EXCEL 3

made Easy

IBM PC VERSION

- **The Easiest Step-by-Step Guide to Using Excel 3 Under Windows**

- **Hands-On Learning Method Helps You Get Productive Results Fast**

- **Includes a Complete Function Reference**

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Excel 3 Made Easy,
IBM PC Version

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INTRODUCTION

Microsoft Excel, which runs in the Windows graphical environment, is an integrated business software package for producing worksheets, databases, and charts. Each of these products contributes to your ability to increase productivity and make better decisions in your business or profession. By doing this in a graphical environment, Excel adds real ease of use to a high degree of capability, allowing you to easily do the tasks you need.

ABOUT THIS BOOK

Excel 3 Made Easy, IBM PC Version supplements Microsoft's own documentation by continuing where that documentation leaves off. Whereas the Microsoft documentation presents you with short and simple explanations designed to help you find answers to immediate questions, *Excel 3 Made Easy, IBM PC Version* provides more substantial examples designed not only to get you started, but also to guide you in building your skills so that you can perform more advanced business tasks—all with clear, step-by-step instructions.

HOW THIS BOOK IS ORGANIZED

Excel 3 Made Easy, IBM PC Version was written the way most people learn Excel. The book starts by reviewing the basic concepts. It then uses a learn-by-doing method to demonstrate the major features of the product. Next, the book provides examples

and clear explanation of many advanced features. Finally, it incorporates a complete reference for worksheet and macro functions.

Introducing Windows and Excel

The book begins by introducing Windows and Excel and providing the basic concepts needed to use them. This section includes four chapters. The first explains the features and functions of Windows and the mouse that are needed to use Excel. Included are all parts of the screen, windowing, menus, the mouse buttons and moves, and using the keyboard.

The second chapter describes each of the three components of Excel, worksheets, databases, and charts, with particular attention to worksheets. It also quickly introduces cells, ranges, formulas, functions, commands, and macros.

The third chapter looks at how Excel uses the Windows graphical environment and the mouse to build and maintain worksheets. Each of the menus is described, as are the keystrokes and mouse moves necessary to utilize them.

Chapter 4 focuses on how to create and modify a worksheet, including using the menus, mouse, and keyboard to enter and edit information, save the worksheet, and leave Excel.

This first part of the book provides the foundation concepts upon which the rest is based. This section is slower paced than the rest of the book due to the importance of building a firm foundation. If you are a new user of Excel, the first four chapters are vital to your success. If you have some experience with Excel, you need them to a lesser extent. At the very least, you should skim these chapters to assure that you have an understanding of the terms and concepts.

The Fundamentals of Excel

Next, the book covers the fundamentals of Excel—creating and manipulating worksheets, producing charts, and using a database. This section includes four chapters.

Chapters 5 and 6 are companions. Chapter 5 creates a worksheet. Included are planning, placing texts and headings, entering numbers and formulas, copying formulas, inserting and deleting rows, and saving the worksheet. Chapter 6 formats, changes, and prints the worksheet. Included are loading the worksheet, formatting numbers and headings, moving, deleting, erasing, and setting the parameters for and printing the worksheet.

Chapter 7 looks at producing charts, including three-dimensional charts. It covers line charts, pie charts, and bar charts and includes selecting the type of chart, determining the worksheet ranges to plot, adding legends and titles, viewing, and printing.

Chapter 8 builds and uses a database. The chapter includes sorting a database and selecting and analyzing information from a database. In analyzing information, you are shown how statistical functions and data tables are used.

These chapters should be read by all levels of users. For new users it provides the experience with which you can create your own worksheets, charts, and databases. For intermediate and advanced users, Chapters 5 through 8 provide a refresher course that also provides considerable insight into Excel.

Advanced Uses of Excel

The last three chapters discuss the advanced features of Excel. The pace of presentation quickens here; the focus will almost entirely be on the advanced topics, with little or no time spent on the building of the worksheets used to demonstrate the topics. You may, if you wish, continue to follow along on your computer. The detailed steps for building the underlying worksheets, however, are left up to you.

Chapter 9 describes linking worksheets and using external files. Included are setting up links and transferring information among worksheets as well as combining worksheets, exporting and importing text files, and dividing or parsing a text file. Linking worksheets is one of the most powerful features of Excel.

Chapter 10 looks at worksheet functions and macro functions. The section on worksheet functions ties together the work already done on functions in previous chapters. It provides a general discussion on using them as well as discussion and examples of the types of functions not previously discussed. Most important here are date and time functions and text functions. The macro section looks at macro functions in general, discusses how they are built, used, and debugged, and provides a number of examples.

Chapter 11 provides all of the features needed to automate a sophisticated worksheet. Included are automatic loading, custom menus, and updating of a database from a custom data entry dialog box, all operated by a set of macro commands. Chapter 11 shows you the full power of Excel.

It is not necessary for all readers to immediately read these last three chapters. New users may want to wait until they have completed several spreadsheets of their own and know they want more of the capability of the product before reading them. Intermediate users probably will want to continue on immediately; it is the next logical step in their Excel education. This section is what advanced users have been waiting

for! At some point, all readers are encouraged to go through these chapters. The "booster rockets" of Excel are discussed here. Such things as linking worksheets, functions, and macros are not as hard to use as you might think, and they significantly increase the power of Excel.

Installing Windows and Excel

Appendix A provides both the background and detail steps to install Windows and Excel. It describes what equipment you need, how to determine what equipment you have, and how to start and use both the Windows and the Excel Setup programs. In addition, it discusses how you prepare to store the data you will create with Excel and how to leave Windows and Excel.

Function Reference

Appendixes B and C provide a complete function reference for Excel. They list in alphabetical order, and provide a description for, every worksheet function and macro function. These appendixes are not meant to be read. Rather they are a quick and handy reference for looking up how a particular function works.

