PRODUCT COMPARISON

InfoWorld evaluates 14 office/professional word processors

HEAVY DUTY
WORD PROCESSING

More competitive than practically any other major software category, high-powered office/professional word processing appears captured by an accelerating race to find new features and functions for the next release. Driven in part by the growing sophistication and power of affordable hardware, word processing capability expands to take advantage of more memory, bigger and faster hard disks, faster and higher-resolution displays, and, especially, the runaway success of the 300-dot-per-inch laser printer with proportionally spaced fonts.

Standards of quality and acceptability rise with the quality of the market leaders in this field, and what was interesting and exciting one year is standard the next. The life cycle of major revisions in word processing shortens as each company struggles to get new features implemented to match those introduced by the competition.

All this requires frequent reviews and re-reviews as the judgment of excellence last only until the next version of the competition is released. While this is exciting for reviewers, advertisers, and technology enthusiasts, it drives users and managers nuts. Specialist users want the latest version of their favorite word processing package, but average users resist the change, recognizing that the cost of adjusting to new features will fall on them — learning revised command sequences and coping with the increased complexity of more powerful word processing. Worse yet, in the scramble to meet advertised release dates and beat the competition, some of the best in the business release bug-ridden upgrades that must pass through several revisions before stabilizing.

In spite of these difficulties, however, the user community has shown a remarkable capability to keep up with the changes, partly because most people can, in fact, produce better results with easier-to-use and more powerful and capable software and hardware technology. Later printers produce better copy than impact printers, and are indispensable for graphics. Professionally spoken, fonts look good and require less space for the same message. Graphics integration greatly improves the ease of constructing complex documents, and text review of the printed page becomes an essential ingredient for the efficient production of final copy.

Here we evaluate several players in the current crop of popular office/professional word processors, and while all of them are quite competent products, there is a relatively wide range of features and capabilities. Part of this difference is the result of the revision cycle, with some products evaluated in a new release while others are still being developed. For example, WordPerfect, as represented by its recent-released Version 5.0, while Microsoft Word is in with its current Version 4.0 (5.0 is due in early 1989). and MacWrite Advantage II has been out for some time.

Another group of products shares a similar product philosophy: Version III, Nisus Byte, and PC Write offer greater customization capabilities but require more user effort. Spire mimics the Zen interface of other systems while WordStar and Amiga, along with DisplayWrite and MacWrite, have the highly structured menu systems derived from their commercialized office word processing systems models. WordPerfect, the WordStar products, and Total Word offer popular interfaces that emphasize document construction but adapt somewhat less rigorously to structured menu systems. Microsoft Word has a typewriter's approach, with special emphasis on using a mouse, and Lotus Manuscript offers an extremely-structured approach to document construction that emphasizes the sophisticated nature of elements of text preparation and organization.

This product comparison is based on a 1988 set of scoring criteria used in the performance category of "How We Test Office/Professional Word Processors" (Page 45), and many performance scores have changed (effectively) to reflect the new criteria. Many products have been reviewed before in their current iterations, and as a result other scoring categories, such as Documentation and User Interface, remain largely unchanged; however, in this changing field new tests can affect scoring of any category, and some scores have changed in these areas as well. We repeated telephone calls to technical support, and the scores in this category may be

PRODUCTS REVIEWED

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INFOWORLD
Different from previous reviews, this product comparison captures the high-end word processing marketplace better than its predecessor. Displaywrite 4.0 has enhanced its focus on the competition with a high-quality printout. The word processing system would not be competitive in corporate environments from IBM. Displaywrite 4.0 is also shipped with a backup of 12,000-word processor and contains a variety of enhancements and new features.

We offer useful printer support for IBM, Xerox printers, and while not an essential job for standard office tasks, it includes a host of features now standard in small businesses. The competition has a more powerful feature set. Although significantly better than IBM, Displaywrite 4.0 is still compatible with most popular word processors and will be enough for most users in corporate environments. Displaywrite 4.0 is also shipped with a backup of 12,000-word processor and contains a variety of enhancements and new features.

How We Tested Office/Professional Word Processors

Our product comparison of office/professional word processors establishes new criteria and ratings for 1989 based on reader surveys and experience with established testing methods.

The InfoWorld Test Center evaluates the products according to an established baseline of core requirements in the performance, report card category, which includes basic editing, formatting, spelling checker, and dictionary, as well as performance, document, and user interface features. We provide a detailed rating of each product for each category.

Performance scores are based on a detailed, item-by-item examination of features and how well they are implemented. InfoWorld Test Center technicians use a detailed rating sheet for each product. The rating sheets are considered a cautious estimate of what can be expected in the field.

The test setup includes a IBM AT Model 320 with a 3-Mbyte floppy disk, IBM PC, and 640K of RAM.

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Basic editing: This is a test of the word processor's capability to perform standard, word processing editing tasks. The basic scored features are: editing, paste, delete, insert, and search. There is a separate score for each feature. The basic scored features are: editing, paste, delete, insert, and search. There is a separate score for each feature. The basic scored features are: editing, paste, delete, insert, and search.

