S·O·F·T·W·A·R·E R·E·V·I·E·W

WordPerfect

Powerful capabilities —and some annoyances

BY RICARDO BIRMELE

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Thousands of years ago, people put their thoughts down on clay tablets. It was inexpensive and permanent, and they never ran out of ink. However, they had to write quickly before the clay tablets had a chance to dry. Later they wrote on sheepskin parchment—better all around, except for the sheep. Now everyone had time to compose ideas and write them more clearly. However, mistakes were expensive; there were only so many sheep.

During the Middle Ages, people used feathers plucked from birds to write on paper made from wood and cotton. It was a time-consuming process and hard on the local bird population. Then the typewriter appeared. People could write clearly and quickly, fix mistakes easily, and not bother the local fauna. However, they were limited by paper size.

Modern authors have the word processor. Fixing mistakes is no more than a small inconvenience; the bottom edge of the paper no longer exists. In fact, word processors are such a good idea that everyone is trying to write one. So many exist now that you must choose the one that includes the features you find most convenient.

THE BASIC QUESTIONS

WordPerfect, a capable and very easy-to-use piece of software, was first conceived by Alan Ashton, a computer science professor at Brigham Young University, and Bruce Bastion, one of his graduate students. They received immediate feedback on the program by testing each new feature on the secretaries who would be using it in their jobs. When the IBM PC appeared, they decided to implement WordPerfect on that machine. Unlike most other word-processing programs (which were first written for 8-bit machines and then scaled up to a 16-bit microprocessor), WordPerfect was scaled down to the 16-bit machine and thus can use its capabilities fully.

The package runs on the IBM PC (and its clones), the Victor 9000, the DEC Rainbow 100, the Zenith Z-100, and the Tandy 2000.

WordPerfect is actually a collection of several closely integrated programs, including a bundled 30,000-word dictionary with room for 10,000 user-included words, and extensive mathematical and merge functions. It provides automatic text reformatting, automatic footnotes, proportional spacing, document encryption, and macro instructions. The package comes on two non-copy-protected disks: one contains the program and supporting files and the other contains the dictionary. A comprehensive, well-written tutorial/reference-style manual is also included.

Instead of extensive on-screen menus, WordPerfect provides a keyboard template and key stick-on labels for the various word-processing commands. It uses all the IBM's keys, some in combination with the Control, Alternate, and Shift keys.

This word processor requires a minimum of 128K bytes of memory, two double-sided disk drives, a color or monochrome display, MS/PC-DOS, and a printer.

It also uses a programming concept called virtual memory. This means that your document can be as large as your memory and the program can access any part of the document without your having to actively reload it. However, if you were writing a book you would want to break it into chapters. Scrolling from one end of a 100K-byte document to the other, even if it is in memory, can take a while.

THE SCREEN

When you first boot up WordPerfect by pressing **WP** at the **A>** prompt, you see an almost blank screen. In the bottom right corner are the obligatory line and column position indicators (column in this case called "Pos"), and two other bits of information.

"Doc" refers to WordPerfect's ability to edit two documents without going through a save/reload process—you can go from one

(continued)

document to another by pressing Alternate-F1 and answering the prompting menu with a ''1''. It takes about two seconds with a hard disk, somewhat longer with a floppy. You cannot quit WordPerfect if either of these documents is still open.

The other bit of information is "Pg", or page number. WordPerfect is a page-oriented word processor; the

document appears to the machine to be a number of related documents, rather than one continuous piece of information. You can print any one of these related documents independently of the rest.

One of the best ideas in WordPerfect is "what you see is what you get." In order to insert commands to boldface, underline, or center text, you press a function key and the text appears bold (highlighted), underlined, or centered. Nothing in this program interferes with your thoughts (see photo 1). If you need to see the hidden formatting commands, you use the reveal functions command (Shift-F2). One caution: because of the way in which the character-attribute bit for underlining is manipulated, any characters underlined on a monochrome monitor will appear in blue on a color monitor; if fed by a color video drive board, they will appear in reverse video on the monochrome monitor.

