dummy page, the text is now represented on the dummy page by a small box. The actual text remains in the article box so you can see it more than once.

Articles dropped onto the page align themselves depending on the page format selected. For instance, if you take a section from a one-third-page article and drop it onto a page formatted for three columns, it will align itself with the same distance as where you drop the article.

After you cut text in an article, Macpublisher automatically creates a new article with the remainder of the text in the article box. You can continue to cut and drag pieces of the article to a page or pages until you have used all of the text. Each article on the dummy page has small blue areas telling you how much text in characters, you have cut and where it is on the dummy page.

To help you get better print quality, Macpublisher allows you to print pages up to 250 percent larger than the final size by 0.1 inches. After pacing an enlargement, you can go to a good photo processing shop and have your documents reduced to make them more attractive. Another option is to purchase the LaserWriter version of Macpublisher and print your work on the LaserWriter to take advantage of its higher quality output.

Macpublisher's current versions have some problems that need to be worked out before the program's full potential will be realized. We tested two different versions of the program, both on a 312K Macintosh. Although they were different, both programs carried a create date of February 21, 1985 (in the get info-Garage.dat file) and were labeled version 1.2B. The first one we received failed four times when we worked with it. Each time the failures occurred, we tried to reconstruct the events leading to the failure but were unable to do so.

The second version didn't fail while we were using it, but it did contain a rather entertaining bug. While creating a picture, we placed it on the page and then dragged it off the page and onto the desktop. When we tried to make the picture active again, the program could not be done. Instead, every time we moved between the dummy page and the picture, the little row of the image in the original picture has disappeared. Eventually, we could see nothing in the box at all. Macpublisher thought everything was OK, and when we tried to resize the picture, it returned as it was already there. We finally opened a copy of the picture and had no further problems.

In the worst case of all, the publisher has taken to projecting errors on your part, in sight of the failures and the difficulty of page numbers until one version from another, we think further testing by the publisher is in order. For now, the majority of this generally good product will have to be careful to find the newer version and be ready to put up with its little shortcomings.

Installing Macpublisher is not difficult and can be accomplished in a matter of minutes. Getting used to the way it works might take some time, however. For instance, the program requires that files and articles be named before you can use them. To see the automatic features, just run through the dummy process. This can be partially eliminated by turning off automatic, but when combined with other features it will take some getting used to.

Macpublisher copies protected with one of those scanning key disk schemes. There are several versions of the program available — for a hard disk, Laserwriter, and Laserwriter — so you need to make sure your copy is compatible with the devices you intend to use.

Macpublisher's documentation can make learning somewhat difficult. It is written in a way that we can best describe as a stream-of-consciousness writing style that can be confusing. Despite its unusual style — and the misspellings and cramped format — there are important instructions in the manual. The greatest problem of the manual is that it was apparently created using Mac publisher with the intention of illustrating the power of the program. It does, but it also illustrates some of the program's flaws. For example, at places where rules of balance should have been used for emphasis, they weren't because Macpublisher doesn't provide normal character modes within individual articles.

Bosco Software Publishers' technical support was very helpful when we called even though the failure we called in dismiss as were rewarded and could not be duplicated, making difficult for the technician to pinpoint the cause.

We like what Macpublisher has to offer but aren't satisfied with its implementation. This is a product that people will want to own, though, once Bosco Software Publishers begins to work out the bugs.

Ready Set Go also needs to have some changes made in it before it will be taken seriously by many graphic designers and compositors. Both publishers are already working on updated versions of their products, including additions aimed at graphic artists. In their present state, both products should appeal to consumers and small businesses whose work isn't too critical. Both products could be used to lay out a small newsletter or mimeograph brochure, but it would be entirely time-consuming and tedious (and probably not very profitable) to do a quality multiple document.
KAYPRO REVIEW

3.0. The GW Basic edition is excellent and complete.

Kapono provides a setup program that allows you to configure the system and set the on-board clock. Like the IBM PC AT, the 286s contains a battery that keeps the clock on time when the power is off and supports a small memory area containing information on the current system setup. This takes the place of the on-board switches used in the original PC and the XT to identify the number of drives and the display type attached to the computer.