Formatting: This is a test of the word processor's capability to perform basic formatting. Basic scored features include: line spacing, paragraph alignment, columns, tables, and page layout. The basic scored features are: editing, paste, delete, insert, and search.

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Microsoft Word

VERSION 4.0

Long known for its superb formatting, Microsoft Word produces the best output money can buy. The high-quality typographic styles sheets with elaborate formatting specifications, color, pictures, and other information can be saved. These can then be reused, say, for other documents with the same type.

One word text in the typewriter, eye, focusing on the precise details of the page, and the result is a page that is perfect in every way.

Microsoft Word is a product of Microsoft Corporation, a company that has been in the forefront of the word processing industry for many years. It is designed to be easy to use and to produce professional-looking documents.

What's Next in the Word Processing Competition?

Over the years, word processors have competed for supremacy in the hearts and minds of users by offering the best features and capabilities. Today, the Microsoft Word processor is the clear winner in this battle.

Microsoft Word offers a wide range of features and capabilities that make it the preferred choice for many users. It is easy to use and provides a wide range of features to help you create professional-looking documents.

In addition to its powerful text editing features, Microsoft Word also includes a range of desktop publishing tools that allow you to create professional-looking documents with ease.

Microsoft Word is available for both Windows and Macintosh platforms and is compatible with a wide range of other applications. This makes it easy to integrate Microsoft Word into your existing workflow.

MultiMate Advantage II

VERSION 1.0

MultiMate Advantage II is a word processing tool that offers a range of features and capabilities to help you create professional-looking documents. It is easy to use and provides a wide range of features to help you create professional-looking documents.

In addition to its powerful text editing features, MultiMate Advantage II also includes a range of desktop publishing tools that allow you to create professional-looking documents with ease.

MultiMate Advantage II is available for both Windows and Macintosh platforms and is compatible with a wide range of other applications. This makes it easy to integrate MultiMate Advantage II into your existing workflow.
The Multimate II Plus is a very good one, providing ample suggestions and including synonym definitions.

automatic page breaks when entering text for multi-column presentation. The page breaks are not dynamic, so when you insert text in the middle of a page, Multimate does not automatically break the page but requires a separate repagination process.

Multimate's editing commands include insertion, deletion, scrolling, and pagination. You can insert text, delete text, scroll through the document, and paginate the document. Multimate's editing commands are intuitive and easy to use, making it a powerful tool for document preparation.

Multimate II Plus can handle multiple documents simultaneously, allowing you to work on several documents at once. You can create a new document, open an existing document, or switch between documents easily.

Multimate II Plus offers advanced formatting options, including text alignment, justification, and paragraph formatting. You can also apply styles and templates to your documents, making it easier to maintain a consistent style throughout your document.

Multimate II Plus supports a wide range of fonts and font sizes, allowing you to choose the perfect font and size for your document. You can also adjust the font style, such as bold, italic, and underline, to add emphasis to your text.

Multimate II Plus provides a variety of output options, including print, save as file, and export to other formats. You can print your document directly from Multimate II Plus, or save it as a file and export it to other programs, such as word processors or desktop publishing software.

Multimate II Plus is priced competitively, making it an affordable option for businesses and individuals. It is also compatible with a variety of computer systems, allowing you to use it on different platforms.

In conclusion, Multimate II Plus is a versatile and powerful tool for document preparation. It offers advanced editing and formatting options, and supports multiple documents and output formats. It is an excellent choice for businesses and individuals who need a reliable and efficient tool for creating and managing documents.
functions from within the program (a nice feature!), be careful not to inadvertently edit a printer or other control file. Most of these errors are easily recoverable but do cause a lot of grief. There is a one-level undelete function, although it does not support single characters. We rate error handling satisfactory.

Support policies are very good, including the norm of unlimited but not tail-free support. Registered users get a regular newsletter, which is helpful. There is a product usability warranty, and extended support is available. We rate technical support good, with a quick response time and more than adequate answers to our questions.

At $995, Note Bene rates a qualified very good score in value. If you need the kind of customizable power available in Xywrite and the exceptionally specific and useful academic features of Nota Bene, then this product is certainly worth your attention. If you don't need these extras, look to one of the competitors.

**Office Writer**

**VERSION 0.0**

Office Writer's Wang/Multimate imitation places it in the page-processing class of word processors, requiring manual pagination. Yet it performs as easily as most document-processing packages and offers several advantages over Multimate, its primary competitor. Office Writer's menu and keyboard closely emulate Wang terminals, and in environments where dedicated Wang systems coexist with PC-based word processing, this emulation makes Office Writer an obvious choice. Office Writer was recently acquired by software publishing firm, maker of Professional Writer and PPI First Publisher.

