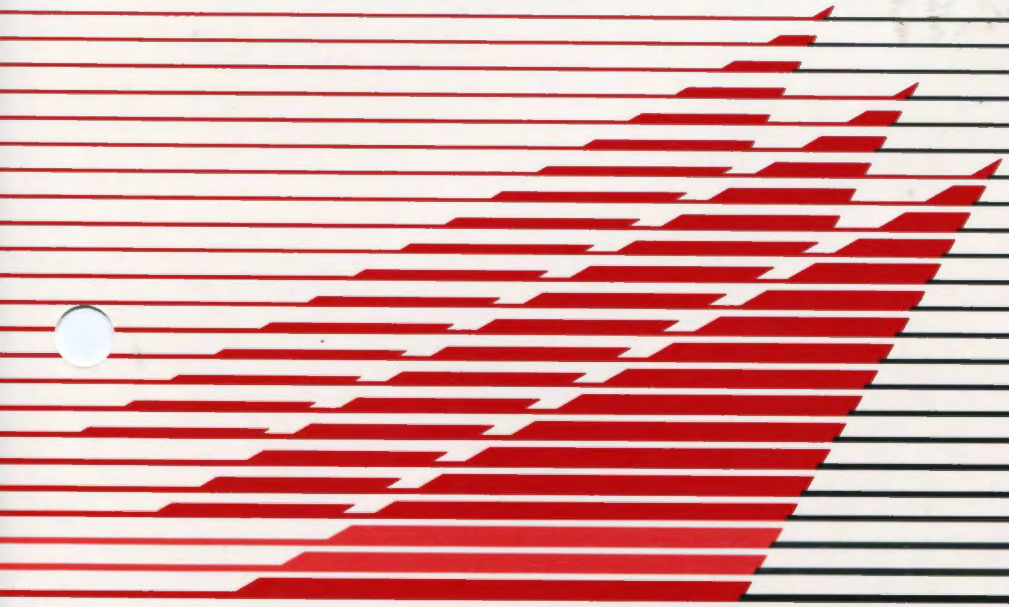
DESQview™

Quarterdeck



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DEMO INCLUDED

The DESQview diskette now includes a demo that shows you DESQview's main features:

- Runs "Off-the-Shelf" Programs as Pop-Ups
- Lets Programs Run Concurrently in Background
- Breaks the 640K Barrier by Running Programs in AST Enhanced Expanded Memory RAMpage!, (RAMpage AT, or SixPakPremium) or by Swapping Programs to Disk (SixPakPlus)
- Runs Programs in Small Windows
- Has Built-In Keystroke Macros
- Lets You Mark and Transfer Information Between Programs
- Has Built-In Keystroke Macros
- Lets You Mark and Transfer Information Between Programs
- Has a Built-In Auto Dialer
- Includes DOS Services — DESQview's Menu-Drive DOS Accessory Program
- Lets You Use the Mouse or Keyboard Interchangeably

Running the Demo The demo takes only 3-4 minutes: To run it:

- **Place the DESQview diskette in floppy drive A.**
- **Type** A: **and press** ↵ .
- **Type** DV **and press** ↵ .

> **Note:** If you are using the AST Enhanced EMS version of DESQview (Version 1.11 or later) the command DEVICE = REMM.SYS (at minimum) must be included in your CONFIG.SYS file upon boot-up.

Stopping the DEMO To stop the demo, press the *Ctrl-Break* key — that is, while you are holding down the Ctrl key, press the Break (Scroll Lock) key in the upper-right corner of your keyboard. Sometimes it may be necessary to press Ctrl-Break several times before the demo will stop.

Re-Running the Demo The demo can only be run directly from the DESQview diskette. When you install DESQview, the demo is *not* copied to your everyday DESQview diskette or your hard disk (see pages 16-18).

DESQview™

Quarterdeck

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Credits

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Introduction

Welcome to DESQview!

DESQview is a unique software program that enhances the power of your personal computer (PC) while, at the same time, making your PC more convenient to use. Power and convenience. More productivity with less hassle. That's DESQview.

If you've used your PC for more than ten minutes, you're aware of how difficult it is to finish a task without being interrupted—or without needing some additional information that's not at hand.

DESQview gives you the time-saving advantage of fast access to your programs and information. You get fast access because DESQview enhances your PC's disk operating system (DOS). It lets you have several programs running at the same time—and lets you switch between them instantly. So, when you need quick access to another program or to another piece of information, you can put the program you're using "on hold" while you get this information. You no longer need to save your files and close your program before accessing information in another program.

Without DESQview, your display screen is devoted to one program—which uses the entire screen. With DESQview, however, you can view information from several programs at the same time—through "windows" (viewing areas). You can control the size and location of these windows so the information you want is arranged on your screen the way you want to view it.

DESQview even lets you view graphs in windows! How many times have you had to write about a graph without being able to see it? DESQview will scale a graph so it fits in the window size of your choice. For example, you could view a graph in a window in the left half of your screen while you write about it in a word processing program running in a window in the right half.

DESQview also has ***concurrency***. This means that you can have programs working for you in "background" while you continue working in another program. For example, while you're composing a report with your word processor, DESQview could be doing one or more of the following in background: printing, sorting a database, recalculating a long spreadsheet, or communicating to a mainframe computer.

But that's not all of DESQview's power. When DESQview is used with an AST enhanced expanded memory board (such as RAMpage!, RAMpage AT, or SixPakPremium), you break the 640K barrier. You can have up to nine programs running concurrently in expanded memory—up to 5.5MB of programs working for you at the same time (with the optimal hardware configuration). And DESQview fully supports programs that use the Lotus/Intel/Microsoft Expanded Memory Specification (LIM-EMS). So, if you're using 1-2-3 Release 2, Symphony 1.1, Framework II, or other programs that support the LIM-EMS, not only will these programs run in DESQview, but you can have several of them running concurrently, each storing data in expanded memory.

If you run out of expanded memory, DESQview has ***virtual memory***. When there's not enough memory left to load another program, DESQview swaps one you're not using out to disk—automatically. (Or, if you prefer, you can tell DESQview which program to swap.)

More DESQview Features

Besides windows, concurrency, expanded memory support, and virtual memory, DESQview gives you many other features that add to your productivity.

With DESQview, you can transfer information from one program to another—even if the two programs know nothing about each other. This means you won't have to retype information when you need it included in your report or spreadsheet—and, you can combine information from different programs in one document. You can even reformat information as you transfer it—for example, stripping dollar signs and commas out of numbers so your spreadsheet program will accept them.

Another DESQview convenience is quick access to DOS. While you're still working in a program, you can display a directory of your files, copy files, erase files, or even format a diskette—all using DESQview menus (for the most commonly-used DOS commands). You don't have to waste your time memorizing DOS commands or options. Furthermore, DESQview gives you sorted directories, and the ability to perform DOS commands by picking files from a directory listing.

DESQview also has auto dialing. Just point to the phone number you want to dial and tell DESQview to dial it. If it's a long distance number, you can have DESQview dial it using any one of three long distance access codes.

And last, but certainly not least, DESQview can memorize the keystrokes you use to do a task. DESQview's keystroke macro capability—which we call ***Learn***—memorizes your keystrokes as you enter them. Then, any time you want, at the push of a key, you can have DESQview type those keystrokes for you. For example, you can use Learn to: type your name and address, open your word processing and spreadsheet programs, call a mainframe computer, or transfer the financial information in your month-end report from a word processing document to your spreadsheet program.

But DESQview's most important feature is that it works with most PC-DOS and MS-DOS programs *without modification*—exactly as you bought them off the shelf. Lotus 1-2-3. MultiMate. The pfs: series. dBase II and III. WordStar. Microsoft Word. Word Perfect. Multiplan. SuperCalc3. CrossTalk. Volkswriter. DisplayWrite. And many more. As well as programs that have been written specifically for your company or department.

Do You Have to Be a Genius to Use DESQview?

DESQview is designed for new PC users as well as experienced PC users. It is easy to learn and easy to use.

