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Paradox for Windows

Paradox
for Windows



Levi Reiss



USING PARADOX FOR WINDOWS

Levi Reiss



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Using Paradox for Windows

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PREFACE TO THE INSTRUCTOR

Who Should Use This Book?

Paradox for Windows, a bestselling microcomputer database management system, is by no means used only by computer professionals. Businesspeople with no interest in, or experience with, computer programming use Paradox for Windows to help them make better business decisions. *Using Paradox for Windows* is designed for the growing number of people who need to master microcomputer database management principles and techniques, whether or not they intend to become computer gurus.

Distinguishing Features

- **Problem-solving Approach.** In this increasingly competitive world, students must learn more than keystrokes; they need to apply Paradox for Windows to extract valuable information to help make more effective decisions and solve business problems. This book examines the information needs of a small but growing employment agency. As the agency's database grows in size and complexity, students gain confidence in their ability to apply Paradox for Windows.
- **Balance of "What" and "Why."** Each lesson is structured around procedures for creating or processing tables and associated forms, reports, and queries related to employment agency applicants. These procedures consist of numbered steps that illustrate what to do; additional unnumbered explanations tell the student why. Carefully selected screen displays help students progress.
- **Integrated Project and Case Study.** Paradox for Windows' applications are multiple. In each lesson, the ongoing project applies Paradox for Windows concepts and techniques to the employment agency's job offers. The ongoing case study processes the database associated with a second small but growing business—a college travel club.
- **Coverage of Common Errors.** No matter how carefully students follow directions, they are bound to make an occasional error. Few students are able to complete all exercises without any detours. This reality is addressed in every lesson. Marginal notes present a variety of common errors, saving students (and an occasional instructor) time and frustration. By addressing these common errors, students are encouraged to think critically instead of blindly accepting computer output.

- **Productivity Tips.** Seasoned database specialists' advice to novices is in the margin of each lesson. These practical tips will enable students to work smarter instead of just harder, both in class and throughout their professional careers.
- **Coverage of Multi-table Facilities.** Few real-world applications can be expressed with a single table. The later lessons step the students painlessly through multi-table forms, reports, and queries. The text clearly applies the principles of one-to-one relationships, one-to-many relationships, and referential integrity—principles that must be mastered to meet information needs.
- **Presentation Graphics.** Paradox for Windows is a very visual product. Unlike most of its competitors, it offers extensive graphics capabilities. The concluding lesson illustrates Paradox for Windows' graphic power and the ease with which it can be unleashed.

Comprehensive Instructor's Manual with Transparency Masters

The Instructor's Manual that accompanies *Using Paradox for Windows* includes detailed lecture outlines, teaching tips, answers to review questions and solutions to exercises in the text, and test questions and answers. Solutions are illustrated by overhead transparency masters.

Acknowledgements

A textbook such as this one is never the product of a single individual. I would like to express my sincere appreciation to my editor Erika Berg of Mitchell McGraw-Hill, who guided me throughout the transformation of this book from our minds to your desk. I have been very happy with the production and design experts who have converted computer output virtually covered in pen and pencil comments and corrections to an attractive volume designed for pedagogy, not sheer beauty alone. They are Leslie Austin of Mitchell McGraw-Hill and the independent consultants Ryan Stuart, Melody Perkins, Jane Granoff, and Dan Maio.

Traces of our reviewers' comments and suggestions may be seen on every page of this text and countless more pages in landfills. They are Mark Binder, Buena Vista College; Stephan Lunce; Curtis Meadow, University of Maine; Pam Nelson, Panhandle State University; Janice Sipior, Villanova University; Mark Workman, Frank Phillips College; and Marilyn Zook, Mt. Hood Community College.

PREFACE TO THE STUDENT

Learning Paradox for Windows is a challenge for computer users of the 1990s. Mastering Paradox for Windows will enable you to create both simple and complex databases and to extract data that satisfies your information needs—whether you own your own business or work for a small, medium, or large company or nonprofit organization.