WordPerfect also lets you select in which colors you would like your background and text to appear. You can change color combinations before starting your word-processing session by entering WP/S (WordPerfect, slash, System) from a DOS prompt. (This is how you change basic system default parameters from one session to another.)

With IBM's built-in international/ mathematical-character screen-mapping capability, you can easily set up WordPerfect for French, German, Oxford English, or mathematical Greek (see photo 2). Screen mapping refers to "what you press is what you should get," unless previously redefined. This means that if you need an A-umlaut you should get one. One method of adding accents to your printed text is with overstrike. This involves typing a letter, A for example, then Shift-F5 (overstrike), and finally an accent, such as a double quotation mark for an umlaut.
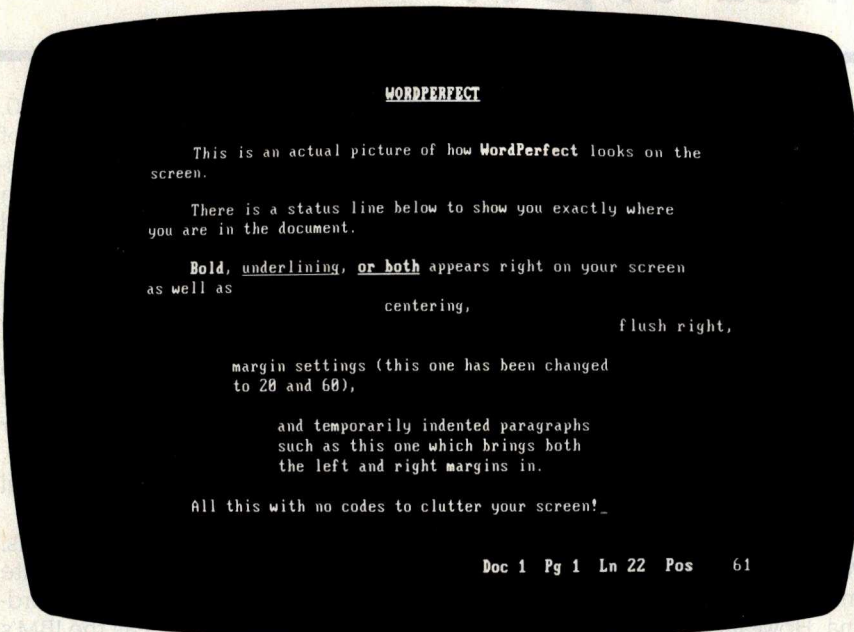

Photo 1: *An example of WordPerfect's "what you see is what you get" screen.*

Photo 2: *Some of the foreign characters and mathematical symbols available with WordPerfect.*

FORMATTING
All word processors get your thoughts down on paper. The best ones make

(continued)

AT A GLANCE

Name
WordPerfect

Type
Word processor

Manufacturer
Satellite Software International
288 West Center St.
Orem, UT 84057
(801) 224-4000

Computer
IBM PC (and compatibles),
Victor 9000, DEC Rainbow
100, Zenith Z-100, Tandy 2000

Other Versions
Personal WordPerfect, also for
the IBM PC, and WordPerfect
Jr. for the PCjr

Disk Format
MS/PC-DOS 2.0, double-
sided, double-density
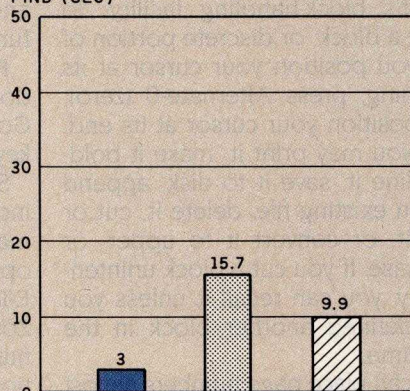
Language
8088/8086 assembly
language

Documentation
Loose-leaf manual with index
in a three-ring binder

Price
$495

FIND (SEC)

WordPerfect	Volkswriter	WordStar 3.3
3	15.7	9.9

SAVE (SEC)

WordPerfect	Volkswriter	WordStar 3.3
10	10.7	24.9

SCROLL (SEC)

