

covers "physical defects in the physical software disks or printed materials." Ashton-Tate's liability is limited to replacing the defective material; this the company will do at no charge, which is a bonus.

There is also a limited money-back guarantee. "Significant errors in the software that make it unusable" are covered. At Ashton-Tate's option, it may authorize a refund during the first 90 days you own the package. Frankly, for a product of this complexity, we think it unlikely that such an error could be found during that short a period; however, the fact that the firm has broken with the industry tradition of complete disavowal of the product makes this warranty better than most.

The program is copy-protected.

We called Ashton-Tate's toll line for some help on a few of the difficulties we encountered. We were greeted with a recorded message informing us that support lines are open from 6 a.m. to 4 p.m. Pacific time and that the busiest hours are from 10 a.m. to 1 p.m. Pacific time. We

were then put on hold. Periodically, an advertisement would come on the line. We waited 10 minutes and then gave up. In the past, we have found Ashton-Tate's software support to be helpful on those occasions when we've been able to get someone on the line. Our advice is to call early in the morning.

Ashton-Tate goes to a lot of trouble to support the product through documentation, electronic bulletin boards, publications, and a knowledgeable staff. It also provides a somewhat more enlightened limited warranty than most other vendors of its size. We rate support satisfactory. A higher score is not warranted for two reasons: the limitations of an overloaded support line and Ashton-Tate's continued insistence on copy protection.

VALUE: Dbase III Plus continues the great tradition of pricey software. List price for the single-user version is \$695. The multiuser version requires the purchase of additional three-station LAN Packs, at \$995 each, which support three

additional users and which include three full sets of documentation. Surveys indicate that the average network will have five workstations, bringing the total cost to \$2,685, or \$537 per workstation at list. Larger networks will have lower costs per user. Ashton-Tate insists that it will provide no site licensing, though dealers may give discounts to favored customers, and Ashton-Tate will offer training and support to corporate customers through the dealers. Given all this, we cannot justify a very good score in value.

On the other hand, it is very powerful software. The most amazing thing about this program is that it runs in only 256K of memory, which is becoming a remarkable feat in this day of gargantuan programs. In the end, we feel the power and price are roughly balanced, leading us to give a rating of satisfactory in value.

Despite shortcomings in copy protection and the method used to implement LAN schemes, there is a lot to like about Dbase III Plus.

Wordstar 2000 Upgrades Speed, But for Hard Disk Customers Only

By John V. Lombardi
Review Board

The first incarnation of Wordstar 2000, Micropro's move into the world of corporate word processing, offered greater power and more features in a structure easier to learn than the firm's flagship product, Wordstar 3.3. It suffered from sluggish response, an aggravating copy protection scheme, and a complicated installation process. Our review found the product less than satisfactory. (See "Wordstar 2000: Some Improvements, Performance Problems Mark This Long Awaited Product," January 14, 1985.)

Soon after Wordstar 2000's first release, Micropro dropped the copy protection. Recently, the company delivered Release 2, with a number of improvements in speed of operation and some added features designed to keep this package competitive with other powerful top-of-the-line products, such as Word Perfect 4.1 by Satellite Software International, Multimate Advantage 3.6 by Ashton-Tate, and Displaywrite 3 by IBM.

The word processing battleground becomes more confused as high-power office products for the IBM PC family proliferate. By now, every major word processing product does a fine job of the basics of entering, editing, and printing text, so competition has moved toward a war of features.

First came the list processing functions for preparing form letters, then the spelling checkers and spelling correctors. In search of product differentiation, publishers have offered us windows, multiple columns, alternative character sets, direct import of spreadsheets, sorting and arithmetic, complex conditional document assembly, built-in filing systems, ready-made mailing list combinations, and sophisticated document conversion to transfer documents between different word processing systems. Wordstar 2000 has all these and more.

The trade-off for this feature proliferation is in hardware requirements. Like its major competitors, Wordstar 2000 can't function effectively with less than a fully loaded IBM PC or compatible with a hard disk drive and about 512K of memory. It will run on a 256K system with two floppy disk drives; but performance is so slow and inconvenient that we cannot seriously recommend such a configuration.

This review considers the product on an IBM PC with 640K of memory, one 360K floppy, and a 20-megabyte fixed disk. You can expect better performance on an IBM PC AT compatible with a fast hard disk drive. We found that, in the context of feature-laden but hardware-hungry word processing titans, Wordstar 2000, Release 2 represents a competitive, state-of-the-art word processing system.