Office Writer contains strong laser printing capabilities and supports up to 60 resident fonts. Office Writer handles PostScript, and word wraps and page breaks are accurately represented on-

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**Nota Bene**

**VERSION 3.0**

**PRODUCT SUMMARY**

**Company:** Dragonfly Software, 285 W. Broadway, Suite 600, New York, NY 10013. (212) 334-0440

**List Price:** $495

**Requires:** IBM PC or compatible; 512K of RAM, 2048K for 2 fonts; two floppy drives, hard disk recommended.

**Ease:** Powerful program with special tools for academics. It has a free foreign language support; superior text base; very customizable; no extraneous features.

**Cost:** Weak on graphics and newspaper-style output; computer not always compatible.

**Summary:** Based on Xywrite, Nota Bene has powerful enhancements for academics: word-processing, customizable, and programmable, it has ready-made formats for academic writing and a superior text base, although it can be a little too complex for standard office word processing.
Basic editing is rated good with special strengths in cursor moves, cut and paste, date stamping, and tabs, although there is no windowing supported. Formatting includes on-screen multiple columns and multiple views as well as portraiture/landscape printing. We rate formatting satisfactory.

The changeable fonts receive a satisfactory score, including superscript/subscripting support. There are no style sheets.

The spelling checker and thesaurus have simple suggestions and can globally replace text. The thesaurus offers definitions, antonyms, contrasted words, and related and compared words. We rate the spelling checker and thesaurus features very good.

Mail merge is also very good, with templates and a feature that lets you correct a bad record, along with uncompromised information and conditions.

Outlining is rated satisfactory, with just a basic facility letting you construct a simple outline with up to seven levels. The table of contents and indexing feature lists you index through multiple files. We rate tables of contents and indexing good. We rate footnotes good, with a footnote window available and either footnotes or endnotes supported.

There is strong macros support, with a separate memory-resident utility that records and stores keystrokes and commands with the capability to rescan memory keys. We rate macros very good.

Graphics support is poor, limited to line and box drawing. True graphics support requires an optional package (Office Graphics, $145). But printer support is very good, with Postscript, HP-GL/2 and IBM fonts, and graphic resources can be managed, among others. Competitiveness. Starwriter is very good and includes ASCII, DCA/RFT, a wide variety of other text formats such as Multiframe, Wordstar, and Wang. As far as line-based resolvers go, Office Writer did very well overall and earns a good score in speed.

The extensive documentation includes specialized guides and learning booklets as well as a main manual. Examples and explanations are generally well-done and complete, and on-screen help is effective, although not entirely comprehensive. We rate documentation satisfactory.

The highly structured menus and help access make Office Writer very easy to learn. We rate the program very good in ease of learning. Given the features for form letters, databases, mail merge, and the like, ease of use is still strong. There is a decline in effectiveness as a minimum document size is approached, but Office Writer is generally easy to use and we rate ease of use good.

Error handling is good, enhanced by a timed backup feature. Unfortunately, the one-level undo at worst prevents deleted text to be lost if the cursor is moved before the undo is invoked.

Support for Office Writer is rated good, including unlimited but not self-service telephone support. There is a newsletter, and extended support is available. Technical support is very good with quick access, competent editors, and a staff that goes out of its way to help.

Given its strengths and capabilities, at $495 Office Writer falls in the middle of the pack and represents a good value.

PC Write

One of the classic user-supported programs, PC Write shows evolution growing and improving through successive editions until in its current incarnation it rivets to many high-powered products sold at a much higher price. We recently reviewed an earlier version of this program, an executive word processor (see product comparison, September 26, 1988).
PC Write shares many characteristics with its somewhat higher-powered Xywrite and Nota Bene counterparts. It actually consists of two primary modes, an editor and a print formatter. Formatting commands are embedded into the text and then acted on by the formatter when printing. The consequence is a somewhat effective representation of the printed page while editing, but generally fast and effective editing.

PC Write, in this version, has increased its document size well beyond the previous 64K limitation to use all memory in the system up to 640K. Document size can vary, depending on what else is running in the system. This version also supports multiple parallel columns, on-screen and cross-section editing. Page breaks are very important and required.

The spelling checker is improved, page breaks are improved, you can use two editing windows while editing in different files, and stereotype macros add to the program’s effectiveness. There is, however, no support for sorting, hyphenation (except for some supported), or proofreading. Automatic spell-checker columns are not supported, although they can be added later. PC Write is a very good product, but with the capability to record characters (such as symbols) and create tables and store the results in a separate file. Shortcuts, a reconfigurable keyboard, and reconfigurable function keys are all possible.

Although there is no graphics support, very good printer support includes soft fonts and Postscript printer. Compatibility is not as high as previous, however, only with printers supported, but those printers are those in the Postscript family. When a printer is selected, it is not only selected, but the printer is then selected. It was very fast in searching for a specific word, jumping to the bottom of the document, and saving and appending a file. We rated it very good.

