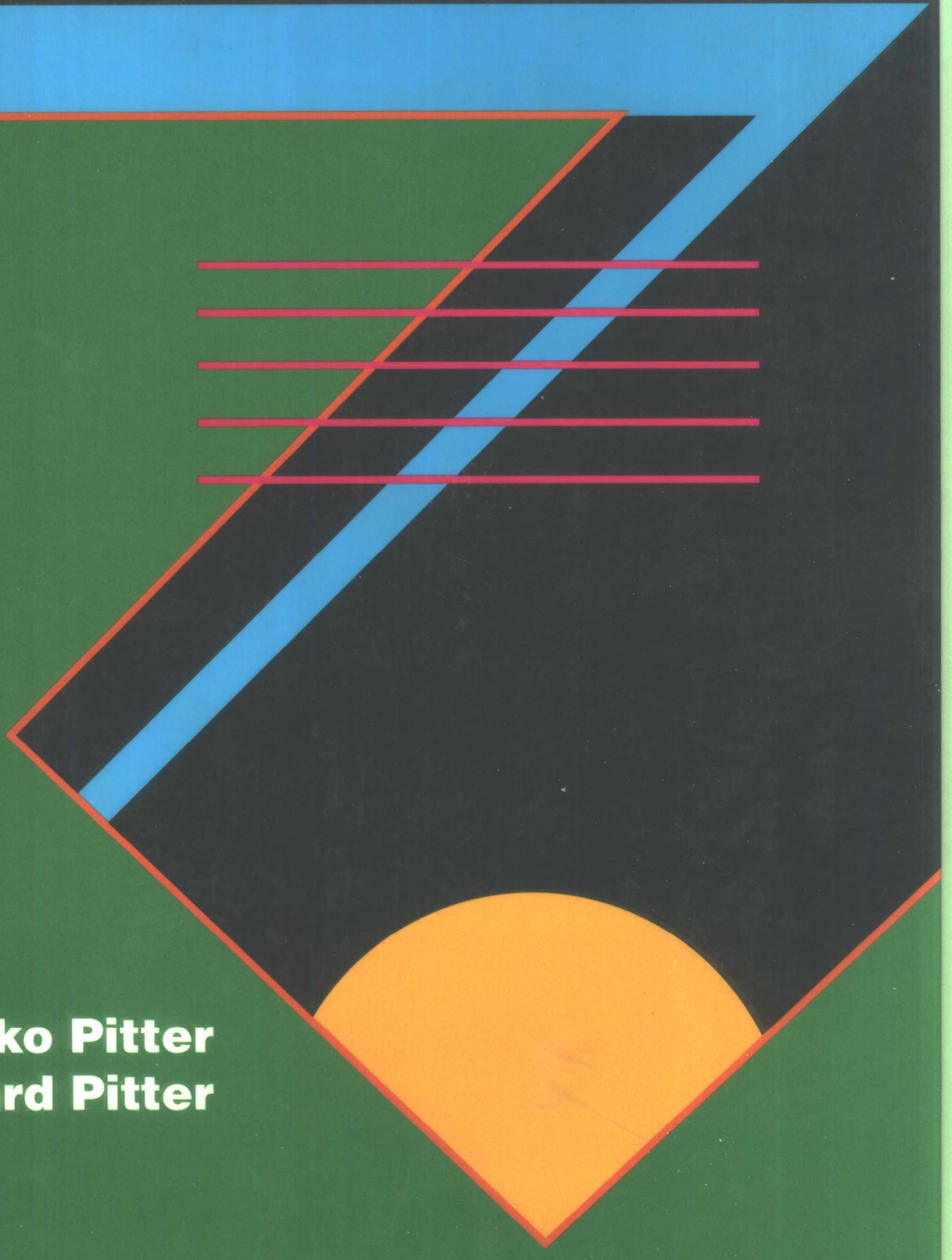
USING

Microsoft Excel 4.0 for Windows: The Basics



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The Basics

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Preface

Using Microsoft Excel 4.0 for Windows: The Basics is designed for an introductory spreadsheet course using Excel 4.0. It assumes no prerequisites, answers questions novice users ask most often, and prepares them to develop Excel 4.0 spreadsheets to increase their effectiveness in business.

