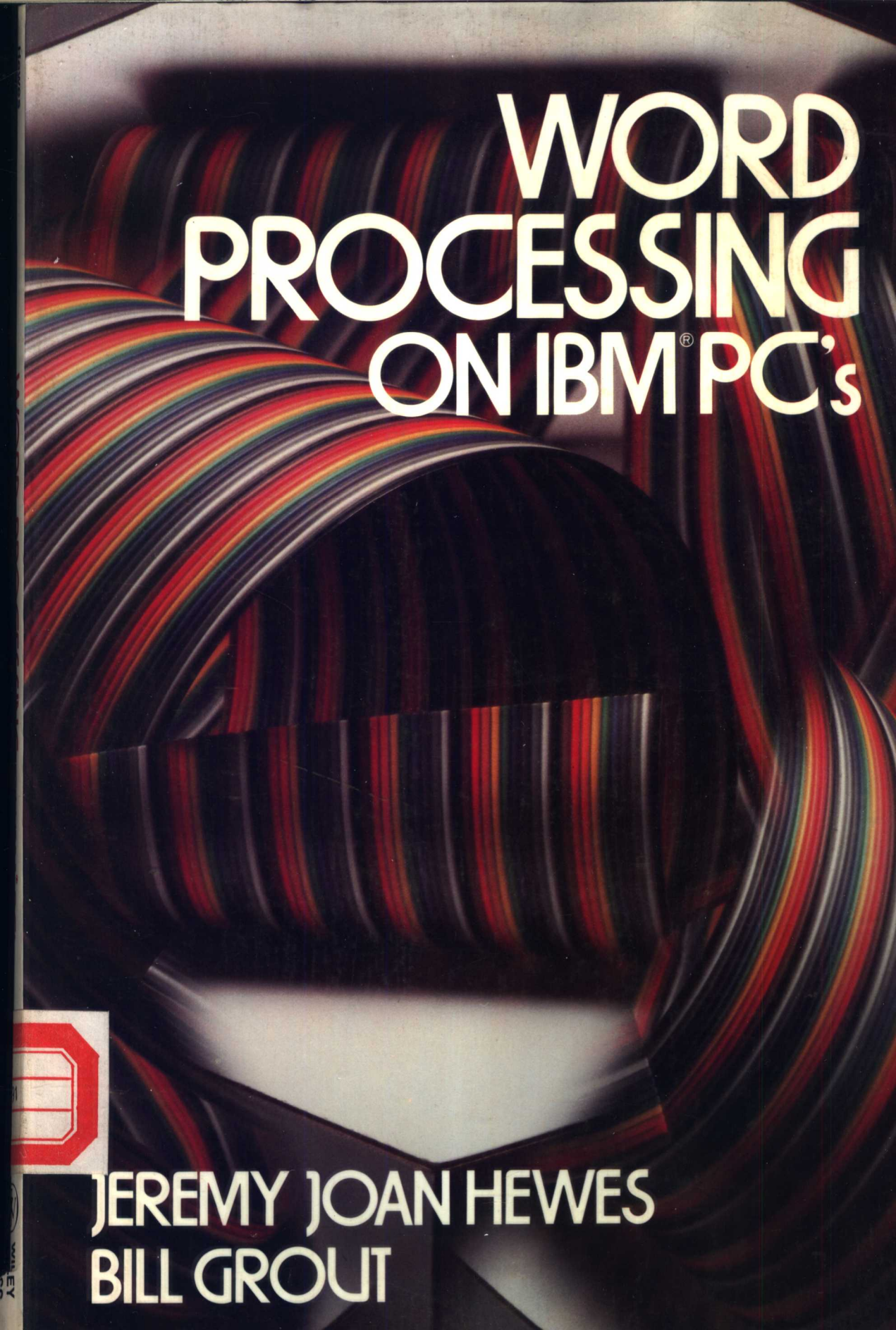
WORD PROCESSING ON IBM® PC's
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INTRODUCTION

Word processing extends the skills you have developed at the typewriter keyboard with some electronic luxuries that you may never be able to give up once you have used them. Whether you spend minutes or hours a day typing, the marvels of electronically processing the written word, storing pages and pages of documents on those curiously thin disks, and printing errorless text at speeds several times faster than you ever hoped to type, are benefits that can save you a phenomenal amount of work. After learning to use word processing, you may return glumly to your typewriter only when forced. Using word processing for letters, reports, or any document you desire is one of the most useful applications for your IBM PC.