FEATURES: Wordstar 2000's list of features goes on and on. Basically, the product consists of a core word processor and several add-on modules. The core word processor handles all the activities related to entering, revising, formatting, and printing text, including form-letter capability. This module is very powerful, with a multitude of options for controlling the

The Smart Software System LAN Multiuser Version



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John V. Lombardi is a professor of history and the author of five books. He has been working with computers since 1967.

appearance of text. Editing commands are numerous and, in the now-famous Wordstar style, are invoked by control-key combinations. The Wordstar 2000 command system uses some different key combinations that are somewhat easier to remember and use than the Wordstar 3.3 commands, but the family resemblance is evident.

Multilevel menus provide users with help and with descriptions of command functions. Once users learn these commands, these help screens can be turned off, leaving more room for editing. Wordstar 2000 formats and hyphenates on-screen automatically. It shows text substantially as it will appear when printed, and a wide range of commands allows complete control over the placement of text on the printed page. There is an undo feature to restore erroneously deleted text; a limited sort capability; good math functions; a complete set of block commands to move, copy, or delete sections of text; and the normal complement of print enhancements such as underline, boldface, strike-through, italics, and the like.

The new release adds a document history screen to go with each document created. This is a feature derived from dedicated office word processing machines and is characteristic of competing word processing systems such as Multimate, OfficeWriter, and Displaywrite. A document history lists the name of the operator; information about the document's contents and author; a history of revisions, distribution, and keywords; and a key-stroke count for the document. Documents can be reviewed by checking the history rather than examining the documents themselves. However, there is no master index or directory that summarizes elements from the document history for several files at once.

Most high-end word processing systems now include the capability to print multiple columns on a page, like a newspaper, and Release 2 of Wordstar 2000 has added this feature. (The column-block capabilities of the earlier version could be used to create multiple columns, but in a different and less convenient fashion.) Wordstar's column function handles up to three columns per page, although it doesn't show them all together on the page. Instead, you type the first column and Wordstar inserts a page break; then you type the second column, which is followed by a page break and the third column. When printed, the columns come out side by side on the page. Release 2 also permits footnotes to be placed at the bottom of the page or collected at the end of the document.

Another characteristic of high-power programs of this kind is their capability to insert material from other popular programs into text prepared by the word processor. Release 2 has the capacity to import materials from Lotus' 1-2-3, Sym-

phony 1.0, and other programs or document formats. Some can be imported directly, while others need to be converted with utility programs.

Other changes are less dramatic. Release 2 has a new printing command for italic print, where the printer permits, and now lets users send special printing codes to the printer from within a document. Improved commands to handle hanging indents, paragraph indents, and some other minor enhancements complete the changes for Wordstar 2000, Release 2.

In addition to the core word processing program, Wordstar 2000 also has a Plus package that includes three add-on programs: Telmerge, Mail-List, and Starindex. These utilities have some minor enhancements over the previous release, where the Plus features were called Advanced Features. Telmerge is a communications program that allows the user to access a range of communications services easily and to transfer information from the service into a Wordstar 2000 document.

Mail-List is an automated mail list management program organized around a fixed form for entering name and address information. If the fixed template serves the needs of your organization, it's a fine system; otherwise, Mailmerge, Wordstar's built-in form letter system, can be used to design custom lists.

Starindex prepares tables of contents, outlines, and indexes for documents created in Wordstar 2000. The program has the usual features, including multilevel forms and a wide range of options for the final output of the index or table of contents.

Finally, the documentation for the Wordstar 2000 package is improved, especially the Plus documentation.

PERFORMANCE: Wordstar 2000 has a somewhat deserved reputation for sluggish response. Formatting everything on the screen, justifying as the text is entered, inserting hyphens whenever needed, and keeping track of the many options can slow down response time. But we found the slowness neither uniform nor always irritating.

When adding text to the end of a file, Wordstar 2000 has an difficulty keeping up with a fast typist. To improve response, the program gives priority to handling what is happening on the cursor line, leaving the updating of the rest of the screen until later. Thus it is possible to be ahead of the overall screen by a few lines, but not ahead of the cursor on the line where you are typing. When you stop for a moment, the whole screen is updated, the hyphens are put in, the on-screen justification takes place, and everything looks as it will on paper.