APPROACH AND ORGANIZATION *Using Microsoft Excel 4.0 for Windows: The Basics* contains eleven step-by-step hands-on lessons. Each takes approximately fifty minutes to complete. The first three lessons introduce students to the use of a microcomputer in the Microsoft Windows environment; the last eight lessons introduce basic spreadsheet concepts using Excel 4.0.

DISTINGUISHING FEATURES

- **No Prerequisites**—Lesson 1 introduces the IBM PC and compatibles. Lessons 2 and 3 present Windows 3.1. In these introductory lessons, students acquire the skills prerequisite to learning Excel 4.0.
- **Business Application**—Students learn Excel 4.0 by developing the types of worksheets most often used in business—budget, cash flow, balance sheet, check register, inventory, and loan payments. Students do not need any business background.
- **Manageable Lessons**—Each lesson takes about fifty minutes to complete, using one or more worksheets to demonstrate spreadsheet concepts and features. Practice Times integrated throughout each lesson test and reinforce the student's comprehension.
- **End-of-Lesson Review**—Each lesson ends with a Command Summary and Review Questions. In addition, hands-on Exercises require students to apply the skills and concepts learned in each lesson to solve actual business problems.
- **Mouse and Keyboard Options**—Although Excel 4.0 and Windows are mouse-intensive, both have keyboard alternatives. Each lesson presents the mouse operations as well as the keyboard shortcuts.

- **Reference Tool**—The book contains a comprehensive Excel 4.0 command summary (including many commands not covered in the book) and an index for quick reference.

INSTRUCTOR SUPPORT The accompanying Instructor's Manual contains answers to Review Questions and Exercises in the text, along with helpful teaching tips and materials.

SOFTWARE REQUIREMENTS This book is written for DOS 3.1 or higher, Microsoft Windows 3.1, and Microsoft Excel 4.0. Students will need a blank disk formatted for the computer system they are using.

HARDWARE REQUIREMENTS Microsoft Excel 4.0 runs within the Windows environment. Although Windows can run on an 80286 computer with 1 MB of memory, it is advisable to use an 80386SX or higher computer with 2 MB or more of RAM. The computer should have at least one high-density disk drive and a hard disk drive with sufficient memory for installation and use of the Windows and Excel 4.0 programs. A printer should be accessible by the system and installed within the Windows environment. The computer may or may not be on a network. This book assumes that the computer is equipped with a mouse.

ACKNOWLEDGEMENTS The staff at Mitchell McGraw-Hill has done a tremendous job assisting us in writing this book. We especially want to thank Erika Berg and Jennifer Gilliland, both of whom provided expert assistance and guidance. We also thank Jane Granoff, who provided expertise in capturing our screen displays.

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Finally, we thank our children, Greg and Jackie, both of whom have borne the burden of parents who work too hard to meet too many deadlines. Their wholehearted support of this endeavor is appreciated.

Keiko Pitter
Richard Pitter

Brief Contents

Detailed Contents

Lesson 4 Creating a Simple Worksheet 59

Lesson 5 Changing the Display and Printing Format 88

LESSON

1

About Your Computer

Objectives Upon completion of the material presented in this lesson, you should be able to understand:

- The components of a computer system.
- The identity and function of the various components of a computer.
- The characteristics of your computer system.

COMPONENTS OF A COMPUTER SYSTEM

The purpose of a computer system is to process data to produce useful information. A computer system requires the following five ingredients: (1) people, (2) hardware, (3) software, (4) documentation/procedure, and (5) data/information. The most important ingredient is people. There must be people, or users, with problems or applications to solve or implement using a computer. The right hardware and software must be selected to satisfy the need of the user. Furthermore, the user must understand the proper procedure for producing the result needed, such as how to acquire and enter data and obtain the desired output.