If you've never used a word processor, however, you're probably asking yourself a few questions. Will it save me a lot of work? (Yes) Will I be able to do my work faster? (Yes) Is it okay if I'm not a computer expert? (Yes) Will I have trouble learning to use word processing and be embarrassed? (Unlikely) Will it do all my thinking for me? (Sigh, no)

A common apprehension shared by people unfamiliar with computers is the fear of harming the PC. They may fear making misguided keystrokes or inserting a disk improperly, or fear that unknowingly asking the computer to do something it shouldn't will result in seeing the machine smoke sullenly and self-destruct.

Yet there is little you can do, short of pounding on the keyboard with your fists, that can bring unintentional harm to the PC. The worst you might expect is accidentally to erase information you wanted to keep, just as you might throw away an unpaid bill that gets mixed up in junk mail. Fortunately, accidents like these are few and far between.

On the other hand, there are many advantages to word processing. While different word-processing programs offer incredible features such as spelling checkers, automatic creation of outlines and tables of contents, automatic page numbering, footnoting, and on-screen calculations, perhaps the greatest advantage

of word processing is that you never have to type text twice. Once you type the first draft of your text, the majority of your work is done. Simple as that may sound, remember that when you produce the third draft of a 50-page document, a word processor will have saved you roughly 100 pages of typing.

After initially typing the body of a document and storing it on disk, you can change it, reorder the information, add or delete parts, and create as many different versions of the same document as you wish. You may have to type the editing changes and perhaps move words, sentences, or paragraphs to different positions in the document, but producing a second and third printed copy often only requires the effort of three or four keystrokes to print the entire document again.

Not only does word processing save time, but it affects the quality of your typed work as well. The increased ease of editing and printing text enables you to produce documents without typographical errors with little effort. Because text can be easily moved from one place to another, you can try out different methods of presenting information and then select the most effective ones. You might even be tempted to undertake a big project like a novel that had always seemed too tedious or too enormous before you acquired a PC and word-processing program.

On yet another level, you may come to see word processing as the manipulation and delivery of information, a powerful tool in today's information-hungry world. Where a single hand-written letter to a congressman may not have much effect, by using a mailing list and word-processing program, you might increase the effect manyfold by sending letters to a hundred congressmen each week!

Whatever your level of interest, whether you're escaping from a cumbersome typewriter or seeking new ways to influence the world, the advantages of word processing far outweigh the effort of learning to use your IBM PC and a word-processing program.

Unfortunately, word-processing programs come with a variety of features and, of course, prices. One of the first decisions you must make when choosing a word processor is for what you need the program. If you plan infrequent production of personal correspondence and little else, you will likely want a program that's easy to learn and doesn't boast a lot of special features. On the other hand, if the program is going to be the central information system of your office, where mass mailings and the production of lengthy reports will be the norm, then you should investigate the more expensive programs that provide features rivaling those found in corporate word-processing pools.

Many word-processing programs are available for the PC, and some will more closely suit your needs than others. Selecting one is mainly a task of deciding what you need and finding out what competing programs can do. Unfortunately, when shopping for a word-processing program in a computer store, it's not uncommon for sales people try to demonstrate and sell one program—the program they know. Often it may be one of the more popular word-processing programs available. And it may be a fine program—just not one that best suits you.

It's out of this shopping dilemma that we have conceived this book, a book for people who are new to word processing and for computer consultants alike. The book provides a general overview of the main concepts and procedures of word processing and detailed description of seven popular word-processing programs available today. Instead of making your selection from the one or two programs a

salesperson is willing to demonstrate, you can use this book to get a general idea about the capabilities and functioning of seven. And from those seven, you may be able to judge what program features you need and shop for a program right for you.