The setup program lets you set or change these values, and although it works just fine, there is virtually no documentation on what it's all about. A data-base user would have a hard time figuring out the screen display that allows you to select the appropriate hard disk type from a long list.

The two half-height 1.2 megabyte floppy disk drives worked flawlessly, reading from and writing to 286s floppy disks as well as the 1.2 megabyte disks. The drives are reasonably quiet, and the luxury of 1.2 megabytes on a floppy disk is a big joy to experience, although not quite the thrill of 10 megabytes of hard disk space.

In casual tests using ordinary programs, the 286s run five or six times faster than the IBM PC in memory-intensive operations but with considerably less speed to floppy disk intensive operations. The Norton Utilities benchmark normally shows Kapono running 3.5 times faster than a stock IBM PC.

Raw power, of course, isn't everything.

The 286s keyboard, also a serious black beauty, matches the AT's, although the touch is firmer. The keyboard has the improved layout that increases the size of the enter and shift keys and moves the control and function keys out of the way of certain fingers. This keyboard also has lights for the shift lock, caps lock, and esc lock keys, but they don't light up on our keyboard. The documentation offered no help as to the solution of this problem.

What about compatibility? This computer uses a Phoenix Software ROM basic input/output system (IBOS) to provide a BIOS compatible with IBM DOS. Although Phoenix has had good success mimicking the performance of IBM ROM software, absolute compatibility can't be achieved. Functional compatibility will usually suffice, however, especially if software designers respect the standard design specifications of the BIOS provided by IBM. Certainly, we were able to use the IBM specific version of DOS to operate the machine without incident.

We also ran a variety of standard IBM PC packages to see if they would perform as expected on the 286s. Micron's software run fine, not only the packages bundled with the system but also its other software designed for the IBM PC. Lotus 1-2-3 worked flawlessly, as did Microsoft Word and Sidekick. Flight Simulatir, however, would not run on the 286s, an anticipated result with an AT clone.

Hardware compatibility appears to be as good as software compatibility. For example, we got a Hayes 1,200-baud-per-second internal modem to work fine with this machine using PC-PCIBUS III. Most AT-compatible add-on boards should work fine with this hardware, but one never knows without trying the board and the software. Boards incompatible with the AT are not likely to work with the Kapono either.

Kapono's machine comes complete with

**InfoWorld**

**REPORT CARD**

**KAYPRO 286i**

<table>
<thead>
<tr>
<th>Performance</th>
<th>Software</th>
<th>Hardware</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease of use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Servicability</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUMMARY**

As close an IBM PC AT clone as you can legally make, Kapono's 286s could certainly be a money saver for buyers. It includes a color monitor and interface card in an abbreviated equipment set, as well as a set of ready-to-use application packages. At present, though, the system documentation is so sparse that anyone who doesn't know the AT or have access to IBM manuals must also purchase a version of IBM PC-DOS 3.0 because the independent MSDOS 3.0 is not yet ready. The only support available is by mail.

**PRODUCT DETAILS**

List price: $4,500. Models tested use 68020 microprocessor running at 16 MHz under PC-DOS 3.0 (which is not included). Includes 68020 microprocessor, 8 Mbytes of memory, 300-baud external modem, DSK/5 disk drives, keyboard, color graphics display capabilities, bundled software includes Lotus 1-2-3, WordStar, Microsoft Word, and MathCAD. Micron Systems Co., 4000 Galleria, Suite 500, Dallas, TX 75235. (214) 961-5151.
A hefty package of Microsoft software including WordStar 3.3 for word processing, Multiplan for data processing, Lotus 1-2-3 for database management, Starbase, a database application generator, and the CalcStar spreadsheet. It also includes Microsoft's GW Basic and Kaypro Lotus Microterminal simulation and communications program. Most of this software is from the standard IBM PC library and includes good documentation. Documentation for the Microterminal program reflects the CP/M version of the product, though, and has not been reviewed for operation in the PC-DOS environment.