The hardware is the physical and visible component of a microcomputer system. IBM and compatible microcomputers come in many shapes and sizes, with a variety of options. Figure 1-1 illustrates two different systems. A microcomputer may be small enough to carry and use on an airline flight, or may be a large unit located on the floor beside your desk. The smallest systems are called **laptop computers**. These include **notebook computers**, that are about the size of an 8½-inch by 11-inch paper binder. Larger systems are called **tower systems**, and are placed on the floor. All computers, regardless of size and purpose, have four components: (1) input devices,

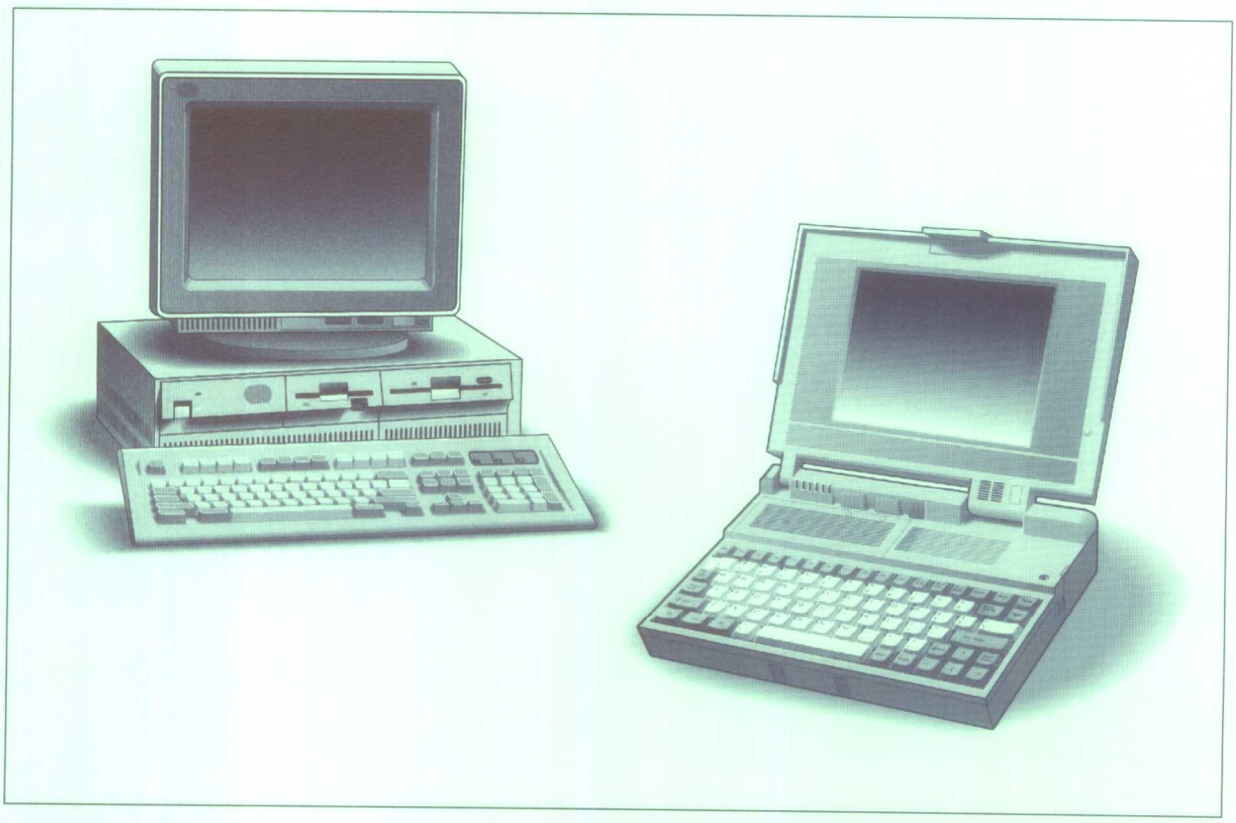

Figure 1-1 *PC and laptop computers.* At first, one sees their differences; however, they both have the same essential components.