WordPerfect	Volkswriter	WordStar 3.3
54	44.9	41.2
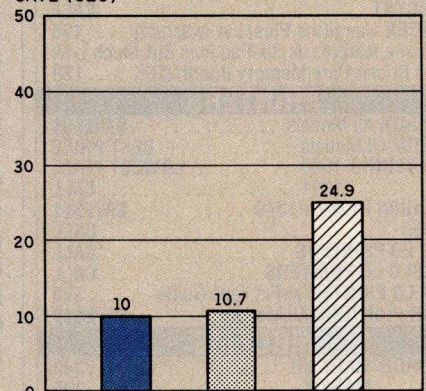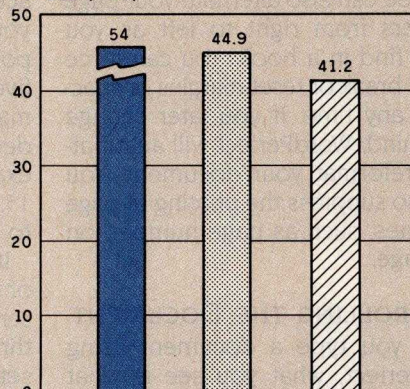
SEARCH (SEC)

WordPerfect	Volkswriter	WordStar 3.3
7	3.5	10.5
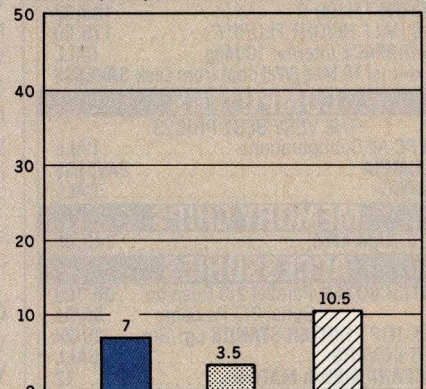
■ WORDPERFECT　▨ VOLKSWRITER　▨ WORDSTAR 3.3

These graphs show the timing results of per-
forming various standard word-processing
functions using a 4000-word text file. The times
are for WordPerfect, Volkswriter, and WordStar
version 3.3. The tests were performed using an
IBM PC with monochrome monitor.

your thoughts look good. WordPerfect formats headers and footers: up to four of either or two of each. It also displays the current output page number by including a Control-N in the header or footer text.

Footnotes are taken care of almost automatically. Superscripted numbers and formatting are also taken care of within the program by using command keys. All you have to do is enter text. If you need to insert a footnote between two previously written footnotes, WordPerfect renumbers all of them for you.

Another formatting feature is WordPerfect's block-handling facility. To define a block, or discrete portion of text, you position your cursor at its beginning, press Alternate-0 (zero), then position your cursor at its end. Then you may print it, make it bold, underline it, save it to disk, append it to an existing file, delete it, cut or copy it, or convert it to upper- or lowercase. If you cut a block unintentionally, you can recall it unless you have defined another block in the meantime.

You can place page numbers almost anywhere on your page—centered, on the right or left, or on the top or bottom. You can also alternate your page numbers from right to left as you would find in a book. You can force a page break or reset margins or spacing at any time. If you later change your mind, WordPerfect will automatically reformat your document. You can also suppress the printing of page attributes, such as page number, on any page.

CONTROLLING THE DOCUMENT

When you type a document using WordPerfect, what you see is what you get. A number of different methods will get your cursor from one end of a document to the other. Along with the normal Page Up and Page Down keys, you have single keys for screen up (the number pad "−" key) and screen down (the number pad "+" key). To get to the bottom of your document from anywhere in the file, you press Home twice and then down arrow. Getting to the top of a

file is a similar Home, Home, and up arrow combination.

You scroll up and down with the "n" function. When you press Escape, you see "n =" at the bottom of your screen. The program is asking how many lines you want to jump at a time—the default is eight. You can change this temporarily by entering a number after pressing Escape and more or less permanently by using the WP/S command. You can also activate word-left and word-right functions by pressing Control-left arrow and Control-right arrow, respectively, as well as line-left (Home-left arrow) and line-right (Home-right arrow) functions.

Finally, you may go directly to any document page by pressing Control-Go To (the number pad 7, or Home, key).