You have three tools to master this material: your teacher, your computer, and this textbook. Every effort has been made to produce a textbook that will maximize your learning environment. The Distinguishing Features section in the Preface to the Instructor describes many of the features in this text that have been designed to help you attain the goal of applying Paradox for Windows.

In addition, each lesson contains pedagogical features designed with you in mind:

- Projects, “Try It Yourself,” and Case Study Exercises that test your understanding of the lesson’s new Paradox for Windows features and their integration with features presented in previous lessons.
- Marginal “Common Errors” and “Productivity Tips” that help you work more efficiently and effectively.
- Lesson Summary, including a short description of keystrokes, buttons, and menus introduced in the lesson. These same keystrokes, buttons, and menus are also compiled in a special section at the end of the book. Mastering Paradox for Windows entails much more than becoming familiar with the keystrokes, but this summary should serve as a handy reference tool throughout the course and in your careers.
- Review Questions that complement the lesson objectives in determining your level of understanding.
- Ready reference material listing, in alphabetical order, all tables, forms, graphs, and reports used in this text, with a short description and the page number where the item first appears.

A final word: Keep this book. Sooner or later, you will need to create and apply databases to help solve your information needs. Remember, if you can’t, someone else can.

Levi Reiss

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A GUIDED TOUR OF WINDOWS

This lesson provides a guided tour of the Microsoft Windows 3.1 operating environment, usually called "Windows." You must first be familiar with the basics of this environment, including starting Windows, using the mouse and the keyboard, manipulating windows, starting an application, getting help, and leaving Windows, before you can work with Windows applications. If you are already familiar with Windows 3.1, try the exercises anyway. You may find that you need to review selected topics.

Because Paradox for Windows will not run under Windows 3.0 (or older versions), this text does not discuss Windows 3.0. If you already know Windows 3.0 but are unfamiliar with Windows 3.1, do all the exercises and make a special note of any important differences.

Paradox for Windows will be introduced in Lesson 2.

You have met this lesson's objectives when you can:

- Start Windows on your computer.
- Describe the objects in a typical window and indicate their purpose.
- Use the mouse and the keyboard to open, close, maximize, minimize, and move windows, and to select items from menus.
- Define in your own words the key terms introduced in this lesson, and explain their importance to handling windows. Key terms appear in **boldface** type and are listed in the Review Questions section at the end of the lesson.

Starting Windows

The exact process of starting Windows may depend on your hardware and the technical settings for your specific computer system. The following procedure should work on your system, with perhaps minor modifications. (Of course, what some people consider to be minor modifications, others treat as major problems. Don't rely on your memory. Write down the exact start-up procedure in your textbook.)

1. Start the computer and type the command to access the appropriate disk drive, usually `C:.`
2. Type `CD\WINDOWS` (upper- or lower-case) and press **Enter** to change the current directory to `\WINDOWS`.
3. Type `WIN` and press **Enter** to execute Windows.
4. After a short time, a screen displays announcing Windows. The first image that remains on the display depends on how Windows was set up.