(2) system unit, (3) output devices, and (4) storage media. The components discussed here are as follows:

Input devices provide the processor with information for processing.

- keyboard
- disk drives
- mouse/trackball
- network
- modem

System unit is the heart and the brain of the computer.

- processor unit
- main memory

Output devices are used to display, store, transfer, and print information.

- monitor
- printer
- disk drives
- network
- modem

Storage media are used to store information. The information can be written to a storage medium through an output device and can be retrieved using an input device.

- hard or floppy disks

INPUT DEVICES

All input devices send digital signals to the computer. The signals include characters sent by the keyboard, movements and clicks sent by the mouse, or graphic images.

Keyboard

The PC (personal computer) keyboard resembles that of a typewriter and is used in much the same way. Although there are several keyboard layouts, they all provide essentially the same features. In addition to the usual typewriter keys, there are several other keys or groups of keys you should know about (see Figure 1-2).

The keyboard can generate 256 characters. Not all of them are visible, and many have special meanings. As is the case on a typewriter, you enter uppercase letters by holding down

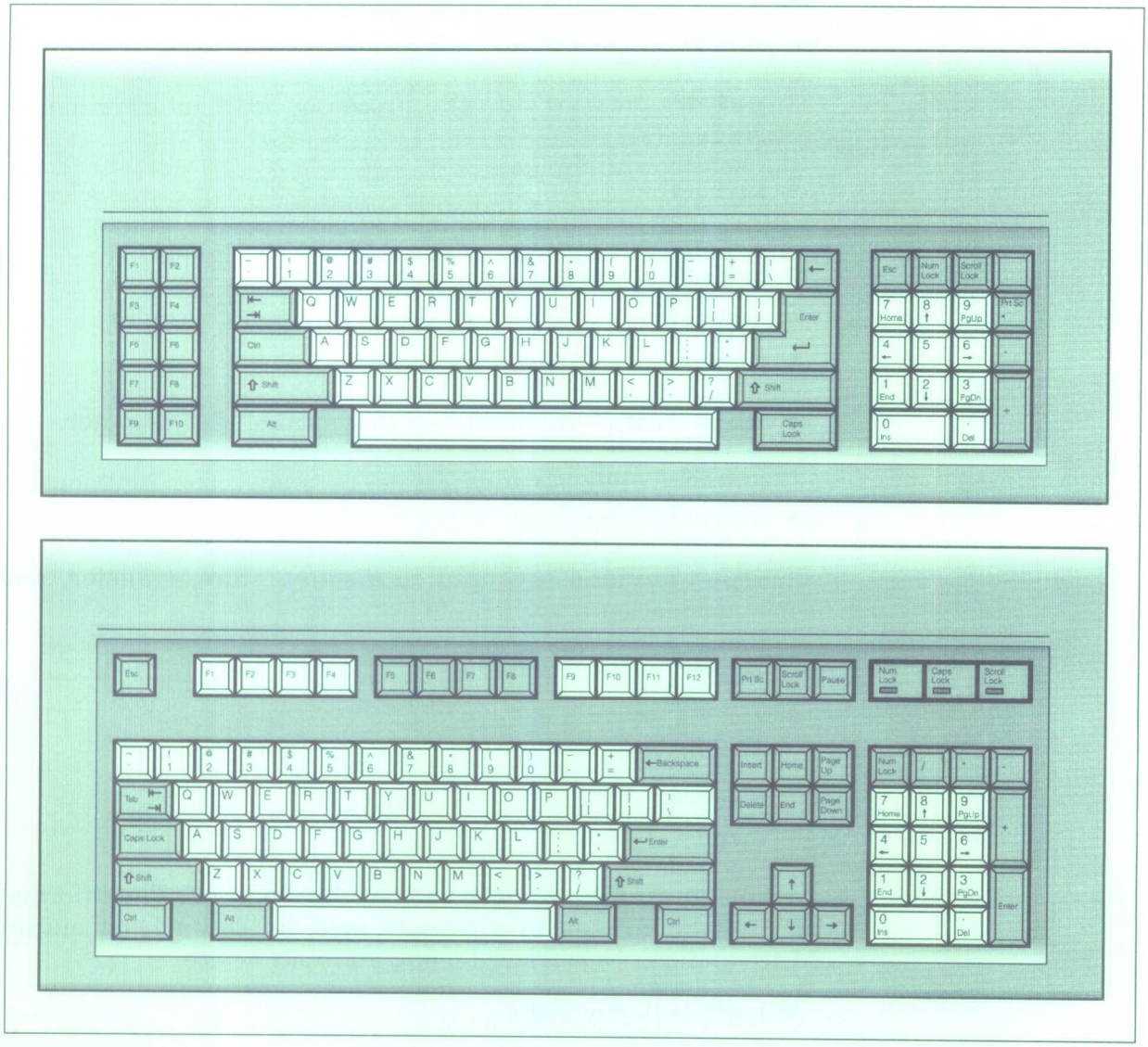

Figure 1-2 *Two types of PC keyboards.* The upper one has 10 function keys at the left of the main keyboard, while the lower one has 12 function keys above the main keyboard and an additional set of navigation keys between the main keyboard and the numeric keypad.

the Shift key (the key with the broad up arrow) while you press the letter key, or by pressing the Caps Lock key once before pressing letter keys. The Caps Lock key works similarly to the Shift Lock key on a typewriter. It is a **toggle key**: the first time you press it, the keyboard shifts into uppercase mode; the second time, all letters are lowercase. Some special characters require that you hold down the Shift key even if the Caps Lock key has been pressed. On some keyboards, the Caps Lock indicator light indicates whether Caps Lock (uppercase) is selected. Both the Shift and Caps Lock keys are also used, as shown later, to change the function of other keystrokes.

The Enter key is the down-left-arrow key between the main keyboard and the numeric keypad. The use of this key depends on the software. The Enter key may be used to indicate the end of a line (the same as the carriage return on a typewriter) or it may be used to execute a command (or system instruction).