Documentation for PC Write 3.02 is very good, although the complexity of the program requires careful study to take advantage of all its features. The on-line help includes a full-screen display covering major topics and features. It is indexed nicely.

PC Write is a very good product, although learning the more esoteric features of the program can be very tedious. The software is capable of capturing all the features that we have mentioned. It is very valuable to have this program in your office. Support for the product is very good.

Technical support is available at the Technical Support Group, which can be reached at (203) 262-0450. Support is available on a 24-hour basis. The software is available for IBM PCs, XT and AT and is compatible with the latest IBM PC clone. It is also available for the Apple IIe, IIc, and IIgs.

For the $89 (registered users), PC Write 3.02 is excellent due to its low price and effective display of all the features of the program.
make it the “Flick Little” of word processing. Sprint partially mimics the operation of popular word processors so that you can use all the familiar word processing commands with minimal retreading.

While very flexible with a rich complement of extraordinary commands, Sprint lacks some fundamental features found in the likes of WordStar 500 or WordPerfect 5.0, for example. Also, Sprint divides editing and formatting into two steps, much like ProWrite, which is less convenient than putting the two functions together. Sprint’s closest competitor is Xyrite III, although Xyrite is somewhat more powerful.

Sprint has no math capabilities, its writing facility is primitive, and its print preview page leaves something to be desired. Combined with the above, it appears that Sprint’s capabilities, Sprint’s professional word processing feature list falls below best in class.

But Sprint excels in printer support, especially with PostScript and other laser printers. Complete formatting control is achieved through embedded commands that dictate the screen but offer great flexibility.

While the program does parallel or newspaper columns with ease, they cannot be edited simultaneously on the same screen. But the user can simul simultaneously open up to 24 files and as many open windows as fit on a screen. Editing commands are especially rich, and Sprint includes a very powerful word processing language that permits virtually complete customization of all aspects of the program. Of course, only advanced users can take advantage of this.

Sprint includes a drop-down menu that includes multiple editable windows, full-featured paragraph formatting, and wildcard searches and replaces. We give this category a very good. Formatting capabilities includes multiple zoom levels and true window/overlap control. Multiple columns is supported, but there is no page/landscape document support. Overall, we rate formatting skills as satisfactory.

Font support is satisfactory, including changeable fonts and super/subscripts support. Styles are rich, which can be stored by name. This is not an MS-Word mimic, but with their feature, although you can create and modify styles.

The spelling checker and thesaurus receive a satisfactory score, including support for multiple dictionaries. In addition to meeting basic criteria, Sprint’s mail-merge feature has both conditionals and user-programmed capabilities. We rate mail merge good. Omitting, however, is supported at a basic level. But you cannot view the outline while in a separate document. We rate outlining poor.

Table of contents and indexing are rated very good, with various cross-referencing markers for sections, graphs, etc. and support for multiple levels. Footnotes are rated good, with basic capabilities in addition to both footnotes and endnotes available in the same document. Graphics support, however, is limited to box drawing and we rate it poor.

Printer support is very good with PostScript, fonts, and very complete TIFF-compatible printers managed nicely. File compatibility includes a host of word processing formats including ASCII, DCA/RFT, WordStar, Word Perfect, and others. We rate printer support excellent. Sprint earns a good speed, with average to slightly above average times.

Documentation includes three large, well-presented manuals plus a handbook on alternative user interfaces. Everything about the program is fully documented and explained, including the programming language. On-line help is very slick, as well. Documentation is very good.

Although the manual and help screens are good, ease of learning is not high. Everything about the program is fully documented and explained, including the programming language. On-line help is very slick, as well. Documentation is very good.

Ease of use is facilitated by keyboard shortcuts and the possibility of complete customization. Yet the availability of a WYSIWYG preview facility inhibits one use of complex documents with many levels of indexing and the like can be done with great facility in Sprint, but ordinary office tasks are more trouble than in products such as WordPerfect, Office Writer, or Quattro, for example. We rate ease of use good.

Error handling is well done. Sprint can maintain a complete backup file of changes made during an editing session with a variable frequency. The Undo command is single level and restores all hardware and single character details. Prompts warn when data will be lost and the formatting program makes copies before beginning work. All in all, the facilities to protect against data loss are quite extensive and we rate error handling very good.

Support policies include unlimited phone support for registered users, a 30-day money-back guarantee, and a board support, which earns Sprint a good rating. Borland’s technical support was accessible, quick, efficient, and knowledgeable, we rate technical support very good.

Users interested in custom interfaces will like Sprint’s total programmability and find that Sprint in somewhat less frustrating than Xyrite, Nova Beta, or PC Write. At $195.95, with only PC Write costing less, Sprint represents an excellent value.

Total Word

VERSIGN 1.2

In 1988, Lifetor Software moved Total Word, a direct descendant of the Volksword series of IBM PC word processing programs, into the lower end of the high-powered office professional market. With speed and most of the capabilities required in this market, the relatively recent upgrade to Version 1.2 expanded capabilities and fixed some bugs in the thesaurus and spelling checker.