However, when dealing with a long file or inserting information into the middle of a file, it is possible to type ahead of the cursor by just a little bit, giving a slight feeling of

Infoworld

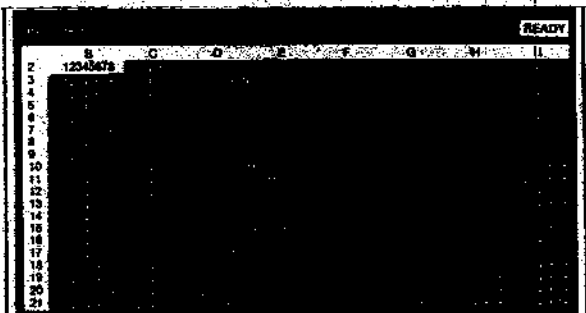
REPORT CARD

PERFORMANCE SOFTWARE WORDSTAR 2000, RELEASE 2

6.8	Unacceptable	Poor	Satisfactory	Very Good	Excellent
■ ■ ■ ■ ■					
Performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Documentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ease of Learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ease of Use	<input type="checkbox"/>	<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"/>	<input type="checkbox"/>
Support	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Value	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The new release of Wordstar 2000 adds document history, multiple columns, the capability to import 1-2-3 files, and DCA compatibility. It also improves sluggish speed enough to allow its many features to shine. Wordstar 2000 fights the feature war of the word processing triad well.

REQUIREMENTS:
List price: \$185 (\$585 with Plus package). Version tested (Release 2) available for the IBM PC and clone compatibles running PC-DOS or MS-DOS 2.0 or later, and for the AT&T 7300 running Unix V. Requires 256K of memory (320K for DOS 3.0 and 3.1), two floppy drives. Telmerge module requires Hayes Smartmodem or compatible. Microsoft International Corp., 33 San Pablo Road, San Rafael, CA 94903; (415) 499-1200.



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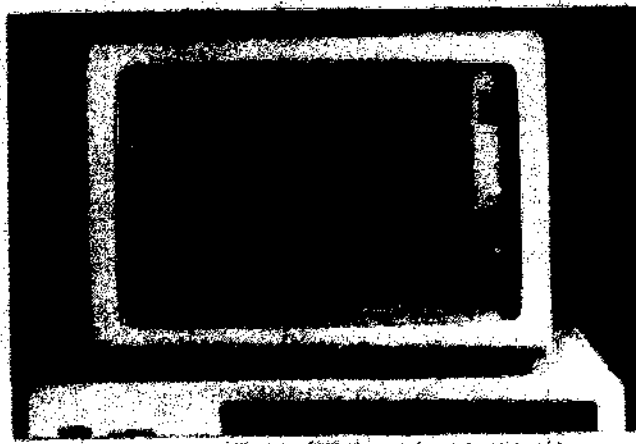
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With Release 2, the update of Wordstar 2000, you just add the package and presto! It's now better, but it still retains compatibility of features from the past.

sluggishness to the operation of the system. It's not a major problem, but it is more noticeable than equivalent delays on competitive products.

Wordstar 2000, Release 2 also takes quite a bit of time to move from the beginning to the end of long documents or from place to place inside long documents. Using a 56-page document, we found that Wordstar 2000, Release 2 took about two minutes to go from top to bottom the first time we moved, then six seconds to return to the top, and finally, a minute and a half to go to the bottom again.

By comparison, Wordstar 3.3, a powerful product with fewer features, took 30 seconds to go from top to bottom and 20 seconds to return to the top of the same document. Word Perfect 4.1 took 75 seconds to go to the end of a similar document the first time, 28 seconds to return to the top, and 37 seconds to move again to the end of the file. If your work involves long-distance moves within long documents, this is one area where Word-

star 2000, Release 2 can be slow.

Other performance characteristics of this program performed as billed. The spelling checker, a direct descendant of Micropro's Correctstar, works reasonably well, although it is somewhat slower than competing products.

One of the enhancements to this version of Wordstar 2000 is a conversion program that takes files from various programs and turns them into files usable by Wordstar. The principal formats supported are Wordstar, Wordstar 2000, and IBM's Document Content Architecture (DCA). The Wordstar 2000 conversion routine will handle any combination and, indeed, recommends that you go from Wordstar to DCA and then to Wordstar 2000 to be sure of consistent conversion results.

