The High-End Word Processors Get More Graphical and Sport Even More Features

John Longsinger, Contributing Editor

The high-end word processing marketplace has become incandescent over the last six months with the appearance of several new-generation DOS-, Microsoft Windows-, and OS/2-based products. This wave has raised the bar for state-of-the-art word processing.

The 11 high-powered off-the-shelf professional word processors reviewed here illustrate this quantum leap in sophistication. These products—WordStar 5.1, Wordperfect 5.0, Wordstar 5.1, Wordperfect 5.1, Wordperfect 5.0, Wordperfect 5.0, Wordperfect 5.0, Wordperfect 5.0, Wordperfect 5.0, Wordperfect 5.0, and Wordperfect 5.0—represent the new graphical tools provided to Windows-compatible products. Describe Word Publisher is part of this group as well, except that it runs only under OS/2.

The remaining seven—IBM Displaywrite, Lotus Manuscript, Microsoft Word, Adobe's PageMaker, and WordStar—offer various levels of user-based professional word processing with graphical capabilities. A few of these text-based models stem from Wang revolutions, and still appeal to users with that background.

The differences between these two groups are both qualitative and substantive. Obviously, the Windows interface differs from what we consider a"traditional" word processing look and feel. The use of icons, mixed graphics and text on the same screen, and user control, and WYSIWYG editing—all characteristics of the Windows environment—favor the ease of learning and use. In addition, the new graphical products each bring in a greater degree of publishing and page-layout concepts to the word processing desktop. This blade is double-edged, however. Users familiar with a desktop publishing environment, page-layout concepts are second nature, but for those used to typewriter-style word processing, many of the new methods require a readjustment of perspective and understanding. (See sidebar on Page 111: "Word Processing, Desktop Publishing Use Different Tools to Catch the Big Fish." Nonetheless, for many applications the Windows-based products are clearly superior in ease of use, especially for documents requiring complex formatting, multiple fonts, and mixed text and graphics.

These advances in capacity and visual pleasure come at a price. While basic program prices have not accelerated substantially, they are hovering just under $500 and significantly less through mail order, they represent a minimal increase in software costs and a minimal acceptable hardware platform have skyrocketed. To run the DOS-based Windows products, you'll need at least a 286 machine; a graphics monitor (VGA is best, but SVGA is required), a minimum of 1 Mbyte of RAM (more is better); and, of course, a mouse (while you can run Windows without one, we think it's much easier). While we have seen great advances in graphics, inclusions, tables and matrixes have also become major new features for competitive enhancement among these products. Previously available to large, high-end systems, many products offer a spreadsheet-like table mode that converts a menu-based spreadsheet. The windows, complete with rows and columns, extraneous row of columns, and formulas. These table objects make the manipulation of tabular material much easier and allow a variety of advantages for inputting data from columnar spreadsheet programs such as Lotus 1-2-3 and Excel. Cell sizes can be automatically adjusted to font size and the amount of text in each. Once you've used automatic tables, you won't want to write them by hand. Macrom, once simple keystroke copys,
Executive Summary

The current crop of office/ professional word processors clearly indicates a fundamental change in the word processing world. Four products fall into the new mode of operating, layout, and artificial intelligence categories: WordPerfect 5.1, Lotus Manuscript, Microsoft Word 5.0, and Multimate. Office Writer, WordPerfect, and Wordstar.

As the evaluations indicate, four of these packages have head and shoulders above their competitors: WordPerfect 5.1 and Wordstar. For Windows, the two programs include sophisticated word processing features combined with strong layout and graphics tools. Ami Professional remains in as a very close second, but in some cases, their limited character sets and user interface cannot match WordPerfect. Lotus Manuscript includes a powerful and flexible integration with Lotus 1-2-3 and a variety of special features, but it lacks the flexibility and power of the other programs.

Overall, WordPerfect 5.1 and Wordstar offer the best combination of features and performance, making them the top choices for professional word processing applications.
Tackling the Giants: Testing Office/Professional Word Processors

In this product comparison, you will find that our write-up is more time than in previous word processing comparisons. This is due to our new criteria and system of scoring word processors but it is also a result of our "side-by-side" format, in which we only list outstanding or exceptional traits rather than enumerating all the capabilities of a given feature. Conversely, we have expanded our features chart (Pages V.6-99) to include more features, in much more detail.

This year, we enhance the review process by incorporating additional real-life elements. Models were drawn up representing the standard output we hoped to achieve with each office/professional word processing package. In the course of attempting to duplicate the results with the models all the products, extensive notes were taken on accomplishing the various jobs at hand. The data and results we came up with contributed not only to individual performance scores, such as mail merging or outlining, but also to other areas such as ease of setup and documentation. The information produced by the Test Center was passed on to our Review Board contributing editors, who are specialists in word processing. The resulting evaluations were critical and adequate by the Board's standards of accuracy, consistency, and style. The results, consequently, have been scrutinized by several word-processing experts:

Mark of the center, as well as the products chosen for review, are the result of an InfoWorld survey of users involved with the sale or purchase of office/professional word processors. Since survey results also helped us determine how to weight report card scores.

With the new breed of graphical word processors coming quite common, we anticipate that our grading system will be modified to include a "moderator" perspective. For example, some models have been very difficult for novice users but relatively trivial for experienced users. At the same time, the models placed heavy emphasis on output appearance while the traditional "infomercial" products emphasized features that are important to both novice and experienced users. The combination of these two approaches — model building and tool comparison — provides considerably more depth to our review results.

All tests (except for Describe) were performed on an 8-MHz IBM AT Model 33982010 with a 30-megabyte hard disk.

EGO, and 64MB of RAM. Several higher-end packages — WordPerfect, Word 7.0 for Windows, Microsoft Works, and Lotus 1-2-3 — are also benchmarked on a Compaq Deskpro 386/20e with 2 megabytes of RAM, a 10-megabyte hard disk, and an interface. WordPerfect and Microsoft Works were benchmarked on a Compaq DOS 3.11 for comparison between the two standard configurations and an alternative setup for a more optimal setup for some non-demanding word processors. Describe, which runs under Presentation Manager and OS/2, was also tested on this platform.

Performance: Basic word was checked against an existing document with a multiple-column table and three differently justified paragraphs. Also examined were search and replace functions and the capability to revise a document placing time-saving codes on it. We started with an unformatted document and went to work with each package attempting to define and move columns with tab functions. To break through this process we ran through a "collapsible" package that closely accomplishes these things. In addition, we are capable of editing and pasting together paragraphs with Run-Under-Run and using automatic hyphenation options.

We expected a number of features to our internal specifications. There should be left, right, decimal, and center tabs as well as some means of merging left justified text and right justified text. We also looked for consistent search and replace, status-line information (page number of or a window showing different documents on the same document) and date/time stamping.

Our spelling checker model comprised a two-page document with numerous misspellings, some phonetic and some with transposed letters. We later wanted from each product was for the same document to be printed out with no spelling mistakes. We also examined the thesaurus and noted the way it was operated and its functionality. Two grammatical errors were inserted in the model as well as similar test in the event a product was equipped.

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GUIDE TO REPORT CARD SCORES

- Intended use: 0 = 0 points, 1 = 1 point, 2 = 2 points
- Basic editing: 0 = 0 points, 1 = 1 point, 2 = 2 points
- Speed: 0 = 0 points, 1 = 1 point, 2 = 2 points
- User interface: 0 = 0 points, 1 = 1 point, 2 = 2 points
- Usefulness: 0 = 0 points, 1 = 1 point, 2 = 2 points
- Functions: 0 = 0 points, 1 = 1 point, 2 = 2 points
- Support: 0 = 0 points, 1 = 1 point, 2 = 2 points
- Extra options: 0 = 0 points, 1 = 1 point, 2 = 2 points
- Value: 0 = 0 points, 1 = 1 point, 2 = 2 points

Use your own weightings to calculate your score.
catch them. Ideally (though this would mean a bonus), the finished document would have corrected these errors.

For a satisfactory score, each office/professional word processor should include at least 100,000-word checking and a 75,000-word thesaurus, as well as a single-terminary dictionary, word replacement suggestions and a spell correction feature that maintains capitalization and punctuation. Bonus items include synonyms, definitions, multiple dictionaries, and the capability to globally replace words. We scored the lower scores for the absence of a thesaurus or case sensitivity.

The mail merge model consisted of a form letter generator with 93 percent accuracy. We also tested e-mail and postcard, and the test data file included 120 mail merge transactions and field names matching the template. This model included the ability to generate e-mail and postcard, as well as a directory of contact names, addresses, and an address book.

The report writer model included a professional-looking business letter, properly punctuated and formatted on the page. The task was to use each product to create and combine both the template and data files, then generate the desired output. This is where the true test of the product's capability to maintain a library of labels for mass mailing.

Our layout model was the most time-consuming task. We tested a variety of documents, including a form letter, a letterhead, and a 12-point heading. We scored the lower scores for the absence of a professional-looking business letter, poorly punctuated and formatted on the page. The task was to use each product to create and combine both the template and data files, then generate the desired output. This is where the true test of the product's capability to maintain a library of labels for mass mailing.

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The reasons to buy an Orchid ProDesigner VGA keep stacking up.

Orchid ProDesigners are the EASIEST graphic cards to use. And that's not just hype, either. You'll never again have to put up with a flickering interlaced monitor. The ProDesigner can support the higher resolutions (800 x 600 x 256 colors and 1024 x 768 x 16 colors) in both interlaced AND non-interlaced modes.

Secondly, you can use your favorite monitor since the ProDesigner is compatible with all of them. And you don't have to do anything to make your board work with the monitor you choose. The ProDesigner automatically switches to monochrome or color, single frequency analog or multi-frequency, and interlaced or non-interlaced monitors. In short, the ProDesigner supports all the monitors on the market. Finally, you'll never again have to manually change modes to use your applications since the ProDesigner automatically determines the graphics standard being used. The ProDesigner also allows you to run programs in a high-level language or graphics programs on your own board, and at a lower cost.

No other super VGA card can give you all that on one board. Actually, you'll never again have to find a board that can do anything, or even do it.
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Ami Professional, Version 1.1

Ami Professional is a full-featured Microsoft Windows word processor with full WYSIWYG editing and extensive graphics capabilities. It is a competitor to Microsoft Word for Windows and WordPerfect, Ami Pro sports some of the tools required for office word processing: It easily handles graphics mixed with text, imports a host of text and graphics formats efficiently, and does not require office chores such as mail merge with ease and power. It also comes in a scaled-down version, Ami.

Ami's search and replace can look for attributes such as boldface, italic, and word or partial words. Table can be right, left, center, and decide, centered, spaced by pointing and clicking on a ruler. Paragraph alignment includes left, right, center, or justified. A variable push in the time and date can be reviewed on today's date, and full document tracking is available. Hyphenation is effective.

Score: Excellent.

Describe, Version 1.0

One of the first of the new generation of OS/2 applications, Describe comes in both a 386 and a 386 version but is currently available for DOS. Describe offers superior layout and publishing capabilities combined with competent—though not outstanding—word processing capabilities. It has many elegant features, but as it lacks, for example, indexing and outlining, it does not meet the graphical word processing standards set by Summa's Ami Professional or Microsoft Word for Windows.

Editing:

Search and replace includes several full-featured alternatives. Tabs are defined with user-definable leader. Paragraph formatting is comprehensive, although somewhat clumsy. Date and time stamping is available and hyphenation is highly customizable. Score: Very Good.

Spelling Checker/Thesaurus:

While a little slow in operation, the spelling function is very well implemented and designed. Some of the suggested word choices are odd. The thesaurus includes good definitions. Global replacements can be made. Although not quite as good as Word Perfect's spelling checker/thesaurus combo, this is still one of the best spelling checkers we've seen. Score: Excellent.

Mail Merge:

Ami Pro data files can include imports from many database programs. Producing merged form letters or mailing labels takes little effort with a merge to screen, merge to file, or merge to file for further editing. Programming functions are numerous. Score: Excellent.

Layout:

Layout tools are extensive and complex, using a frame-based system to include graphics. You have full WYSIWYG control over the document: a non-WYSIWYG mode is available for quick text entry. Text can be wrapped around graphics and lines drawn virtually anywhere on the screen. Tables and charts (generated from a spreadsheet or other data) can be drawn on-screen and automatically laid out. You can easily create multiple columns. Score: Excellent.

Describe's layout tools are outstanding, with multiple columns, frames, sidebars, and other tools. Although the frames feature is extensive, it is not quite as elaborate as Legenda's linked frame capabilities. Score: Excellent.

Displaywrite 4, Version 2

Something of a dinosaur amidst these claystone powerhouses, Displaywrite continues a venerable IBM tradition in word processing with its page-oriented, character-based system, and currently ranks at the bottom of this category in performance and functionality. Nevertheless, it is a competent text engine for IBM standard organizations.

Editing:

Search and replace is easy to use, but you must identify the case of the word for which you're looking. Tabs can be center, left, right, and decimal, although you cannot generate leader dots (which we consider standard). Date and time stamps appear in formats and leaders only. Hyphenation does not occur during editing sessions, but only as a separate operation while paginating or checking spelling. Spell check, a limited set of editing features. Score: Poor.

Spelling checker/thesaurus:

Displaywrite's spelling checker suffices for most needs but allows word, page, and full-document spelling checking. Suggestions are reasonable, and there is a synonym finder. Score: Good.

Mail Merge:

Mail merging is one of Displaywrite's strong suits. The program lets you manage complex selection criteria, and it supports a large range of external data file types. While the system for creating data files and template documents appears clumsy, the features available are quite extensive. Score: Very Good.

While layout is primitive in comparison with the other systems in this summary, Displaywrite does a good job of column balancing. Editing changes require explicit recognition, and paragraphs have only left and full justification. Score: Satisfactory.

PRODUCT SUMMARY

Ami Professional, Version 1.1

Company: Summa Corp., 1900 Campus Drive, Andover, CA 03304-8908, 800-831-9676.
List Price: 942.00.
Features: IBM PC AT compatible, 10-megabyte hard drive, MS-DOS 3.0, 640K of RAM, mouse required. Microsoft Windows 2.x or File Manager included. Print: Powerful graphics-based program with superior WYSIWYG editing, excellent tables and charts; output is high-quality output; compatible with DOS 3.3, 386, 486, and 586; Windows, and Macintosh; 14 fonts. Costs: Considerable complexity; substantial memory/hard drive requirements; slow, especially on slower hard drives.
Specifications: Ami Pro is a fine, capable Windows graphics/office-professional word processor, with many high-end features and capabilities.

Describe, Version 1.0

List Price: $999.
Requires: IBM PC AT compatible, 386 or 386, OS/2 Presentation Manager 1.1 or later, 3 megabytes of RAM, 20 megabytes hard disk, non-PDP-11 version begins at 386, 4 megabytes of RAM, VGA graphics, high-quality printer.
Print: Outstanding PageMaker/FrameMaker, very good dictionary and thesaurus. Score: Excellent.
Responsibility and services available: Business: Message sending, WordPerfect, WordStar, sidebars, macros, yet scores of 85. Displaywrite offers a well-supported, good-looking and efficient layout tools. However, it features a little that is not available in Word for Windows or Ami Professional. Displaywrite's features do not compete with Word Perfect 5.1.

Describe, Version 1.0

List Price: $999.
Requires: IBM PC AT compatible, 386 or 386, OS/2 Presentation Manager 1.1 or later, 3 megabytes of RAM, 20 megabytes hard disk, non-PDP-11 version begins at 386, 4 megabytes of RAM, VGA graphics, high-quality printer.
Print: Outstanding PageMaker/FrameMaker, very good dictionary and thesaurus. Score: Excellent.
Responsibility and services available: Business: Message sending, WordPerfect, WordStar, sidebars, macros, yet scores of 85. Displaywrite offers a well-supported, good-looking and efficient layout tools. However, it features a little that is not available in Word for Windows or Ami Professional. Displaywrite's features do not compete with Word Perfect 5.1.

PRODUCT SUMMARY

Describe Word Publisher

Version 2

List Price: $999.
Requires: IBM PC AT compatible, 386 or 386, OS/2 Presentation Manager 1.1 or later, 3 megabytes of RAM, 20 megabytes hard disk, non-PDP-11 version begins at 386, 4 megabytes of RAM, VGA graphics, high-quality printer.
Print: Outstanding PageMaker/FrameMaker, very good dictionary and thesaurus. Score: Excellent.
Responsibility and services available: Business: Message sending, WordPerfect, WordStar, sidebars, macros, yet scores of 85. Displaywrite offers a well-supported, good-looking and efficient layout tools. However, it features a little that is not available in Word for Windows or Ami Professional. Displaywrite's features do not compete with Word Perfect 5.1.

Displaywrite 4

Version 2

Company: IBM Corp.; Displaywrite Product Support Center, 505 N. Meridian St., Indianapolis, IN 46204, (317) 232-5605.
List Price: $4,995.
Requires: IBM PC-PC/AT or later (3.3 recommend) 386 or Memory hard drive; DOS 6.0 version required. Microsoft Windows 2.x or File Manager included. Print: Powerful graphics-based program with superior WYSIWYG editing, excellent tables and charts; output is high-quality output; compatible with DOS 3.3, 386, 486, and 586; Windows, and Macintosh; 14 fonts. Costs: Considerable complexity; substantial memory/hard drive requirements; slow, especially on slower hard drives.
Specifications: Ami Pro is a fine, capable Windows graphics/office-professional word processor, with many high-end features and capabilities.
Legend, Version 2.01

Only in the last six months has Legend's manufacturer designated it as a word processor — before that, it rode the cusp between word processing and desktop publishing, and it could still be considered more of a "word publisher" than a word processor. This Windows product has the most sophisticated frames management (frames are on-screen boxes containing graphics or text, which can be manipulated), some of the best graphic editing tools, and perhaps the weakest word processing tools in high-end word processing. Its user interface is much like Ami Pro's, although each has variations on the Windows screen. Not the best office product, it's not the graphics and frame layout champ.

Search and replace allows case-sensitive searches. Tabs work through the styles, and permit a clock on the ruler to modify styles. Column cut and paste is supported, as is table generation. There is no date and time stamping. Score: Good.

Legend's spelling checker is relatively easy to use but much less sophisticated than some of the competition. The context of flagged words is not visible, suggestions are often unlikely or odd, and hyphenated words or those with unusual spellings are not commonly legible as misspelling. There is no thesaurus. Score: Poor.

Legend has a very simple mail-merge program, using formatted ASCII text files with various field and record separators but without variable selections. Legend will produce standard form letters and mailing labels, but the implementation is primitive in comparison with products like Ami Professional and Word for Windows. Score: Satisfactory.

Legend has supports frames linking that connects frames on different pages so that the text stream will continue across pages through linked frames (similar to PageMaker's method). Flowing text around graphics is a snap. Legend supports dynamically linked spreadsheets through DIF, easily outputting spreadsheet data in a table. Layout capabilities are on a par with or a little better than Ami Professional. Score: Excellent.

Legend, Continued on Page 108

Lotus Manuscript, Version 2.1

Lotus Manuscript, the spreadsheet user's word processor, has a highly structured, online-like organization. It is matured and gained substantial flexibility for fonts, graphics, and mail merging. Its user interface is much like Lotus 1-2-3's, although each has variations on the Windows screen. Not the best spreadsheet product, it's not the graphics and frame layout champ.

Most cut and paste operations, as well as search and replace, work nicely. Tabs include left, right, center, and decimal; procedures for setting them are easy. "Financial" tables, which handle trailing non-numeric values such as minutes or parentheses signals, are also supported, as are "comma" tabs, which are common in international documents. Date and time stamping is available. Score: Very Good.

There's nothing out of the ordinary about how the spelling checker operates, although its suggestions are flat. Always the best and the number of alternatives suggested is limited. There is a thesaurus. Score: Satisfactory.

Mail merging is well-implemented in a standard fashion by merging a data file with a text document. The mail merge accepts conditional selections for data and will take in most file formats. Score: Very Good.

Lotus Manuscript includes a wide range of document formatting commands for handling blocks of text. There is a print preview, but not full WYSIWYG editing. You can assign attributes to parts of all the text with ease. Multiple columns are supported quite well, as are the inclusion of graphics. Score: Very Good.

Lotus Manuscript, Continued on Page 108

Microsoft Word, Version 5.0

Microsoft Word 5.0, one of the finest character-based word processing programs on the market, is the closest competitor to the market leader Word Perfect, but now lag somewhat behind its Windows-based namesake in features and WYSIWYG flexibility. Overall, however, it is a fine choice for the vast majority of office word processing chores.

Word is especially adept at creating and cutting and pasting columns, and its implementation options are handy. Search and replace is full-featured, including support for mid-word caps. Left, right, center, and decimal tabs are easily set and time and date stamping is fully supported. You can generate leader dots with tabs. Selected text can be fully, left, right, and center justified. Score: Excellent.

The spelling checker offers suggestions and normally maintains capitalization and punctuation. The thesaurus works well. Score: Good.

Forms management and mailing-label capabilities include variables, formatting, and selection criteria. Word accepts standard ASCII text files produced by many database and spreadsheet programs. Score: Very Good.

Word supports multiple columns and table generation, and layout tools in general cover most needs. The page preview offers a good view of final copy. You have fine control over the layout of documents, although you cannot edit in WYSIWYG mode. Score: Very Good.

Microsoft Word, Continued on Page 108

PRODUCT SUMMARY

Lotus Manuscript

Version 2.1

Company: Lotus Development Corp., 65 Cambridge Parkway, Waltham, MA 02154; (617) 635-5414. Scores: Excellent.

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Microsoft Word, Continued on Page 108
WYSIWYG text and graphics can be edited on-screen in Ami Pro. Icons at left are for accessing features.

Ami Professional

Ami Professional includes a number of features that are not found in other word processing programs. Features include: Ami Pro’s text and graphics on-screen, Ami Professional’s paragraph numbering schemes, collapsed text under headings, the style sheet templates, and a preformatted outline style.

GRAPhICS

Describe

Describe has superior graphics manipulation, including frames, clipping, and sizing tools. It is used to create graphics through the OS/2 clipboard, limiting its compatibility with other programs. Score: Very Good.

DISPLAYWRITE

DisplayWrite offers a simple screen interface and drag-and-drop options, enabling easy file handling. However, it does not support the graphics features available in Describe.

DISPLAYWRITE

DisplayWrite includes a variety of external commands and functions displayed on-screen. The simple interface is designed to be user-friendly and easy to use.

OUTLINING

Describe does not support outlining, Score: N/A.

DISPLAYWRITE

DisplayWrite does not support outlining or tables of contents. You can view the original outline and change the outline, but it is not stable or consistent.

TABLE OF CONTENTS

Describe does not support tables of contents or indexing, Score: N/A.

DISPLAYWRITE

DisplayWrite does not support tables of contents or indexing.

STYLE SHEETS

Describe’s powerful style sheets offer complete flexibility for formatting paragraphs and other text objects. Style sheets permit different languages in different paragraphs of the same document. Score: Very Good.

DISPLAYWRITE

According to our criteria, DisplayWrite does not support style sheets.

FONTS

Fonts are only as good as the supported printers that will print them. The printer list is quite limited for OS/2, and the HP Laserjet PCL language is not supported. A reasonable set of fonts come with DisplayWrite, although you cannot change font pitch in the middle of the line. Soft fonts are not supported. Because of the font incompatibility and lack of support for soft fonts, DisplayWrite scores poorly.

FOOTNOTES

Footnotes can be placed at the end of the page or at the end of the document, not both. Creating and numbering is easy and effective; styles are applied to footnotes. Score: Good.

DISPLAYWRITE

DisplayWrite supports footnotes and endnotes in a document (but not both in the same document), and supports a footnote library. Score: Good.

MACROS

Describe has a superior macro language, although the documentation we received could only be accessed on-screen and was not final. Nevertheless, the capability easily rates a top-notch score.

DISPLAYWRITE

Macros are available but support keyboard automation only. Score: Satisfactory.

Ami Professional, Continued from Page 102

One of the best of its class in working with graphics and formatting layouts, Ami Professional offers great freedom in the placement and sizing of graphic images. You can perform free-form drawing with curved lines, circles, boxes, a set of simple tools, and a powerful editor. The toolset is included. TDF (scanned) files can also be edited. Score: Excellent.

DisplayWrite, Continued from Page 102

DisplayWrite includes a simple screen interface with various commands and functions displayed on-screen.
Legend's similarity to a desktop publishing package is evident in this view of a multicolumn document.

Lotus Manuscript's outline format is distinctive from other character-based word processors.

Microsoft Word's familiar screen features a full set of commands at the screen bottom.

**GRAPHICS**

Legend's superb graphics manipulation capabilities, similar to Ami Pro's, let you import images from many packages. A fine graphics editor has all the tools for drawing, entering text, sizing, filling, and constructing circles, rectangles, or other objects. Graphics objects can be sized, scaled, rotated, and cropped. Unfortunately, EPS files and Windows Metafile graphics and grayscale or color TIFF images cannot be imported. Score: Very Good.

Manuscript has a long list of compatible graphics formats. Graphics are imported into a block and can be sized to fit through text that does not flow around a graphics image. Score: Good.

Microsoft Word graphics are imported through a tag line that you insert in the text. Scrambled, it calls the illustration at print or preview time. Graphics can be placed across columns. Score: Very Good.

**OUTLINING**

Legend's outlining is basic multilevel paragraph numbering with collapsed/expanded text. Score: Satisfactory.

Outlining is superior, especially as the program itself is structured as an outline. Sections can be set at various levels, and text can be collapsed underneath the section title in true electronic outlining style. Score: Excellent.

The complete outlining function supports multiple levels with the option to collapse or expand text and full formatting control along with numbering options. Outlines can be sorted. Score: Excellent.

**TABLE OF CONTENTS**

Legend supports multilevel unformatted tables of contents and generates additional indexes. Score: Good.

Automatic generation of a table of contents from structured text is easy, but to do so in an unstructured mode is much more difficult. You can have multiple levels for an index, and you can generate a table of contents from an outline. Score: Very Good.

Tables of contents can be generated with invisible codes or through automatic outlining of outline levels. A good indexing facility supports additional lists as well as Word for Windows, a concordance indexing macro is available on request. Score: Very Good.

**STYLE SHEETS**

Style sheets are well-thought-out, support a variety of attributes, and are easy to define and apply to paragraphs. Score: Very Good.

Templates carry a set of formatting specifications from one document to another. Named blocks are analogous to style sheets in some other packages, although they are definitely not up to the standards of Microsoft Word. Score: Good.

Word 5.0's style sheets biased the trail in word processing style-sheet standards, and they continue to lead the pack. These fully featured and multilevel capabilities can be maintained in glossaries and are easily applied to paragraphs. Word's style sheets are the best we've seen yet. Score: Very Good.

**FOOTNOTES**

Footnotes are supported and will run across frames and restart numbering. Endnotes are supported, but not automatic. Score: Good.

Manuscript supports footnotes and endnotes, though not both in the same document, as well as chapter and section notes. Score: Good.

Footnotes/footnotes support is standard, with notes running either at the bottom of the page or at the end of the document. Score: Good.

**MACROS**

Legend does not support macros. Score: N/A.

Manuscript features macros for the automation of keystrokes only. Score: Satisfactory.

Macros are reasonably extensive and include not only keystrokes but complex programming structures. Macros can be nested. Score: Very Good.
Ami Professional supports all printers carried by Windows, which is an extensive list. It supports printing on most types of laser (including Postscript), dot-matrix, and inkjet printers. Score: Very Good.

This program has a wide range of common import and export formats for both text and graphics. While Ami Pro supports one-way link using DDE (dynamic data exchange), Word for Windows' hot-links are two-way. Score: Excellent.

Compaqibility

It is difficult to compare Describe's speed with DOS-based systems because the operating systems are substantially different. In comparison with other word processors on the 386 platform, Describe runs through the same tests reasonably quickly and did not feel sluggish or cumbersome in speed of operation. Score: Good.

Speed

The documentation, though elegant, is exceedingly sparse. New users will have a tough time learning the features of this program from the manual, a problem compounded by the additional obstacle of dealing with a new operating environment. Score: Poor.

Documentation

This version of DisplayWrite includes elaborate context-sensitive help screens that greatly enhance ease of learning. While some functions are cumbersome to operate, they are not hard to learn. Score: Good.

Ease of Learning

There is a backup file, but a power failure can leave portions of text unreadable; a special recovery utility may get data back. The Undo command recovers the most recent block of text. Score: Satisfactory.

Ease of Use

Most errors are corrected, and with an automatic timed save and backup, it takes a real effort to lose data. A four-level undo reverses most activities. A recent bug release was just published by Samma. Score: Very Good.

Support/Pricing

Only after the current product shipped did IBM add one year of free support on a toll-free line to its support package. As a result, you won't find a tech support number in your documentation. Score: Satisfactory.

Error Handling

At $495, Ami Professional is on par in price with the competition, and offers a good deal more than most — especially in its graphics capabilities, which border on what low-end desktop publishing packages can do. It is a superior graphical office/professional word processor. Score: Excellent.

Value

Blaise, while acceptably fast, was one of the slower programs we tested. It was not as sluggish overall as Ami Professional, but it still was in the lower end. Score: Satisfactory.

Description, Continued From Page 104

OS/2 printer support is limited to few printers other than Postscript machines at this time. No HP support is included. The low score here is due mostly to the limitations of OS/2 rather than Describe. Score: Poor.

DisplayWrite, Continued From Page 104

DisplayWrite imports a large number of database files and DCA formats as ASCII text files. Score: Good.

DisplayWrite is a total package, but it most closely resembles a word processor. It supports an extensive range of features, including text editing, formatting, and page layout. Score: Excellent.
Overview:

**Legend**
- Highly effective and capable: Score: Very Good.
- Compatibility: Score: Good.
- Speed: Score: Good.
- Documentation: Score: Satisfactory.
- Ease of Use: Score: Good.
- Error Handling: Score: Good.
- Price: Score: Satisfactory.

**Printers**
- Long list of supported printers: Score: Very Good.
- Compatibility: Score: Good.
- Speed: Score: Very Good.
- Microsoft Compatibility: Score: Excellent.

**Microsoft Word**
- Excellent printer support: Score: Very Good.
- Speed: Score: Excellent.
- Compatibility: Score: Excellent.
- Ease of Use: Score: Good.
- Support Policies: Score: Good.
- Technical Support: Score: Good.
- Price: Score: Good.

**Legend**
- Quick to perform searches and replace tasks: Score: Very Good.
- Good explanations and examples: Score: Satisfactory.
- Good user interface: Score: Good.
- Good documentation: Score: Satisfactory.

**Word 5.0**
- Good manuals: Score: Excellent.
- Learning tool: Score: Very Good.
- Maintenance: Score: Good.
- Support: Score: Good.

**Summary**
- Good balance of features: Score: Very Good.
- Value: Score: Satisfactory.

At $495, Legend offers superior layout and graphics capabilities but midrange word processing features. It should be considered primarily by users who need the graphics capabilities and can do without some of the higher-end word processing built-in features. Score: Satisfactory.
Multimate, Version 4.0

This significant upgrade to one of the word processing veterans will be very meaningful to its considerable following, but few others. While Multimate is a strong performer when producing office correspondence and mail merge, it does not have the brilliance or capabilities of leading text-based office/professional word processors such as Word Perfect or Microsoft Word. It is somewhat more powerful than Displaywriter, and equal to OfficeWriter 6.0. Nevertheless, this word processor does its job well and is steady and faithful. Multimate’s Win-emulation root continues to serve that audience well.

This new version adds some interesting features uncommon in other products, such as a full-featured grammar checker and support for electronic mail. These are very nice added values.

Multimate’s search and replace is somewhat minimal, finding words if you knew the case they are in. Left and decimal tabs only work if you define them before you type the text, and form dots can be created. Paragraphs can be formatted left, centered, or justified, but not right.

There is good date and time stamping for documents. Score: Satisfactory.

Multimate’s spelling checker works reasonably well, although it flags hyphenated words as misspellings and is somewhat awkward to operate. There is also a thesaurus and an excellent, elaborate grammar checker (Grammatic IV), which boosts the score. Score: Good.

As an office-oriented product, Multimate has strong capabilities in mail and external data file formats, and can select records for inclusion in a merge. It creates labels with ease. Score: Very Good.

Multimate offers a relatively primitive layout through the insertion of format rules. You can underline, boldface, and indent with relative ease and you can apply fonts. However, in general, formatting for Multimate is the most straightforward, but not the most standard layouts is cumbersome. Score: Satisfactory.

SOFTWARE

Multimate, Version 4.0

Company: Ashton-Tate, 201 Hamilton Ave., Tarrytown, CA 90502; (213) 529-9989.

List Price: $595.

Requires: IBM PC or compatible; PC-DS/OS 3.2 or later; or some drives, 384K or RAM, 44K recommended for use on pintype cards.

Pros: Large amount of overhead organization, very strong mail merge; electronic mail for other users with the same program; good use of color.

Cons: Much lower effective and less powerful than competitors; limited macros; minimal outlining.

Summary: Multimate 4.0 has some interesting features, such as a proprietary electronic mail system, and others that are more mundane, such as graphics and proportional font support. However, the program is clumsy to use. It does not integrate its proportionate font and graphics support with mail merge features -- essentially mail merge -- and not as full-featured as many competitors. Nevertheless, what it does, it does quite well.

Office Writer, Version 6.1

Following much the same style as Multimate and DisplayWriter, Office Writer 6.1 provides a reasonable selection of features within a smoothly functioning but highly structured user interface. About as powerful as Multimate, but more effective with fonts and graphics. Office Writer 6.1 is a solid office product. Office Writer is now published by Software Publishing Corp., makers of Professional Writer (our highest-rated executive word processor).

Office Writer’s tabs aren’t as complete as we’d like, with only the left and decimal tabs, and existing text does not adjust to new tabs. Columns can be copied or moved. The search-and-replace function is reasonably quick. Time and date stamping are available and hyphenation is dictionary-based. Score: Good.

The spelling checker works well and offers nice suggestions. You can specify global replacements, with capitalization maintained. Office Writer includes a complete thesaurus. Score: Very Good.

The facilities for document assembly and list management are handled by a traditional mail merge feature, with conditional selections, mailing labels, and a fine forms management tool called Inferno. Score: Very Good.

Mail merging in Word for Windows has myriad programming constructs available for complex merge tasks. It can handle labels, form letters, fill-in forms, and some external files. The program can call macros in its merge function, permitting exceptionally powerful automated functions. Score: Excellent.

Office Writer, Version 6.1

Company: Software Publishing Corp., 1301 Landings Drive, Mountain View, CA 94043; (415) 992-8910.

List Price: $495.

Requires: IBM PC or compatible; PC-DS/OS 2.0 or later; two floppy drives, hard drive recommended (384K of RAM)

Pros: Structured organization, good forms and mail merge support, reasonable font and graphics management, good file compatibility.

Cons: Not as powerful or effective as others in this price class. Limited macros, excessive clipping and tabs.

Summary: A standard office product. Office Writer 6.1 handles forms with style and does a fine job with forms and storage activities, its output is satisfactory and formatting looks relatively primitive. Overall it is comparable to Multimate 4.0.

Word for Windows, Version 1.0

Microsoft’s Word for Windows offers an elegant user interface and a powerful set of features that do almost everything we expected of a high-end word processor with said and mailmerge. Professional, which also runs under Windows, is the most formidable competitor and outdoors “Word for Windows” in graphically spectacular style. Still, Word for Windows is the best overall of the new breed of graphical word processors, utilizing many of Word’s advantages (such as style sheets) and boasting an interface reminiscent of the Macintosh Word screen. Discontinuing the interface, only WordPerfect can win in a feature-for-feature showdown.

We reviewed this same version of Word for Windows on January 15. In part, the scores here differ from those in the review because of our new criteria implemented in this comparison.

Word for Windows, Version 1.0

Company: Microsoft Corp., 1 Microsoft Way, Redmond, WA 98052; (206) 882-8990.

List Price: $468.

Requires: IBM PC AT or compatible; 640K of RAM, hard disk; 1 or 2 megabytes of EMS memory recommended. Microsoft Windows/286 or 286 2.0 or later release, version 2.0 required.

Pros: Great use of Windows environment; exceptional macro language; powerful formatting and style sheets; very desirable word processing features overall; easy to learn and use; strong data exchange and document conversion capabilities; superior face-generation facility.

Cons: Very powerful features create some complexity; the language requires separate operator manual; some functions slow on slower (10-MHz or lower) systems.

Summary: Microsoft Word for Windows is a superior graphical office/professional word processor with finely implemented and intuitive features. It competes solidly with others as professional as Word for Windows with text processors such as WordPerfect and Word for Windows’s on-screen help manual, Microsoft Word 5.0.
**WordPerfect, Version 5.1**

WordPerfect has built its reputation by offering an effective working environment, endless features, continuous updates, and readily superior customer support. While still the features champion of word processors, WordPerfect's user interface cannot compete with the new WordStar-based products, especially Word for Windows. The latest update to WordPerfect, Version 5.1, adds equation editing, table generation, label support, presentation mode, constraint help, and automation of mail merging. Furthermore, technical support hours have been expanded to 24 hours per day and weekend support has been added.

**Spellstar, Version 5.5**

The classic word processing program for microcomputers, Wordstar no longer represents the state of the art but certainly offers a full complement of features. Somewhat less powerful than Microsoft Word 5.0 or WordPerfect 5.1, Wordstar 5.5 ranks above AmiStarwriter and Multifilat, and easily ahead of Displaywriter.

There are a number of stand-alone modules in Wordstar, many of which were borrowed from Wordstar 2000 Plus, such as a telecommunications program, graphics, and outlining. While effective in their own right, they are not fully integrated with the basic word processor.

**How We Tested**

Continued From Page 97

significantly enhances error handling or contains information that helps identify or solve the problem.

**Support** Support scores are divided into two areas: support policies and technical support. Support policies: In scoring for support policies, we begin with a satisfactory score and award bonuses for product usability (a written policy that if the product does not do what the documentation says it will, the vendor will fix the problem or refund your money), two free floppy disks, and a money-back guarantee, a toll-free line, support hours longer than 10 hours per day, fax support, and available corporate extended support plans. We subtract points when vendors provide no technical support or limit the support to 30 or 90 days.

Technical support: Technical support scores are based on the quality of service we actually received in the course of multiple anonymous calls to the vendor and the availability of knowledgeable technicians.

**Value:** The value scores reflect the price vs. the performance and features of each package tested, taking into account the competition. Most office/professional word processors are priced at or close to $495, so we look closely at the additional benefits and features of each to determine comparative values.

**This product comparison was developed by Jeff Eckert, infoWorld Test Center; Steve Irwin, InformWorld Test Center; John Longnue, Contributing Editor; Michael J. Miller, Editor; Gregory S. Smith, Test Development Specialist; and Serge Timasheff, Associate Reviews Editor.**

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**Word Processing, Desktop Publishing Use Different Tackle to Catch the Big Fish**

You're not out to nab that trophy-size fish. Should you use the drag-and-tackle and power-caster, or take the Lloyd Bridges stealth approach with your four-rod spinning?

The answer, of course, depends on which fish is the best for you. While both methods can catch fish, the hunting styles of each and the lures used is what make the difference. The same is true of layout-capable word processors and desktop publishing programs.

There is a temptation — one propelled by product marketing — to pick a "total solution" for a range of tasks. There is, of course, rarely such a solution. Depending on your needs, a sophisticated word processing package may be sufficient for "publishing" needs, but perhaps you need a word processor for tasks and a desktop publisher for others. Or maybe you need everything to be fully integrated.

To help you sort it all out, each of the fish that caught our eyes, consider the task you're setting out to do.

Publishing has three basic external components; content editing, copy editing, and page layout. See Flash, Page 113
PRODUCT COMPARISON

JANUARY 29, 1990

Multimate's character-based screen supplies needed information, but leaves plenty of room for text editing.

Like Multimate and Wordstar, Office Writer is character-based and optimized for on-screen text work.

Word for Windows displays a ribbon of accessible fonts, font attributes, and document styles on-screen.

**GRAPHICS**

**Multimate,** Continued From Page 110

Multimate supports many graphics formats. White space is created manually. Graphics, which can crop, column, can be captured from a screen and cut, rotated, expanded, and edited. Score: Very Good.

**Office Writer,** Continued From Page 110

Office Writer imports a range of graphics formats, which will display in a preview. You can zoom, crop, and resize graphics. Tags for graphics objects open up white space but do not support text windows. Score: Good.

Word for Windows graphics imported from various supported file formats can be sized, rotated, or clipped, although there are no editing tools. Art Professional and Legend have more extensive graphics support and editing capabilities, however. Score: Very Good.

**OUTLINING**

Multimate's outlining feature involves flagging paragraphs for automatic numbering. It will not collapse or expand text or shuffle outline segments automatically. Score: Satisfactory.

Outlining uses outline tab markers that establish levels and permit variable numbering systems. The program does not collapse or expand different outline levels. Score: Satisfactory.

This program automatically generates outlines based on the structure of the style sheet for the document. You can move or change levels, and they collapse and expand in true electronic outlining form. Score: Excellent.

**TABLE OF CONTENTS**

The table of contents feature works by manually assigning tags to each heading. Tabs define the various levels. Automatic indexing is supported. Score: Good.

Office Writer's table of contents can be generated from either outline tabs or section markers. The program will handle various indexing and header options. Indexes are performed with concordance lists, after the document is explicitly paginated. Score: Good.

Word for Windows automatically creates a table of contents from a formatted document; using the levels from the document's structure. Indexing is fully supported. Concordance indexing is available in a special macro available on request. There are many indexing options. Score: Very Good.

**STYLESHEETS**

Style sheets are not supported in Multimate. Score: N/A.

Style sheets are not supported in Office Writer. Score: N/A.

Following a Microsoft Word tradition, Word for Windows style sheets have complete flexibility, can be derived from preformatted text, and are easy to apply and change. Styles can be applied to virtually anything quickly and efficiently. This is top-notch style-sheet support. Score: Very Good.

**FONTS**

While Multimate supports soft fonts, its system for previewing and preparing documents using proportionally spaced fonts is clumsy and limited. Score: Good.

While generally strong in font management and the use of soft fonts, Office Writer can't automatically adjust the height for proportionally spaced fonts. Score: Good.

Fonts are WYSIWYG and managed by Windows. Fonts can be applied easily through styles or selected text. You don't have to access a special menu to choose fonts (as you do with Art Professional). Score: Excellent.

**FOOTNOTING**

Multimate supports footnotes and endnotes in documents, with automatic numbering and other options. Score: Very Good.

Footnotes work well and can be placed either at the bottom of the page or the end of the document. You can change a document's footnoting format. Score: Good.

Footnotes and endnotes, which can both be in a document simultaneously, also support cross-referencing. Score: Excellent.

**MACROS**

Multimate supports a long list of keystrokes only. Score: Satisfactory.

While macros are available in Office Writer, they automate keystrokes only. Macros can also be used outside of Office Writer, such as for DOS commands. Score: Satisfactory.

Macros use a complete programming language based on Quick Basic complete with block structures, variables, types, and other intricate programming features. Unfortunately, the excellent free macro manual must be ordered separately (although it is free), and there is an online chapter shipped with Winword for macro information. Score: Excellent.

**PRINTERS SUPPORT**

Multimate supports a broad list of printers, including laser and Postscript printers. Score: Very Good.

The long list of supported printers includes HP and Postscript laser printers. Office Writer also provides a printer device editor. Score: Excellent.

Top-notch printer support is provided through Windows, and additional drivers are included that boost the score. Score: Excellent.

**INFOWORLD**
**Fish**

Content editing, copy editing, and copy fitting. In content editing, you don't pay attention to the text, typeface, leading, and other formatting, since there are irrelevant to the task at hand. You do, of course, pay attention to the text format — the title and styles — where it's used to enhance the content (by structuring meaning). In copy editing, you check grammar, spelling, and style, and you add coding (or style-sheet tags) to indicate headlines, bylines, and other visually distinct text elements. In copy fitting, you make the text fit the space available while preserving its meaning.

Whether you have a staff of one or 100, you'd want to perform these tasks separately. If you're editing for meaning, simultaneously proofreading for spelling errors will likely result in one or both tasks being compromised.

Desktop publishing programs assume that you use a word processor for content editing, that publishing is the merger of the vertical and visual presentation. To do so, you must merge the two forms of presentation inter-actively and synergistically. The crucial factors are lay-type, typeface, number of characters, type, size, type, and, finally, typographic control. You must decide how crucial each area is — whether you are truly publishing or merely producing a document.

In a memo, basic formatting is all that's needed for layout: paragraphs, underlining, spacing — in short, what typewriters have done effectively for more than a century. In an internal newsletter, a word processor's rudimentary layout features are sufficient, since you are just presenting a version of what you used to do on mimeograph or copy machines. In a manual, the layout is usually sequential and straightforward; and fine typography is not a major consideration. Again, a word processor is probably fine, although large manuals would benefit from a document processor that can handle cross-references and multiple chapters. In an advertisement, annual report, newsletter, or magazine, you'll want a higher level of page production.

For this last category, you must use a desktop publishing program. Layout-capable word processors, even WYSIWYG engines such as VMS Professional or Microsoft Word for Windows, simply don't have the layout and typographic controls fundamental to both the verbal and visual presentation. NBD's Legend, does its level of control by straddling the two categories. It was designed and sold originally as a desktop publishing program and then marketed as a high-end word processor. But integrated packages such as Legend must sacrifice certain higher-end features or else they become too expensive.

A desktop publishing package offers much more sophisticated markup control. A newsletter or magazine is composed of several text and graphics elements; the capability to manipulate text and the graphics associated with each text element is crucial. Something you publish (whether produced in a sequence of steps where text comes before the next begins. Instead, text begins on a page and in a position determined by both its size and relative importance to the other elements, and text jumps to a new page if the desired size and relative importance is not met. This issue of size and position is an example of such multiple tables and files. When you start buying a desktop publishing program, look for one with a good user interface that is easy to use, such as, for example, IBM Interleaf Publisher.

Desktop publishing is a good tool for publishing. It allows you to create documents that are visually appealing and professionally formatted. However, it is important to consider the limitations and potential challenges of using desktop publishing software in order to ensure that your documents meet the needs of your audience and adhere to the standards of your organization.

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WordPerfect's graphics support is the best available for character-based word processing. WordPerfect's familiar dot commands are evident, as are its ribbon of commands at the top of the page.

**Outlining**

WordPerfect supports up to eight levels of outlining. While sections of an outline can be moved and automatically renumbered, text cannot be collapsed or expanded. Score: Excellent.

**Table of Contents**

By marking text, you can generate a table of contents with leading characters before page numbers. The table of contents can be placed anywhere in the document and can be edited or formatted. WordPerfect also supports multiple indexes and lists. Score: Excellent.

**Stylist**

Style sheets are extensive and can include a variety of information about formatting, fonts, and other attributes, but they are not quite as sophisticated as Adobe PageMaker for Windows or Word for Windows. Still, the support is strong. Score: Excellent.

**Fonts**

WordPerfect has extensive font support with automatic downloading and handles soft fonts with ease. Score: Very Good.

**Footnotes**

Footnotes, endnotes, and annotations can all be entered in the same document with separate formatting and numbering. Score: Excellent.

**Macros**

WordPerfect has keystroke macros but no programming constructs. Score: Satisfactory.

**Printer Support**

WordPerfect printer support is superior, with the capability to customize printer tables and create new ones. Score: Excellent.
COMPATIBILITY

Multimate was on the lower end of the speed results, turning in several sluggish results. Times were not out of line, however. Score: Satisfactory.

Office Writer was about average in speed, coming in with reasonable scores on speed tests. It was especially fast in saving a file and in global searching and replacing. Yet it was slow in a few other operations, such as manually scrolling through a document. Score: Good.

Although comprehensive and well-written in general, the documentation is difficult to follow when explaining fonts and proportionally spaced printing. Score: Good.

The training and reference manuals are both necessary for a clear understanding of the program. The useful print manual describes how to edit printer files. Score: Good.

Multimate is easy to learn for simple documents, but more difficult for complex ones and those using fonts on laser printers. Allow a few hours to get up and running. Score: Good.

Learning Office Writer is easy for simple office correspondence. More complicated applications using forms or mail merge are more difficult to learn. The help system, book tutorial, and other learning aids help significantly. Score: Good.

Multimate is reasonably easy to use once you've got it up to speed, but its clumsy operation under some circumstances, and limitations on using the preview feature and proportionally spaced fonts complicate the management of complex tasks. Score: Good.

Because of the need to explicitly paginate documents, the clunky operation of some menus, and the highly structured and inflexible format, Office Writer does not get substantially easier to use with experience. Yet it is basically easy to use, and most accomplished users are quite comfortable with its interface. Score: Good.

Multimate handles errors easily with a one-step undo for all deletions. There is a built-in undelete for files, but no timed backup. Error messages are sufficiently informative. Score: Good.

Office Writer has a one-step undo that must be implemented right after the error occurs. There is a timed backup and there are multiple warnings when destructive changes or editing changes might be lost. Score: Good.

A free, regular technical support line is available, and special support is available at various levels and special prices. In addition, there is support on CompuServe and a recorded set of answers to common questions on a toll-free line. There is a 90-day product usability warranty. Score: Very Good.

Telephone support is free but on a toll line, fax support is also offered. There is a 90-day product usability warranty. Score: Good.

While on occasion the Multimate phone lines were interminably busy, the several times we did reach the technical support team, the help was plentiful and knowledgeable. Score: Satisfactory.

The friendly and knowledgeable technicians who manned the Office Writer support line answered our questions quickly and correctly. Score: Very Good.

Support from the technicians on the Microsoft support line was good. They answered quickly, were informed about the product, and could respond to a range of issues. Score: Very Good.

VALUE

At $565, Multimate 4.0 costs more than programs with far superior capabilities. If your office is set up on Multimate, or if you do extensive mail merging but little else, this upgrade is certainly worth consideration. The addition of the grammar checker and support for electronic mail are benefits that will enhance word processing and consequently, its otherwise satisfactory value. Score: Good.

At $495, Office Writer represents a reasonable value, about on a par with Multimate but better than Displaywrite. We prefer Office Writer to Multimate because of its better review and text management, its graceful forms management, and consistent interface. Score: Good.

Word for Windows is less sophisticated as a layout tool or graphics editor than Arti Pro or Legend, but a much better word processing program overall, with no comparable text layout and good graphic capabilities. At $495, it meets most and exceeds some standards set by Word for Windows, and with its many office features such as你会 have the hardware to handle it. Score: Excellent.
WordPerfect, Continued From Page 113

With its conversion program for most major text, spreadsheet, and graphics file formats, WordPerfect has earned good support for software programs. (See features chart.) Score: Very Good.

WordPerfect was very fast in most tests, and the only faster package overall was Microsoft Word. You won't experience any sluggishness with this product. Score: Very Good.

The drop-down menus, mouse support, and indexed and context-sensitive on-line help will permit most users to produce standard office correspondence quickly, although more complicated tasks will take longer. While WordPerfect's blank opening screen can be a little intimidating — as can the complexity and huge features list — almost as soon as you dive into the program you realize that it is very intuitive, and learning to use it is actually quite easy. Score: Very Good.

WordPerfect's flexibility makes the program very easy to use. The page preview, menuing, instantly accessible help, and the reveal-codes screen all contribute to ease of use. It is also customizable, so advanced users will be able to tweak and streamline the program to their liking. Score: Excellent.

Support includes toll-free technical support open more than 10 hours daily, seven days a week, in addition to BBS support on CompuServe and extended support plans available. Score: Very Good.

With experience, WordPerfect becomes much easier to use, and those with an enthusiasm for touch typing will appreciate the control key approach to managing the various functions. Typists who spend a majority of their time typing massive documents and correspondence, WordPerfect is really worth considering from an ease-of-use standpoint. Score: Good.

Support policies:

WordPerfect's support policies are without a doubt the best in the industry. Literally half of this 1,000-plus employee firm works in technical support. The product includes a money-back guarantee, a product usability warranty, extended support, toll-free support (except at night), fax support, weekend support, phone lines open 24 hours, and BBS support. An excellent score underscores the generosity of WordPerfect's support policies. Score: Excellent.

Technical support:

WordPerfect's support has been consistently excellent, with support available by phone and fax. We did get through one time after another trial, and the support we received was helpful and friendly, and successfully solved our bug problem. However, the technical support overall lowers the score. Score: Poor.

At $495, WordPerfect represents a fine value. Its extensive features are offset by some and only by Microsoft Word and Word for Windows come close to equaling them. Ani Professional and Microsoft Word for Windows outshine WordPerfect with a graphical interface, but for true powerhouse word processing, WordPerfect retains its world championship title. Score: Excellent.

WordStar, Continued From Page 113

Text file imports and exports cover most common word processing formats and a few graphics formats. Score: Very Good.

WordStar speed results were mixed, with several very fast scores (exporting an ASCII document, loading a document, and appending a file), but with some slower scores on other procedures (importing an ASCII/RFT file, jumping from the top to the bottom of a document). Overall, WordStar was quick. Score: Good.

WordStar's documentation includes separately presented material for the add-on packages, but a common index. Most of the documentation is well-written. Score: Good.

WordStar is somewhat hard to learn because of its user interface. It has a "touch-typing" orientation, optimized for touch typing, but the commands are not necessarily intuitive at first, they quickly become intuitive. The good tutorial helps. Score: Good.

With experience, WordStar gains much easier to use, and those with an enthusiasm for touch typing will appreciate the control key approach to managing the various functions. Typists who spend a majority of their time typing massive documents and correspondence, WordStar is really worth considering from an ease-of-use standpoint. Score: Good.

At $495, WordStar 5.5 competes at the price level of other heavy-duty products. In this league, WordStar falls more than three points ahead of WordPerfect and Microsoft Word. For the user type, it is worth a look. Score: Good.

Highly accessible, toll-free telephone lines specializing in product and function are manned by technicians who know all about the product and its capabilities. They go out of their way to help with your problem. Score: Excellent.

Support policies:

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Fish
Continued From Page 113

taken on press, design, and budget requirements. You can't have a 34-page magazine that costs 71 cents a copy and still make a profit. The only way to make a profit is to make your layout work, and you can't leave parts of pages blank because your copy is too short or just drop text because it's too long.

One of the first things you do is scroll through your layout and start cutting widows and tails. A widow is the last line of a paragraph that appears at the top of a column. It is considered unattractively because it is shorter than the other lines in the column and creates unwanted white space in an area that should have none. Some people accept widows if they are at least half the width of the column. A tail is the last line of any paragraph whose length is only a few characters — "few" in a subjective decision. It is both unattractively and wastes a precious line.

You eliminate widows and tails by rewriting text more concisely and by tightening the spacing selectively, or "tightening" in pre-press lingo. The idea is to get the text to move up to previous lines. Widows and tails can easily occupy 1 percent of an article's length, which is not enough to be a problem, but it is a problem if the copy is much too long to fit with these techniques, you must go back to the word processor and re-edit it to make it smaller.

This copy fitting requires typographic controls available only in high-cost publishing packages such as Xerox Ventura Publisher or Quark Xpress (for the Macintosh). It also requires editable WYSIWYG (what you see is what you get) typesetting programs. Copiers are not up to these standards. So if you are even considering this program, you are better off with a program that can be used single-handed by typesetters and not marred by excessive tracking.

The last area of the art of typography, which only desktop publishing programs truly provide. Unfortunately, this important publishing component is usually the first to be ignored by newcomers to desktop publishing. If you look closely at any magazine, whether Scientific American, Family, Time, or InfoWorld, you won't notice how the spacing between letters and words help carry you along from paragraph to paragraph. You also won't notice how the typesetting (or ragging) helps create the overall feel of the publication and the feel of the content. The fact that you don't notice these things during normal reading is a tribute to the quality of the publication, but it is one of the components you need for the job at hand.