Although great interest is attached to the prices of different word-processing programs, we did not include price listings in the main text of this book. Because prices of programs change so rapidly, discounts are made and then disappear, and new program versions with new prices are released, prices we might list would quickly become inaccurate.

Another important area of word processing we did not address is selecting the kinds of equipment to use, which, of course, is another book. *Word Processing on IBM PCs* will help you review and judge the word-processing software commonly available today.

We hope you'll find this book an important reference before and after you buy a word-processing program.

Jeremy Joan Hewes
Bill Grout

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chapter 1

EDITING: PUTTING YOUR LETTERS IN LIGHTS

Before you start word processing, you'll have to learn some new concepts and get used to the new feel of using the IBM PC instead of a typewriter. Three important concepts with which to get acquainted are memory, disk storage, and screen display.

In general, the computer's memory consists of electronic microprocessor chips that activate when you turn on the computer. These chips, composed of incredible networks of tiny circuits, hold the information you will manipulate. This work area is also called the *RAM*—for *random access memory*. As you might guess, there are no senile PCs; they don't forget anything as long as they're working properly and you don't turn them off.

There are two things you should remember about computer memory: First, while you are word processing, both the program you're using and the text you type use this memory (which may become entirely filled); second, when you turn off the computer, the contents of the memory are erased and forgotten. (There are types of electronic memory that permanently remember information stored in the chip, but microcomputers generally don't make use of them for word processing.)

Because typed text is temporarily stored in memory, you must save or store your work before turning off the computer. Your PC has at least one disk drive, which records information on floppy diskettes. When you insert a disk in the drive, the computer can record information on the disk and read the information back into the computer's memory from the disk when you want to edit it again.

However, the information in memory and the information stored on disk are not always the same. As you use word processing, or type text into the computer's memory, you are not directly changing the information on the disk. While some word-processing programs automatically update the disk with editing changes as you type, most hold the newer version of your text in memory until you give a command to store the new information on disk.

Similarities exist between computer memory and disk storage. Both can hold the same information; the amount of information is measured in kilobytes. Both memory and disk capacity are limited and can become full. The information in memory and on disk can be read, changed, and deleted. Functionally, however, memory and disk storage differ. Information stored on a disk remains intact unless changed by writing over with new data; when transferred from disk to memory, the data are merely copied and are not erased from the disk. Your word-processing program acts on information in the PC's memory and can transfer information to and from the disk. You can, therefore, pull your disk out of the disk drive without affecting anything in memory. But you have to put the disk back in again and save your work if you don't want to lose whatever new work you've done.

You will also have to get used to looking at your work on a televisionlike screen. When you use word processing, you may create documents that are many pages long, but you are not able to see the entire document at one time. The monitor's screen is only a small window on the activity going on within the computer. Depending on the word-processing program, you can see about one-half page of single-spaced text at a time, usually 24 lines.

This limited view of a larger portion of information stored in memory can pose some problems. If you have a 50-page document in the computer's memory, for example, and you're on page 1, how do you get to page 50? If you need to change a sentence somewhere between pages 30 and 40, how do you find it? How can you arrange a document on the screen so that it will print correctly on paper if you can see only a small part of it? If your screen is only 80 characters wide, how can you type a chart that is 120 characters across? With a good word-processing program, you can perform these tasks fairly simply once you've learned the fine points of editing.

In the coming pages, you'll read about the common features of screen displays and editing procedures used in most word-processing programs designed for the PC. For now, keep in mind that a word-processing program enables you to store information in memory, to record the information on disk, and to use the screen to view and edit your work. You can then revise and print your text whenever you wish.

SCREEN WRITING

Word-processing programs have different styles and ways of behaving on screen. By familiarizing yourself with a number of different word-processing programs, you stand a better chance of choosing a program that you can use efficiently and comfortably. In the discussion of editing and revising text, you will read about hypothetical examples taken from different word-processing programs. Thus you are unlikely to find any one program that looks and acts exactly as described in the examples.