All DESQview commands are in English and appear on menus. Instead of requiring you to memorize cryptic commands, DESQview uses menus to display your options and lead you through the steps of each command.

Without DESQview, a new PC user has to memorize the commands to load each program, as well as the DOS commands needed to manage files. There's no need for such memorization with DESQview.

If you have a hard disk system, DESQview will find the programs already installed on your disk, automatically install them in DESQview, and list them for you on DESQview's Open Window menu. Then, to start up a program, all you have to do is point to its name. DESQview will send the necessary commands for you.

And when you need to use DOS commands to copy, erase, or back up files, DESQview's menus are there to assist you. That's why DESQview is a convenient tool even for the newest of PC users.

For those of you who don't like to use the keyboard, DESQview lets you use a "mouse" (pointing device). You can use the mouse for quick selection of commands on menus, for fast access to programs, for immediate repositioning and resizing of windows, and for easy marking and transferring of information between programs.

We've found that no two DESQview users use DESQview the same way. Some of you use DESQview only for fast access to programs. Some use DESQview to transfer information between programs. Some use it to access electronic mail in background. Others use it as a phone dialer. What's important is that you don't have to learn all of DESQview's features at once. You need only learn how to use its menus. DESQview will lead you through the commands as you need them.

And, whenever you're uncertain about the meaning of a command or an option, DESQview's online Help is available at the touch of a key to give you a more detailed explanation—without having to reference your DESQview manual.

About This Manual

This manual introduces you to DESQview. Use it now to learn the basics of DESQview, and pick it up later to find out about specific DESQview commands and capabilities in more detail.

This manual tells you:

- ☐ How to install DESQview on your personal computer—Chapter 1.
- ☐ How to get started using DESQview by following a step-by-step tutorial—Chapter 2.
- ☐ How to use menus, windows, the keyboard, the mouse, the DESQview menu, and the commands listed on the DESQview menu—Chapter 3.
- ☐ How to use the DOS Services feature to display sorted directories and perform DOS commands using DESQview menus—Chapter 4.
- ☐ How to use DESQview's Learn command to have DESQview memorize your keystrokes and create keystroke macros—Chapter 5.
- ☐ How to transfer information from program to program using advanced features of DESQview's Mark and Transfer commands—Chapter 6.
- ☐ How to change the DESQview information for programs installed in DESQview—Chapter 7.

You should begin with Chapter 1, ***Installation***, to install the DESQview program on your system.

Then we recommend you read Chapter 2, ***Getting Started: A Tutorial***—which will take you approximately 10 minutes. When you're finished, you'll know the basics of DESQview.

Chapter 3, ***Using DESQview***, is intended as a reference guide. It describes how to use each DESQview command and fills in some of the details omitted from the tutorial.

The remaining chapters discuss the details of other DESQview features—DOS Services, Learn, advanced Mark and Transfer, and Change a Program—and should be consulted on an as-needed basis. The appendices discuss the capabilities of DESQview's Setup program and some of the technical fine-points of DESQview.

DESQview is an adventure in software that can take you as far as you want to go. So—let's get started!

1 Installation

Before you can use DESQview on your system, you have to install it. This takes only a minute or two. Just follow the instructions on the next few pages of this chapter.

Before installing DESQview, you should verify that DESQview can be used with your hardware and operating system configurations.

In summary:

- ☐ DESQview runs on an IBM Personal Computer, an IBM PC-XT, an IBM PC-AT, a Compaq, a Compaq Plus, a Compaq Deskpro, a Compaq Deskpro 286, a Compaq Portable 286, a Compaq Portable II, and on any 100% IBM PC-compatible machine.
- ☐ DESQview runs under PC-DOS versions 2.0, 2.1, 3.0, and 3.1 and under MS-DOS versions 2.0, 2.1, and 3.0.
- ☐ Certain versions of DESQview require that an AST enhanced expanded memory (EEMS) board—such as RAMpage!, RAMpage AT, or SixPakPremium—be installed. To optimize the number of large programs that can be running concurrently using these products, your system should be configured so that ***your EEMS board provides as much of your system's total memory in the 0K-640K range as possible.*** This will require reducing the amount of memory provided by a conventional memory expansion board (such as AST SixPakPlus) and, if possible, reducing the amount of memory on your system board as well. See Appendix F for details on memory usage with AST EEMS products.
- ☐ DESQview operates on either a monochrome or a color display. It also operates on a monochrome display attached to an IBM Color/Graphics Monitor Adaptor card (or compatible).

- ☐ DESQview supports the following mice: Logimouse, Maynard, Microsoft, Mouse Systems, and Visi On. If you have one of these mice, install it according to the manufacturer's instructions. Then tell DESQview which mouse you have when you install DESQview. (You can add or delete a mouse at any time by running the Setup program. See Appendix A.)

DESQview makes no use of communications ports, printers, plotters, or other peripheral devices you may have installed on your personal computer. The programs you run under DESQview, however, may be dependent upon these devices being configured in certain ways. You should check the instructions for these programs to be sure, especially if you use nonstandard devices.

Some brands of mice require a communications port. If your mouse does, and you also run communications programs, you will need to have two ports, one dedicated exclusively to the mouse and one to communications.

DESQview supports the AST SuperDrive, fASTdisk, and SuperSpool RAM disk and print spooler programs and other RAM disk and print spooler utility programs.

Installing DESQview on a Floppy-Based System

If you have a dual-floppy system, and no hard disk, the first step in installing DESQview is to make ready a system diskette. The second step is to run the Install program, which will install DESQview onto this system diskette.

> **Note:** If you'll be using an AST enhanced expanded memory (EEMS) board on your system, you should read Appendix F before installing DESQview. If you'll be running DESQview on a network, see Appendix E. If you'll be using DESQview with memory-resident accessory programs (like Sidekick) or keyboard enhancers (like ProKey), see Appendix D.

To prepare a system diskette, follow these steps:

- **Place your DOS diskette in drive A.**
- **Type** A: **and press** ←↩.
- **Type** FORMAT/S **and press** ←↩.

  DOS responds by telling you to place the new diskette you want to format in drive A and press any key.

- **Place a blank diskette in drive A and press any key.**

  When formatting is complete, DOS will ask if you want to format another diskette.

- **Type** N **to indicate that you don't.**

Then, to install DESQview on the system diskette you just prepared:

- **Place the DESQview diskette in drive A.**
- **Type** INSTALL **and press** ←↩.

  Then follow the instructions that appear. When the message "DESQview installation complete" appears, remove your new DESQview diskette and put a label on it. From now on, use this diskette as your ***everyday DESQview diskette***. Store the master DESQview diskette in a safe place.

To run DESQview, follow the instructions on page 23, *Starting Up DESQview.*

Note: You aren't required to install DESQview on a system diskette—that is, on a diskette that you've formatted using the FORMAT/S command. However, if you install DESQview on a nonsystem diskette, you *must* copy the file COMMAND.COM to this diskette. (You can find COMMAND.COM on your DOS diskette.) DESQview will not work properly unless COMMAND.COM is on your everyday DESQview diskette ***before*** you type INSTALL.

Installing DESQview on a Hard Disk System

If you have a hard disk system, the first step in installing DESQview is to be sure that the file COMMAND.COM is in the root directory of your hard disk. The second step is to run the Install program, which will create a directory named DV and copy the contents of the DESQview diskette into this directory.

> **Note:** If you'll be using an AST enhanced expanded memory (EEMS) board on your system, you should read Appendix F before installing DESQview. If you'll be running DESQview on a network, see Appendix E. If you'll be using DESQview with memory-resident accessory programs (like Sidekick) or keyboard enhancers (like ProKey), see Appendix D.

If you boot from a diskette (rather than from your hard disk), perform the next two steps. If you boot from your hard disk, COMMAND.COM is already in the root directory and you can skip these steps.

- **If you boot from a diskette, place your boot diskette in drive A.**
- **Type** COPY A:COMMAND.COM C:\ **and press ↵ (assuming your hard disk is drive C).**

Now you're ready to install DESQview:

- **Place the DESQview diskette in drive A.**
- **Type** A: **and press ↵.**

■ **Type** INSTALL **and press** ↵.

