

program is particularly good for on-screen design because you can add and delete fields at will and move them around until you get the report you want. The Macintosh seems like a natural to make the same editing easier.

But because you cannot see the cumulative length or the format layout of the report as you work, the process is much more difficult. In addition, you cannot effectively revise the format without undoing and completely reselecting the fields.

Reports can be displayed on the screen, sent to a disk, or printed. You cannot store DIF files nor use different type fonts. You can choose from six type sizes (from nine to 17 characters per inch). If you have an appropriate printer, you can construct reports up to 255 characters wide. We tested the program on a standard Image-writer and could produce report widths up to 132 characters wide with the smallest type size.

You can sort reports on up to 10 fields or a maximum of 40 total sort characters. You can have totals and subtotals, but the subtotals can be generated by changes in the first sort field only. If the field for which a total is requested is either alphanumeric or a date, a count of records in the group will be produced instead of a total. No other statistics are provided.

DB Master for the Macintosh comes with a users guide, registration card, and program disk. All you need to do to get started is make a copy of the program disk, put the original in a safe place, and start to create your file.

The users guide is a 116-page, spiral-bound volume with a table of contents, five major sections (each including a detailed list of contents), and an appendix that includes a glossary and program specifications. There is no tutorial, either on disk or in the manual.

The introduction to the users guide says that you probably won't need it. It advises you to experiment with the program, read the help messages, and use the manual for reference in case you want to know the "finer details." We don't agree. There are some dedicated computer junkies who may enjoy experimenting blindly, but most people who spend money to buy a database manager probably want to get on with their first file design. We tried the experimentation approach and found it frustrating to learn by making errors. We missed many valuable features until we read the reference section of the manual — the last section.

In fact, much of the material in the manual is not presented in the order of its use. For example, you would not know (from the manual) that you have alternative methods of selecting items from the menu bar until you get to the reference

sections or guess the meaning of the control symbols in the menus.

Errors you make in file design or data entry are generally well-prevented by the program — you will see a dialog box that tells you what is wrong and what to do next. There are help screens available throughout the program.

The software license agreement and limitations on warranty and liability state that you must complete and return the product user registration card to legally use DB Master on the Macintosh. You are then eligible for technical support, notifications of updates, free replacement of damaged disks for 90 days, and the file design guidelines.

That the guidelines are sent to you after you return the registration seems a poor idea. We have not seen the guidelines for the Macintosh version, but those that were sent to registered owners of the Apple II and IBM versions are useful instructions on database design, especially for users with little experience. The manual quite properly stresses that the design of a file requires thought about how it will be used and should be done before the file is created. It also refers you to the file design guidelines as an aid in doing so. We're not sure how much use they will get if they arrive later.

We found Stoneware's telephone support helpful in the past and contacted the firm three times with questions and requests for support during this review. Each time we called, the support phone was busy. Our first message was answered the same day, but the technician did not seem familiar with the Macintosh. Our second call was not returned, so we called again two days later with a complaint. We

were put through directly to a technician who was much more helpful than the first.

The company is already planning a revised version of the product for release within a few weeks. The revisions are aimed at improving sorting on the 512K Macintosh, and a few known problems are being corrected. Stoneware has purposely limited distribution of the initial version to make it easier to work with any users who find errors.

One problem we were told about, but did not discover ourselves, will cause the program to fail if you design a file composed entirely of numeric fields. This will be corrected in the revision; for current users, the problem can be avoided by adding an alphanumeric field to the file, without data (so it won't take up any noticeable space).

The technician did not know of any plans by Stoneware to notify current registered users of the revision; rather, its plan is to work with those who call with a problem to try to solve it, probably by sending the revised disk.

The Macintosh DB Master is much easier to use than the first DB Master for Apple II because this machine is inherently easier to learn and use. Some improvements to previous versions have also been added as a result of Stoneware's additional experience and feedback from users. The current version, however, lacks some of the useful features of previous ones (particularly in report preparation), and the documentation has quite a way to go. Compared to the current crop of data managers on the Macintosh, this one's not a bad choice. But it's not the solid Macintosh database that buyers still await. □

PERIPHERALS

KAYPRO LETTER-QUALITY PRINTER*No workhorse, this one is built for economy*

BY JOHN LOMBARDI

Review Board

The printer market is like a chameleon. Dot-matrix printers have become more like letter-quality printers. Daisy-wheel printers have become cheap enough for common use. New printers employing ink-jet or dry-copier technology seem to appear every week. What Kaypro has thrown into the fray is one of the second-class, a repackaged Juki 6100 daisy-wheel printer that boasts of being high quality at a bargain basement

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price. You're most likely to see this printer as part of the Kaypro Business Pak, packaged with the Kaypro 2X microcomputer. (See *InfoWorld*, November 12, 1984.) Although the printer comes with a Kaypro label, the tag on its name plate easily identifies it as the familiar Juki 6100, a relatively slow (15 character per second) printer that promises to function using the software control codes of the Diablo 630.

This printer comes with a parallel interface, friction paper feed, one daisy wheel, a cable to connect it to the Kaypro 2X, one ribbon cartridge, and a manual. The machine sets up easily, and the instructions for its use are clear and reasonably comprehensive, although the

manual is somewhat skimpy on information about repair or test procedures. If you have a good dealer, this may not be a problem; we advise you to check ahead of time.