Assume that you've already turned on your PC and have just loaded a word-processing program. Usually the program first displays a *menu,* which is simply a list of options you can select. Figure 1.1 shows one example of a word-processing menu. A word-processing program may have several menus, but the first one

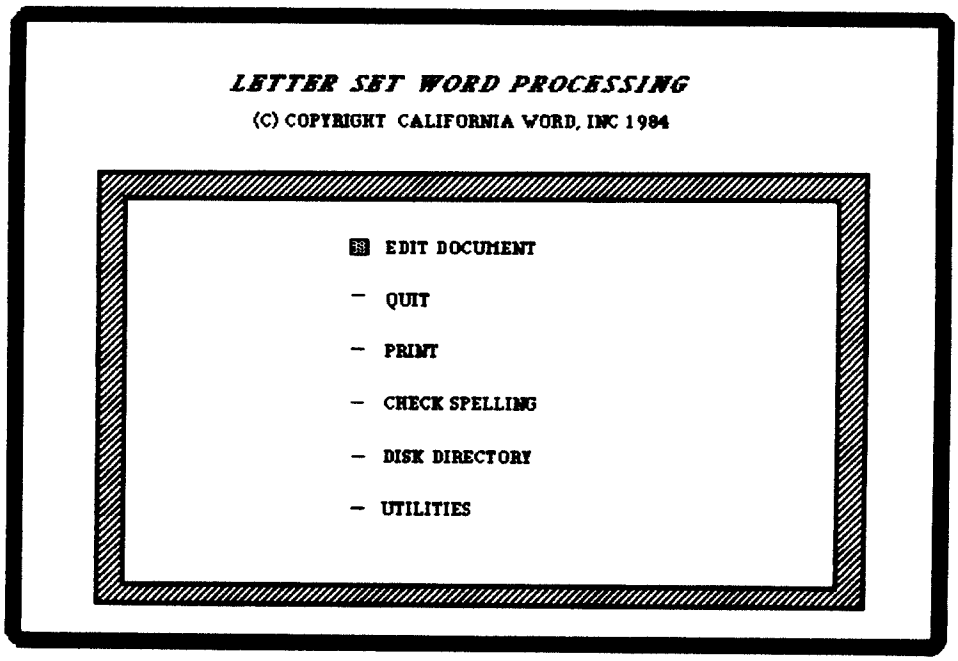

FIGURE 1.1 Main menu

displayed, sometimes called the *main menu,* usually directs you to the major features and options of the program.

Menus are often linked so that after selecting one option from the main menu, such as printing, a second menu appears that lists choices for printing in different ways. Word-processing programs that use menus this way are called *menu-driven* and are considered easy to use because you need only read the menus and make simple selections.

If you examine Figure 1.1, you see a small square in front of the first option, Edit Document. In the example, this square—called a *cursor*—appears as a blinking light on the screen. To select the option called Quit (to turn off the word-processing program), for example, you press the space bar once and press ENTER.

The looks and operation of menus vary from program to program. Here six options are stacked vertically, and a selection is made using the space bar and ENTER key. Other menus show options listed horizontally across the top or bottom of the screen. You can make selections by typing a number and pressing ENTER, by pressing sequences and combinations of control keys, or by pressing function keys (the ten keys lined up in two columns on the left of the PC keyboard).

In the example menu, you may select any of six options. If you want to create a new document or to revise an old one, you select the first option, Edit Document. The second option, Quit, as we mentioned before, enables you to turn off the word-processing program when you're finished with it. The third option, Print, lets you determine how the document should be printed and then sends the document to the printer.

The fourth option, Check Spelling, is a special feature of the example program. With this option, you can have the computer check the spelling of all the words in your document. After comparing your text to words in a computerized dictionary,

the computer tells you which words are misspelled so you can correct them. Not all word-processing programs have such a feature, but many have other options, such as mailing list programs, telecommunications options, or calculator programs, which may appear on the menu.

Because you may have stored many documents on a disk (such stored documents are referred to as *files*), you need a way to find out what files are stored there. The Disk Directory option lets you see a list of file names recorded on the disk and often provides additional information, such as the size of the file and its time of creation. You select this option if, for example, you have forgotten the name of a document you wish to edit.

