

WORD PROCESSING PRIMER
by
Mitchell Waite and Julie Arca

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PREFACE

A new breed of inexpensive, microcomputer-based word-processing program has recently appeared that was previously unavailable to the general public. These programs transform any microcomputer into a powerful text-editing device that allows precision control over the creation and alteration of text documents. Many of these new products outperform dedicated word processors costing ten times as much. This book is all about these revolutionary, inexpensive microcomputer-based writing tools and how to use them for both fun and profit.

Word processing is the New Age method of generating, correcting, and managing text. This includes documents of all kinds, such as theses, articles, tables, manuscripts, reports, business letters, brochures, and newsletters. Word processing allows you to manipulate text electronically in ways which are impossible with a typewriter. Imagine being able to insert or delete text in the middle of a paragraph, then instantly transport the entire paragraph from one page to another. Word processing can do this and more.

This book, which is carefully organized into nine chapters and three appendices, was written on a word processor. It will teach you everything you need to know about this exciting field.

Chapter 1, “Perspectives,” presents a survey of home computer word processing. It explains, in a simple dialogue between two friends, the incredible things that people are doing at home with their word processors. Included here is a comprehensive history of word processing, tracing the roots from which today’s powerful machines have evolved.

Chapter 2, “Basic Concepts: Equipment and Programs,” introduces the general hardware and software concepts behind word processing on a microcomputer. Described and explained are the components of a word processor, the different types of programs available, and the kinds of features that various word-processing peripherals, such as printers and terminals, offer the user.

Chapter 3, “Basic Editing,” begins the exploration of the actual operation of the word-processing program — how it does what it does. Taught here are the basic concepts of cursor control, scrolling, insertion, deletion, and reformatting. These are your first flight instructions, and when you’ve finished this chapter you’ll be well on the way to earning your word-processing wings.

Chapter 4, “Text Formatting,” teaches the subject of *formatting* — controlling how your final document looks on paper. Covered are on-screen and off-screen formatting, screen layout, justification, proportional spacing, paragraph reform, word wrap, hyphenation, and embedded print commands. We’ll clear up the mystery of how the word processor achieves its fine quality printed appearance.

Chapter 5, “Advanced Editing,” presents the more powerful editing commands available to the word processor user. We’ll teach you everything you ever wanted to know about character and word search, replace, global search and replace, block operations, and boilerplate techniques.

Chapter 6, “Word-Processing Software Tools,” covers power-enhancing tools you can buy for your word processor. Discussed are programs that automatically proofread documents for spelling errors, create

tables of contents and indexes, and generate personalized form letters from a mailing list. You'll learn about graphics-figure creation (drawing on the word processor) and grammar-checking programs that can actually improve your style as you use them.

Chapter 7, "How To Select A Word Processor," helps you pinpoint features that are important in a word processor for your particular profession. We discuss the individual word-processing needs of secretaries, attorneys, authors, mass mailers, and office managers. You will learn the seven most important features to look for when considering a word processor and what today's two most popular types of programs are.

Chapter 8, "How To Purchase A Word Processor," explains how to buy a word processor and includes many tips and tricks for making a safe purchase as well as a sound investment. A true-life fable about a person who bought a word processor the wrong way is presented just to keep you sober and alert.

Chapter 9, "Mitch's Market Sample of Word-Processing Products," presents a low-calorie selection of personal computer-based word-processing programs that are on the market today. The products are arranged by price and represent a wide range of capabilities. A detailed chart is provided for quick feature comparison, as well as a summary sheet of general information pertaining to each program.

The appendices contain a glossary of word-processing buzz words and a detailed account of record processing. (Record processing is one of the fastest growing applications for harnessing the word processor in the office of the future.) In addition, there is a complete word-processing program called FRED that you can type into any personal computer or microcomputer that uses a version of Microsoft BASIC. FRED affords you the unique opportunity to "get inside" a word-processing program and take a look around.

There is an impressively active climate in the personal computer marketplace today. The use of personal computers for word processing is perhaps the most powerful application of the computer to date. There now exists a huge selection of highly sophisticated inexpensive text-editing tools for the home and small business user. We hope that through this book the reader will come to harness these tools for his or her own enjoyment and profit.

Mitchell Waite
February 9, 1982

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Perspectives

Bob's fingers danced across a typewriter keyboard as if he were playing a piano. In front of him, a computer's video screen glowed a bright electric green as it filled with letters.