Since exact conversion is often difficult, the manual provides elaborate and careful tables of the likely conversion results and how the routine will handle each of the Wordstar or Wordstar 2000 commands when converting. We converted a 56-page

document from Wordstar to Wordstar 2000 in about eight minutes. The conversion was mostly satisfactory, but some hanging indents did not transfer correctly.

DCA compatibility is an advantage to those with a number of word processing systems. DCA is a word processing data transfer standard used by IBM in its minicomputers and mainframes as well as the Displaywriter; it allows programs to transfer text files to other systems, while retaining most of the word processing special effects such as footnotes, boldfacing, margins, and centering. DCA files can also be transferred by network to larger computer systems and dedicated word processors.

Another feature included in most high-end word processing packages is program windowing, and Wordstar 2000 is no exception. It will handle three windows, operated independently of one another, looking at different portions of the same document or looking at different documents. It is easy to cut and paste information among the active windows.

Wordstar 2000 includes Mailmerge as an integral part of the system for the purpose of preparing form letters. This version of Mailmerge is very comprehensive and powerful, with conditional selection of data; as a result, complicated documents can be prepared. In addition, Wordstar 2000 has a useful macro facility that lets the user define an entire phrase or lengthy command sequence into a keystroke or two. A typewrite mode is also included to let you type directly to a printer.

Release 2 of Wordstar 2000 can also extract a range of cells from a Lotus 1-2-3, Version 1A worksheet and insert it directly into text, a very useful feature that worked in our tests just as advertised.

The Plus add-on programs are less impressive. Many communications programs do as well as or better than Telmerge, although the capability to move from Wordstar to Telmerge and back is an advantage. Telmerge does have an excellent manual with an outstanding discussion of communications fundamentals.

Starindex is not our favorite program. Its commands and operating style are relatively clumsy. In its implementation, to put a word into the index you have to type the word separately; it cannot simply be marked in the text, as an earlier version of the program allowed. Further, Starindex

creates a duplicate of the original file when compiling the index, eating up disk space. Wordstar is wasteful of disk space anyway, so this additional file copying is not welcome. On a floppy disk system it may make use of the Starindex program impossible.

Finally, the Plus programs are separate, self-contained programs with their own commands and limitations, and they create their own disk files. Although they can be called from within Wordstar 2000, they are not really part of the word processing package. And although they enhance the utility of Wordstar 2000, Release 2, they are not quite as polished as the core program itself.

Although we cannot recommend this program for a floppy disk system, Micropro has tried to make the program more usable for such systems by adding a feature to minimize disk swapping. A user who has at least \$12K can load the entire main program into memory, speeding up performance by reducing the need to access the drive and freeing one drive to contain one of the Plus modules.

With the improvements in speed in this release, we raise our rating of Wordstar 2000 to very good in performance. Its lengthy list of performance features allows the program to do almost everything one can think of and do it all well. It's a powerful program, even if it is no speed demon.

DOCUMENTATION: Release 2 of Wordstar 2000 comes with three big manuals and one starter kit. The starter kit includes an outline of the differences between this release and the previous version. The other manuals include a very comprehensive and helpful training guide that goes along with the elaborate and useful tutor lessons included on disk, a reference manual that covers all the commands and options in Wordstar 2000, and a Plus Guide, which has three separate manuals for Telmerge, Starindex, and Mail-list bound together. These documents are well-designed, complete, and helpful. The Plus Guide is somewhat less successful than the others because it does not include a comprehensive index.

The documentation is very good and has even improved since the last release, especially the Plus documentation.

EASE OF LEARNING: At the simple level of entering text and producing simple documents, Wordstar 2000 is relatively easy to learn how to use. However, the

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complex formatting commands, the add-on programs, and the many other features of this powerful package are not particularly easy to learn. This is not entirely a reflection on the design of the program or the completeness of the documentation, but on the complexity of the operations possible. Mastering all the possibilities and consequences of Wordstar 2000 is not the work of an afternoon.

We did have some unexpected results with installation on our system, which uses a monochrome green screen attached to an IBM Color Graphics Adapter. Following the clear installation instructions resulted in a display of perfectly readable text in the program, but an illegible start-up logo and an illegible screen for the document conversion program. Also, the screen display for underline and boldface were identical on this system.

This problem aside, the package deserves a very good rating for ease of learning because of the clarity and thoroughness of its instructions.