The last menu option, with the ubiquitous name Utilities, has nothing to do with paying your power and water bills. You might select this option if you wanted to erase an unneeded document from a disk.

Utilities also can include options to rename a document, to copy a document onto a different disk, or even to make a second copy of the disk so you have a backup in case the original disk is damaged or destroyed. If a disk is damaged so that information stored there can't be read by the computer, the Utilities option may also provide the capability to analyze the damaged disk, determine what information can be saved, and recover the information so it can be used again. Another utility you may see is disk formatting, a process that electronically sets up a new or un-initialized disk so information can be stored on it.

The majority of the word-processing programs have most, if not all, of the above capabilities. Options like deleting, renaming, and copying files can also be carried out with the PC's *disk-operating system* (called PC DOS), a program that acts as a kind of general data manager for your computer. Some word-processing programs take advantage of the operating system and do not provide redundant capabilities.

The example menu is only one possibility of the many found in word-processing programs today. Just as hamburger in one restaurant may be listed as *viande hachée* in the next, word-processing programs use different categories and organizations in their menus. For most programs, however, you can expect the same general ingredients: options that let you create and edit documents, print pages, display disk directories, manipulate files, and perform special features the program may offer.

THE COMPUTER SCREEN

Most of your word-processing time is spent looking at the monitor's screen. The screen is your view of the work in progress. The standard screen is about 8 to 10 inches across and 6 to 8 inches from top to bottom. Depending on the type of monitor you purchased, the text may appear in green, amber, or white letters, or colored letters on a color monitor. The IBM PC screen is wide enough to display 80 characters, although some monitors may display only 64 or 40 characters across. Vertically, most standard screens display about 24 lines of text at a time.

When you begin a new document, most word-processing programs show you a screen similar to Figure 1.2. The *cursor* (represented as a square in the top left corner of the screen) and special lines of information are displayed to let you know your position and what you are doing as you edit.

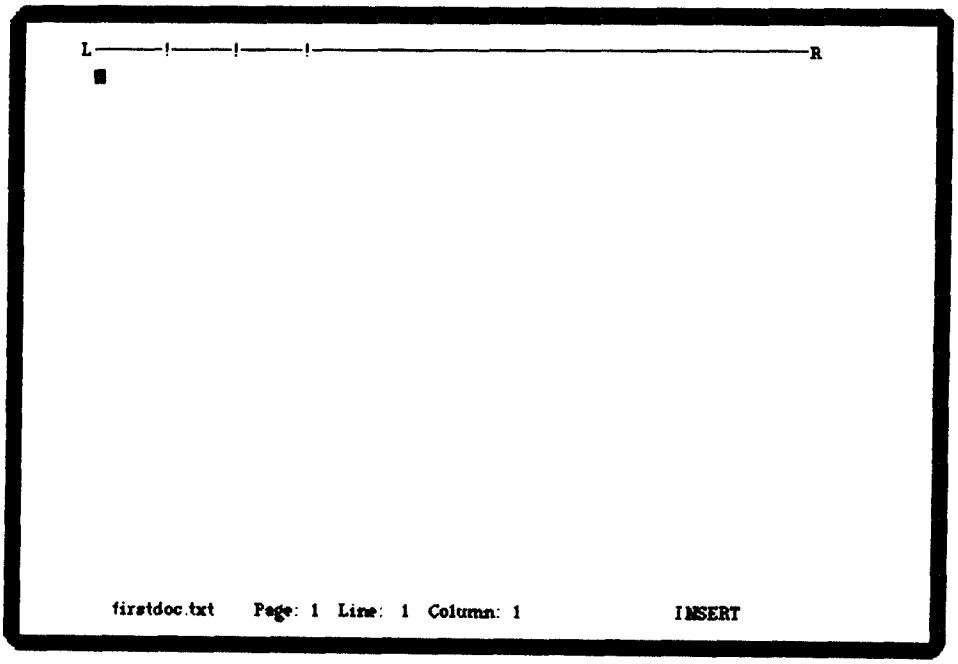

FIGURE 1.2 Editing screen

Word-processing programs use a variety of shapes, sizes, and colors for cursors, but during editing the cursor generally has one function: It shows you where the next letter you type will appear on the screen. The cursor indicates your present editing position, and you can use it as a pointer for positioning text.

