

Edited by Michael McCarthy

AT&T TESTS 8300 AT CLONE/UNIX BOX

If AT&T decides to offer its IBM PC AT clone in the form of an upgrade to its current 6300 (see *InfoWorld*, July 8, 1985), the machine will presumably look a lot like the evaluation units some Unix software houses have recently received. Called the PC 8300, code-named Safari 5, it's a 6300 except that it has an Intel 80286 chip inside for PC AT compatibility. What's more, it runs a version of Unix V and is said to have some eye-opening capabilities for combining MS-DOS and Unix, such as running DOS in a Unix window or vice versa. Quite a leap for a machine that was once derided as being an unimaginative PC clone. Is this why AT&T has been calling the 6300 "the computer with the future built in"?

SOFTWARE PUBLISHING OFFERS 'DOWNGRADE' PATH

The folks at Software Publishing, of the PFS series fame, seem to be feeling quite feisty this summer. First the company announced its intention to move into Lotus Development's marketing (and geographical) turf by acquiring Harvard Software. (See story, page 19). Now the company is planning a summer promotional campaign aimed at disenchanted 1-2-3 users. To participate, just send in the system disk to your \$495 1-2-3 program, plus \$20 for handling, and the Software Publishing folks will send you their \$140 spreadsheet program, PFS Plan.

The trade-down promotion is something of a gimmick; PFS Plan product manager John Monson acknowledges that even if a healthy fraction of 1-2-3's user base takes Software Publishing up on the offer, the firm would be overwhelmed. Software Publishing intends to dramatize the difference in ease of use between the programs. "We think there are a number of people out there who haven't been able to spend the time it takes to learn 1-2-3 or who were intimidated by their first experience with it," says Monson. He acknowledges that PFS Plan does not have all the power features of 1-2-3, but counters that it has all the features most people really use. "In no way do we mean to imply that 1-2-3 is a bad product," Monson hastens to add. But "there are people for whom Plan is the right product." No word on what Software Publishing intends to do with the used 1-2-3 disks.

WHAT IBM'S MCI STAKE MEANS FOR PCs

Expect a strong push into communications for IBM as a result of IBM's planned acquisition of a major stake in MCI Communications, says Brian Jeffery, director of research at International Technology Group. The Palo Alto, California, market research firm focuses on IBM. "IBM is positioning itself as a full-service information hardware and software services supplier," he says. "IBM has traditionally been very weak in telecommunications." He predicts IBM and MCI will

work together on many communications services, including comprehensive electronic document workstation that allow a user to create, edit, and transmit documents containing data, text, voice, graphics, and image material. Jeffery adds that the services probably won't be seen until end of 1986. "It's going to take a while for IBM and MCI to really get their act together."

CHEAP MEMORIES

With prices for 256-kilobit dynamic RAM chips dropping off a cliff, garage entrepreneurs are doing a booming business in Macintosh upgrades that drastically undercuts Apple Computer's charge for the job. When Apple set the price for its upgrade at \$700, 256K chips cost an estimated \$20 each in wholesale quantities. Now prices have dropped so far that Fry's, the *sui generis* Santa Clara, California, grocery electronics store, sells the chips for \$3.99. Some operators charge as little as \$145 for the Fat Mac upgrade and \$550 for an upgrade from 512K to 1,024K, making it cheaper to buy a small Mac and an upgrade than to buy a Fat Mac. Drawbacks: Third-party memory upgrades void the Apple warranty. Now developers are even offering warranties: \$250 will give you a 128K-to-512K upgrade with a year's warranty on an entirely new logic board from Mac Aid of Cupertino, California, for example. Meanwhile, Apple shows no signs of lowering its price on its own upgrades.

TIDBITS

Apple Computer has reportedly secured hard disk manufacturer Rodime of Boca Raton, Florida, to supply the hardware for its planned Macintosh external hard disk. . . . Electronic Arts' Trip Hawkins has his own candidate for next king of the home computer market: General Electric. He says every home needs at least one GE appliance, and GE has the research and development and marketing staffs to develop a popular home computer. . . . E-Z-DOS-It, a switcher utility for the IBM PC, is by Hammer Computer Systems of Larkspur, California, and lets you load up to eight programs into memory at the same time and switch among them at a keystroke. But even in a fat slipcase, at \$199.95 for all of 8K of code the price works out to 2½ cents per byte, perhaps some kind of record. . . . A 4K version of the same idea, from Awesome Technology (sic) of Monterey, California, is sold in a plain envelope for \$64 (1½ cents per byte) under the exaggerated slogan, "Topview in 4K." But don't expect a price war: Awesome's Jason S. Lovell says he's planning a fancier package at a higher price in a couple of months. . . . As a thank you for the donation from MOS Systems, a San Jose, California, maker of semiconductors, the San Francisco Zoo has nicknamed one of its baby alligators Gator Ray.