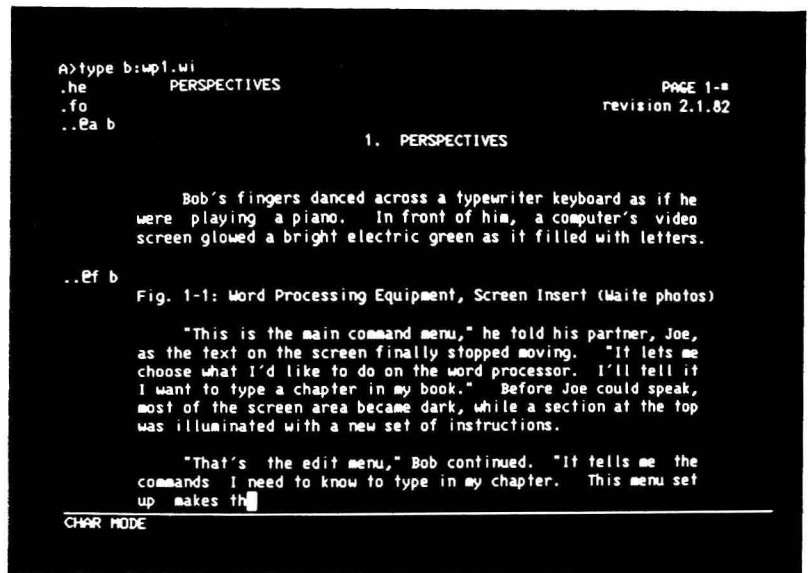


Figure 1.1: Screen of word processor at work.

“This is the main command menu,” he told his partner, Joe, as the text on the screen finally stopped moving. “It lets me choose what I’d like to do on the word processor. I’ll tell it I want to type a chapter in my book.” Before Joe could speak, most of the screen area became dark, while a section at the top was illuminated with a new set of instructions.

“That’s the edit menu,” Bob continued. “It tells me the commands I need to know to type in my chapter. This menu utility makes this a user-friendly system, but it still took me some time to learn to operate.”

Bob started typing on the keyboard and his letters instantly appeared in the screen’s dark area. As he typed, the letters seemed to

march eastward, a tiny box of light preceding them. When the letters reached the screen's right edge, Bob confidently kept on typing. As if by magic, the letters suddenly appeared on the left side of the screen, one line down. Bob never pressed the carriage return key!

“That’s called word wrap. I can type continuously without looking at the screen and the program will take care of everything.”

“Amazing,” Joe admitted.

After typing in a few sentences, Bob stopped. “See all those errors I’ve made in spelling and typing?” he asked. “This is where the word processor really shines. Watch how easily I can fix those mistakes.”

Before Joe’s eyes, Bob began to use the keyboard in a new way, sending the little box of light gliding backwards through the sentences. Finally, the box stopped at a word that was missing a letter. Bob typed the letter and the entire text moved over to accommodate it! Then he moved the box between two sentences and added a new sentence. Once more everything shifted to the right and down to make room for the new text.

Bob continued to type and edit in a furious fashion. Words spilled from his fingers and poured onto the screen like he was painting them in place. He would reverse the path of the box of light and start typing new text, then turn it around and delete a letter, word, or entire sentence in seconds.

“Looks like you spent \$3,000 for a very fancy eraser,” said Joe, who was really at a loss for words.

“Not really, Joe. It’s so much more than that. Watch this. See how my paragraph is uneven from all my corrections and insertions? Now if I simply press the REFORMAT key. . .” The disorganized paragraph suddenly shimmered and reorganized itself on the screen — right and left margins were perfectly straight, like a newspaper column. “Incredible!” exclaimed Joe.

“Spell is a program that will automatically check the spelling in my chapter for me. Not only will it show me what it thinks are misspelled words, it will also guess at the proper spelling, then let me alter these words as I see fit. It can proofread 100 pages in under three minutes! Any word that it doesn’t already have in its built-in dictionary can be added and will be remembered for future use. It learns words that I frequently misspell and automatically corrects them without even asking me!”

```

Auxiliary Dict. File or <cr>:
Original text now in backup file: WP1.Q1

                                     Pass #: 1 A-D
BOB'S = BOB + 'S
COMPUTER'S = COMPUTER + 'S
COMMAND + S
CONFIDENTLY = CONFIDENT + LY
AMAZING = AMAZE - E + ING
BACKWARD + S

ire text moved over to accomodate it! Then he
ACCOMMODATE I Guess:
1) ACCOMMODATE
#c
CORRECTION + S
DISORGANIZED = DISORGANIZE - E + ED

ny word that it does't already have in its bui
DOES'T I Guess:
1) DOESN'T
CHAR MODE

```

Figure 1.3: Screen during spelling check.