You also see a status line at the bottom of the screen. The status line tells you the document name—in this case, firstdoc for first document—followed by a period and three letters, .txt. The three letters added to the end of the document name are called an *extension* and are generally used to differentiate between different kinds of files. We've given the document the extension .txt, which stands for text. Adding extensions to file names is usually optional and is generally done to help you keep track of the kind of information held in different files. In the example, the new document is named and the extension is added before text is entered. With other programs, however, you do not name the document until the final stage of saving it on disk, so the status line does not show the document name.

The status line also displays information about the cursor position in the document. Because nothing has been typed yet, the line shows page 1 with the cursor in the top left corner of the screen. The next two elements of the status line, line and column, give the exact position of the cursor. From top to bottom, the cursor is on the first line of the screen's 24 lines; from left to right, it is on the first column of the 80 vertical columns that run across the screen. Typing a letter or number, you see the cursor move one column to the right, and the status line automatically changes to: Line: 1 Column: 2.

You might not think displaying the line and column position of the cursor is particularly useful, since the cursor shows up so clearly on screen. But the cursor-position indicators function as counters that keep you from having to count lines and characters or make rough guesses about text position on the screen.

The last section of the status line indicates the current editing mode. If you were to begin the procedure to delete a word or paragraph, for example, the status-line mode indicator might change from Insert to Delete. Likewise, the status line shows insert mode if you initiate the procedure of adding characters to the text. If you type a letter in the middle of a paragraph while in insert mode, all the text to the right of the letter moves over to make room for the insertion. In another common mode, called replace mode, any text you type replaces previously typed characters (this mode is also referred to as type-over). To type a new sentence into the middle of a paragraph while leaving the surrounding text unchanged, insert mode, which preserves your previously typed text by pushing it aside, is the mode you should use. To replace a sentence, replace mode is the mode you should use.

The mode indicator on the status line helps you keep track of how the computer is operating. If you want to make an insertion, for example, you can tell with a glance at the status line whether you must change modes to perform the insertion correctly. Not all word-processing programs display the operating mode this way but most popular ones do. Knowing which mode you are using is similar to knowing which gear, first or reverse, you are using while driving; once the car is in motion, it becomes fairly obvious what must be done to change directions.

At the top of the screen, above the cursor, you see a ruler line. The ruler line guides you in formatting and positioning text on the screen. The ruler line serves as a visual marker for tab stops and the left and right margins set for the document you're typing. The L at the left end of the line represents the left margin and the R, the right. The exclamation marks along the line indicate the tab-stop positions.

EDITING

The first time you type on a word processor, you notice a kind of magical effect as letters and words appear on the computer screen. Using the PC keyboard is basically the same as using a typewriter, but the sight of the cursor sprinkling characters behind as it moves across the screen is rather impressive. A few basic differences exist, however, between typing text on a typewriter and on a word processor.

First, as you type with a typewriter, you press the space bar between words and the typewriter's print head bumps over one space, leaving a blank. The procedure looks the same using a word processor, since pressing the space bar leaves a blank on the screen. But the blank is not an empty space. To a word processor, the blank space represents a character, just as the letter A is a character. If you type A on the screen in replace mode, backspace the cursor back to the A, and type the letter B, the B is typed over and replaces A. The same thing happens if you type an A, backspace, and press the space bar. Now a space appears where the A once did because the character for a space replaces the original character.

If you use the space bar to move quickly to the right on a typewriter, you'll have to break the habit when using a word processor; spacing ahead has the disastrous effect of erasing any letters and words the cursor passes over.

You move the cursor forward with the four cursor keys on the numeric key pad (also known as the cursor pad) to the right of the PC's keyboard (see Figure 1.3).