The printer has an easily accessible set of small switches inside the case that you use to set up the machine to handle different computer characteristics. The manual has clear instructions on how to set the switches.

We tested this printer on an IBM PC rather than the Kaypro 2X because our Kaypro's parallel port did not work reliably.

The Juki 6100's price is modest and some compromises in speed, flexibility, and durability are evident. Constructed of reasonably sturdy plastic with the fewest possible metal parts, the Juki 6100 does not inspire great confidence in its long-

term durability under demanding conditions. The print head and other mechanisms make liberal use of plastic parts, too.

Although the printer comes with a friction feed platen, a tractor feed can be attached without difficulty — although, of course, it would add considerably to the price of the printer. Juki 6100s use Triumph-Adler-compatible print wheels with 100 characters each, more than are available on the standard print wheels for the Diablo 630.

Unless you live in a major metropolitan area, however, you may have some trouble finding a large selection of compatible print wheels. Several large mail-order computer supply houses do not carry these items.

Print speed on the Juki 6100 is advertised as 10 characters per second when printing the Standard Shannon Text, although with other texts the printer can achieve a speed of 17 characters per second.

This clocks in at roughly half the speed of a Diablo 630. In short, the Juki 6100 is slow, and for large printing jobs this is significant.

The carriage can handle 132 characters at 12 characters per inch, enough to take paper 13 inches wide. The print mechanism uses IBM Selectric single and multistrike ribbons.

As a bare bones machine, this printer has a front panel with power-on, ready, and check lights. The reset, pause, and form feed buttons are membrane switches, and spacing — proportional spacing or 15, 12, or 10 characters per inch — can be selected by a slide switch. Resetting the spacing, however, requires you to turn the machine off and then on again to capture the new setting. There is no line feed button.

The Juki 6100 is supposed to emulate the functions of the Diablo 630 letter-quality printers. Given the many versions and variations on the Diablo unit, you should not expect duplication.

We tested the Juki's performance in this respect with Volkswriter, which makes extensive use of the Diablo routines for boldfacing, underlining, proportional spacing, and the like.

In our tests, the Juki 6100 performed competently, if slowly. It handled the

standard print enhancements of underline, supersubscript, strikeout, and bold and shadow print with the same elan as our Diablo 630.

The Juki, however, cannot strike out text and use proportional spacing simultaneously. The Diablo handles this combination easily.

Also, the Juki 6100 can move its carriage and platen in the same increments as the Diablo 630, thereby permitting certain kinds of graphics, although neither the Juki nor the Diablo would be anyone's choice for a graphics printer.

In our tests, the print quality of this machine is virtually indistinguishable from that of the Diablo 630. Clarity of impression and other visual characteristics of the print produced by the Juki 6100 matched what we have come to expect from the Diablo.

Nicely complementing a no-frills system such as the Kaypro 2X, this printer is certainly a cost-effective alternative for those who need daisy-wheel printing at dot-matrix prices. While not quite as versatile as the Diablo 630 it emulates, the Juki has most of the more expensive printer's functions for about a third of its price.

The Juki is slow and noisy, has relatively less sturdy construction, and probably won't take the kind of constant use that an office printer must. But for

InfoWorld

REPORT CARD

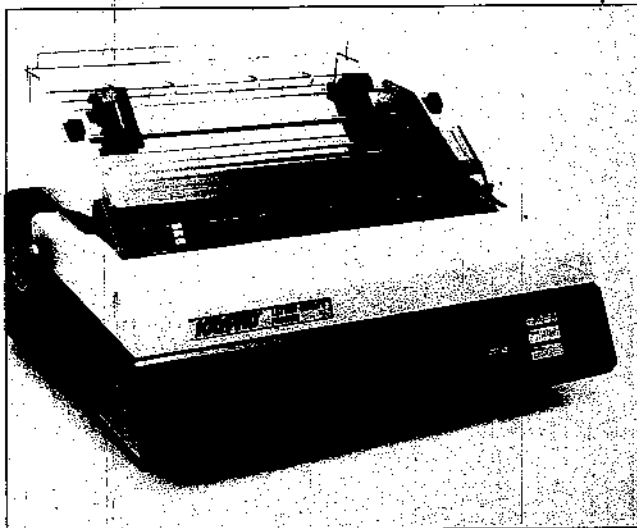
Kaypro Printer



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

Summary: The Kaypro/Juki 6100 letter-quality printer is an inexpensive daisy-wheel printer that produces high-quality printing at slow speed. Built for economy rather than durability, the printer can be a cost-effective alternative for environments in which printing volume is low. Check for a good dealer first, though.

Product details: List price, \$599. Unit tested available with Centronics parallel connector. Prints at 17 characters per second maximum. Includes friction-feed, 13-inch carriage; 100-character daisy wheel; cartridge ribbon; connecting cable. Tractor feed optional. Distributed by Kaypro Corp., 533 Stevens Ave., Solana Beach, CA 92075; (619) 481-4346.



Kaypro's letter-quality printer sacrifices ruggedness for low price.

light use at home or for offices with occasional correspondence requirements, this might be a successful alternative to more expensive, professional-quality printers.

Be sure, however, that you have located a source of print wheels and a dealer who can handle repairs before you buy. You will need both.