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THE NATIONAL NEWSPAPER OF IBM STAFF

AT&T Readies Unix/DOS Unit Called PC 8500

By Sam Whitmore

MORRISTOWN, NJ—AT&T Information Systems is developing an 80286-based computer that can run PC-DOS applications while running under the Unix V operating system, several sources inside and close to AT&T said.

PC 8500 vs. PC AT

When it arrives in late September, the new AT&T PC 8500 will be positioned against IBM's PC AT in the stand-alone market, as a multiuser system under Unix V, and as a file server in AT&T's StarLan local area network, the sources said.

"The hardware is basically
(Continued on Page 8)

Javelin vs. Lotus 1-2-3

Javelin

- * Relationships defined in "natural language"

- * Changes to graphs reflected in data

- * Built-in spreadsheet debugger

- * Data model "roll-up" and consolidation

- * Notes feature to document any item

- * Integrated goal seeking

- * Chart definition on one screen

Lotus

- * Relationships defined between cells or ranges

- * Graphs cannot be edited

- * Spreadsheet debugger a separate purchase

- * Consolidation of duplicate ranges

- * Documentation written as "label" item

- * No goal seeking

- * Charts defined by switching screens

Javelin claims many advantages over 1-2-3 for financial modeling.

AT&T PC 8500

(Continued from Page 1)

done," one AT&T executive said last week. "Now it's purely a matter of positioning the product in our rapidly expanding line of workstations."

AT&T's forthcoming machine can best be described as having the PC compatibility of the PC 6300 and the ease of use of the Unix PC 7300, the sources agreed. The Unix PC's window-based user interface, which contains many features linking the computer with the telephone, has won plaudits throughout the Unix industry since that product's introduction in March. "I learned the [Unix PC's] user interface in 20 minutes," said James Sullivan, an analyst with Yates Ventures in Palo Alto, Calif. "To combine that interface with DOS capability under Unix—now that's going to be neat."

PC-DOS can run within Unix V by virtue of additional chips on the unit's motherboard that assist the 80286, the sources explained. An engineering technique called "mode switching," or "context switching," enables the 80286 to switch—at speeds measured in millionths of a second—between the 286's real and protected modes. The "mode switching" technique is said to create the effect of a "PC-DOS island" within Unix V, in which PC-DOS programs can run. Strictly speaking, however, the DOS programs still run in real mode, and therefore cannot access more than the 640K bytes of memory accessible

on standard PCs, according to two sources.

AT&T plans to call this hybrid operating system "Concurrent Unix," the AT&T source said.

Other products that run PC-DOS as a "guest" on the 80286, such as Digital Research Inc.'s *Concurrent DOS 286* operating system, perform their magic in software, not hardware. A software solution creates processing overhead that severely taxes the performance of the 80286.

AT&T's hardware-based solution enhances system performance, the sources said, because the supplemental chips free the 80286 from its responsibility of juggling DOS and Unix.

"The machine runs DOS under Unix faster than the AT can run DOS," said one source who has used the machine.

Unfortunately for users, AT&T may not release Concurrent Unix when the PC 8500 is first announced. "We have a commitment to conforming to Unix System V, release 2, which is the Unix we have endorsed through our recently published Interface Definition," the AT&T source explained. "We want to make sure Concurrent Unix fully adheres to that standard before we release it, and that may take some additional time. Therefore, when the [PC 8500] is first announced, it'll run DOS 3.1 and Xenix—the same as the AT."

According to three sources, AT&T has built several different configurations of the PC 8500. One, said to be designed exclusively by AT&T, contains the proprietary bus structure of the PC

6300. The 6300 cannot accept standard IBM PC expansion boards. The second machine, built by Ing. C. Olivetti & Co., has emerged as the official design, according to the sources. This unit contains a 16-bit bus structure whose slots are fully compatible with standard AT architecture.

"The marketing people have been hammering on the engineering people to build in a high degree of PC compatibility," the AT&T source said.

Other sources involved in building the PC 8500 reported that the machine will look almost identical to the PC 6300. "The motherboard can fit inside the 6300 system unit without any problem," according to one AT&T subcontractor. "They're looking for a new monitor that has better resolution than the 6300, though, so no one's really sure what that will look like."

Details concerning the unit's floppy- and hard-disk configurations and its standard memory have yet to be decided, according to the AT&T source. Pricing is not likely to be determined until the product is announced.

If it sticks with the working name "PC 8500," AT&T will be breaking with its naming convention started with the PC 6300 and PC 7300. "We were thinking of calling it the 'PC 8300,' but it's such a high-performance box that we decided to ratchet it up a couple of hundred," quipped the AT&T source.