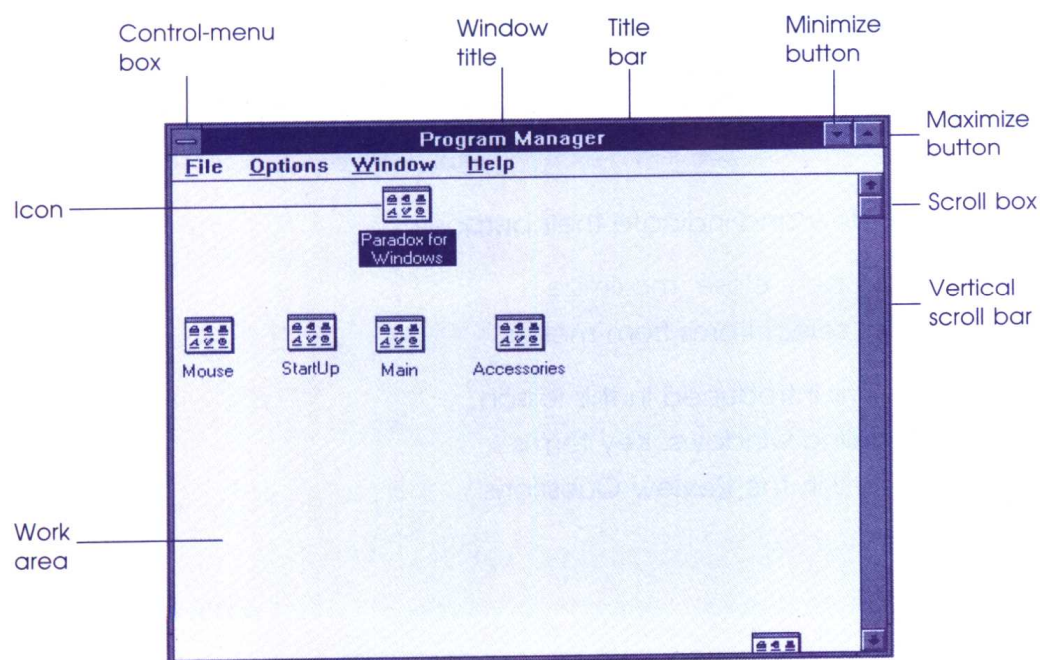
Windows Features

Figure 1-1 illustrates a sample window that may be similar to the one that appears when you start Windows. Let's examine this window in detail, starting in the upper-left hand corner.

The Control-menu box appears in the upper-left hand corner of the window. Selecting this box generates a menu offering you the tools to manipulate the window and terminate your Windows session.

The highlighted window line is the **Title bar**; it contains the Control-menu box, the Window title, and two buttons at the right. In Figure 1-1 the Window

FIGURE 1-1
Program Manager window



title reads Program Manager. Program Manager is the Windows facility used (among other functions) to start applications such as Paradox for Windows.

The two buttons to the right of the title bar are the **Minimize button** (an arrow pointing down) and the **Maximize button** (an arrow pointing up). Selecting the Minimize button reduces the window to an **icon**, a small picture identified by a label. Minimizing a window reduces screen clutter without closing the window. Selecting the Maximize button enlarges the window to the area of the entire screen, making it easier to see that window's contents. Maximize a window when you intend to work in it for some time.

The window's right edge may include a vertical scroll bar. Using the scroll bar enables you to view items outside the window's borders, such as the icon at the lower right. Selecting the up arrow at the top of the vertical scroll bar moves the window up, consequently moving the image down the screen. Selecting the down arrow moves the image up the screen. Note that the square box in the scroll bar moves as you move (scroll) the image up and down the screen. This box is called a scroll box. The bulk of the window is known as the body or work area. The work area may contain data, other windows, or icons.

Figure 1-2 shows the result of maximizing the Program Manager window. The scroll bar disappears. The second line from the top of the screen is the **Menu bar**. The specific Menu bar choices depend on what you are doing. Figure 1-2 shows four menu choices: File, Options, Window, and Help. The next section tells you how to use the mouse and keyboard to make menu selections. Later in this lesson, you will explore each menu choice.

Having seen the components of a typical window, you will next learn about manipulation tools, the mouse and the keyboard. Generally speaking, the mouse is the preferred tool for telling Windows what you want to do, and for