CONVENTIONS USED IN THIS BOOK

Excel 3 Made Easy, IBM PC Version uses several conventions designed to make the book easier for you to use. These are as follows:

- **Bold** type is used for text you are instructed to type from the keyboard.

- Keys on the keyboard that are commands are presented in key shaped boxes; for example, (RIGHT ARROW) and (ENTER).

- When you are expected to enter a command, you will be told to *press* the key(s). If you are to enter text or numbers, you will be told to *type* them.

DISK ORDER FORM

The worksheets, databases, and charts produced in this book are available on disk. The disk is not required to use the book, but by using the disk you can save the time and effort of typing the input and also eliminate the possibility of introducing errors.

The files are available on 360K 5 1/4″ disks for the IBM PC or AT or 720K 3 1/2″ disks for the IBM PS/2 and 100% compatible computers.

Be sure that your input is accurate and avoid the inconvenience of typing the detail by purchasing this disk. Save time and explore Excel now.

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AT A GLANCE

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chapter **1**

THE WINDOWS
ENVIRONMENT

E xcel is a Windows application. This means that Excel requires Microsoft Windows for it to run. Windows provides the interface between you and Excel—the way Excel tells you on the screen what it is doing, and the way you tell Excel what to do. Since Excel 3 requires Windows 3 or above, this chapter introduces you to some of the essentials of Microsoft Windows 3. You may never use all of the capabilities and tools available in Windows, but when you become acquainted with them, you will appreciate the additional power in the Excel environment.

This chapter is more of a tutorial than the rest of the book. It proceeds more slowly in order to establish a common ground for using this book and Excel. If you are already familiar with Windows and using a mouse, simply scan the chapter to verify that you know the vocabulary used here and the basic operating procedures used in Windows 3.

INTRODUCING WINDOWS

Excel is designed to run "under" Microsoft Windows, an extension of the MS-DOS operating system. This is desirable for several reasons, but primarily because Windows offers a standard environment for all of the programs, or *applications,* that run under it. This environment consists chiefly of a standard screen display, or *visual interface*, that you use to communicate with Windows applications. Once you learn to use Windows, you will find that working with the various applications, including Excel, that run under Windows is very similar.

Windows also provides a way to transfer information among applications, such as from Excel to Word for Windows or to PageMaker. Through this feature, called the Clipboard, you can easily move a portion of an Excel worksheet or an Excel chart to a word processing document.

Windows 3 allows you to load more than one application into memory simultaneously and to switch among them with minimal effort. You can work with a word processor, a graphics application, and Excel all at the same time. Of course, the degree to which this can be done depends on the amount of memory in your computer.

Finally, Windows provides a set of applications that are handy accessories. These include the following:

Calculator	A calculator program for adding, subtracting, dividing, and multiplying numbers
Calendar	A scheduling program for jotting down your appointments and commitments
Cardfile	A list-management program
Clock	A clock that can be displayed on the screen at all times
Notepad	A program that lets you keep notes, reminders, and other memos handy
Paintbrush	A graphics program
PIF Editor	A special editor for PIF files
Recorder	A means of recording and playing back sets of keystrokes (macros)
Terminal	A communications program that lets you connect via a modem and telephone lines to another computer
Write	A word processing program

As a result of operating under Windows, Excel has all these accessories available to it on demand.

The quickest way to learn about Windows is to start using it. If you have not already done so, turn on your computer now and start Windows. If you have not already

installed Windows, refer to Appendix A, "Installing Windows and Excel." When you complete the installation and your mouse is connected, return here.

How you start Windows depends on how you installed it. If you followed the instructions in Appendix A and the suggestions in the Windows Setup program, you put the Windows directory in the path statement of your AUTOEXEC.BAT file along with the program name, WIN. This automatically starts Windows when you start or boot your computer. If you did not change your AUTOEXEC.BAT for Windows, you must tell DOS which directory contains Windows. See Appendix A for the specific instructions to do this.

THE WINDOWS SCREEN

When Windows 3 is started, you first see a screen similar to the one shown in Figure 1-1, if you installed Windows with the instructions in Appendix A. (Depending on how you installed Windows and if you have non-Windows applications or other Windows applications, your screen may look different.) The screen in Figure 1-1 shows two windows, both with several standard features that appear in most windows of Windows 3. The top line, or *Title bar*, of a window contains its title. The two windows in the figure are the Program Manager and Microsoft Excel 3.0. On the left end of the Title bar is the *Control-menu box*. You use this box to access the *Control menu*, which contains window options that allow you to perform such operations as moving, sizing, or closing a window.

On the right end of the Title bar are the *Minimize* and *Maximize* buttons, which are used for changing the size of the window.

Below the Title bar in the Program Manager window is the *Menu bar*. The menus available (File, Options, Window, and Help) apply only to the Program Manager. The menus displayed in the Menu bar change as the window changes.

Below the Menu bar is the *workspace*, which contains, at the top, the Excel group document window. At the bottom of the workspace, as shown in Figure 1-1, are graphic symbols, called *group icons*, that represent five groups of programs you can use. Inside the Excel group window are four *application icons* that represent four Excel-related programs that you can run. As you saw in Appendix A, double-clicking on an application icon starts that program. When you start an application such as Excel, and then temporarily set it aside while you do something else, the application becomes an icon again, but now it is at the bottom of the screen in the *icon area*. An application icon in the icon area can be reactivated, moved around the screen, or deactivated. Whatever you were doing in the application remains frozen just as you left it, until it is reactivated or the application is closed.

Several indicators show where you are on the screen. First, the *active window*—the one you are currently working in—is indicated by a Title bar and border that are filled