Then follow the instructions that appear. When the message "DESQview installation complete" appears, remove the DESQview diskette and store it in a safe place. DESQview is now ready to go.

To run DESQview, follow the instructions on page 23, ***Starting Up DESQview.***

IMPORTANT: As part of the procedure for installing DESQview on a hard disk system, the Install program searches your hard disk for all the programs it knows about and automatically installs these programs for you.

Notes:

- ☐ DESQview will not work, and cannot be installed, unless the file COMMAND.COM is in the root directory of your hard disk.
- ☐ When the Install program automatically installs a program for you, it lists the name of the program and the directory in which the program was found. When automatic installation is complete, you should check that the correct program files have been located. (Automatic install operates by looking for a unique file for each program it knows about. However, this doesn't always guarantee that the correct program file will be found. For example, pfs:file consists of a single file, FILE.EXE. So, if you have a file with this name, Install assumes it's pfs:file, even if it's not.) See Appendix D for more information on automatic installation.

Setting Up DESQview

The Install program installs DESQview on your system and makes it operational. In doing so, however, it makes certain assumptions about how your system is configured and about how you would like certain DESQview options set. You can change DESQview's default assumptions by running the Setup program.

When you run the Install program, it automatically runs the Setup program for you. A menu appears asking you to choose either the simple setup procedure, for the first-time user, or the advanced setup procedure, for the experienced user. We recommend that you choose the simple procedure to get started.

The simple setup procedure asks you only two questions: What kind of monitor do you have? What brand of mouse are you using, if any?

The advanced setup procedure lets you set up six categories of DESQview options:

- ☐ The ***Auto Dialer*** option lets you specify what long distance access codes you want to appear on the Dial menu. It also lets you specify what port your Auto Dialer modem is attached to and what protocol this modem uses. (DESQview initially assumes Hayes Smartmodem protocol.)

- ☐ The ***Logical Drives*** option lets you associate a disk drive letter with a DOS directory name. This is useful because many programs don't allow you to enter file names that include a directory path specifier. Using Logical Drives you can "fool" the program into accepting a file name with a directory path. Logical Drives also lets you specify what drive and directory to use to swap programs to disk (virtual memory)—or whether to use a RAM disk.

- ☐ The ***Mouse*** option lets you specify what brand of mouse you have, if any, and how it's attached to your system.

- ☐ The ***Performance*** option lets you customize the performance characteristics of DESQview to your personal needs. You can control the ratio of foreground to background processing time, how DESQview scrolls, whether programs are swapped to disk, and how much space is allocated to various DESQview buffers.

- ☐ The ***Video Monitor*** option lets you specify the type of monitor you have: monochome or color/graphics.

- ☐ The ***Windows*** option lets you control the positions of the nine predesignated windows that DESQview uses when it opens a window. You can also control the colors of these windows and the colors of DESQview menus.

See Appendix A for more information on advanced setup features.

Getting Started: A Tutorial

Now that you've installed DESQview on your system, take ten minutes to learn how to use it. This chapter, ***Getting Started: A Tutorial***, walks you through the major features of DESQview. You'll learn:

- ☐ How to start up DESQview from either a dual-floppy or hard disk system.
- ☐ How to use the keyboard or the mouse to perform DESQview commands.
- ☐ How to use the Open Window command to open DESQview windows and run your programs in those windows.
- ☐ How to use the Switch Windows command to switch between programs.
- ☐ How to use the Rearrange command to move and resize a window.
- ☐ How to use the Zoom command to zoom (enlarge) a window to full screen, or shrink it back to its previous size and position.
- ☐ How to use the Add a Program command to add a program to DESQview's Open Window menu.
- ☐ How to use the Mark and Transfer commands to mark information in one program and transfer it to another program.
- ☐ How to use the Close Window command to close programs.
- ☐ How to use the Quit DESQview command to exit from DESQview and return control to DOS.

These are the basics of DESQview. But there's lots more you can do. You can use the Mark command to mark and dial phone numbers. You can use the Mark and Transfer commands to transfer columns of numbers into spreadsheets or disjoint pieces of information into databases. You can use the Learn command to record a series of your keystrokes as a keystroke macro. These are some of DESQview's advanced features, which are covered in later chapters. Once you've completed ***Getting Started: A Tutorial***, you can read about the advanced features as you need them.

Have fun!

Starting Up DESQview

The commands you use to start up DESQview depend on whether you have a floppy-based system or a hard disk system.

Starting Up DESQview on a Floppy-Based System

If you have a dual-floppy system and no hard disk, follow these steps:

- **Place your everyday DESQview diskette in drive A.**
- **Type** A: **and press** ↵.
- **Type** DV **and press** ↵.

The DESQview copyright notice appears on your screen for a moment, then the DESQview menu appears. DESQview is now ready for your commands.

IMPORTANT: Once you start up DESQview, you may use drive A for other programs. However, you must have the DESQview diskette in drive A to open a window or to add, delete, or change a program.

Notes:

- ☐ Your ***everyday DESQview diskette*** is the copy you made when you installed DESQview.
- ☐ It is important to set the default drive to A before starting up DESQview. DESQview looks for the files it needs on the default drive.
- ☐ It is possible to configure your program diskettes so that you can open windows without having the DESQview diskette in drive A. See Appendix B for more information.

Starting Up DESQview on a Hard Disk System

If you have a hard disk system (and you've installed DESQview on your hard disk), follow these steps:

- **Type** C: **and press ↵ (assuming you've installed DESQview on drive C).**
- **Type** CD\DV **and press ↵ (assuming you've installed DESQview in the DV directory).**
- **Type** DV **and press ↵.**

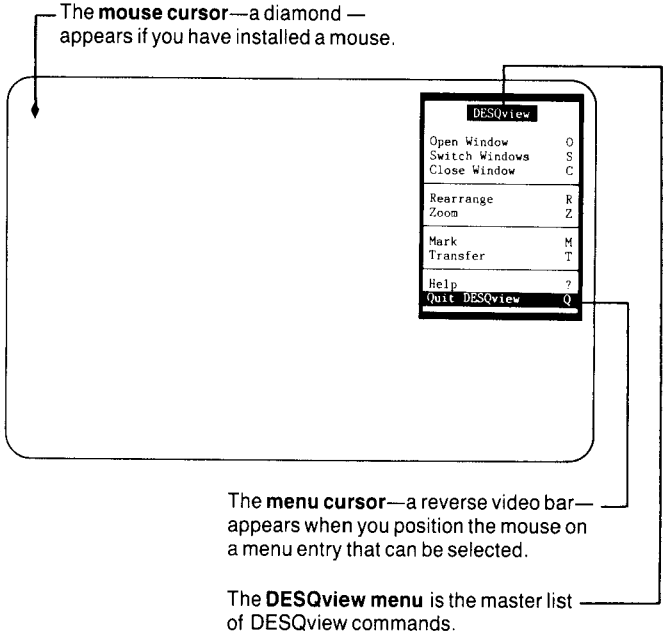
The DESQview copyright notice appears on your screen for a moment, then the DESQview menu appears. DESQview is now ready for your commands.

Notes:

- ☐ It's important to set the default drive to C and the default directory to DV (or to the drive and directory where you have installed DESQview). DESQview looks for the files it needs in the default directory.
- ☐ The DESQview installation procedure automatically creates a batch file named DV.BAT in the root directory of your hard disk. So, if your PATH command includes the root directory (C:\), you can start DESQview just by typing ***DV*** and pressing ↵.
- ☐ If you've installed an AST enhanced expanded memory (EEMS) board—such as RAMpage!, RAMpage AT, or SixPakPremium—on your system, you may wish to install extended DESQview (XDV). XDV increases the maximum size of programs you can run by up to 80K. See page 183 for more information on XDV and Appendix F for instructions on how to install XDV.

Using the Keyboard or the Mouse

When you start up DESQview, the screen clears, the DESQview menu appears, and DESQview is ready to accept your commands.