Joe was entranced as Bob instructed the Spell program to check his manuscript. The results had an uncanny accuracy.

“Now for a real treat I’ll print out the section on my daisy-wheel printer,” Bob explained. “See how the text looks like it’s typeset.”

Bob pushed a few keys and before you could say “punch that printer,” a typewriter device next to the terminal began to spit out the same text that was on the screen. But the copy on the printer was beautiful and loaded with professional touches: underlining, bold fonts, superscripts, and page numbers appeared automatically.

“Notice how balanced the text looks,” said Bob. “That’s because the printed information is microjustified. The spacing between letters is controlled to 1/120 of an inch so that it appears much like the proportionally spaced text you find in books, magazines, and newspapers. This gives a professional appearance.”

“And that is just the beginning,” Bob stated with the confidence of someone who knows he has a captive audience. “Now I’m ready to create my index, automatic table of contents, and heading numbering. I have an Index program that takes all the pain out of renumbering manuals every time I write a new section. It also generates an automatic index for me to send along with the manuscript. My publisher and the company that commissions me to write manuals are extremely pleased that I can work faster and more accurately.”

“Anything else you can show me?” Joe timidly asked.

“As a matter of fact, yes. This is the *piece de resistance*.” Bob reached down under the computer and placed his telephone receiver in a special cradle. “With this device, I’m plugging the computer into the telephone line. Now I can send my text over the phone lines to another computer. I’m sending it to my coauthor, who lives 40 miles from here. By mail, it takes two or three days, not counting the time to package the chapter properly, pay the postage, and go to the post office. This way, my text goes over the phone and is stored on his disk. I pay for the transmission like it was a conversation, and it appears on my telephone bill. My coauthor can print it out on his printer or edit it while it’s in the computer. He can send it back to me the same way. We have given up buying stamps and insurance, weighing packages, storing packing materials, and shipping magnetically sensitive floppies. Still have to send the artwork by mail, but that soon will change, too.”

Welcome to the office of the future in the home of the present.

LOW COST WORD PROCESSING IS HERE

If this kind of talk strikes you as too strange to be of this world, then guess again. Conversations like this take place at the author’s home regularly. The word-processing system described above can be purchased today for under \$3000, and you can learn to use it in a few hours. A word processor can completely transform the way you relate to the printed word. It can help you become a full-fledged member of the New Information Age.

This book is about the new wave of word processors, particularly those that utilize the new, inexpensive microcomputers. *Word processing* is the manipulation, alteration, and creation (processing) of text (words) by electronic, mechanical, and other computer techniques. It’s about to rock the world like an explosion. If you are interested in utilizing this powerhouse technology, then this book is for you.

WHAT ARE THEY?

If you have ever slaved over a typewriter correcting a sentence until it was almost but not quite perfect, then you will want to explore the word processor. Word processors are nothing more than intelligent,

computerized typewriters. They have been around for years, but because of the recent developments in computer-on-a-chip technology, they have made quantum leaps in price and performance. Word processors allow people to control communications in new and powerful ways, to manipulate words and text quickly and efficiently, and to increase written output many times over. This book is about these new, powerful tools — what they are, how they work, how to tell if you need one, and how to buy one.

Today's word processors come in many shapes and sizes. At first glance, the field might even seem overwhelming. There are a few major types, however, and being familiar with them will greatly simplify the selection. In this book we will discuss four kinds of word processors, with the main emphasis on the inexpensive, microcomputer-based word processors that are sweeping the country.

In all cases you will discover that there is a general range of universal functions that all word processors perform. Our introductory scenario mentioned a few of the word processor's functions without really explaining how they are performed. We'll get to all of that later. For now, you should understand that most word processors have a common repertoire of operations and a number of ways to perform them. It is more important to be aware of the range of possibilities than of the specifics of "how does it do that?" Like automobiles, all word processors accomplish the same goal, but unlike the automobile, they may use several different approaches to do it. For example, one word processor (like the one at Bob's house) may use a cathode ray tube (CRT) screen to display text, and another may use a single line of solid-state displays. Or, while one word processor might use an expensive daisy-wheel printer for printing your text, another may use an inexpensive dot-matrix printer. On the operation side, various key sequences and buttons are defined differently for each of the word processors, so knowing one system doesn't necessarily help you to use another. The point is that this is a dynamic and growing field, and you are going to need to do some homework to travel confidently in the land of word processing. This book is designed as a starting point for your journey.

WHAT CAN THEY DO?

