

Monroe's System 2000 sports an adjustable display that comes in either amber monochrome or color.

you use a disk not in the 720K format. Because most MS-DOS software you can purchase comes in either a 160K, single-sided or 320/360K double-sided format, you might not be able to use those disks for starting purposes.

Monroe does provide, with its versions of the operating systems, utilities for transferring programs and files from the smaller to larger capacity disks. The utilities, however, won't work with most disks that employ copy-protection schemes or that use operating systems other than MS-DOS or CP/M-86 (such as the UCSD p-System). Such a limitation may mean you can't use your favorite programs until Monroe-specific versions come out.

Fortunately, Monroe has made available many software packages tailored for the System 2000, including Wordstar, Dbase II, Supercalc, and Condor 3. Monroe also offers several total software packages for different applications, such as health care, accounting, and wholesaling.

If you decide to buy software off the shelf, though, beware. Software that runs under PC-DOS — made expressly for the IBM PC — probably won't work on the System 2000. If the program is designed for use with MS-DOS and it's not copy-protected, Monroe says there's an 80 percent chance the program will work without a hitch. This really means you have to examine your software requirements carefully before you invest in the machine.

Aside from this, the 720K capacity is welcome; it seems that a floppy never gets full. Such high capacity disks can also reduce the number of disks you may need for storing files. In addition, Monroe is aiming heavily at what used to be called the "turnkey" system market, in which all

the hardware and software begins running automatically when you turn on the computer. Monroe wants to provide vertical applications, general purpose programs, and a machine in a single package. Combining those with training and service, Monroe wants to be a "one stop" shop for buyers.

You will find the Monroe easy to get up and running. The guide to operations manual takes you through setup of the Monroe step by step and includes tutorials for both MS-DOS and CP/M-86 that show you how to use most of their commands — something we'd like to see more often in IBM PC-style machines.

Also included with both operating systems is a program called Install, which you should use before you get too far along with any of your programs. Install makes some changes to the operating system that permit you to later specify some system configuration information via software. The Install program gets its information by asking you several questions about your particular system. This effectively takes the place of setting those tiny switches inside the computer and makes life a lot easier for one who shudders at the thought of taking a screwdriver to his computer.

When you turn on the machine, it automatically runs a short diagnostic routine to discover any potential trouble. Should a problem arise, there is a troubleshooting section in the back of the guide to operations. Many of the solutions listed end by telling you to call your Monroe representative, though, so you might have to call Monroe if the diagnostics indicate trouble.

Setting up the hard disk drive is easy; a menu-driven program allows you to accomplish the task in just a few minutes.

The manuals for the supplied software are, for the most part, quick rewrites of those normally sold with the off-the-shelf versions of the programs. They have mostly been changed to add Monroe's name. The hardware is documented by the guide to operations, a small guide to operations for the hard disk, a CP/M manual, and an MS-DOS manual. The Basic language has its own manual. The tutorial for the operating systems is the documentation's best feature; the rest of the documentation is up to par, but that's all. It's not exceptional.

Most of the Monroe-supplied software we examined included tutorials to help you get started.

If this sounds like the type of computer system you've wanted, don't run to your local computer store asking for it. The Monroe System 2000 is available only through Monroe. You will have to call the manufacturer, Monroe Systems for Business, and ask for the phone number of the Monroe representative in your area.

The System 2000 is sold with a 90-day parts and labor warranty. Additional service is available for a cost from Monroe. The firm can provide on-site training and service for all the hardware and software you purchase from it.

On-site service, where available, is provided within one day. One service representative with whom we spoke said that Monroe tries to be on-site within four hours of a call, certainly some kind of record (if Monroe manages to stick to it).

Monroe is providing a total computer system designed to meet the needs of small businesses. If you're looking for a single source for your hardware, software, training, and service needs, and you don't care about IBM PC compatibility, then the Monroe System 2000 could be for you. If you're already hip deep in IBM PC software, though, it's best to turn somewhere else. □

PORTABLE COMPUTERS

KAYPRO 2X

A return to the philosophy of utilitarian computing.

BY JOHN LOMBARDI
Review Board

Not so long ago, Kaypro computers became the premier representatives of the generic microcomputer. Kaypro machines have since grown beyond the basics, with expansions and additions providing extra memory capaci-

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ty, hard disk drives, and other features. Fear not, however: The transportable Kaypro 2X carries on the tradition of inexpensive utility computing.

The 2X is stark utilitarian hardware. It is sold with an impressive quantity of useful software and the Juki 6100 daisy-wheel printer as the Kaypro Business Pak. The package provides sufficient computing power to handle many tasks encountered by small businesses, individual professionals, school teachers, poverty stricken writers, and others whose com-

puting needs do not demand state-of-the-art capabilities.

The 2X has a keyboard, 9-inch green screen, two double-sided, double-density, half-height disk drives, and three ports (one parallel Centronics and two RS-232C serial). Everything about this machine speaks to utility, and nothing to aesthetics, finesse, or technological sophistication. It belongs to that class of transportable computers that are similar in weight and appearance to portable sewing machines.