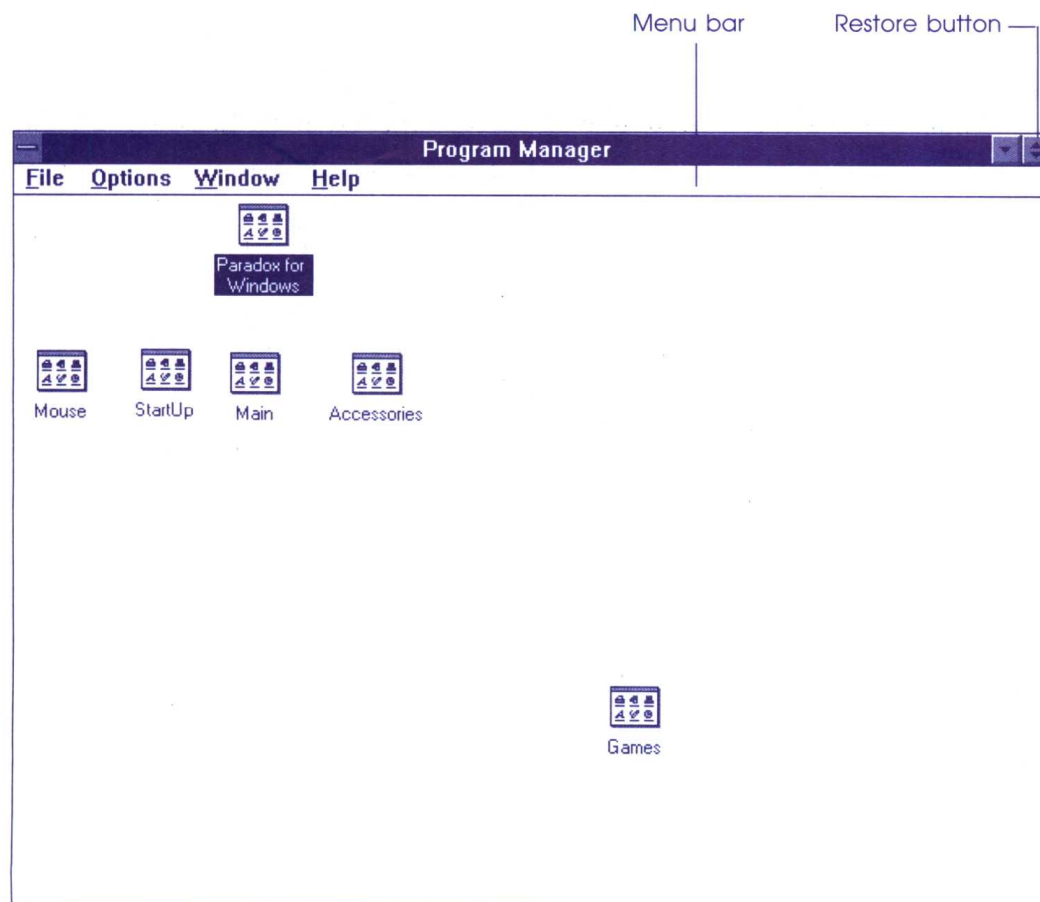


FIGURE 1-2
Program Manager
window maximized

drawing objects such as circles and company logos. Use the keyboard to enter data (such as names and addresses) and to make menu selections.

The Mouse

The **mouse** is a pointing tool about the size of a bar of soap, with one, two, or three buttons. Push the mouse across the desk or special pad to move a highlighted object called the **mouse pointer** across the screen. Initially, the mouse pointer is an arrow, but its shape may change depending on what you are doing. To make a selection, position the pointer on a window object and then execute one of the four mouse actions described below.

Click means to press briefly and let go the left mouse button. For example, to maximize a window, click on the Maximize button.

Drag means to press the left button and move the mouse without releasing the button.

TRY IT YOURSELF

Click the mouse on the up and down arrows in the vertical scroll bar and describe the result. Note what happens to the square box in the scroll bar.

Right-click means to press briefly the right button. Windows itself does not use the right mouse button. However, to use Paradox for Windows effectively, you must learn how to right-click.

Double-click means to click the left button twice in rapid succession without moving the mouse. For example, double-click on an icon to launch an application such as Paradox for Windows.

TRY IT YOURSELF

Drag the Program Manager title bar to move the window across the screen. Next, position the pointer on a window border so that it becomes a two-headed arrow. Drag the border to change the window size. Doing so may generate a horizontal scroll bar at the bottom of the screen (it is similar in function to the vertical scroll bar previously described). If so, experiment with the horizontal scroll bar.