If you have a word processor, you can throw away the liquid correction fluid, correction tape, scissors, erasers, paper clips, scotch tape, and all the old tools for dealing with printed words on the paper. You now deal with words inside an electronic memory. They can be moved and changed easily, quickly, and efficiently, allowing you to type in your words without thinking about the appearance of your finished product. It is as if an assistant were at the other end of your

typewriter keyboard, collecting the letters and words as they come in. This assistant corrects the words as needed, stores them in a safe place, and simultaneously displays them for you on a glass screen.

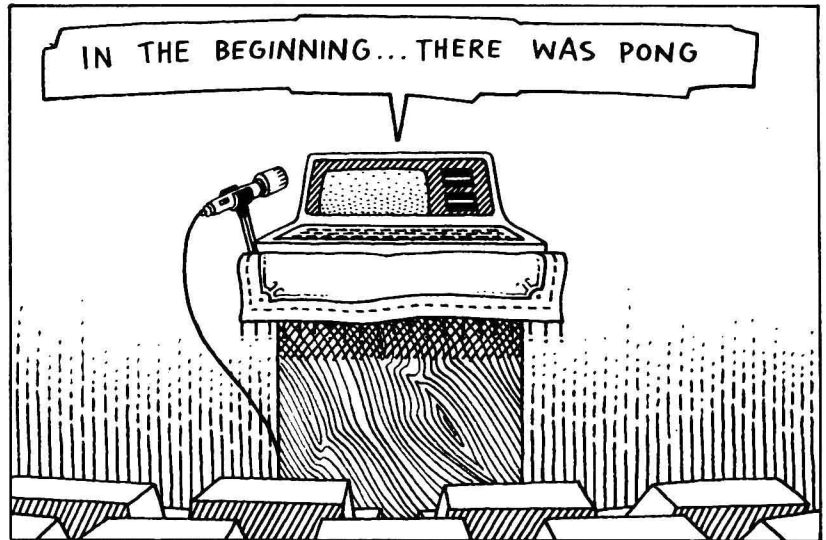
A computer-controlled word processor permits you to turn a ragged right margin into a beautiful, professional-looking typeset format with the push of a button. Or, suppose you want to add a new sentence in the middle of your many-paged document. No problem. Simply enter the Insert mode and start typing away. Because a word processor has an electronic computer brain on a chip, it can instantly shift all the text in its memory forward to make room for new words and do it without losing its paragraph structure. You spelled the same word incorrectly in 15 places. That's quick work for your word processor. Merely enter the Search-and-Replace mode, and the computer will automatically change all instances of the misspelling. You just sit back comfortably and sip on your *café mocha*. Other things you can do with one-key operations include moving paragraphs and blocks of text, creating boldface, underlining, and inserting superscripts and subscripts.

Today's word processors allow you to do things that would require days of work using a standard typewriter: reformatting an entire document from double-spaced to a single-spaced narrow column suitable for publication (30 seconds); printing 25 individually addressed copies of the same letter (10 minutes); generating an index (30 minutes); sorting and merging 1000 mailing labels (5 minutes); and proofreading and correcting a 100-page document (60 minutes).

This kind of power means that you will never experience the written word in the same way again. With very little effort you can drastically change the way words appear on paper. Your text has a new malleability. It molds like wet clay. Over and over you rework the same sentence, deleting old words with hardly a care, until the words say exactly what you mean. Because of the fluid nature of the work, you become braver. Your creativity tends to flow more freely because you're not concerned with how the typing looks. Nor are you hampered by the fear of putting an idea in the wrong place. You can allow the ideas to emanate freely, for there is no effort involved in rearranging them later. You do the creating and let the machine manage the words.

A LITTLE HISTORY

The history of the word-processor market is unique. No other product on the market today can boast of such a rapid increase in performance over the last few years. Yet the arrival of word processors and text-editing machines is long overdue. Although great strides have been made to increase productivity in blue-collar industry, the white-collar office environment has seen little improvement in



efficiency over the past 100 years. The introduction of the word processor is creating major changes in productivity in offices everywhere.

The roots of the word processor can be traced back to a comparatively crude mechanical invention called the typewriter. The typewriter revolutionized the office in the early 1900s, because until that point, all correspondence was handled by manual pen-and-ink copying. A pen-and-ink copier would take hours to produce a single letter, and even then copy might be very difficult to read as the individual was usually overworked. The mechanical typewriter allowed the average typist to out-perform the most talented copier.

But as far as quality is concerned, early typewriters were barely an improvement over hand-written documents. Letters were fuzzy and frequently smudged since characters were often poorly aligned, and the keys frequently jammed. Better quality typewriters existed, but these were hopelessly large and expensive and required extraordinary skills to operate. (See Figure 1.4.)