

## PORTABLE COMPUTERS

**KAYPRO ENTERS MS-DOS MARKET***First IBM PC compatible from 8-bit CP/M champ*

BY KATHY CHIN

Reporter

**K**aypro Corp., maker of 8-bit CP/M portable computers for budget-conscious users, has unveiled its first IBM PC compatible, a 16-bit transportable that features a 10-megabyte hard disk and a full complement of free software.

Undeterred by the prospect of entering the crowded PC-clone market, Kaypro is pitting its \$3,295 Kaypro 16 against the \$4,395 IBM PC XT on the basis of price.

The Kaypro machine, in addition to less expensive, includes a monitor and application software that costs extra with the basic PC XT system.

The Kaypro 16 looks every bit as utilitarian as the other machines from the Solana Beach, California, firm. With one double-sided, double-density, 360K floppy disk drive, the 8088-based system in a metal box comes with a 9-inch green phosphor display, the MS-DOS operating system, GW-Basic by Microsoft, and Micropro's line of Wordstar, Mailmerge, Calcstar, and Infostar Plus.

Also included is Mite, a telecommunications program developed at Mycroft Labs in Tallahassee, Florida. Mite allows the Kaypro 16 to communicate with other computers, including mini and mainframe systems.

The Kaypro 16 has only one slot for adding expansion boards, instead of the three slots considered standard for PC compatibles. The IBM Portable Computer also suffers from this limitation, to which its poor sales have been attributed. "That's a big drawback for me," says Kaypro owner Steve Sanders of Tampa, Florida. "I like Kaypro machines, but I won't be buying the Kaypro 16. I don't like being limited to only one slot."

But John Marler, manager of Trinity Solutions computer store in San Jose, California, disagrees. He doesn't think the one-slot limitation will deter many customers. "Most people don't use a lot of slots," he says.

David Kay, vice president of marketing at Kaypro, claims that the new machine is as compatible as any of the other IBM PC clones on the market. The firm has already begun shipment of 2,000 systems a month and will ramp up production to 3,000 a

month in January. Kay says the firm is not planning a floppy disk version of the computer.

Kaypro dealer Tom Wolf, vice president of Wolf Computer in Los Gatos, California, expresses skepticism as he waits for his first shipment of Kaypro 16s. "It's hard to say how the machine will do," he says. "It's a little late on the market."



*It looks like a typical Kaypro, but the Kaypro 16 with hard disk is IBM PC compatible, complete with PC-like keyboard.*

Dozens of other PC-compatible computers are already available and some of them, like the Tandy 1200 and the Columbia VP, also compete in a comparable price range.

But many market analysts give thumbs

up to Kaypro's new release. "It's an excellent price," says Kenneth Lim, market analyst at Dataquest in San Jose, California. "For the hard disk and software, it's the best price in the industry." Jan Lewis, market analyst at Infocorp in Cupertino, California, agrees, saying that Kaypro's success to date shows that it knows how to tap a price-conscious market. "The price is superb," she says. "Everyone is always sitting around waiting for Kaypro to fail, but it looks like they are doing fine."

Another product, which Kaypro announced earlier this year, has been canceled. The firm had planned to create a lap portable in an agreement with Mitsui of Japan, and Kaypro engineers had already developed several prototypes, but "the Mitsui deal was mutually canceled," says Kay. "They were very late in coming out with software. And in my opinion, the window for 16-line display is closing by the beginning of the year."

By mid-1985, Kay says, his firm will introduce a lap-size machine with a 25-line display, and Mitsui will not be involved in the deal. The new machine will be "generic enough to look at a library of software," presumably either CP/M or MS-DOS compatible.

Kay thinks that the lap-size market consists of those who only need to use a computer for a very short time; Kaypro will be targeting its lap computer toward small-business users who fit this description. The firm will not target the high-end executive: "That's what Hewlett-Packard and Data General are going for," says Kay. □

## HARDWARE COMPANIES

**FIRST LOSS FOR BOOM COMPANY***As sales soar, Kaypro struggles to manage its growth*

BY KATHY CHIN

Reporter

**K**aypro Corp., maker of a popular line of inexpensive business computers, is expected to write off inventory on its fourth-quarter financial statement, possibly resulting in a fourth-quarter loss. The company blames the inventory losses on mismanagement of supplies during its three years of skyrocketing growth.

If the inventory write-off results in a fourth-quarter loss, it will give Kaypro its first non-profitable quarter since it went public 16 months ago at \$10 a share. Kaypro's stock has plummeted to \$3 a

share since then, provoking a shareholders suit. Some 85 percent of Kaypro stock is held by the Kay family.