The basic mouse operations are not difficult, but you must practice them. Remember, the mouse is a precision instrument. Keep experimenting as you work through this text. For many people, the mouse (or more precisely, the mouse's use) is an acquired taste.

Figure 1-2 shows the result of maximizing the Program Manager window. The Restore button in the upper-right hand corner shows an up and a down arrow. Clicking this button restores the previous window.

The icons displayed in the Program Manager window depend on the installation. For example, many installations remove the Games icon, for obvious reasons. Among the Program Manager applications, this text utilizes only Paradox for Windows and Main.

TRY IT YOURSELF

Click the button in the upper-right hand corner of the Program Manager window to restore the window shown in Figure 1-1, and then click the **Maximize** button.

The screen shown in Figure 1-3 is obtained by positioning the mouse pointer on the Paradox for Windows icon and clicking once. The resultant menu is called a pop-up menu. Let's discuss this pop-up menu option by option, starting from the top.

In general, the Restore option displays a window at its previous size. In this instance, the Restore option transforms the Paradox for Windows icon to a window occupying the entire screen. The Move option enables you to displace the Paradox for Windows icon across the screen.

The Size and Minimize options are dimmed, indicating that they are presently unavailable. For example, the Minimize option is currently unavailable because Paradox for Windows is an icon and cannot be further minimized.

The Close option closes the menu. To the right of the Close option appears its keyboard equivalent, Ctrl+F4. To produce this keystroke first press **Control** and, without letting go, press **F4**. The final menu item, Next, permits you to go from one application, such as Paradox for Windows, to another on-screen application, such as Games. This text does not apply the Next menu item. To remove the pop-up menu shown in Figure 1-3, simply position the pointer outside the menu and click.

Figure 1-4 illustrates the opened Paradox for Windows with the application icon selected. At this point, you are still working directly in Windows and have not yet accessed Paradox for Windows. Once again, the actual screen display will vary. For example, the Collage program, which records and processes screen images, probably will not appear on your screen. Collage is independent