Selecting a Command Using the Keyboard

To select a command using the keyboard:

- **Type the letter to the right of the command you want.**

Selecting a Command Using the Mouse

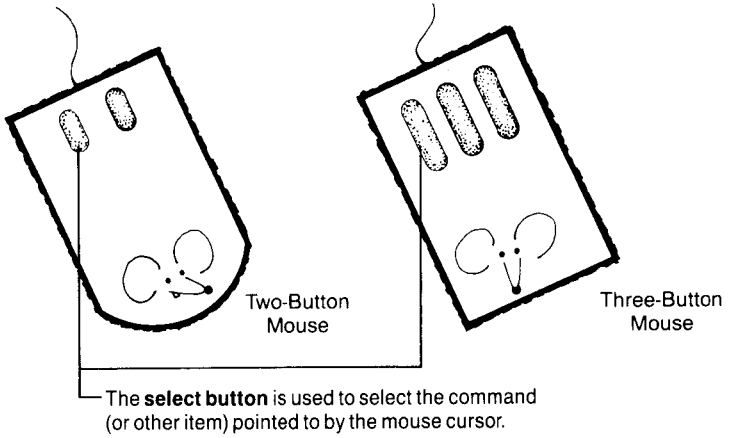
To select a command using the mouse:

- **Move the mouse until the menu cursor is on the command you want. Then click (press and release) the select (left-most) mouse button.**

The mouse and keyboard can be used interchangeably. You can perform part of an operation with the keyboard and part with the mouse.

The term *click* is important in DESQview. It means:

- **Position the mouse cursor on the item to be selected.**
- **Press and release the select (left-most) mouse button.**

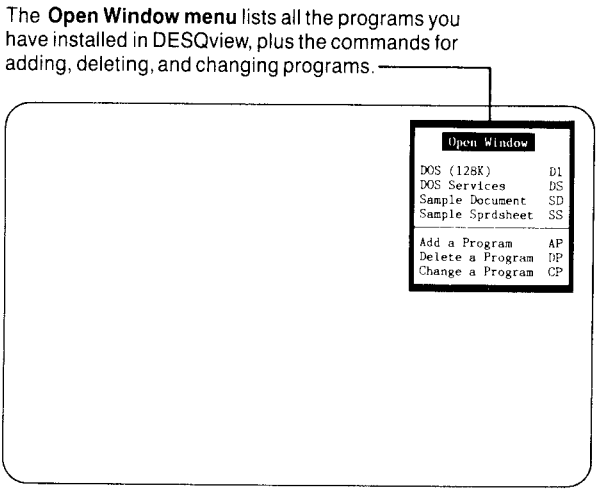


Before you can use a mouse in DESQview, you must tell DESQview the type of mouse you have. Normally, this is done when you install DESQview. However, you can install a mouse at any time—see Appendix A.

Running a Program

To run a program in DESQview, you use the Open Window command:

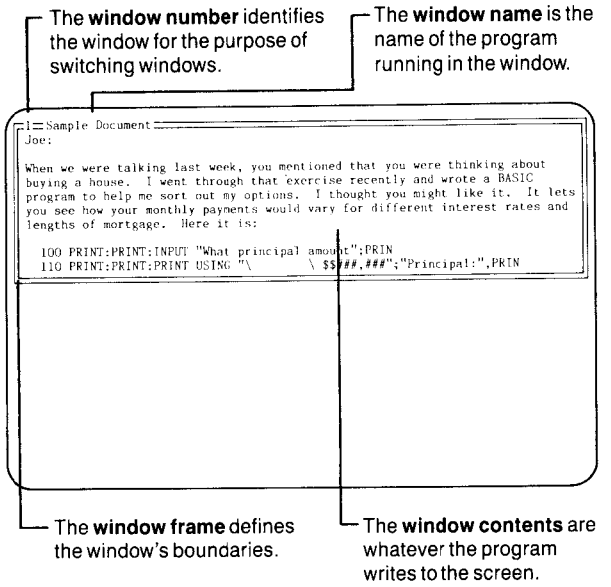
- **Select Open Window from the DESQview menu using the keyboard or the mouse:**
  - **Using the keyboard, type the letter O.**
  - **Using the mouse, click on the Open Window line.**



DESQview comes with the four programs shown above already installed. (If you have a hard disk, the DESQview installation procedure may have automatically installed other programs.) Let's start up Sample Document.

■ **Select Sample Document.**

A window appears in the top half of the screen. The program's name—Sample Document—appears in the top frame bar, preceded by the window number—1. Then, after a moment, the text of Sample Document appears in the window.



Displaying the DESQview Menu

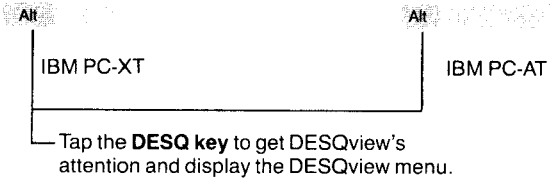
Whenever you want to start up another program, move or resize a window, mark and transfer information from one program to another, or use any of the other DESQview features, you start by displaying the DESQview menu.

Using the Keyboard

To display the DESQview menu using the keyboard:

- **Press and release the Alt key.**

DESQview uses the Alt key like all other keys—you press it down and release it, just as you would for the "A" key. When the Alt key is used in this manner, we call it the ***DESQ key***. To remind you of this usage, we ask you to ***tap*** the DESQ key, rather than to press or type it.

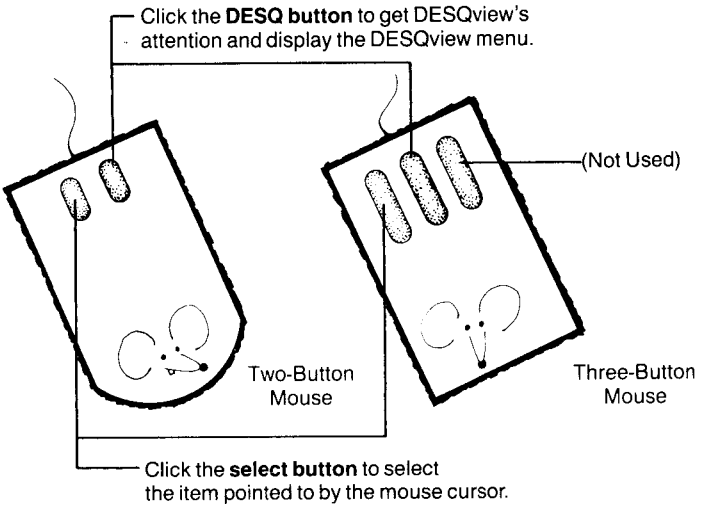


Using the Mouse

To display the DESQview menu using the mouse:

- **Click the DESQ button—the button next to the select button.**

If you have a three-button mouse, the right-most button is not used by DESQview.



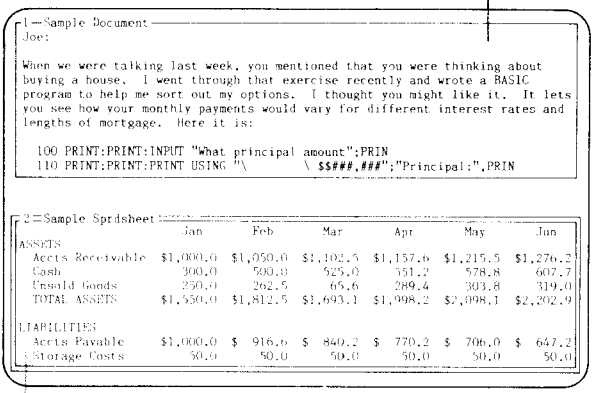
Running a Second Program

Now let's run another program--Sample Sprdsheet:

- **First, check if the DESQview menu is displayed. If it's not, tap the DESQ key or click the DESQ button on the mouse to display it.**
- **Select Open Window to display the Open Window menu.**
- **Select Sample Sprdsheet.**

A new window--window 2--appears in the bottom half of the screen. Notice that the frame around window 2--Sample Sprdsheet--consists of a double line and that the frame around window 1 has changed to a a single line.

The **background windows** are all other windows on the screen (or hidden). Their frames consist of a single line.