An official AT&T representative said AT&T does not comment on unannounced products. ■



subject: PC Naming Architecture

date: November 12, 1985

from: Stuart A. Tartarone
FJ 62401332
1H-101 x5198

Messrs. J. A. Prestinario:
R. D. Woodworth:

We have just completed a study of PC naming architecture and I believe it is important that I quickly share this information with you.

We originally were going to recommend that we name the so-called PC 1040 - the PC 6310. However, this was based on the assumption that we would have reasonable number space between the PC 6300 and the name chosen for Safari 5. The use of the name PC 6300 PLUS for Safari 5 obviously has made this process more difficult. Given these realities, we recommend that we continue to use the PC 6300 name for the PC 1040 since it will be replacing the current product. During its introductory phases we could silk-screen the word *new* above the PC 6300 on the product face plate. Our physical designers believe we have sufficient lead time to make this change if we close quickly. However, many are concerned that the marketplace will force us to reintroduce the old PC 6300, even with the new product. If this occurs, we could call the reintroduced product - the PC 6300 *Classic*.

If this plan is not satisfactory, we do have some alternatives. For example, since the PC 1040 occupies a smaller footprint, we could call it - the *Diet* PC 6300. Another possibility is to call it the *Caffeine Free* PC 6300 since graphics are not stimulated by an indigenous controller.

Still another alternative is to change the product colors to red and call it - the *Cherry* PC 6300. However, our people feel that given the merged environments of Coke and Cherry, Coke should have called Cherry Coke, Coke *PLUS*. They point out that regular Coke is easily upgradeable to Cherry Coke by emptying some of the contents of the bottle and adding the Cherry flavoring, thus protecting the customer's investment. We did check with Coke and learned their advertising people had first considered using names such as *Gemini Coke* or *Dual Coke*, but finally settled on the name Coke 8300 since Cherry Coke is 83% Coke. However, upper management balked feeling that the 8300 suffix would lead people to believe that Cherry Coke was replacing *the real thing*.

Bear in mind that none of these names are probably suitable if we choose to sell the products in foreign marketplaces; however, staffing doesn't exist to deal further with internationalization. Though, the proposed architecture is reasonably flexible to extend to other products; for example if we choose to offer a portable, we could call it - the PC 6300 *Light*.

Finally, our people looked for similarities with Pepsi but found their architecture limiting since they only deal with the *now generation* and our products have the *future built in*.

Stuart A. Tartarone
Stuart A. Tartarone

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UNDER INVESTIGATION REPORT

<< New MRs >>

MR_Number	Pers	Stat	Due_Date	Rel_Fx	Class	Typ	Machine	Product	Sv	Rel_Occ	Load	Component	Subcomponent
					*** Severity	1	Priority H ***						

13L bl86-05803 paf ui 2/27/86 flt sw s5 safari 1 2.0 Rladmin-s5 help
 Priority: H

Originator: Bruce Burger FJ 1G-122 Extension: 577-5230

Abstract: New requirements for R2 HELP

Description: The following compromise requirements for R2 HELP are intended to meet customer needs while being implementable by limited resources in a timely manner. The HELP key will be moved from its current location to the reset button on the CPU. This will ensure that HELP will get the user out of any possible jam by immediately interrupting all power to the system. It will even work with OS Merge. A field upgrade for R1 customers with obsolete HELP keys will be made available for \$2995. Please note that although these requirements are final, they are subject to change at any time as product management is considering changing the term "HELP" to something they can trademark.

14 bl86-05823 paf ui 2/28/86 flt sw s5 safari 1 2.0 Rladmin-s5 Softw
 Priority: H

Reqd Date: 3/05/86

Originator: P. Hamilton SF G-217 Extension: 522-5095

Abstract: Software Setup corrupts permission (to 777) of EVERY file on hard disk.

Description: Using Load C3 on a gen 5, repeatedly loaded an application (called creplok). Was assigned directories crepol, crepol1 thru crepol9 and crepol11 into which an application called creploc was loaded. The 12th time thru this process asked to load creplok10. Error messages about mkdir and chmod too fast to read, but put into dos and told to load the application (at root). Did so. Filled out program admin stuff, etc and all seemed okay. Did again, this time asking to load creplok20. Software admin responded as it did with creplok11. Fl'ed out and logged off. Logged back on as a noremal lmgr user and was dropped out of UNIX and back to login. Tried with other lmgr login id's and same response. Tried to logging as a user put directly into MS-DOS shell and got message: dos: ERROR: Doseexec improperly installed. (0,0)). Logged into a UNIX id and tried to lmgr -- screen cleared and back to UNIX prompt. Tried to DOS from same id and got same dos error message. Started checkking files and found all files in /bin (the UNIX /bin) and all files in /usr/bin and in /usr/lib and so on have been chmod'ed to 777. The ONLY exceptions found were directory files.