There are 10 or 12 **function keys**, labeled F1 through F10 or F12, across the top or to the left of the main keyboard. These keys provide convenient access to program functions; their use depends on the program being executed.

The Esc key, usually located in the top left corner of the keyboard, is the escape key. Its use depends on the software; in Excel it is used to cancel an input or operation.

The **numeric keypad** is a group of keys to the right of the main keyboard, consisting of numeric keys that have a dual function—either entering numbers or moving the highlight or position where an entry is to be made. The function can be changed either by pressing the Shift key or the Num Lock key. Like the Caps Lock key, the Num Lock key is a toggle key. After pressing the Num Lock key once, you generate the characters that appear on the upper half of the keys on the keypad. Press it again to generate the movement indicated on the bottom half of the key. On most keyboards, the Num Lock indicator light indicates if numeric entry is selected. The numeric keypad also includes a . (period) key; the arithmetic operation keys of / (division), * (multiplication), – (subtraction), and + (addition); and an alternate Enter key.

On some keyboards, there is a second set of cursor movement keys between the main keyboard and the numeric keypad that also move the highlight or position where your entry is made. These keys are not affected by the Num Lock key. Hence, the presence of these keys lets you leave the numeric keyboard in numeric mode all the time.

The Ins key is the insert key. It toggles, or switches, the action of entering data into memory between the insert mode and the type-over mode. In the insert mode, as you edit a line, characters to the right move over to let you insert the new characters. In the type-over mode, the characters you type replace the existing characters.

The Del key is the delete key. It has several functions, depending on the software. Usually, during data entry, the Del key deletes the character located at the cursor. This is contrasted with the function of the Backspace key located above the Enter key on the main keyboard: the Backspace key deletes the character to the left of the cursor, causing the cursor to backspace. The Del key is often used to indicate items to be deleted. The use of the Del key depends on the program.

The Tab key is used in word processing programs like the tab key on a typewriter, moving the cursor to the next tab stop. In programs, the Tab key is often used to move the cursor from