Using the same successful interface as the Volksword series, Total Word supports text editing and footnotes, forms management, and formula entry (especially good). Total Word also has indexing, tables of contents, fusion marking, line drawing, macros, and a screen/capture graphics utility.

Total Word’s basic editing capabilities are among the strongest available, containing extra facilities in practically all categories such as full enable/disable tabs, support for midword capitalization in search and replace (e.g. the W in middle), strong paragraph formatting, capabilities, and windows allowing the
viewing of a second file. We rate basic editing very good.

Formatting is another story, however. While multiple columns and portrait/landscape documents are supported (both constantly), there are no multiple page views (except in the page preview mode), and there is no widow/ orphans control. As a result, we rate formatting capabilities poor. Changeable fonts include super/subscript support; we rate font quality satisfactory. Styles also receive a satisfactory score, with the capability to store selected styles up to 200 styles can be captured for a single document.

The spelling checker and thesaurus features are satisfactory, with one sensitivity, a custom dictionary, and nice suggestions.

We rate Total Word's mail feature, good, with support for fill-in blanks and all the standard features. Outlining is not supported, and the table of contents and indexing features receive a satisfactory score with support for one subtopic and simple cross-referencing. Footnotes receive a good score with support for author footnotes or endnotes in a document and a windowing entry method. On-screen numbering of footnotes is also supported.

We rate macros satisfactory, with the capability to store macros in a separate file.

Graphics support in Total Word is poor, with no support for integrating PCX or PCF files. You can draw basic line styles as well as boxes with some fill capabilities.

Printer support is very good, managing PostScript files and including several fonts. However, we must rate compatibility very poor since you must request special Adobe PostScript support from the manufacturer to import PostScript fonts (more than two at extra cost).

Total Word is speedy overall, except the global document information time was slow due to the need to alter rulers manually/Manually. Repagination we rate as its speed good.

Total Word has very good documentation overall, but users must refer to an included booklet addendum to match 1.2 features or to correct misprints. The on-screen manual and printer booklet are both very nice additions.

Total Word is very easy to learn—easiest in its class—and ease of learning is excellent. Total Word is also very easy to use, utilizing an effective user interface with control and function keys exploited to their fullest. Some text markings are rather cryptic, but overall the product is adequate for simplification. As a result, we rate Total Word's ease of use very good.

File handling is satisfactory, Total Word traps most errors though the Undo command can't handle block deletion.

Support policies are very good, including a 90-day money-back guarantee and a replacement from the manufacturer to an unlimited, but not toll-free, phone line.

Technical support is rated good, a big improvement over recent inaccuracy problems. The staff was helpful and knowledgeable.

Total Word is a good value at $495. Less powerful and flexible than Word Perfect 5.0 and Microsoft Word 4.0, Total Word is nevertheless an excellent performer and should be of particular interest to those who need to enter equations into their text.


code

**BENCHMARKS**

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<tr>
<th>Office/Professional Word Processors</th>
<th>Seats Word IV</th>
<th>Sprits 1.0</th>
<th>Total Word 1.2</th>
<th>Word Perfect 5.0</th>
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**INFO WORLD**

**Product Summary**

**Word Perfect**

**Version 5.0**

As the market leader, Word Perfect has continued to lead off against revised versions of its competitors. Word Perfect 5.0 includes a host of new features, significant improvements in performance, and rewritten documents. Flexible, strong, and quick, Word Perfect 5.0 is the program of choice for office and professional word processing.

In its features list matches and objects are not always systems with only a few exceptions. Later printer support for desktop publishing/word processing is very good, newspaper columns are effortlessly created, edited, and mixed with other kinds of text, and a graphics print preview shows exact representations of the printed text in true WYSIWYG fashion. Word Perfect 5.0 has a nice list of graphic handling capabilities, including the capability to import a wide range of graphics files manipulate them within the text.

Keyboard macros include keystroke capture as well as a variety of programming constructs, including If-else, variables, case statements, and the like.

Basic editing includes support for traditional word processing tasks, including cut, copy, paste, undo, redo, and paragraph formatting. Multiple files can be edited, and word processing is completely available. We rate basic editing very good.

Formatting is also rated very good, including multiple column outputs, true widow/orphan control, WYSIWYG page view, and vertical balance control of paragraphs.

The software requires 386DOS 2.0 or later, DOS 3.0 recommended; hard disk.

Press: Enhanced, larger printout, very easy to learn and use. Total Word is the first professional word processor that has a dedicated software support and is appropriate for offices that have modest demand for word processing requirements.
WordPerfect Professional
VERSION 6.0

Recognizing the importance of the large installed base of original WordStar users, MicroPro's WordPerfect Professional maintains the original control-key commands. But the original core of features has been spectacularly augmented and the dot commands expanded. In addition, Professional 6.0 adds pull-down menus for those not interested in the classic commands.