Setting margins and tabs is a little indirect. First press Shift-F6 (set format). On the bottom line you see an options menu: Set Format? 1 Tabs; 2 E-Tabs; 3 Margins; 4 Spacing; 5 H-Zone; 0. Tabs and margins are both numbered from the absolute left position on the screen. In other words, if your left margin is 10, you will see your text lined up at the tenth character position from the left side of your screen. If you set a tab stop at position 15, this tab stop is actually five columns to the right of that margin. This gets confusing if you decide to change the left margin, for example, to 5. Your tab is still set at 15, which means it is now 10 columns to the right of your margin.

It is a good idea to set up a series of tab stops across the width of your screen. Tab positions are available through column 158 with regular tab settings, and farther beyond to column 250 by using E-tabs. Unfortunately, to set tabs with WordPerfect you must stop what you are doing, figure out where you want a tab, then set the tab stop. You cannot merely indicate that you want a tab in the column where your cursor is.

Spacing in increments of half a line is accomplished from the same options menu as tabs and margins. The

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H-Zone on that menu refers to the hot zone, an area around the right and left document margins that is used to determine hyphenation and word wrap. When a single word in your text goes beyond the hot zone, you are prompted to position the hyphen where you want it and then press Escape. You can hyphenate your text as you enter it or use the WordPerfect option to leave out the hyphenation help.

FILING THE DOCUMENT

Once you write a document, you will want to save it. WordPerfect's file management offers several options conveniently grouped together.

The system commands or file utilities include commands to save, rename, or delete a file, check its size in bytes, and display the space available for file storage on your disk.

You can also save documents as straight ASCII (American Standard Code for Information Interchange) text files. This is a savings because you don't have to buy a dedicated ASCII text editor to build program files for compilation. WordPerfect does the job just as well. It also simplifies transferring files from one computer using WordPerfect to another using a different word-processing program, or sending a file electronically, such as through electronic mail.

WordPerfect supports MS/PC-DOS 2.0's tree structure very well. You can change the default directory or drive at any time. When you call them up, the program displays disk-file directories alphabetically, including file size in bytes and time and date information. You can call up a list of files from within a directory with a wild-card search—using the asterisk to represent any character or characters—and then retrieve, rename, delete, or print them. WordPerfect also lets you save a file encrypted under a password.

PRINTING

WordPerfect does all its printing in the background, working from a queue, while you edit another document on the screen. You have full access to all the word processor's functions while printing is going on, though they can run a little slower than usual.

The program works with almost any printer available, serial or parallel. There are 32 types of printers already defined, including the old faithful line printer. If your particular printer is not on the list, you can easily set it up with the included Printer.EXE program.

Printing column output is one of WordPerfect's strong points. You can define from two to five columns, spaced any way you like. If you want even spacing, WordPerfect asks how many spaces to put between the columns and then calculates each column's right and left margin. You can also break columns up on a page, such as when you want a headline and then text in columns, as in galley sheets.

Finally, WordPerfect supports true proportional spacing under program control. It uses WordPerfect's automatic incremental spacing commands, which you define when you set up your printer. If your printer supports super- and subscripts, WordPerfect can use that capability for footnotes and mathematical formulas.

MATH, MACROS, AND MERGE

WordPerfect boasts some of the most extensive math capabilities of any word-processing program I know. It has the normal arithmetic functions (addition, subtraction, multiplication, and division) and more. While it is not a spreadsheet in the sense that you know electronic spreadsheets, you can perform the common arithmetic operations between columns (and rows) and display the result in a different column (or row) as shown in photo 3.

You can use math functions almost anywhere in your document. A math section can extend over page boundaries to column 250 and can contain both numbers and text. This makes putting together a professional-looking balance sheet or financial report easy. As a matter of fact, Satellite Software International claims to use the math functions included in WordPerfect to store its own monthly accounts.

Often in word processing you need to do the same thing over and over again. WordPerfect can be taught to remember a series of keystrokes, file them, and retrieve them as needed.

Photo 3: *An example of the row and column calculations present in WordPerfect.*

For example, I have defined a macro called "envelope." When I write a business letter using the normal business form of address at the top, the macro almost automatically writes that address on an envelope for me.