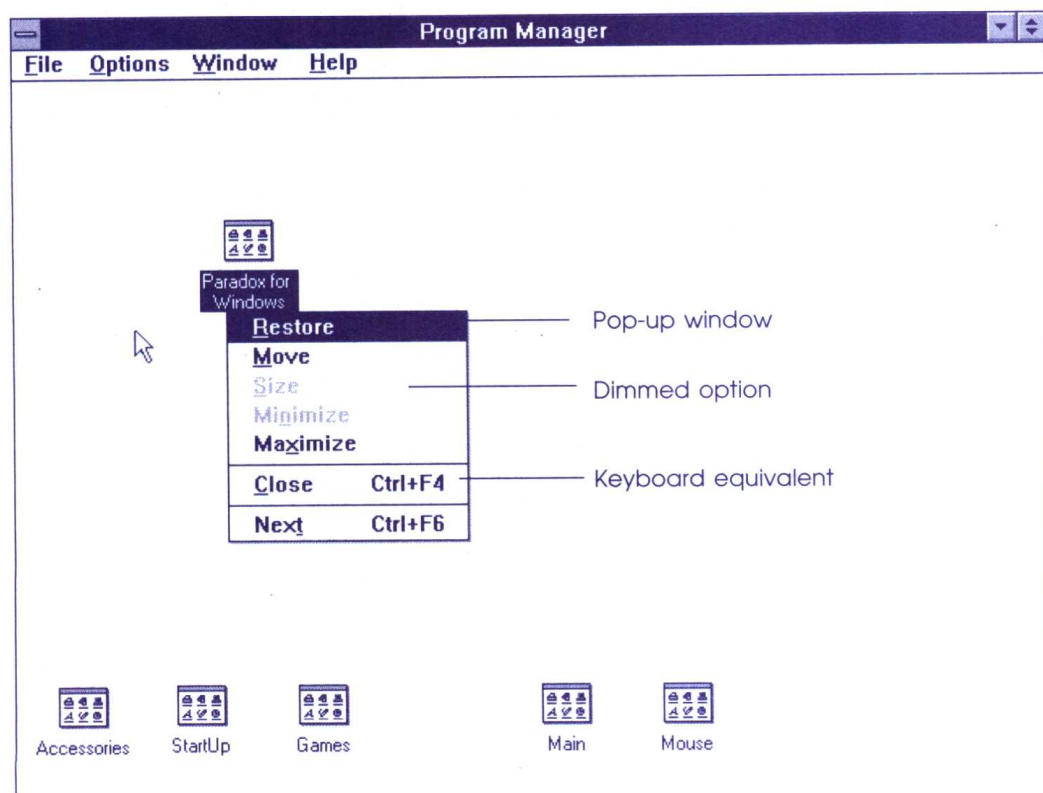


FIGURE 1-3

Clicking on Paradox for Windows icon

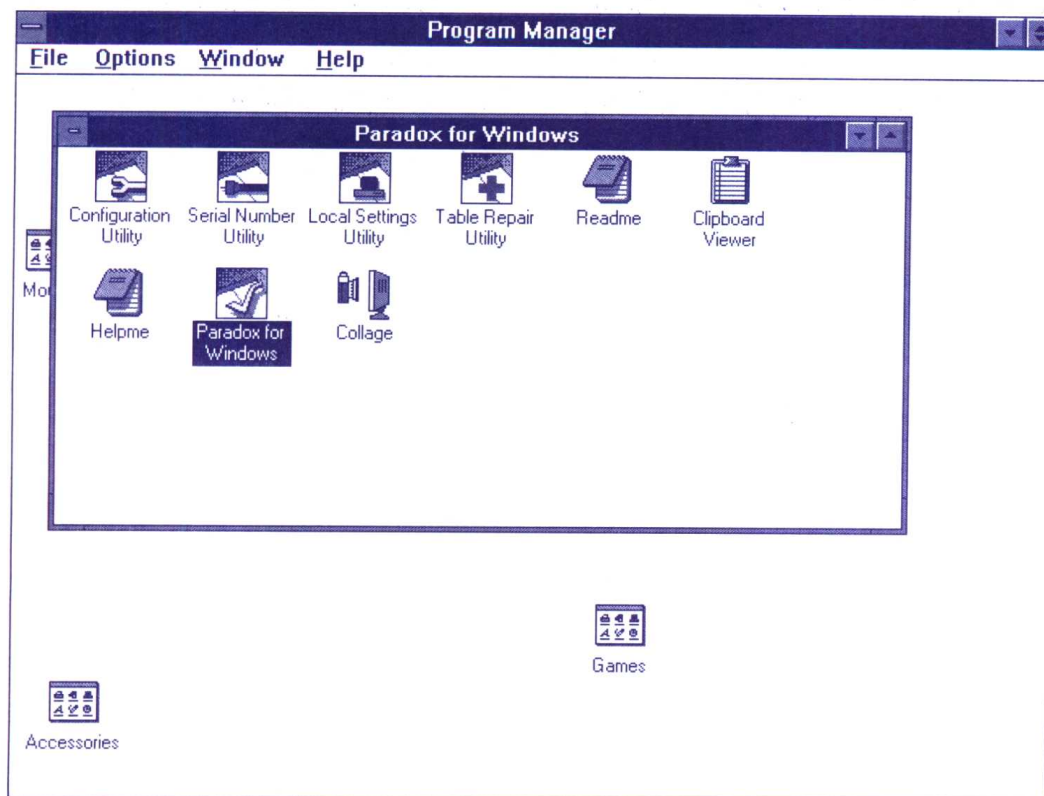


FIGURE 1-4
Program Manager and
Paradox for Windows

of Paradox for Windows. Other applications illustrated in this figure are of interest only to specialists.

The next step is to describe the keyboard and apply it to access various menu options.

The Keyboard

The keyboard is an important tool used for data entry and making menu selections. As is the mouse, the keyboard is a precision instrument.