The **current window** is the window you're working on. It's distinguished from the other windows by having a frame that consists of a double line.

You can only type in one window at a time. This is the ***window you are working on***. It is also called the ***current window*** or the ***foreground window***. In DESQview all three terms mean the same. The current window is distinguished by having a frame that consists of a double line.

All other windows are called ***background windows***. Their frames consist of a single line. If you want to work in a background window, you must make it the current window by switching to it. Let's make window 1—Sample Document— the current window.

To switch to window 1 using the keyboard:

- **Tap the DESQ key to display the DESQview menu, then type 1.**

To switch to window 1 using the mouse:

- **Click on any visible part of window 1, including anywhere on its frame.**

When you switch windows, any operation that was in progress in the window switched away from continues. This is called ***running in background***.

Working with Windows

Windows are your view into the programs running in DESQview. They are of two types:

- A ***full-screen window*** occupies the full screen. It has no frame and looks no different from what you see when you run the program outside of DESQview, under DOS. It has no distinguishing characteristics.
- A ***small window*** occupies less than the full screen. It has a double- or single-line frame, depending on whether it is the current window or a background window.

To give you flexibility in working with your programs, you can change several aspects of each program's window:

- ☐ If it's a small window, you can change its size and position on the screen—or, you can zoom (enlarge) it to full-screen. If it's already full-screen, you can shrink it back to a small window.
- ☐ If you have a color display, you can change its colors.
- ☐ If the window is in your way, you can hide it. Or, if you want to run another program, but don't have enough memory, you can put the program aside to disk and free up its memory.

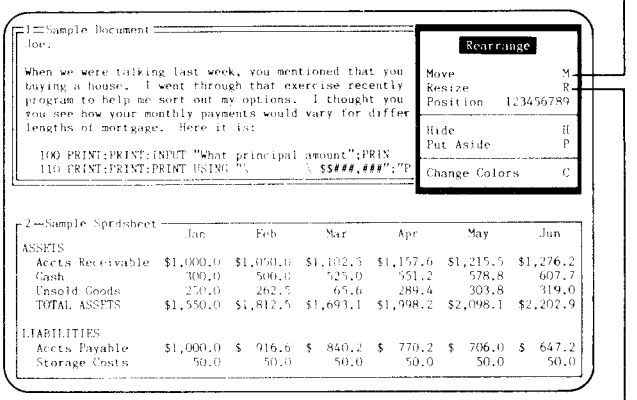
All these actions are performed on the current window. Since window 1—Sample Document—is now the current window, let's change its size and position.

Moving and Resizing the Current Window Using the Keyboard

To move or resize the current window using the keyboard:

- **Tap the DESQ key to display the DESQview menu.**
- **Type R to display the Rearrange menu.**

Selecting **Move** lets you slide the current window around the screen. (But you can't move any part of it off the screen.)



Selecting **Resize** lets you stretch or shrink the current window. The top-left corner remains anchored.

- **Type** M **if you want to move the window or** R **if you want to resize it.**

  The Move or Resize menu appears, depending on which action you choose. That action is highlighted on the menu.

- **Use the four arrow keys to move or resize the window.**

  If you've chosen Move, the window will move in the corresponding direction whenever you press an arrow key. (However, you can't move any part of the window off the screen.) If you've chosen Resize, the window will stretch or shrink in the corresponding direction. You can alternate between moving and resizing any time you want:

- **If you're moving and want to resize, type** R. **If you're resizing and want to move, type** M.

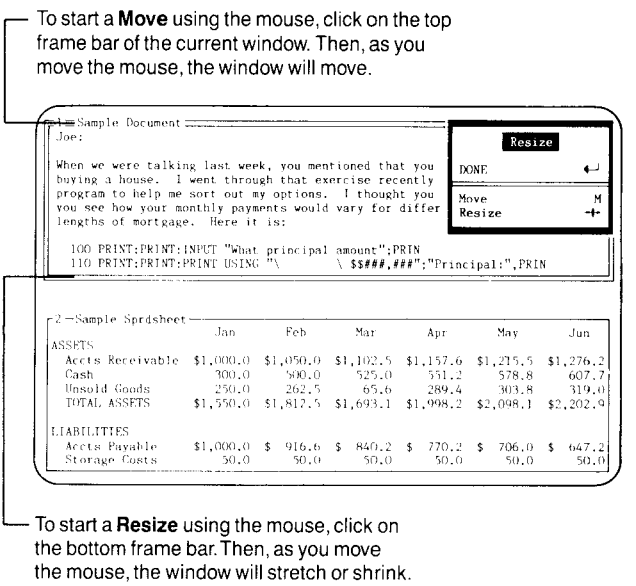
  When the window is positioned and sized the way you want:

- **Press ↵ to finish the command.**

Moving and Resizing the Current Window Using the Mouse

If you're using a mouse, you can move and resize the current window without displaying the DESQview or Rearrange menus:

- **To initiate a Move, click anywhere on the top bar of the window frame. To initiate a Resize, click anywhere on the bottom bar.**
- **Move the mouse. As you do, the window will move around the screen (for Move) or stretch or shrink (for Resize).**
- **To alternate between moving and resizing, click twice.**



When the window is positioned and sized the way you want:

- **Click once to bring the menu cursor back onto the Move or Resize menu.**
- **Click anywhere in the current window—Sample Document. (Or, if you prefer, click on DONE. Both actions have the same effect.)**

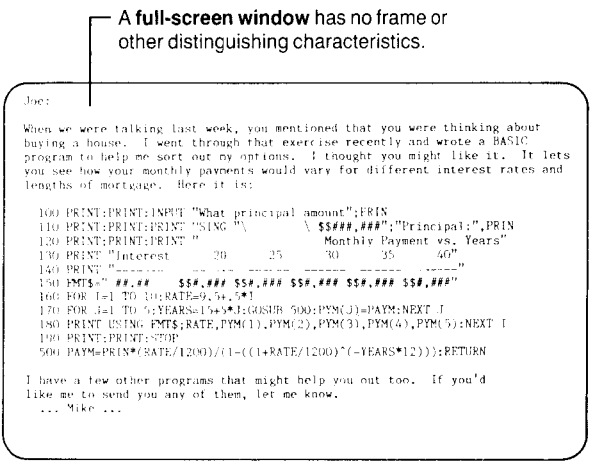
Clicking in the current window when a DESQview menu is displayed removes the menu and resumes running the program.

Zooming and Unzooming the Current Window

Running a program in a small window isn't always convenient, so DESQview lets you quickly zoom (enlarge) programs in small windows to full-screen.

Zoom works on the current window. Since window 1—Sample Document—is still the current window, let's zoom it to full-screen:

- **Tap the DESQ key or click the DESQ button on the mouse to display the DESQview menu.**
- **Select Zoom.**



If you use the Zoom command when a window is already full-screen, it shrinks back to a small window (if it was previously in a small window). Let's restore the Sample Document window to its previous size and position:

- **Display the DESQview menu.**
- **Select Zoom.**

There are two type of programs: those that can run in a small window and those that cannot. If a program cannot run in a small window, it is said to be ***full-screen-only***. When you put a full-screen-only program in a small window, it is suspended. You can only look at the information that was on the screen at the time you put it in a small window. Programs that are not full-screen-only continue to run when in a small window.

Adding a Program to DESQview

Now that you've run two programs in DESQview, it's time to try adding your own program.

Before a program can run in DESQview, you have to tell DESQview a little about the program—such as its name, the DOS command that starts it up, and how much memory it needs. To make this as easy as possible, DESQview comes with the necessary information already set up for many popular programs. All you need do is tell DESQview which programs you want to use. If the program you want isn't one of those provided, it takes only a few moments to supply the information yourself.

The program we'll add is BASICA. We've chosen BASICA because it's a *real* program (unlike the sample programs you've used so far) and because almost all of you have it. It comes with DOS—on most computers. There are two steps:

- ☐ First, you must install BASICA on your computer, if you haven't already done so.
- ☐ Second, you must tell DESQview to add BASICA to the Open Window menu.