The most impressive feature of this edition is a page preview system capable of displaying more views of a document than any of its competitors, up to 144 on some systems. Combined with magnification, fonts, proportional spacing, and grid marks, this is the best page preview in the business.

Other enhancements include add-on programs for outlining, telecommunications, a multi-list editor, and a fiddler shell for file management. There is a date/time facility, simple macros, good block operations, sophisticated math capabilities, and sorting. Newspaper columns are supported up to eight wide, and all measurements are in inches.

On the down side, there are no graphics, multiple line, or alternative keyboards, and the newspaper columns operate clumsily.

Basic editing includes good cursor controls, redefinable tabs, and good paragraph formatting. The program will edit two files at a time, and there is a data stamping facility. We rate basic editing capabilities very good.

WordPerfect's new WYSIWYG page preview feature is really fantastic — better than any other. In general, through the WYSIWYG capability, the application has average with standard support for multiple columns and portrait/landscape documents. Boosted by the page preview, formatting is good. Changeable fonts include superscript/subscript. Style sheets earn a poor score, with support only for word processing. The spelling checker and thesaurus offer ample suggestions and global replacements, and we rate WordStar's features good.

Mail merge is rated good with conditions and user-prompted information, although there is no error checking during a merge. Outlines can be formatted...
“Wordstar's new WYSIWYG page preview feature is really fantastic — better than any other.”

Although you cannot view the output from within the document, you can expand and collapse outlines. Outlining is rated good.

The table of contents and indexing features are good, with cross referencing and an inclusion file for indexing. Footnoting is especially nice, with support for both footnotes and endnotes in a document, user-definable formatting, end-screen numbering, and a window-style footnote entry method. We rate footnoting very good.

Macros are satisfactory, allowing you to store them in a separate file. Graphics are rated poor, with only the capability to draw lines with ASCII code. Printer support rates good, with Postscript and HP support, but file compatibility is poor, with no significant support capabilities. We have no complaints with Wordstar's speed; we rate it good.

Documentation includes program and add-on modules plus printer information and tutorials. The on-line help is useful, and overall the documentation is well-written, clear, and thorough, although we would like to see more examples throughout the text. We rate documentation very good.

Learning to use Wordstar is generally easy, although its command structure and general design are not the easiest to master; in spite of menus and help screens. We rate ease of learning good overall. Ease of use, however, is very good, inhibited only by occasionally unorthodox or clumsy operation.

Error handling is included in a backup system that always preserves the most recently saved file, and the one before it. A timed backup is available, although it must be set in an installation program and cannot be altered from within the program. The one-level Undo has a 50XK limit that can be customized to a larger size. We rate error handling very good.

Support policies are excellent, with a 90-day product usability warranty, extended toll-free telephone support hours, bulletin board support, and a newsletter.

Technical support earns a good score, although our problems getting through still remain a degree. You either get a busy signal or wait for quite a while on hold (all free, of course, but response is better than the last time we tested it). The technicians uniformly have been informed and are very capable and effective at their jobs.

At $495, the classic Wordstar Professional 5.0's features and capabilities earn it a very good value score.

**Wordstar 2000 Plus**

**Release 2.0**

Wordstar 2000 has grown into a graceful, fast competitor in the professional word processing category. It offers a comprehensive feature list, great performance, fine documentation, and superior support. The program includes a main program for word processing, a set of supplementary features for mailing lists, form letters, indexing, telecommunications, and file conversions; and a collection of programs for managing graphics, producing page-size text displays, handling outlines, and handling prepared documents. In addition, there are utilities for file management. Good graphics includ-

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### Office/Professional Word Processors

<table>
<thead>
<tr>
<th>Processor</th>
<th>Scansa Word IV</th>
<th>Sprint</th>
<th>Total Word</th>
<th>WordPerfect</th>
<th>Wordstar Professional</th>
<th>Wordstar Professional 2000 Plus</th>
<th>X persona HP Plus</th>
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<tr>
<td>Price</td>
<td>$199.95</td>
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<td>$495</td>
<td>$606</td>
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</table>

**GUIDE TO REPORT CARD SCORES**

- Peer = 0.25 — Falls short in essential areas.
- Unsatisfactory or N/A = 0.0 — Falls to meet minimum standards or lacks the feature.
- Score range: 0.25 to 5.0.

**Report Card**

- Use your own weightings to calculate your score.
PRODUCT COMPARISON

JANUARY 23, 1988

Today's managers are expected to learn word processing in their spare time.

Wordstar 2000 Plus

RELEASE 3

Company: Microstar International Corp.
1070 San Antonio Rd., San Rafael, CA
94903; (415) 459-1200, (800) 227-1603

List Price: $495, Personal Edition
$595, Legal Edition

Requirements: IBM, IBM PC or compatible, 384K of RAM (640K for graphics), and DOS 2.0 or later

This package is used extensively by court reporters, secretaries, writers, and other professionals who need to create and maintain large amounts of text. Wordstar 2000 Plus offers a wide range of features, including a powerful built-in mail merge facility, a comprehensive set of formatting options, and a user-friendly interface that is easy to learn and use.