The screen displays a sharply defined character set along with reverse video and some primitive graphics. You can display the graphics characters through the Basic programming language with a relatively complex sequence of control characters. The screen display zips along quickly in conjunction with programs such as Wordstar, and the sharp characters are remarkably easy to read.

Typists will think the keyboard feels cheap — because it is cheap. Mounted in a detachable aluminum enclosure with a slanted base, the keys all work fine with a very light touch. The placement of the alphabet keys is standard Selectric. No control or special function keys appear, beyond the usual escape, tab, control, backspace, delete, and arrow keys and a numeric keypad. All keys except control keys repeat.

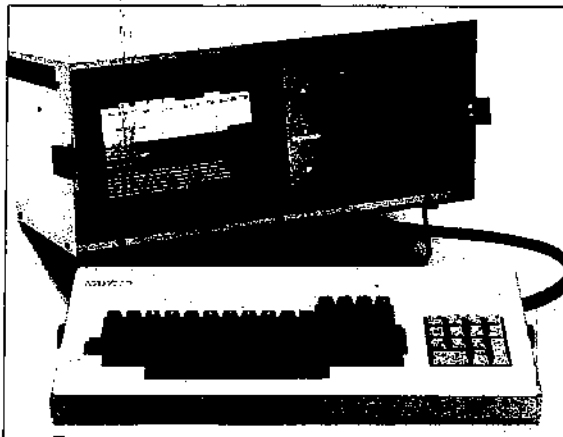
Will this keyboard last a long time? It's hard to tell. The constant pounding of a professional writer may wear it out, but during the period of our test, it worked fine. The computer makes a soft electronic squeak each time a key is pressed, a noise that prompts an urge to squirt oil on the keyboard. Unfortunately, you have to run a Basic program to turn this noise off each time you start the machine.

The half-height drives have positive disk latches that pop the disk into position and pop it out into your hand when you open the door — a very nice touch. One of the drives on our test machine squeaked as its recording head moved back and forth across the disk and sometimes required extra time for the drive to move the head beyond the sticking point. The disk drive light stays lit on the currently selected disk drive whether it is spinning or not, and a bright red light next to the screen tells you the computer is on.

In addition to the sticky recording head, our test machine had a defective printer port that would work for only 15 minutes each morning. A friendly, knowledgeable, and helpful Kaypro telephone representative told us to return the machine to a dealer for exchange or repair. Quality control difficulties with these machines have appeared with some frequency, so be sure of your dealer's ability to support the computer before you buy it.

This machine has 64K of memory, but the rest of its technical specifications remain somewhat vague in spite of the voluminous documentation that comes with the machine. Nowhere does it indicate the difference between a Kaypro 2 and a 2X, the options available for this machine, the disk capacity, or what type of microprocessor it has. A good dealer should know these things.

We'll save you the trip, though. The Kaypro 2X differs from the Kaypro 2 in that it has two double-sided, double-



The utilitarian nature of the low cost, CP/M-based Kaypro 2X is evident in its stark, metal enclosure of industrial design.

density diskette drives with a capacity of 400K each. The machine uses the same 4MHz Z80A microprocessor as the Kaypro 2. Options: None, unless you connect peripherals to the three ports. The screen displays 24 columns of 80 characters and has a graphics mode that can display 100 by 160 pixels — hardly dazzling resolution.

To set up the machine, you take it out of the box, open the cover, plug the cord into the keyboard and the computer, insert a master disk in drive A, plug the machine into the wall, and turn it on. That's all. No cards to add, no switches to set. This is a "what you see is what you get" microcomputer. There are no hidden features, no options, no choices.

The computer comes with the CP/M 2.2G operating system, a version of CP/M set up for the Kaypro. It installs easily, works flawlessly, and is — well, CP/M. It comes complete with cryptic messages, obscure commands, and the other characteristics that have endeared this operating system to a generation of computer aficionados. CP/M, of course, has all the virtues of a standard. Programs abound for the system. The amount of software that is usable on this machine is almost incredible in size, variety, and quality. If a CP/M program has no unusual hardware requirements, it will run on the Kaypro without difficulty.

Like other Kaypro computers, this machine arrives with enough software to sink any novice. Here's what you get: Digital Research's CP/M 2.2G; Microsoft's MBasic (Basic-80) and OBasic; MicroPro's Wordstar, Mailmerge (3.3), Datastar, Reportstar, and Calcstar; Chang Labs' Profitplan; Oasis Systems' The Word Plus (1.2); and a neat typewriter emulation program called Type-It. You also get some miscellaneous utilities and games.

This is not the place to review the capabilities and limitations of these soft-

InfoWorld

Report Card

Kaypro 2X

	Poor	Fair	Good	Excellent
Setup	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ease of Use	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Performance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Documentation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Serviceability	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Summary: The Kaypro 2X computer is a plain vanilla, transportable CP/M machine that comes with extensive software, no expandability, and offers reasonable performance at a bargain price. Good for word processing, but you should try this machine before buying to see if you like the keyboard, the screen, and the dealer. You are likely to see quite a bit of all three.