Installing BASICA on Your Computer

The first step in adding a program to DESQview is to install it on your computer. For this example, we'll run BASICA from the DOS diskette in drive A—or, if you've already installed BASICA on your hard disk, you can run it from the hard disk. (Before trying to run a programs in DESQview, you should follow the manufacturer's installation instructions.)

Adding BASICA to DESQview

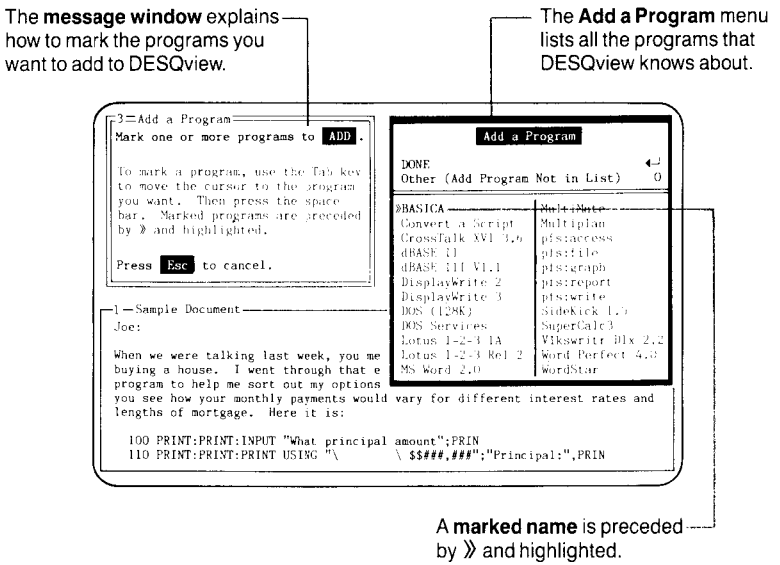
The second step is to tell DESQview to add BASICA to the list of programs on the Open Window menu:

- **Tap the DESQ key or click the DESQ button on the mouse to display the DESQview menu.**
- **Select Open Window to display the Open Window menu.**

If you have a hard disk system, the DESQview installation procedure may have already installed BASICA for you. If BASICA is already listed on your Open Window menu, skip ahead to *Opening a BASICA Window* on page 40.

- **If you're using a floppy-based system, check that the DESQview diskette is in drive A. (If you have a hard disk system, you need do nothing.)**
- **Select Add a Program.**

This loads Add a Program, which takes a moment. Then the Add a Program menu appears along with instructions telling you how to mark programs.



To mark BASICA using the keyboard:

- **Press Tab until the menu cursor is on the BASICA entry.**
- **Press the space bar.**

To mark BASICA using the mouse:

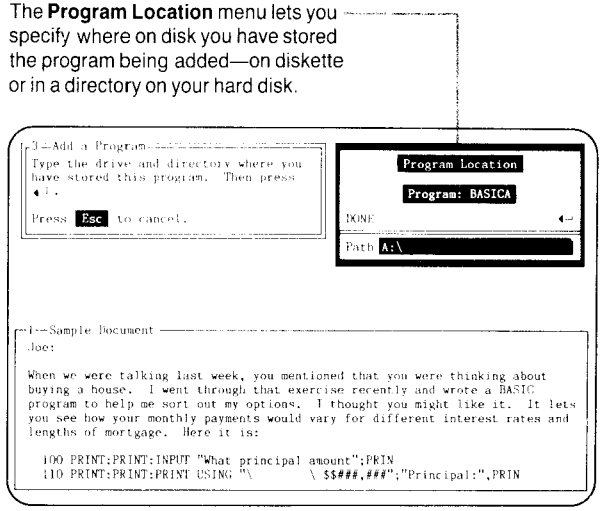
- **Click on BASICA.**

The BASICA entry is preceded by » and highlighted—indicating it's marked.

If you wanted to add other programs at this time, you would follow the same procedure to mark additional names. If you make a mistake and mark the wrong name, select it again. When you mark a name that's already marked, it's unmarked— the » and highlighting are removed.

- **Select DONE.**

A new menu appears—the Program Location menu. It asks you to tell DESQview where you have stored BASICA.



- **If you're running BASICA from floppy drive A, type** A:. **If you have BASICA on your hard disk, type the drive and directory where BASICA is stored. For example, type** C:\BASIC **if BASICA is stored in the BASIC directory of drive C.**
- **Select DONE.**

The Program Location menu disappears and BASICA is installed. Then a menu appears asking if you want to add any more programs to DESQview at this time. Since you don't:

- **Select DONE.**

Opening a BASICA Window

Now let's run BASICA. You should know the steps:

- **Display the DESQview menu and select Open Window.**

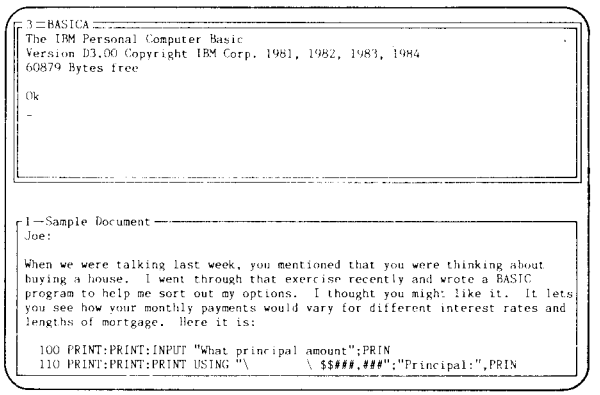
Notice that BASICA now appears at the top of the list. (Programs are listed in alphabetical order.)

- **If BASICA is stored on a floppy diskette, place that diskette in drive A. (If you've installed BASICA on your hard disk, you need do nothing.)**

Then, open a BASICA window:

- **Select BASICA.**

BASICA is running on your system.



Transferring Information Between Programs

One of the most powerful features DESQview gives you is the ability to transfer information from one program to another. You can do this even when the two programs know nothing about each other.

Let's try it. If you've read the text in window 1—Sample Document—you noticed that it was a discussion of a BASIC program. Now that you have BASICA running, let's transfer this BASIC program from Sample Document to BASICA and see if it really works. There are two steps:

- ☐ First, mark the information you want to transfer.
- ☐ Second, switch to the program where you want to transfer it, put the cursor at the starting point, and tell DESQview to do the transfer.

Marking Information Using the Keyboard

Before you can mark information in window 1—Sample Document—you have to make it the current window:

- **Tap the DESQ key, then type 1.**

If you've resized window 1 so it's too small to work with, make it larger. Then, to mark the BASIC program using the keyboard:

- **Tap the DESQ key to redisplay the DESQview menu.**
- **Select Mark by typing M.**

The Mark menu appears.

- **Using the arrow keys, position the cursor on the first character of the BASIC program—the "1" of "100 PRINT:PRINT..."**

If this line isn't visible (because you shrunk the window when you resized it), you can scroll the window contents until the line reappears. Use down arrow to move the cursor onto the bottom frame bar. When you do, the cursor doesn't move. Instead, the contents of the window scroll up one line. You can do the same in the other directions. (This only works when you're marking information.)