Some features of Wordstar 2000 Plus include:

- Full-screen editing
- Spell checker
- Built-in dictionary
- Mail merge
- Advanced formatting options
- Easy-to-use interface

Wordstar 2000 Plus is a versatile and powerful tool for anyone who needs to create and edit large amounts of text. Whether you are a writer, a secretary, or a court reporter, Wordstar 2000 Plus is the perfect choice for your word processing needs.

Professional Write

This package is designed for professionals who need to create and edit large amounts of text. Professional Write offers a wide range of features, including a powerful built-in mail merge facility, a comprehensive set of formatting options, and a user-friendly interface that is easy to learn and use.

Some features of Professional Write include:

- Full-screen editing
- Spell checker
- Built-in dictionary
- Mail merge
- Advanced formatting options
- Easy-to-use interface

Professional Write is a versatile and powerful tool for anyone who needs to create and edit large amounts of text. Whether you are a writer, a secretary, or a court reporter, Professional Write is the perfect choice for your word processing needs.

Some uses of the add-on programs, such as the graphics-screen grabber, can conflict with other memory-resident programs and freeze the machine. Overall, we rate error handling good.

Support policies are excellent, with a 90-day money-back guarantee, a newsletter, and unlimited telephone support. Technical support's telephone response time seems to have deteriorated slightly from our past experience, but service is still very good with quick, knowledgeable answers from a staff that is exceptionally eager and willing to help.

Among the top competitors in this field, Wordstar 2000, Release 3 ranks near the top. At $495 ($395 for the legal
Primarily an operating system shell that does word processing, Xywrite takes considerable readjustment for people used to word processors or expert word processing programs. Although Xywrite has superior on-line help screens, and this version has added a drop-down menu system, this is not a word processor for the faint of heart. Either you like freeform, unstructured editing, or not, Xywrite is absolutely superb — or you don’t, in which case it’s a pain in the neck.

In the features race, Xywrite is a mediocre contender. More robust than Displaywrite 4 or Total Word, it does not reach the levels of Microsoft Word 4.0, the Wordstar, or Word Perfect 5.0. Graphics commands are primitive, there is no page preview, and side-by-side column support is pretty good, but generating newspaper columns is clumsy. There is a fine sort facility with good math help, but the mail merge could be more effectively implemented.

Xywrite has better-than-average basic editing capabilities with great cursor controls, redefinable tabs, full-featured paragraph formatting, date-stamping, and the capability to view and edit multiple files simultaneously. We rate basic editing capabilities very good. Formatting functions are satisfactory, supporting true widow and orphan control but lacking a zoom feature. You can have making multiple columns on-screen. The fonts are changeable (characters are highlighted on the screen) and super/subscripts is available. We rate fonts as excellent.

Style sheets are good, allowing style sheets to be named and stored on disk. The automatic page numbering feature is satisfactory, with multiple-user dictionaries supported. We rate the mail merge good, as is the help system. This includes both conditionals and user-prompted information plus good support for database file management.

Outlining is satisfactory at best, with automatic paragraph numbering only. You can also view an outline from a document. The flexible table of contents and indexing facilities are rated good, supporting multiple levels and tables, although they are rather complicated to use. Footnotes receive a good score, supporting footnotes and endnotes in the same document, user-definable formatting, and also numbering.

Macros can be stored in a separate file and can support user-entered variables, conditionals, and a fully reprogrammable keyboard. We rate macros very good. There is no graphics support, beyond the capability to draw lines with ASCII code and a printer-ready graphics file at print time; we rate graphics poor.

Printer support is very good with soft font capabilities and support for many HP-compatible laser printers as well as Postscript. File compatibility is only satisfactory — it is limited to ASCII and DCA/RTF file import.

Xywrite’s disk-blistering speed outs a all challengers. Only Next Bene (which is based on Xywrite) is close, we rate speed excellent. Xywrite includes robust documentation. The tutorials and booklets function quite well, fine index, and examples. We rate it very good.

The program’s complexity imposes some learning curve, but this is offset by the tutorial, an on-line help system, and the La Carte training system, which adds a more intuitive approach to word processing using Xywrite. We rate Xywrite satisfactory in ease of learning.

If you’re up to speed, Xywrite can be modified to virtually any operational shape you can dream up. Its customization capabilities meet almost any word processing need. The program runs at a different rate of size, which we rate very good.

Error handling includes a single-level undo but no support for backspaces or single-character deletes. Data loss is rare and difficult to accomplish, although Xywrite does permit almost any DOS command.

