

By David Thompson

Kaypro Bids Farewell To CP/M (Almost)

There are beginnings and endings. Lately the news from the CP/M world has mostly been endings. Here is another.

It was around mid January when Don Thompson (from Micro-Sphere) called. "Kaypro's done it, almost." There are a lot of things that Kaypro's almost done, so I didn't hazard a guess. "What?"

"On February 1 they'll no longer be shipping any CP/M systems except the 2X. No 10, no 1, no Robie, no 4, just the 2X. All that, despite the fact that they were back-ordered on the 10, and the 1 wasn't doing badly either!"

Sales of the Kaypro PC have been so brisk that they can't turn them out fast enough. No doubt they're putting all but one of their assembly lines to work building the \$1595 clones, and so it appears that success, not failure, has spelled doom for the last bastion of CP/M. Now we're just waiting for the 2X to fall. (Remember when Osborne astounded the world with a \$1795 CP/M system that came with WordStar? The only thing smaller than the price tag was the screen.)

Kaypro PCs And RAM

Kaypro is using some really marginal RAM chips on its PCs, and close to half the systems are having RAM related failures within hours of arriving at dealers. (They've been using cheap American made 64K dynamics.)

\$595 Vrs. \$1595

The Kaypro PC is supposed to be available as a basic system for \$595 or as a complete system for \$1595. The temptation is to purchase the \$595 system and then just plug in your own cards. However, it doesn't work that way.

The PC's motherboard is just that, a motherboard — no memory, no pro-

cessor. So you need Kaypro's processor board for starters. Then you need Kaypro's memory board because there's no memory on the processor board. Once you've bought these two little gems you'll have spent about \$1595 anyway.

The disadvantage of having the processor on its own board is that you're locked into Kaypro for processor, motherboard, and main memory, and two of the slots are filled even before you add the video. The advantage of this type of system is that you could go to an 80286 just by changing the processor board. The latest motherboards have pads for AT-style board sockets.

New Screen For The 2000

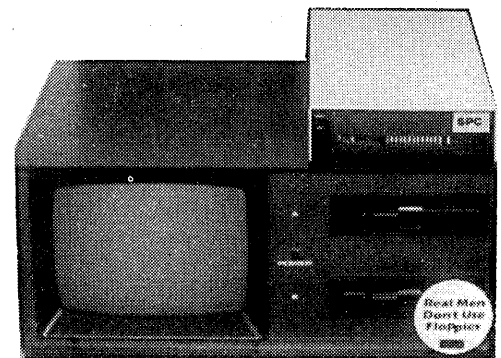
Kaypro 2000s are known for their small size, portability, and for their compatibility with the PC. Their 80 column, 25 line LCD screen even displays the same graphics as the PC color board (without the color, of course).

However, in most lighting conditions the screen is hard to read. Its contrast ratio (between the characters and the background) is only about 2 to 1; on a standard monitor the ratio is about 15 to 1.

Kaypro tech support mentioned there's a company in Salt Lake City that's upgrading Kaypro screens. I called them and talked to Dave Cox,

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vice president of marketing for Axonix Corp. Despite his title, he was intimately knowledgeable about the product (back in the early '70s he helped design the original LCD displays for watches).

The Lowdown

The upgrade costs \$300 and involves sending the system to Axonix. They remove the display, strip the reflective material off the back of the glass, and then mount an electro luminescent panel behind the display.

The entire package consists of the panel and a small DC to DC power supply. The panel receives 110 VAC at 300 Hz from the supply. The supply draws 350 mills (at 6V DC) when the system is running at high intensity, and 275 mills for low intensity. Because the reflective layer has been removed from the LCD display the panel must be lit for characters to be visible on the screen.

The light's power consumption reduces battery life from about four

hours to about three hours. (Since I try to leave an hour to spare, that would reduce my machine's effective working time from three hours to two.)

Dave told me that the panel puts out a white light at approximately 8 ft Lamberts on high power and 6 ft Lamberts on low. He also mentioned that the LCD adds a slight bluish cast to the light. He said that the contrast ratio rises to about 10 to 1.

They've done the installation on several hundred 2000s, Data Generals, HPs, and Radio Shack 100s, and Dave says none of the units has been returned because customers were unhappy with them.

My Feelings

At Comdex, I used a Kaypro 2000 whose screen glowed a sickly greenish cast. When I first heard of this mod (with its blue cast) I assumed that this was different. However, I've been told that Axonix did the mod on the Comdex Kaypro. The sickly screen was

easier to read than the original, especially in marginal light, but I didn't enjoy reading it. (And the contrast didn't seem all that great.)

Also, when I'm taking notes in a seminar or writing my editorial out on some high mountain meadow I really appreciate the four hours of operating time (for me that's three hours plus an hour margin). Losing an hour would really crimp my style.

Kaypro is supposed to be working on its own screen that's lower power and brighter, so it seems they're also not satisfied with the Axonix mod.

Finally, it depends on how you use your Kaypro. If you're in the dark a lot, and can't wait for Kaypro to come up with something better, then this might be your mod. But a great beauty, it's not.

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