The File menu appears to the left of the Menu bar in Figure 1-4. If you look closely, you will see that the "F" in "File" is underlined. To select this menu, press **[Alt]** and, without letting go, press the underlined letter, **F** or **f**. This keystroke combination is commonly written as **[Alt] F**. Furthermore, you must press **[Alt]** before pressing **F** or **f**. Press **[Esc]** to clear a pop-up menu from the screen.

Locate the arrow keys on the keyboard. Pressing these keys moves a small highlighted object on the screen—the cursor. In many instances, such as when choosing an item from a menu, you may move the cursor to the specified item and press **[Enter]**. As you become familiar with Windows, and Paradox for Windows, you will develop your own style for using the mouse and keyboard. Don't be afraid to experiment.

TRY IT YOURSELF

Use the keyboard to display and then clear a pop-up menu for each option offered in the Menu bar of Figure 1-4. Then use the left and right arrow keys (**[←]** and **[→]**) to access each of these pop-up menus.

Windows provides online Help. Help gives on-the-spot information to get you out of a jam. Each Windows menu has its own specific Help menu and facilities. Figure 1-5 shows the initial screen generated when you select the Help menu from the Program Manager. This particular help screen contains four menu options and five buttons, as well as on-screen information. Take a little time to explore Help—it contains a wealth of information.

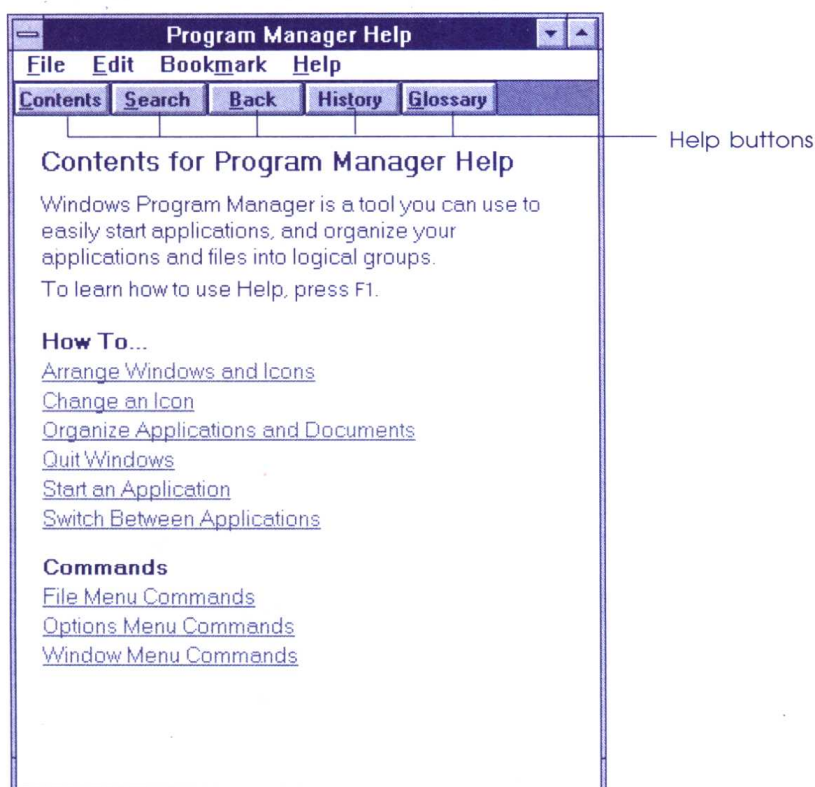


FIGURE 1-5
Program Manager Help window

TRY IT YOURSELF

Examine all menus and buttons of the help screen.

Clicking on the Search button of the Program Manager Help screen generates the output shown in Figure 1-6.

TRY IT YOURSELF

Use the vertical scroll bar to step through the subjects for which help is available.

Figure 1-7 illustrates the initial contents of the Window menu. The default option, Cascade, overlaps windows so that each title bar is visible. The Tile option places open windows so that they fit next to each other. The Arrange Icons option is used to change the location of icons on the desktop.

The lower portion of the Window menu lists available applications. The application with the checkmark is Paradox for Windows, the one to be activated