Hoping to minimize the damage created by news of the loss, David Kay, vice president of marketing and son of founder and president Andrew Kay, issued a press release titled "Tough Questions and Answers," explaining the inventory problem and steps being taken by the company to bring its problems under control. In an interview, Kay said Kaypro's problems stem from the firm's growth, which far exceeded the company's expectations.

When the former electronic test equipment business started selling computers in 1982, the firm made approximately \$5



million in sales. In 1983, sales skyrocketed to \$75 million. The company claimed net profits of \$12 million and went public in August of last year, just as its chief competitor, Osborne Computer Corp., was declaring bankruptcy.

By the end of 1984, Kaypro sales are expected to top \$125 million. For the first three quarters, net profits were \$10 million on sales of \$97 million. To date, the firm has sold at least 120,000 8-bit CP/M portable computers, ranging in price from \$995 to \$2,795. The company has just announced its first IBM-PC-compatible computer, the Kaypro 16, priced at \$3,295. (See preceding story.)

Kaypro's success at selling computers and turning a profit comes despite reports of chaotic management and high employee turnover. Cloistered in a bedroom community near San Diego, the Kaypro facility "is running on mayhem" claims an analyst who visited the premises.

The inventory crisis surfaced in mid-June when creditors at Lloyds Bank told David Kay that the firm needed to reduce the amount of inventory in the warehouses. Although sales were strong, inventory kept climbing every month since the beginning of the year, indicating that inventory was not being managed.

"This hit me very hard," says Kay. "I was unaware of this. I was doing product marketing and development work. My father had gone to Europe, and I was left dealing with the responsibilities of the whole company."

At the time, dramatic growth in sales combined with delays in obtaining construction permits for a new warehouse resulted in finished hardware and parts being housed on the company grounds in a rented circus tent and in 47 trucks and 20 storage facilities. The new warehouse is now completed, permitting consolidation of inventory.

Management style at Kaypro has often been described by its officials as "open," with no clear job descriptions or career paths for employees, and most major decisions have been made at the top. Kay now concedes that this management style might have been more appropriate for the small electronics firm founded by his father than for the burgeoning hundred-million-dollar behemoth that is now Kaypro.

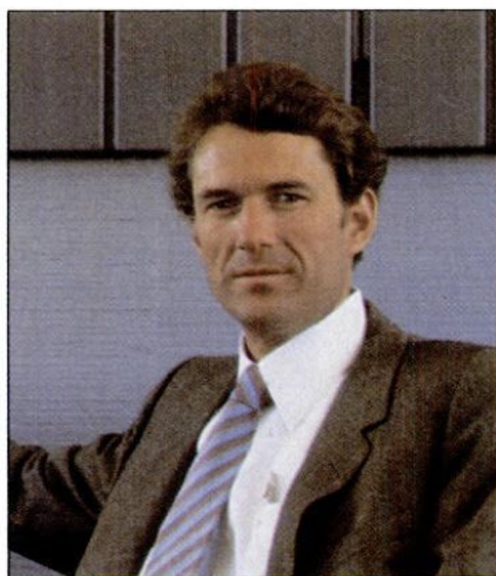
Because of this management style, the company was unaware that its purchasing director was not controlling the inventory. "He made all the decisions about orders and rescheduling orders," says Kay. Payment deadlines were not met by vendors, and shipments were delayed at the request of dealers, resulting in rising inventory. "Everything was too loose."

The director of purchasing was forced to leave Kaypro, and in July, Kay went

down to the receiving dock himself "to rectify the situation." He refused further inventory from suppliers — "We had enough parts to last us four more months" — thus reducing inventory by \$7 million in July and by \$6 million in August.

Kaypro then hired John Haehl, former director of materials at Canon Business Machines of Costa Mesa, California, as Kaypro's director of materials to supervise Kaypro's purchasing department, inventory control, receiving, and scheduling. John Hentrich, an attorney and venture capitalist, was hired as director of finance.

Meanwhile, Kaypro is fending off six lawsuits filed in October by stockholders



David Kay of Kaypro: Inventory kept climbing. "Everything was too loose."

charging that the firm misrepresented itself in its prospectus. The suits claim Kaypro omitted "material facts" relating to the inventory control system when it went public in August 1983, according to San Diego attorney Blake Harper, who is representing the stockholders.

Stockholders were also disgruntled when an expected lap-size machine failed to materialize in 1984 and when the Kaypro 16 was late in arrival. "These people purchased stock and relied on Kaypro for complete information," says Harper. Kay attributes the litigation to the fact that the stock has fallen 70 percent since 4 million shares were offered when the company went public.