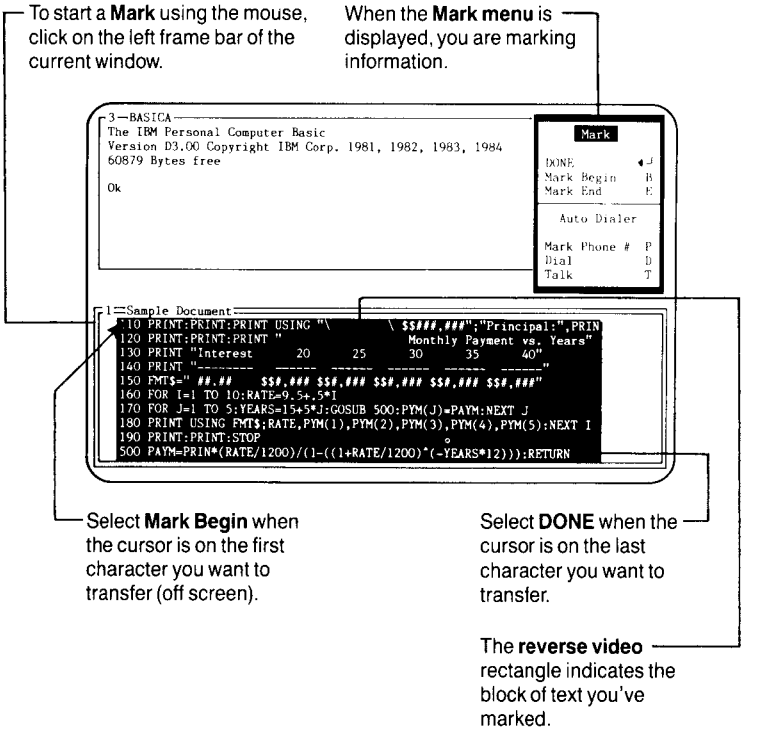
■ **Select Mark Begin by typing** B.

"1" appears in reverse video. Now, as you move the cursor, a reverse video rectangle will follow you, indicating the block of text you're marking.

■ **Move the cursor down until all 11 lines of the program are enclosed in the reverse video rectangle, scrolling as necessary.**

■ **Move the cursor right until the entire program is enclosed in the rectangle.**

Be sure you didn't leave any of the program outside the rectangle. Check that you've enclosed ",PRIN" at the end of line 110. This is the longest line.



■ **Select DONE.**

DESQview remembers the text you marked. Then the reverse video rectangle and Mark menu disappear.

Marking Information Using the Mouse

Before you can mark information in window 1—Sample Document—you have to make it the current window. If you can see part of window 1:

■ **Click on any visible part of window 1.**

Or, if all of window 1 is hidden behind window 3:

■ **Tap the DESQ key, then type 1.**

If you've resized window 1 so it's too small to work with, make it larger. Then, to mark the BASIC program using the mouse:

■ **Click on the left frame bar of window 1.**

The Mark menu appears.

■ **Put the mouse cursor on the first character of the BASIC program—the "1" of "100 PRINT:PRINT...".**

If this line isn't visible (because you shrunk the window when you resized it), you can scroll the window contents until the line reappears. Try to move the mouse below the bottom frame bar. When you do, it doesn't move. Instead, the contents of the window scroll up. You can do the same in the other directions. (This only works when you're marking information.)

- **Click twice.**

  "1" appears in reverse video. Now, as you move the mouse, a reverse video rectangle will follow you, indicating the block of text you're marking.

- **Move the mouse down and to the right until all 11 lines of the program are enclosed in the reverse video rectangle, scrolling as necessary.**

  Be sure you didn't leave any of the program outside the rectangle. Check that you've enclosed ",PRIN" at the end of line 110. This is the longest line.

- **Click twice again.**

  DESQview remembers the text you marked. Then the reverse video rectangle and Mark menu disappear.

  When you click twice during marking, the first click brings the menu cursor back onto the Mark menu. The second click performs the command pointed to by the menu cursor. The first time you click, the menu cursor is put on Mark Begin. Then next time, it's put on DONE.

Transferring the Marked Information

Since you want to transfer the information you just marked to BASICA, you have to switch to window 3—BASICA:

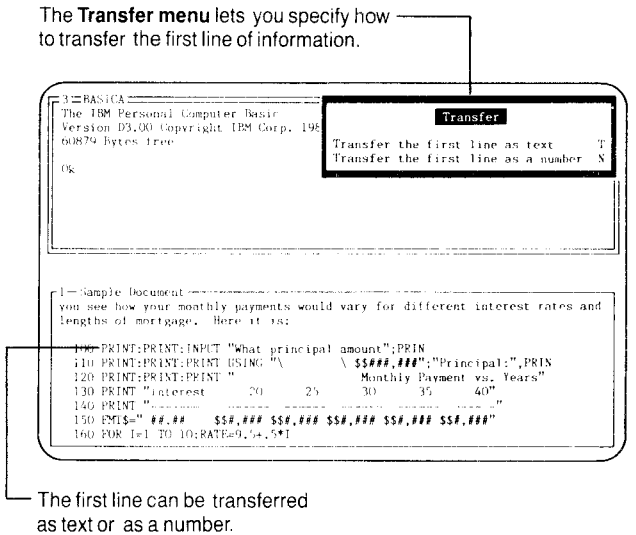
- **Tap the DESQ key and type 3, or click on any visible part of window 3.**

Normally, you would now move the cursor to where you want to transfer the information, but the cursor is already there. So you can just start the transfer:

- **Tap the DESQ key or click the DESQ button on the mouse to display the DESQview menu.**
- **Select Transfer.**

The Transfer menu appears. This menu controls how you want to transfer the first line of marked information.

The option "as text" specifies that the first line should be transferred exactly as you marked it. The option "as a number" specifies that the first line should be edited so it contains only a number before it's transferred—dollar signs, commas, and other characters are removed. (This is useful because most spreadsheet programs won't accept a number with these characters in it.)



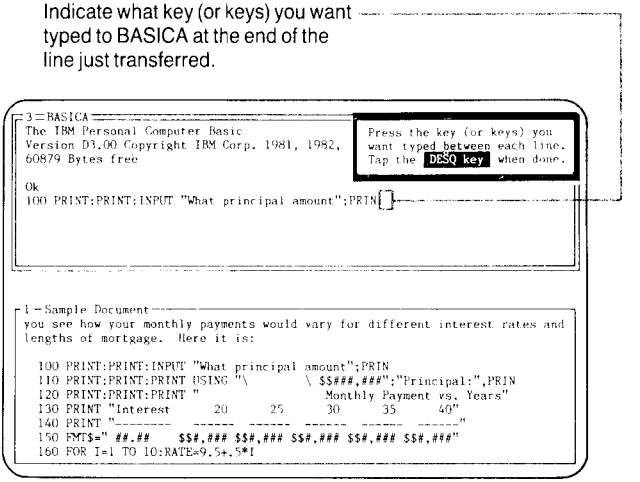
■ **Select "Transfer the first line as text."**

The first line of marked information is typed into BASICA. Then the following message appears:

```
Press the key (or keys) you
want typed between each line.
Tap the DESQ key when done.
```

DESQview lets you specify what key (or keys) you want typed at the end of each line after it is transferred. For BASICA, you want to type ←, since that's the key you use to end a line in BASICA.

If the information you marked was a single column of numbers that you wanted to transfer into a column of a 1-2-3 spreadsheet, you would want to type a down arrow between lines. Or, if you were transferring the lines you marked into a word processor that does automatic word-wrap, you might want to type a space between lines.

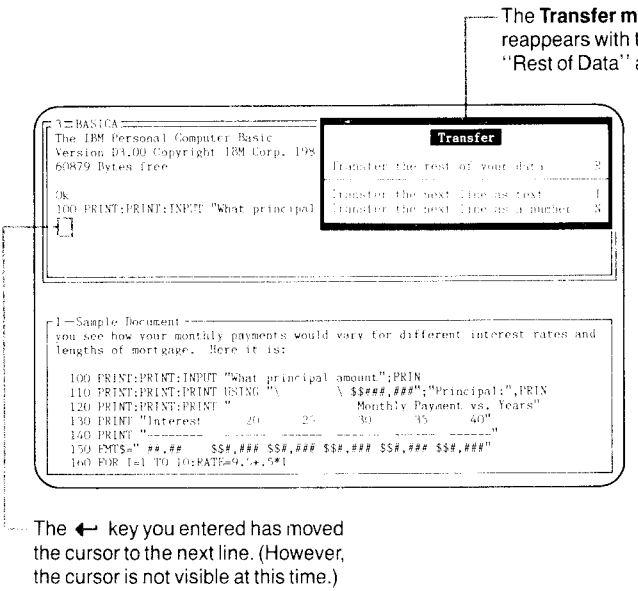


■ **Press ←↵.**

Now you have to tell DESQview that you're done entering the key (or keys) you want typed between lines:

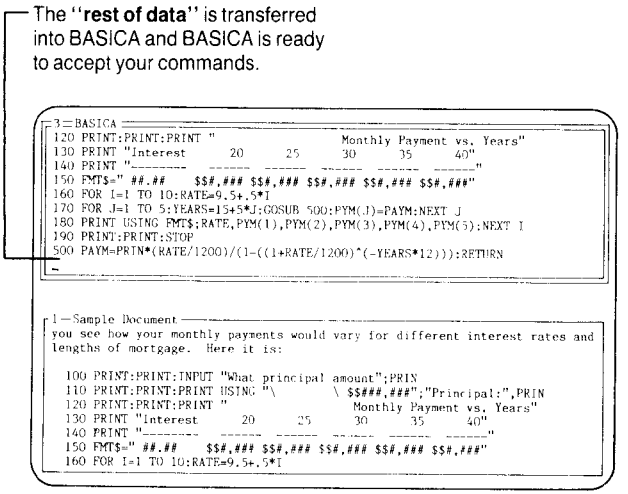
■ **Tap the DESQ key.**

The Transfer menu reappears with the additional entry "Transfer the rest of your data". This lets you transfer the remaining lines in the same manner as you did the first line—which is what you want to do in this case.