Product details: List price: \$1,595. Includes Z80A processor running CP/M; 64K RAM; two 400K, 5 1/4-inch disk drives; two RS-232C serial ports, one Centronics parallel port; 9-inch green monitor; 11 application packages. Manufactured by Kaypro Corp., 533 Stevens Ave., Solana Beach, CA 92075; (619) 481-4346.

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ware packages in detail, but a few words about the combination may prove helpful. The CP/M system includes the normal set of utility programs, including editor, assembler, and debugger. In addition, Kaypro includes a disk conversion program that will convert Kaypro disks into a wide variety of other formats. Unfortunately, this very useful item will not convert a disk to the PC-DOS format standard for the IBM PC. This omission greatly reduces the utility of the Kaypro within the IBM PC world, and is inexcusable since such conversion utilities exist and could have been included in the grab bag of programs. The operating system disk also has a nifty configuration program that sets up various CP/M parameters for serial printers and the like.

Along with the application software, Kaypro includes some public domain games and two versions of the Basic language. MBasic is a standard microcomputer-interpreted Basic language with wide support and many programs in the public domain. OBasic is an older version needed for some games and other programs.

The big hooks in this package, of course, are the major applications. Wordstar and Mail Merge, for word processing, list management, and document assembly, represent industry standards. Kaypro provides the latest version (3.3) of this program set. The spelling checker provided is Word Plus, a well-regarded program.

Complex, powerful, and difficult, MicroPro's database management system, composed of Reportstar and Datastar, provides more than enough features for data management tasks appropriate for a computer of this capacity.

Spreadsheet calculations can be done with either Calstar, a relatively old spreadsheet from MicroPro, or Profitplan, a slightly more recent entry from Chang Labs. Neither of these products is near the state of the art in power, flexibility, or ease of use, but both offer useful capabilities.

The documentation supplied for the software in this package all comes in the same size and color, but inside the covers Kaypro has provided reproductions of the different programs' original software documentation. Some of it is good (the Wordstar 3.3 manuals), and some is thoroughly opaque (Datastar and Reportstar manuals). The computer itself is only modestly documented, with practically no technical information and precious little general information provided. Although there are some nice introductory manuals, they often refer to software no longer with the package or reference other versions of the computer. A knowledgeable friend could make using all this documentation much easier.

So what's the recommendation on this machine? Well, it's your standard issue microcomputer with a complement of excellent to so-so software. It can't be expanded, it can't do anything really fancy, but it performs word processing and basic programming very well indeed, performs database management with unspectacular competence, and manipulates spreadsheets of modest size with considerable facility.

The machine represents frozen technology. New programs for this machine are scarce, improved versions of old programs rare, and future development

unlikely. But the price is right, the package works, and you can hardly get a better computing value for your money.

When your requirements grow, you will have to buy a bigger and more advanced computer. Until then, the Kaypro will do an admirable job. Its hard-edged industrial design will appeal to some, its plain competence will attract others, and its outstanding price will convince many more. If you take the Kaypro 2X for what it claims to be and are willing to invest some time to learn how to use it, this can be a most satisfactory computer. □

BUSINESS SOFTWARE

BACK TO BASICS

A capable accounting package for small businesses

BY CYNTHIA E. FIELD
Review Board

At last there's a professional accounting package for those of you whose small business doesn't quite fall into the Fortune 500. The maker is Peachtree Software, and its little marvel is the Back to Basics accounting system. What's especially attractive about Back to Basics is that versions are available not just for the IBM PC but also for other popular computers — the Apple II series, the Atari 800 and 1200 XL, the Commodore 64, and the IBM PCjr.

What's more exciting, you won't go bankrupt buying Back to Basics. Most versions cost just \$195; the IBM PC version, \$295.

The package consists of three modules, each on a separate diskette (general ledger, accounts payable, and accounts receivable). You can use these individually or integrate them. Back to Basics is a double entry, accrual accounting system; the program conforms to generally accepted accounting practices. While its ease of use will please you, its many features should keep your accountant happy. Also, the included password protection gives your figures a measure of security.

Among its features are those you would expect from a serious accounting package. Back to Basics offers you a built-in chart of accounts, listing account names and numbers for liabilities, equity, revenue, cost of sales, and expenses. You can easily modify this standard chart to accommodate the

Cynthia E. Field, a teacher for 14 years, has instructed classes in technical writing, computers for children, electronic spreadsheets, and word processing. She is also a microcomputer consultant and a contributor to microcomputer journals.

InfoWorld
Report Card

Back to Basics

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Poor

Fair

Good

Excellent

	Poor	Fair	Good	Excellent
Performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Documentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ease of Use	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Error Handling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Summary: Peachtree's accounting system for small businesses is a very capable product with a reasonable price. It can easily handle most needs of small businesses, provides complete reports, and comes with an excellent manual. Though you might want your accountant around when you first use it, it will become a breeze.

Product details: List price, \$295 (IBM PC); \$195 (others). Version tested available for the IBM PC and compatibles running PC- or MS-DOS. Available for other popular machines. Requires 64K RAM; two disk drives; printer. Published by Peachtree Software Inc., 3445 Peachtree Road N.E., Atlanta, GA 30326; (404) 239-3000.