door, Sculley said. Input and output devices, such as

Apple's new scanner and facsimile modem, along with related software such as optical character recognition, present a "major opportunity for users that is just starting," he said.

"In the information age, real productivity gains will only be achieved if individuals manage information better," Sculley said. He also presented videotapes depicting Apple's vision of future E-Mail, information retrieval, and learning systems.

Observing the "first birthday" of Hypercard, Sculley emphasized the need for a "Hypercard-like interface" in future products. For example, E-Mail applications should include "Hypercard-like searching and linking, integrating voice mail with text and graphics."