EASE OF USE: For intensive editing tasks that involve a lot of moving around a document and a lot of cutting and pasting, Wordstar 2000 is slow even on a hard disk system. In addition, some of the add-on packages are complex.

But for most word processing tasks, this could be the easiest package of its kind to use. The help screens and the logic of the command structure aid ease of use.

Wordstar 2000 tries to show most print enhancements and other formatting characteristics on the screen; the limitations in the capability of most displays mean that some enhancements do not appear. Wordstar 2000 has a command to display all codes, which fills the screen with bracketed print enhancement and formatting instruction codes. This is useful when diagnosing unexpected printed output.

For a wide range of word processing tasks from simple to complex, Wordstar 2000, Release 2 offers straightforward and easy to use features. We rate ease of use as very good.

ERROR HANDLING: Wordstar 2000 recovers quickly and relatively painlessly from errors in commands and editing. The program is quite forgiving of erroneous keystrokes and has a useful undo command to retrieve mistaken deletions. It handles disk drive errors, such as an open door or no disk in the drive, without difficulty. The heavy use of backup files, a tradition for Wordstar, makes it possible to recover when a file is damaged during editing. Wordstar's error handling deserves a very good rating.

SUPPORT: Micropro's product support is satisfactory. The program is not copy-protected. Registered users are notified of product updates and improvements. Support is provided through toll lines to a technical staff that Micropro acknowledges is overloaded, as longtime Micropro product users can attest. The firm tries to encourage users who need a lot of support to subscribe by paying \$60 for six months or \$95 for twelve months, giving the user a toll-free number that results in quicker response. The firm also offers a separate toll-free number for product update information.

VALUE: Wordstar 2000, like its competitors, is not sold at a bargain price. Release 2 is a significant improvement over the earlier release, and compared in its rivals, it now seems a satisfactory value, offering comparable features and capabilities at an equivalent price. Release 2 represents a significant improvement over the previous release.

For complex word processing tasks using fixed-disk microcomputers, Wordstar 2000, Release 2 is a good product because it offers a comprehensive list of powerful features. It is not, however, recommended for floppy disk computers, nor for those who insist on superior speed in performance.

Now Release Of VP-Planner Should Assuage Many Critics

By Rolf Kallenbach
Review Board

When we first reviewed VP-Planner, a 1-2-3 look-alike and multidimensional database manager from Paperback Software, it had a few shortcomings, primarily in speed,

Rolf Kallenbach is a New England-based independent microcomputer consultant and former technical editor.

and at least one serious bug. (See "VP-Planner: 1-2-3 Clone Not Up to Par," February 10, 1986.) We're pleased to learn that this bug has been exterminated in Version 1.1 and that the program operates faster, making it more on par with 1-2-3.

Changes and upgrades occur in the areas of features, performance, documentation, support, and value.

FEATURES: Version 1.1 adds the capability to convert files stored in the data interchange format (DIF). This is the only significant feature added to either the spreadsheet or database sections of the program.

PERFORMANCE: The new version of VP-Planner corrects the bug discovered in Version 1.0, in which a worksheet with future value calculations, vertical lookups, and nested "@IF" formulas locked the program into a calculation loop. In Version 1.1, the same worksheet now recalculates to a conclusion taking 42 seconds; 1-2-3, Version 1A is still faster, clocking in at 33 seconds.

The new version does improve on the speed of other operations. VP-Planner, Version 1.1 deletes 70 rows in 14.9 seconds, compared with 18.9 seconds in the earlier version. It's still slower than 1-2-3, Version 1A, which performs the same task in 10 seconds, and Release 2, which takes only 1.3 seconds.

Although some operations are faster, loading appears to have slowed. The latest release of VP-Planner takes 47.5 seconds to load a large worksheet, compared with 37.5 seconds with Version 1.0. This makes it slower than 1-2-3, Version 1A, which takes 33.5 seconds, but faster than 1-2-3, Release 2, which takes one minute and 11 seconds.

However, the bug found in sorting names in a worksheet still exists in the new version: VP-Planner, Version 1.1 sorts the records faster, but it still does not sort them in the correct order. Strangely enough, if you sort them a second time, they end up in the correct order.

Version 1.1 allows data stored in the

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Compare: the Farsight Spreadsheet is fully supported by the people who created it. And Farsight gives you some amazing high-voltage features to work with.

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