Through all the chaos, management difficulties, and stockholder discontent, Kaypro computers have continued to sell well. Kay reports that the firm was selling approximately 400 units a day in November. Labeling itself the "Volkswagen of the industry," with products aimed at small businesses and individuals, Kaypro has offered a full line of computers. All of them are portable, 8-bit CP/M systems complete with disk drives, monitors, ports, and software, ranging in price from \$995 for a one-drive introductory unit to

\$2,795 for a hard disk model. Kaypro keeps manufacturing costs down through on-site production and sells its products to independent dealers rather than computer chains, which demand higher profit margins.

Not all Kaypro products have been a hit, however. The \$2,295 Robie, featuring two floppy disk drives with 2.6 megabytes of formatted data on each drive, has been temporarily suspended due to unavailability of the unusually high-density disk drives and reported reliability problems. A new version of the computer will be released soon, according to one company insider. The Robie was never very popular among users, according to Tom Wolf, vice president of Wolf Computer, a store in Los Gatos, California. "We got four of them when they first came out in March. We never sold any until we had a clearance sale last month and sold them for \$1,995." Wolf adds that he was glad to get rid of them. "It was the ugliest machine people ever saw, but I'm very happy with the rest of the product line."

John Marler, manager of Trinity Solutions in San Jose, California, says that the Robie never appealed to the public because it ran very slowly, requiring at least 45 seconds to display a prompt after being turned on. It also required special floppy disks that cost \$13 each.

The Kaypro local area network, called Kaynet, has not thrilled the market, either. Kaynet links Kaypro and other CP/M computers for \$300 a connection. On the whole, local area networks have not been a strong seller with small businesses. Kay says that he expects to sell only 10 percent to 20 percent of the company's projection for Kaynet by year's end.

The firm predicts that its new Kaypro 16 portable will account for approximately 40 percent of company revenues for fiscal 1985. But Kay insists the 8-bit market remains viable. The \$1,295 Kaypro II, with 64K and two single-sided disk drives, still accounts for 50 percent to 60 percent of company sales, he says.

"The sales have been on the rise for CP/M products," says Kay. "It is still very strong for us. The market is looking for stability and is not so infatuated with the technology of owning a computer."

Kaypro has improved its relations with dealers and customers. This summer, the firm started a nationwide dealer training program while temporarily increasing dealer margins on its Kaypro 4 and Kaypro 10 machines.

The firm maintains good relationships with its 1,100 dealers, according to Jan Lewis, senior analyst at Infocorp in San Jose. "The independents tell us that Kaypros are steady sellers." Lewis adds that this year, Kaypro obtained 5 percent



of the market share in the retail channels.

To polish its public image, Kaypro established an International Grants Program under which it has donated more than 400 microcomputers to Third World countries. The firm also works on its image with users. Steve Sanders, a user in Tampa, Florida, says that Kaypro user support "is a lot better than it used to be." Sanders, who works with other CP/M public domain software authors, says that the firm never really made any attempt to get to know its customer base but has

recently been more responsive towards its users. Every three weeks the company sends lists of new products and product upgrades.

The firm also gives a six-month free subscription to its in-house magazine, *Profiles*, to every new Kaypro owner. Richard Conde, head of Kaypro user support, says that his objective next year is to visit each of the 250 users groups across the country.

Alice Petersen, coordinator of the Kaypro Users Genealogy Interest Group,

in Ames, Iowa, says the firm was "very supportive" whenever she called for help. "It seems a lot closer to the users than the other companies."

Kay says his No. 1 priority for 1985 will be strict management control for the 500-employee firm. "We need more structure than we have had in the past," admits Kay. "The bigger we get, the more structure is necessary to keep things together. We can no longer afford to let anything get out of hand at the size we are now." □

## SOFTWARE COMPANIES

# GEM: ICONS FOR THE IBM PC

*A software firm pins hopes on Macintoshlike interface*

BY CHRISTINE MCGEEVER

Reporter

**D**igital Research Inc. (DRI) is pinning high hopes on its newest product, GEM. And the success of that graphic interface product, say analysts, will depend more on its acceptance by hardware and software developers than on its popularity with users.

The Pacific Grove, California, software development firm — one of the oldest in the industry — is known for its first product, the operating system CP/M-80 for 8-bit computers. But while CP/M became a pre-IBM de facto standard for many microcomputers, the advent of IBM's 16-bit Personal Computer established the similar PC-DOS/MS-DOS family as the new standard.