**PRODUCT SUMMARY**

**Xywrite III Plus**

**VERSION 3.5**

**COMPANY:** Xywrite Inc., 44 Manning Road, Billerica, MA 01821; (617) 671-0200

**LIST PRICE:** $450

**REQUIREMENTS:** IBM PC or compatible, 16+K, two disk drives, DOS 2.0 or later

**PROS:** Very powerful, extremely fast, highly customizable and programmable, fine printer support.

**CONS:** Complex and requires an expert to assist all advantages. Limited graphics and non-programmer commands in the program.

**SUMMARY:** This fast, powerful word processing engine is either too good or too easy to figure out, depending on your experience or level of technical skills. It can do virtually anything, but it’s not for the faint of heart.

**NEW VERSION 2.0**

Fortunately, that's all it takes.

It all assures that your managers spend their time managing, instead of eating for help.

We're the most compatible with your secretaries.

We gave Professional Write the most extensive and direct connections with the other software standards in your office. No other program does it so easily. Professional Write has built-in compatibility with MultiMate, WordPerfect, Microsoft Word, WordStar, Wordstar, and ASCII. You can directly import Lotus 1-2-3 worksheets into Xywrite, and create charts from Harvard Graphics when printing; and mail merge quickly with different files.

We give your printers the perfect setup.

Now using multiple fonts with an HP LaserJet, "Apple LaserWriter," "PostScript" or "HP DeskJet" is as simple as underlining. And printer support has never been easier, because Professional Write is pre-configured for quick installation.

We have a host new way to find your documents.

You longer have to spend the valuable time hunting down files. Our new File Finder searches through the actual text of all your Professional Write files to find any words or phrases, and will call up the appropriate document. We'll also help you sort lists of files, and the option to identify your files with summary descriptions.

There's more to our feature story.

We know what managers need from a word processor. That's why Professional Write offers speed, keys, macro, and column move. An integrated spelling checker, a built-in thesaurus, on-screen calculator, and address book are only a keystroke away. We also support all the popular networks.

**PUT TIME ON YOUR SIDE**

**CALL 1-800-848-4391, OPERATOR #60 FOR A FREE TRIAL DISK**

**PPS:** Professional Write and PPS. Write owners call 1-303-789-4900 for upgrade information.

**SPC SOFTWARE PUBLISHING**

The designers of PPS.
Executive Summary

Office/professional word processing continues to grow in speed, power, and complexity. Some packages in this group (for example, Word Perfect, WordStar 2000, Microsoft Word, and Xywrite) approximate the power of a desktop publishing system, while other word processing programs offer highly structured office productivity systems (for example, Samna, Multimate Advantage, OfficeWriter, and Displaywriter). But the best way to summarize the current crop is to divide the systems according to style and power. Users consistently reflect enthusiasm for particular approaches to word processing and passionately defend styles that have very little impact on actual function or power. Some office workers like the strongly structured user interfaces of programs derived from dedicated word processing programs, even though there is little real difference in power or functionality between them and the rest of the pack. For these users, products such as Samna Word, Multimate, OfficeWriter, and Displaywriter in descending order of power are the optimal solution.

Cost: Unlike the free-form editing and constructed menu systems of more traditional computer word processing programs, these types of programs offer greater flexibility within an integrated environment. While traditional word processing programs utilize menus, user access is much less structured and organized, and this flexibility has helped the traditional programs gain a major market share. In descending order of power and effectiveness, these products include Word Perfect, WordStar 2000, Microsoft Word, WordStar Professional, and Tenta. In this group, Microsoft Word stands out as somewhat easier to learn and use more structured in its approach than the others, but the differences are not major.

Closer in derivation to text editors than to word processing systems, products such as Xywrite III, Sprint, and PC Write provide superb (and extremely fast, in Xywrite’s case) editing engines with outstanding print control, but at the expense of close integration between editing and final appearance. All three offer what appears to be unlimited customization and programmability, and they can be coaxed into behaving in just about any way an expert wants. However, none of these products can deliver full benefits without a major investment of time and expertise, and consequently we do not recommend them for office environments.

Finally we come to the specialized products: Lotus Manuscript and Note-Bene. Lotus Manuscript offers the best implementation imaginable for structured documents. Technical manuals, complex proposals, or financial documents using spreadsheets and graphics all benefit from the special tools and unusual architecture of this program, which sees text as if it were a word processor. Powerful and effective, Lotus Manuscript is the only one available if you need its special focus, but it would be a poor choice for normal office work.

Note-Bene illustrates how what is done with Xywrite in the form of customization. Built on the Xywrite engine, it has all the features of that fine product but adds a host of specialized forms and text-based additions that make it an ideal tool for academic writers. As powerful as any program here and just about as fast as Xywrite, Note-Bene’s special audience will appreciate its adherence to MLA and other standard academic style manuals and its special strength for bibliographies and references. But normal office word processing experts will find its environment too difficult.

In total, then, we have a remarkable crop of high-powered products. The one certainty is that within six months of 30 or 40 more will be added to the total, and we will be treating this whole new generation of additional features to evaluate and appreciate.