The supplied software is powerful and effective, although it may not suit everyone. In short, for example, offered a flexible, sophisticated, powerful, and almost infinitely customizable database management system. When used with the application-laden Starbase, the often difficult to use package acquires a menu construction front end for the data management system that offers users relatively easy access to the power of Starbase.

Wordstar, of course, is a versatile, useful, and effective word processing program. Using the standard for microcomputer word processors, Wordstar has laid ground to somewhat, more sophisticated programs with more features or those clearly missing dedicated word processing systems. Nevertheless, the combination of Wordstar and Multiplan provides an excellent text management system for formal letters or document preparation. Some of the weakness of Wordstar, stemming from its relatively slow speed on some operations, disappears when run on the Kaypro 286's fast, powerful hardware.

You'll need to judge for yourself, though, if this software will meet your needs. The software's inclusion adds to the value of the product, but only Wordstar and Multiplan are in widespread use. If you want 1-2-3 as on your spreadsheet and Mailmerge as your database, the supplied software becomes your value and the relative cost of the package increases.

In the event of difficulty in setting up, or asking for help with this machine, you are on your own. Kaypro's user support policy can be summed up in one sentence: "Write us about your problems." Nowhere in any of the literature with this system is a telephone number given. Communicating about an installation problem by mail does not constitute support at all.

Combine the lack of a phone number with the user booklet missing 30 percent of the information a user might need, and the Kaypro 286 exists the lowest possible grade for documentation and nearly so for support. Even the manuals for some applications packages, although very good, include no information on differences to be encountered with the 286 and often refer to other Kaypro machines.

The Kaypro 286 is a powerful AT clone that operates well and comes with a good collection of bundled application software. When equipped with a 20-megabyte hard disk, a complete operating system, and a complete set of hardware and system software manuals, the 286 should provide a somewhat lower-cost, functional equivalent to the original IBM PC AT.

In current form, however, the Kaypro 286 is best used for hobbyists, users capable of adding their own technical problems, or users with access to IBM manuals and the skills and experience to use them as a guide to this clone. Less experienced users will find this machine difficult to learn, especially without help from Kaypro.

Normally, we would give a product with a grade of Four to any one area a lesser rating overall, and we came close to doing so with this 286. But the machine is such a good one that we want to encourage the kinds of users we mentioned above to look at this machine. For everyone else, we encourage you to wait a bit. What Kaypro needs to do is to make the user interface fairly simple, and in the interest of Kaypro's pocketbook, we hope the company does it soon.

**DESKTOP COMPUTERS**

**Tandy's Magnificent Concession**

**The Model 1000 is IBM PC compatible and a good choice for use with its DeskMate software.**

By P. GREGORY SPRINGER

**Review Board**

Tandy has been struggling openly with its image, its age, and its output in the blood-soaked arena of personal computers. The desktop Tandy 1000 stands easily with the company's portable models 100 and 200 to prove that success comes with Texas-size performance.

By developing, manufacturing, and marketing the PC compatible, Tandy is making no small concession to Big Blue's dominating stronghold. The good news is that the Tandy 1000 — as the old cliché Radio Shack crowed when it first appeared with considerable, but modest, innovations that make it worthwhile in its own right.

True compatibility is itself no innovation. The first factor to cause much republic about the 1000 is its price. It is less than a comparably equipped IBM PC.

The 1000 was never intended to move awards on the PC, although it is equipped with the same processor that might have been the IBM's firstrial.

The Tandy 1000 is now Tandy's most popular computer, and it deserves the attention. It comes equipped with a sample integrated software program, DeskMate, that makes the package a conceptually sound deal. Buyers of the 1000 purchase both the practical software for immediate entry into useful computing and the potential for expansion in business or home fields.

The basic unit takes up little desk space below.

P. GREGORY SPRINGER is a freelance writer and book author who specializes in computers and the entertainment industry.