You can chain macros under Word-Perfect. This may occur conditionally depending on the success or failure of a search operation. It may also occur repetitively, as when you search for a phrase and each time the phrase occurs you want to perform one ac-

tion, and when the search fails, you want to perform another.

One of the most work-intensive functions of a word processor is writing a form letter. Putting the names and addresses in correct order and repeating a name or part of an address within the body of the letter is difficult with some word processors, but not with WordPerfect. The program treats each line of the address—name, street, city, zip code—as a field. A complete name and address is

treated as a record, and you can repeat any field in the record within the body of your letter as often as you wish, personalizing it with the addressee's name or city, for example.

WordPerfect handles the merge in the following way. First, you create the file (name and address records) and save it; then you enter your form letter. When it is finished, you initiate the merge (Shift-F9) and WordPerfect executes it. When the merge is com-

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plete, you can print the letter.

You can use this same file of names and addresses to print out mailing labels—either one-up (a single strip of labels, one label across) or several across on a sheet of labels (using WordPerfect's column printing capabilities).

SPELLING DICTIONARY

WordPerfect's spelling dictionary comes bundled with the program and is almost integral to it, but it is only 30,000 words long with room for an additional 10,000 user-installed words. It also suffers somewhat from its implementation.

The dictionary lets you check the spelling of the current word, all the words on the current page, all the words in the current document, or a specific word or template you supply. (Template refers to a prefix, followed by a dash, that retrieves all words beginning with those letters.) If the program finds an error, it is not immediately corrected. Rather, the program asks if you would like to look up the word in a list of suggested spellings or correct it yourself now. While this method more or less forces you to learn the correct spelling of the words you use most often, it would be more efficient to have the program offer you a list of words from which you could select the one you want.

As you check the spelling of words in a document and the dictionary comes to one it does not know, you have the options of continuing, updating the word into the dictionary, correcting the word, or looking it up. This brings me to another problem. If you need to look up the word "disarmed," for example, it appears in the first dictionary lookup screen for words starting with "dis." However, you cannot exit the dictionary look-up area until you have viewed three and a half more screens. It doesn't take that long to get through the screens, and the words are alphabetized and easy to find, but it is still an unnecessary annoyance.

SUMMARY

I have been using WordPerfect and its updates almost every day since I bought version 2.3 in the spring of 1983, and I have found it to be a capable, easy-to-use word processor. Like all software packages, however, it has both good points and bad points.

On the plus side, because it has been scaled down (rather than up) to the 16-bit microcomputer, WordPerfect can fully use the capabilities of the IBM PC. Also, its use of virtual memory lets your document be as large as your memory with all parts

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of it accessible to the program at any time without action on your part. The "what you see is what you get" approach lets you see bold, underlining, centering, and margins on the screen as they will appear in the printed copy. You can select your own screen colors, both background and text. And if you don't like the ones you chose yesterday, you can change them today. Finally, you can use Word-Perfect both as a word processor and as a program text editor because of its ability to save documents as straight ASCII text files. This saves you both money and the time, effort, and confusion involved in switching back and forth between editors.

On the minus side, the character-attribute bit for underlining is manipulated differently for monochrome and color monitors (this might not be a problem, depending on your application). The tab stops are established relative to a zero screen position, so if you change your left margin, your tabs all change with respect to that margin. Setting tabs in WordPerfect is a chore because you must stop what you are doing, figure out where you want a tab, and then set it. Also, the spelling dictionary is only 30,000 words long with room for an additional 10,000 user-defined words. If it does find an error, WordPerfect asks if you want to look up the word in a list of suggested spellings or correct it yourself, rather than correcting the word automatically. And, no matter where you find the correct spelling for your word, you must continue to peruse any additional screens containing words that meet your search criteria. [*Editor's note: Satellite Software International has scheduled version 4.0 of WordPerfect for release about the time of publication of this article. It might solve some of the problems mentioned by the author.*]

All in all, I am extremely impressed with WordPerfect. Its powerful capabilities far outweigh the problems mentioned. As I said at the beginning of this article, you should choose the word processor that includes the features you find most convenient. My choice is WordPerfect. ∎