CP/M-80 was driven into decline, and DRI has enjoyed only modest success with its subsequent products, including the 16-bit CP/M-86, Concurrent CP/M and Concurrent DOS, computer languages such as the well-regarded DR Logo, and application software such as DR Graph.

But DRI product marketing manager Thomas Byers is confident that GEM (Graphics Environment Manager) will revive DRI's success, calling GEM as "strategic" a product for DRI's future as the original CP/M was.

"We think it's going to be a standard, a big hit," Byers says. The firm is placing GEM "in the middle of all future directions for DRI," he adds.

The advantage of GEM, says Byers, is

that it enhances both the existing operating system of a computer and its application software by adding graphics. It also offers software designers an upgrade path into multitasking operating systems. Though developers can alter their programs to take advantage of GEM's

Instead of issuing computer commands to the "A>" prompt, the user manipulates GEM's pull-down menus and windows with a mouse and identifies files with icons.

Once a program is selected from the Macintoshlike menu, that program appears on the screen in its familiar MS-DOS form, which leads market analyst Kenneth Lim of Dataquest in San Jose, California, to call GEM "a glorified menu-selection device." GEM doesn't give Wordstar or Lotus' 1-2-3 a Macintosh look unless those programs have been altered to take

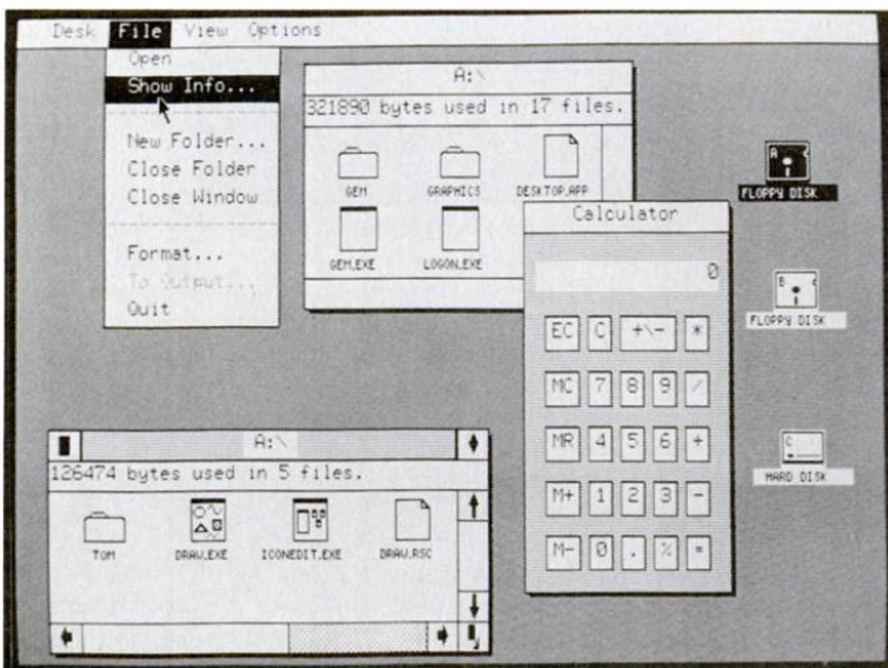
advantage of GEM's pull-down menus and mouse interface. Until such modifications are commonly available, early users will find GEM valuable principally as a way of insulating themselves from the inhospitable operating system command level.

DRI is developing its own Macintoshlike applications for GEM, including a drawing program. Though GEM has the initial advantage of being able to accept existing MS-DOS software without alteration, for the system to have staying power, software developers must be willing to modify popular MS-DOS programs to take advantage of GEM's icons and windows.

Software developers might see this as a chance to offer Macintosh friendliness without abandoning the popular MS-DOS computer world.

But since unreleased windowing programs Microsoft's Windows and IBM's Topview offer the same opportunity, important questions include how much work each competitor's system requires for that adaptation and whose system is considered likely to dominate the MS-DOS world.

DRI's Byers claims GEM won't compete directly with these two similar programs. In the first place, GEM requires only one disk drive and resides in only



GEM offers a "desktop" screen similar to that used on the Macintosh, with icons to show disk drive status and file information and pull-down menus to select activities.

capabilities, it can also accept existing MS-DOS software unaltered and thus does not limit users' software choices.

DRI calls GEM a "transparent user interface operating system." It runs sandwiched between the basic operating system of the computer (in its present version, an IBM PC or compatible), and the applications software, providing a user interface styled after the Xerox Palo Alto Research Center (PARC) technology made famous by Apple's Lisa and Macintosh computers.

What the user sees is a screen display that looks like that of the Macintosh: