

REVIEWS

Word processing is currently experiencing a growth spurt, marked by the announcement and release of several graphical word processors.

Microsoft Word, one of the best known word processors, has joined in this movement with the shipment of Microsoft Word for Windows. Combining the power of the text-based DOS version of Word with the dynamic Word interface available on the Macintosh platform, Word for Windows is a powerful contender as an office/professional word processor.

Word for Windows competes effectively with Samna's Ami Professional and NBI Legend, the only other high-end word processors currently available for Microsoft Windows. The text-based Word 5.0 is still available, giving Word users a nice choice of interfaces without forcing a changeover to a new word processor en masse. Either version of Word is a stout opponent for Word Perfect, which does not presently come in a Windows version.

FEATURES:

Word for Windows (named "Winword" informally) does virtually everything that falls into the traditional high-powered, office/professional word processing domain. It capably handles large documents, complex formatting, mail merging, fill-in-forms and tables, macros, graphics, document conversions, and fonts. It also makes use of the Dynamic Data Exchange (DDE) standard for live exchange of data between applications, although the list of products other than Microsoft Excel and Polaris Packrat that effectively support this "hot-link" capability at this time is rather limited.

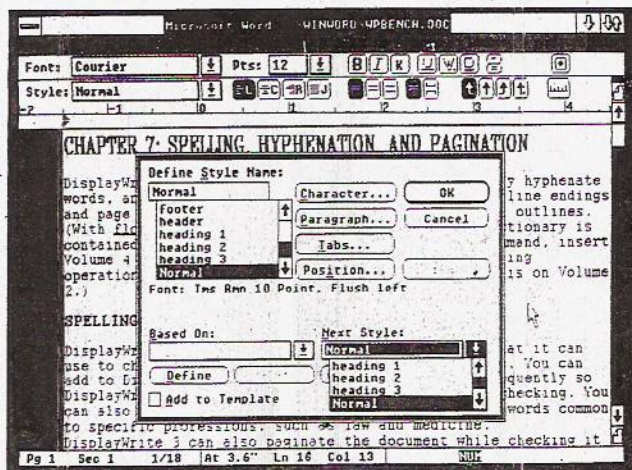
Yet this powerful suite of features would be nothing more than interesting without the very elegant implementation of Word under Windows — exploiting fully the graphical advantages of EGA and VGA monitors. Similar to Ami Professional but more comprehensive, the various views of a Word document range from a complete or partial WYSIWYG editable display to a quick-editing draft mode. Placement of text elements, integration of pictures, and management of tables take place easily and visually. Multiline formulas with special characters can be entered and displayed as they will appear when printed.

Following a growing practice of incorporating quasi-programming environments into high-end word processors, Word for Windows includes a very powerful Basic-like macro language (it is based on Microsoft Quick Basic) that permits advanced users and developers to create and implement complicated Word-related applications.

In short, Word for Windows is a superior product continuing the acceleration of word processing program standards begun by Ami Professional. The rest will have to work hard to catch up.

PERFORMANCE:

Among powerhouse word processors such as Ami Professional or Word Perfect 5.1, basic editing has reached its pinnacle at a high level of convenience and flexibility, and Word for Windows fits in with



Winword makes effective use of the Windows environment, with WYSIWYG fonts, elaborate style sheets, and one-touch icon styles and fonts.

Welcome Microsoft Word in A New Version for Windows

This dazzling graphical word processor will be a top-notch competitor for Ami, Word Perfect.

By JOHN LOMBARDI CONTRIBUTING EDITOR

this company in every way.

This is thanks to a complete set of commands for manipulating text, whether for cut/copy/paste, search/replace, cursor and mouse movements, multiple tab types, complete status lines, or complete paragraph control. Word for Windows uses Windows-style editing along with a host of keyboard and menu features. These can, in addition, be customized to conform to most operating preferences. There is also a useful annotation feature that locks the original document but permits others to annotate or comment on it without changing the basic document. We rate basic editing excellent.

Layout tools in Word for Windows excel, as expected from such a graphically oriented program. Newspaper-style columns, table generation, multiple views of the document, vertical and horizontal justification, column balancing, and complete widow/orphan control, along with options on page breaks within paragraphs, showcase the extent of layout capabilities. While not quite as effective as Ami Professional's approach to layout (with its frame-based graphics, for example), we rate layout very good for the variety and sophistication of layout options and tools.

As with most Windows-based products, Word for Windows handles fonts gracefully. With proper printer setup (font and printer installation can be done in Windows), the program prints the proper fonts, shows them on-screen as

they will appear printed, and downloads the required fonts to an HP Laserjet or similar printer at print time. Fonts can be applied to individual characters, paragraphs, or documents, and they can be made part of preset style sheets. Postscript printers are supported as well as a host of additional printers with their built-in or downloaded fonts. We rate font support excellent.

Since Microsoft Word is the trendsetter of complex style sheets for PC word processing, it comes as no surprise to find that Word for Windows has superior style sheet capability. You can invent templates with styles of any complexity, including with or without text, and you can create styles by extracting them from existing formatting information or by modifying a pre-existing style. The variations on style sheets defy the imagination in the Word for Windows system, and style sheets in this implementation are much more intuitive and easy to use than in previous incarnations of Word under DOS. We rate style sheets excellent.

Word for Windows' spelling checker is about on par with other word processors of this class, although it is not as fast, effective, or accurate as Word Perfect 5.1's checker, for example. Word supports multiple dictionaries and a user dictionary, offers many suggestions for unknown words, and maintains capitalization and punctuation. Unfortunately, Word does not do global spelling replacements. Its thesaurus offers good synonyms and good definitions, and in

general the dictionary provides better spelling and thesaurus suggestions than the one provided in Ami Professional (although Word's spelling checker and thesaurus are not up to Ami Professional's level of sophistication). We rate spelling checking good.

One of Word for Windows' most impressive features is its very complex and powerful mail merge capability, which includes a complement of field operators that makes extremely complex operations possible. It handles tabular formats, simple data files, external data files (with some difficulty), templates, form letters, labels, and similar operations. Mail merge can also use and call variables, macros, and other text constructs needed for sophisticated operations. We think the mail merge capability sets a standard for excellence and, therefore, we rate it excellent.

Word for Windows also offers the standard capabilities of a full-featured outliner. It supports up to nine levels and collapses to any level of detail required; styles can be tied to outline levels. All Word for Windows features are available to the outlined text. It can build text from an outline and handle bullets, variable numbering formats, and hidden text. We rate outlining excellent.

The table of contents and indexing features in Word for Windows produce not only standard tables of contents and indexes but also lists of figures, tables, charts, or anything else needing a list. Moreover, the formatting capabilities of the index are top-notch, following the *Chicago Manual of Style* format for multiple entries under the same heading. We rate table of contents and indexing support excellent.

Footnotes can be placed at the end of the document or at the bottom of the page, but only one series of notes can be maintained within each section. A window appears for note entry and there are a variety of options for controlling the placement of long notes at the bottom of the page. Cross referencing is available in a variety of forms. All word processing formatting (fonts, styles, etc.) is available in footnotes. We rate footnoting good.

Word for Windows does macros with a vengeance. You name it, they've got it: programming constructs, conditions, logical and mathematical comparison operators, capability to manipulate files and pictures, keystroke capture, or whatever you like. The macro language is very close to Microsoft Quick Basic, with all the control structures of that language; in fact, the macro language is called Word Basic. Unfortunately, the Word for Windows package does not come with the technical reference manual (although a subset of the manual is on the disk) required to fully utilize this capability, and you must order it separately (the same is true of Ami Professional). Nonetheless, the macro capability clearly rates excellent.

Word for Windows will insert graphics derived from any Windows-compatible program and will directly import TIFF files. Word works with DDE-compatible programs to bring in graphics files and fit them to your document. While not many applications support DDE to date, Microsoft Excel is one. Pictures can be

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cropped, scaled, and positioned. Word for Windows will also draw lines horizontally and vertically. These graphics capabilities are not up to those of Ami Professional, which has extensive drawing capabilities and can manipulate TIFF images (e.g., shading), but they certainly are strong enough to warrant a good rating.

Printer support, derived from the underlying Windows, is excellent with a large range of printers supported along with their fonts and soft fonts. Word for Windows also supports color and Postscript printers.

A fine suite of conversion routines, some automatic, permits Word for Windows to import and export documents into a large range of other word processing programs and file formats. For example, Word Perfect, Multimate, and Wordstar are supported as well as IBM's DCA/RFT, several versions of ASCII exports, and an export to move files to what is called Rich Text Format (RTF), mostly useful for transferring files to and from the Apple Macintosh. The DDE support, which is better than Ami Professional's (two-way versus one-way) contributes to an excellent compatibility score.

As with other Windows products, Word for Windows is no speed demon, but in its draft mode it performs acceptably. With a 10-MHz 80286 PC/AT, the program can be quite slow in page view with all formatting and screen borders showing. Even with a moderately fast (20-MHz) 386, the page-view speed is less than terrific. Ami Professional's speed, likewise, is slower than desirable, although Word for Windows manages to exceed Ami's pace in most cases. Yet Word for Windows offers more viewing and editing alternatives than does Ami Pro: There is a WYSIWYG editing view that shows fonts and page breaks, but not headers, footers, or footnotes, and it is in this view that you will find yourself doing most work (it is also the view we used in our benchmarks along with the draft

mode). Considering its power and the demands placed on the system by a complex graphical environment, we rate speed very good.

DOCUMENTATION:

Word for Windows comes with six manuals (the main manual is in hard-back, which is very unusual for a software manual), a complete on-line help system, and a tutorial. A pocket guide provides a summary of commands and procedures, a printer guide explains supported features of the various printers, and a basic skills guide shows how to make Windows work if you're new to this operating environment. You get a document illustrating a wide range of common applications and processes (templates, etc.) and a *Getting Right to Word* manual that gives instructions for switching from other word processing programs such as Displaywrite, Multimate, Wang, Word Perfect, and Wordstar. Finally, a user reference guide provides an alphabetical listing of all commands and functions with good explanations and examples. All in all, the documentation is well-done, easy to read, generally complete, nicely indexed, and sufficiently splattered with examples. However, the absence of the technical reference manual is a disadvantage, since you can't begin to fully exploit the power of macros without it. We rate documentation very good.

EASE OF LEARNING:

Given the complexity of this product, Word for Windows is relatively easy to learn to use. While the graphical user interface — with its icons, ribbons, and menus — helps orient the new user (although it may be a little intimidating to the uninitiated), the program tutorial and various manuals must be reviewed before trying to operate the system. It takes at least half an hour to install the program, assuming you have Windows up and running. Most users will need another hour of experimentation to begin turning out simple letters and memos. The style

sheets are easier to learn in Word than in Ami Professional, although Ami Pro does go the extra yard to show styles in their dialog boxes (such as page layouts, fonts, etc.). Mastering sophisticated formatting, use of styles, and other work with Word for Windows' more powerful features will take many hours of concerted effort, but it is well worth the time spent. Given the complexity and power of this program, we rate ease of learning very good.

EASE OF USE:

Reasonable levels of competency for any given mix of daily work will take perhaps a day or two of experience to master. The more complex the mix of tasks and the more demanding the formatting specifications, the longer full competency will take. Significant expertise accumulated over several weeks or months will be required to take full advantage of very advanced features such as complex macro programming, elaborate form letter applications, linked documents, or documents with many cross references, footnotes, index, table of contents, and lists. Even so, the many facilities available to speed work — whether through use of speed keys, macros, mouse, or customized menus — can make this a very easy-to-use program. Features such as the easily identifiable style option icons (boldface, italics, etc.) are more effective than they would be if they were in menus, as in Ami Professional. If you are used to using the text-based version of Microsoft Word, you will find this program quite different in its interface but similar in its command structure; if you know the Macintosh version, you will find many similarities in the interface as well. We rate ease of use very good.

ERROR HANDLING:

Word for Windows does a reasonable job of preserving data integrity. While there is no automatic timed backup as Ami Professional has, a timed backup feature will remind you to save work at any of four intervals; in either case, your data

REPORT CARD INFO WORLD

OFFICE/PROFESSIONAL WORD PROCESSING SOFTWARE

Microsoft Word for Windows

VERSION 1.0

Criterion	(Weighting)	Score
Performance		
Basic editing	(50)	Excellent
Layout capabilities	(25)	Very Good
Fonts	(20)	Excellent
Style sheets	(20)	Excellent
Spelling checker/thesaurus	(50)	Good
Mail merge	(25)	Excellent
Outlining	(20)	Excellent
Table of contents and indexing	(20)	Excellent
Footnotes	(20)	Good
Macros	(25)	Excellent
Graphics integration	(30)	Good
Printer support	(30)	Excellent
Compatibility	(40)	Excellent
Speed	(50)	Very Good
Documentation	(100)	Very Good
Ease of learning	(100)	Very Good
Ease of use	(200)	Very Good
Error handling	(75)	Very Good
Support		
Support policies	(25)	Very Good
Technical support	(25)	Very Good
Value	(50)	Excellent
Final score		8.1

PRODUCT SUMMARY

Company: Microsoft Corp., One Microsoft Way, Redmond, WA 98052; (206) 882-8080.

List Price: \$495.

Requires: IBM PC/AT or compatible; 640K of RAM; EGA, VGA, Hercules, or Windows-compatible graphics monitor; hard disk; 1 to 2 megabytes of EMS memory recommended; Microsoft Windows/286 or /386 2.X or later (run-time version included); mouse recommended but not required.

Pros: Excellent use of Windows environment; strong formatting and style sheets; extremely capable word processing features overall; exceptional macro language; relatively easy to learn and use; strong data exchange and document conversion capabilities; superior table generation facility.

Cons: Very powerful features create some complexity; macro language requires separately ordered manual; some functions slow on slower (10 MHz or lower) systems; requires extra memory for full functionality.

Summary: Microsoft Word for Windows is a superior graphical office/professional word processor with finely implemented and intuitive features. It competes admirably against Ami Professional as well as text-based high-end word processors such as Word Perfect and Word for Windows' soul mate, Microsoft Word 5.0.

BENCHMARKS



Office/Professional Word Processors

	Word for Windows (draft) Version 1.0	Word for Windows (normal*) Version 1.0	Ami Professional (draft) Version 1.1	Ami Professional (layout) Version 1.1	Microsoft Word Version 5.0	Word-Perfect Version 5.1
File (approximate file size, 50K)						
Load	6/13 ¹	6/13 ¹	13	29	1	2
Save & continue	5	5	10	13	2 [*]	4
Import ASCII	4/10 ¹	9/29 ¹	15	25	2	Varies, 8-15
Export ASCII	10	10	10	12	2	8
Import DCA/RFT	1:17/1:28 ¹	1:24/1:54 ¹	27	38	1:01	20
Cursor movement						
Top to bottom	<1	<1	<1 ²	1 ²	1	2
Manual scroll	28	1:07	1:46 ³	1:37 ³	31	45
Reformat	24	24	(layout mode only)	25	12	20 ⁴
Search						
Last word	3.7	4.4	12	21	2	2
Global replace	30	30	11	48	10	6
Append document	17	18	5	21	2	1

All times in seconds, unless otherwise noted (1:00 is one minute).

All testing performed on an 8-MHz IBM AT Model 339 with 640K of RAM.

*This is not the full-page view mode; the "normal" editing mode shows WYSIWYG fonts and page breaks, but not headers, footers, or footnotes.

¹Split times in loading Word for Windows documents reflect background loading (the information Windows provides for the application is still loading, but the first portion of the file is editable).

²Using mouse in Ami Professional.

³Our tests called for using the down arrow key for this test. We used the down arrow key in Ami's draft mode and the scroll bar in the layout mode, since it would optimize performance and match real-world operation.

⁴Could not globally alter rulers/style sheets in Word Perfect. Score indicates the time required to alter each ruler/style sheet individually.

integrity is preserved. There is a one-level undo (Ami Professional has several levels), but it covers a comprehensive series of actions such as formatting and sorting. Unfortunately, it must be implemented immediately after an action to be effective. General errors, such as open drive doors or out-of-memory errors, are handled gracefully without data loss. We rate error handling very good.

"Microsoft Word for Windows has clawed its way to the top of the word processing heap."

SUPPORT:

Word for Windows' warranty has two main attractions. The first is a no-questions-asked, 30-day money-back guarantee; you must return the product to your dealer for the refund. The second is a 90-day product usability warranty, which guarantees that the product will meet the specifications in the documentation. If you find that it doesn't, you may return it to Microsoft, which has the option of fixing the problem or refunding your money. In addition, Microsoft operates a regular phone technical assistance line and offers fax support. We rate support policies very good.

Technical support from the Microsoft phone line was better than average. The technicians answered quickly, knew the product well, and responded competently to questions about memory limitations, specific product features, and compatibility with alternative hardware devices. We rate technical support very good.

VALUE:

Given its exceptional capabilities and

strong showing on most of our tests, Microsoft Word for Windows has clawed its way to the top of the word processing heap.

Equivalent to Ami Professional in its graphic orientation (and price), but somewhat less sophisticated as a layout tool, Word for Windows matches or beats its companion product of Microsoft Word 5.0 for DOS and the competition from Word Perfect 5.1. Discounting graphics capabilities and error handling features, it is generally superior to Ami Professional in its breadth of word processing features. If your system is powerful enough to support Microsoft Windows, at \$495 it is an excellent value. □

John Lombardi is provost of a major university and author of five books. He has been working with computers since 1967.

RELATED REVIEWS

OFFICE/PROFESSIONAL WORD PROCESSORS

Ami Professional 1.1, December 4, 1989
First Look, Ami Professional, NBI Legend, and Microsoft Windows for Word, October 9, 1989

Ami (executive version, in comparison of executive word processors), August 7, 1989

Wordstar Professional 5.5, July 3, 1989
Microsoft Word 5.0, June 19, 1989

Product Comparison: Office/Professional Word Processing, January 23, 1989:

Displaywrite 4
Lotus Manuscript
Microsoft Word (4.0)
Multimate Advantage
Nota Bene
Office Writer
PC Write
Samna Word IV
Sprint
Total Word
Word Perfect
Wordstar Professional 5.0
Wordstar 2000 Plus
Xywrite III Plus

REVIEW RESPONSES

Epson Warning

I recently purchased an Epson LQ-510 printer. It was my mistake that I did not do a proper checkout of the printer before I purchased it. The two stores that I visited did not have any on the floor so they could not provide a demonstration. I went ahead and purchased it anyway, because of the Epson name. Never again.

After I had worked with it for a couple of days, I realized it was not printing on lines one and two of the first page, and the Top of Form was being set at line three of the page. After checking with my dealer, who did not know whether it was a problem or designed that way, I wrote to Epson. According to Epson, "The two-line top margin is required by the LQ-510's lower-cost print mechanism to ensure proper paper handling." This will require me to go through every piece of software I use to adjust the top-of-form setting to compensate for this problem.

I have always considered being able to set TOF at line one an industry standard, and this is the first time I have run across a printer unable to do it. For an entry-level printer, this is going to cause a lot of problems, especially to new users.

C. Fred Couchman CDP
FNS Enterprises
San Gabriel, CA

According to Epson, it is not possible to begin printing above the third line of continuous paper when using the LQ-510 printer. The two-line top margin is required by the print mechanism to ensure proper paper handling. The problem you experienced can be avoided by reducing your software package's top margin setting by two lines. This information, according to Epson, is provided in the manual, and Epson says they encourage prospective buyers to test their software on the printer before buying it. Epson also says they encourage authorized resellers to explain this paper handling limitation to customers.
— Editors

Direct vs. Retail Price

Your otherwise excellent review of VGA boards in the December 11 issue (Page 65) highlighted what appears to be an "apples-and-oranges" situation in your evaluation methodology. The point made was that in most respects the VGA boards were similar in features, support, and other attributes — but the factor that merited a higher-weighted score was price. So the Ahead Systems VGA Wizard received a final score substantially higher than that of its nearest competitor.

What you failed to consider was that the \$199/\$259 list price for the Ahead Systems product was also the "street price," since I was told by the company that it only sells direct to customers, and not through discount mail-order houses. On the other hand, while the list price for the ATI VGA Wonder was correctly stated at \$419/\$519, one can buy it mail-order for about \$259/\$309.

Hal Gershanoff
Weston, MA

Good point. Most systems of all kinds sell for roughly the same discount from list price. Our policy has therefore been to quote and score on list price as the only consistent quotable price, and as a good approximation of relative price. The exception, however, is products sold direct, where list price is also street price.

Beginning with the 386SX computers product comparison of this issue, we will take this fact into account when rating value, by distinguishing between products available through channels that discount from list, and those sold direct for list price only. — Editors

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