■ **Select "Transfer the rest of your data."**

The remaining lines are typed into BASICA, separated by ←.



The program is now ready to run:

■ **Type RUN and press ←.**

You're now running a real program in a small DESQview window. Answer the question and see what happens. (Don't put any commas in the number.) Then zoom the window to full-screen to see the entire table:

■ **Tap the DESQ key or click the DESQ button on the mouse to display the DESQview menu.**

■ **Select Zoom.**

Quitting DESQview

You've just learned the basics of DESQview. You know how to start up DESQview, open programs, switch between programs, move and resize windows, zoom and unzoom windows, add new programs to DESQview, and mark and transfer information between programs.

DESQview has more features that we'll let you discover on your own:

- ☐ You can have a program continue to work for you in background while you're working (in foreground) on another program. (This is called ***concurrency***.)
- ☐ You can break the 640K barrier, running up to nine programs concurrently in AST enhanced expanded memory—over 5MB of programs (with the optimal hardware configuration).
- ☐ You can use DESQview's Auto Dialer feature to dial your phone for you, if you have a modem.
- ☐ You can change a window's colors, or the colors of DESQview menus.
- ☐ You can mark and transfer multiple blocks and repeating patterns of information. For example, you could transfer the fields from a set of dBASE II records into columns of a 1-2-3 spreadsheet.
- ☐ You can change the information about programs installed in DESQview, delete programs, or add new ones—even ones unknown to DESQview.

- ☐ Using DESQview's Learn feature, you can create scripts (keystroke macros) for a particular program or global scripts that work anywhere. DESQview automatically saves and loads these scripts for you.
- ☐ You can put a program aside to disk and free up its memory. This allows you to run more programs than will actually fit in expanded memory at the same time. (This feature is often called *virtual memory.*)

One more basic DESQview operation that you need to know is how to quit DESQview. There are two steps. First, you must close all your programs and, second, you issue the Quit DESQview command.

Closing Your Programs

To close your programs, select Close Window for each program in turn:

- **Tap the DESQ key or click the DESQ button on the mouse to redisplay the DESQview menu.**
- **Select Close Window. Then select Yes to confirm.**

Returning Control to DOS

Then, quit DESQview and return control to DOS:

- **Tap the DESQ key or click the DESQ button on the mouse to redisplay the DESQview menu.**
- **Select Quit DESQview. Then select Yes to confirm.**

Using DESQview

This chapter is the reference guide for DESQview. It describes the fundamental concepts of DESQview and gives a complete explanation of all DESQview's commands and features—or directs you to additional features discussed in later chapters.

Before reading this chapter, we suggest you read Chapter 2, ***Getting Started: A Tutorial***, to become acquainted with the basic features of DESQview.

In this chapter you'll learn:

- ☐ About the characteristics of a DESQview menu.
- ☐ How windows are defined and used.
- ☐ About the keys that have special meanings in DESQview.
- ☐ How the mouse is used in DESQview.
- ☐ About the meanings of the commands on the DESQview menu.
- ☐ How to change the size, position, and color of a window, or how to hide a window or put the program running in the window aside to disk.
- ☐ How to install a program in DESQview, how to delete a program that's already installed, and how to change the information for a program.
- ☐ How to mark and transfer information from one program to another.
- ☐ How to use the Auto Dialer to dial your phone.

Additional DESQview features are discussed in Chapters 4 through 7:

- ☐ Chapter 4 describes how to use the DOS Services program to display sorted directories and perform DOS commands using DESQview menus.
- ☐ Chapter 5 describes how to use DESQview's Learn command to have DESQview memorize your keystrokes and create keystroke macros.
- ☐ Chapter 6 describes how to transfer information from one program to another using advanced features of DESQview's Mark and Transfer commands.
- ☐ Chapter 7 describes how to change the DESQview information for programs installed in DESQview.

Menus

A DESQview menu lists the commands, options, and fill-in fields available to you to complete a particular DESQview operation.

You activate a command, or turn an option on or off, either by pressing the key or keys displayed to the right of the name or by clicking on the name.

An alternate way to select a command or option is to use the four arrow keys and the Tab key to position the menu cursor on the desired entry and then press the space bar.†

†You may optionally use the gray + key at the far right side of the keyboard in place of the space bar.

Commands

Commands always appear first on a menu. Each menu has at least one command.

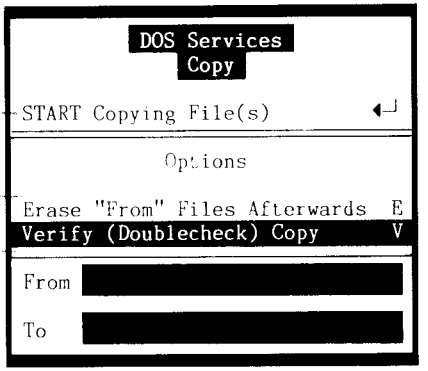
Often, command groups are separated by bars to help you find a command more easily.

If options or fill-in fields appear on the menu, they're separated from commands by a double bar.

The first command is often DONE or START. Selecting this command performs the operation. You should complete the information in the menu's fill-in fields (if it has any) and set the options on or off, as you require, before selecting DONE or START.

A **command** specifies an action to perform.

An **option** is an on/off toggle that specifies an action to be taken (or not taken) when you perform the operation in progress.



Options

An option is a toggle—that is, it is either "on" or "off", like a light switch.

When an option is "on", it is preceded by » and highlighted. Being "on" means that the action or function specified by the option will be performed as part of the operation.

When an option is "off", it is not preceded by » and not highlighted. Being "off" means, in general, that the action specified by the option will not be performed. (Sometimes "off" means that the opposite of the "on" action will be performed.)

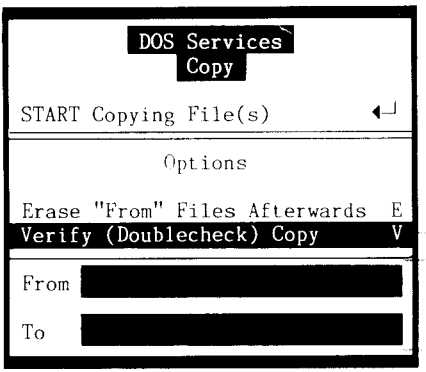
Fill-In Fields

A fill-in field is an area of the menu where you can type information, when a command needs variable information that only you can supply—such as a file name.

Before you can type in a fill-in field, the typing cursor must be in the field. When a menu that has a fill-in field is displayed, the typing cursor is automatically placed in the field—or in the first field if there are several.

When a menu has multiple fill-in fields, press Tab to move between them, or click on the desired field.

When the information in the fill-in fields is complete, press DONE or START (in most cases) to perform the operation.



The **menu cursor**—a reverse video bar—appears when you position the typing cursor or the mouse cursor on an entry that can be selected.

A **fill-in field** provides a place for you to type in variable information, such as a file name.

Windows

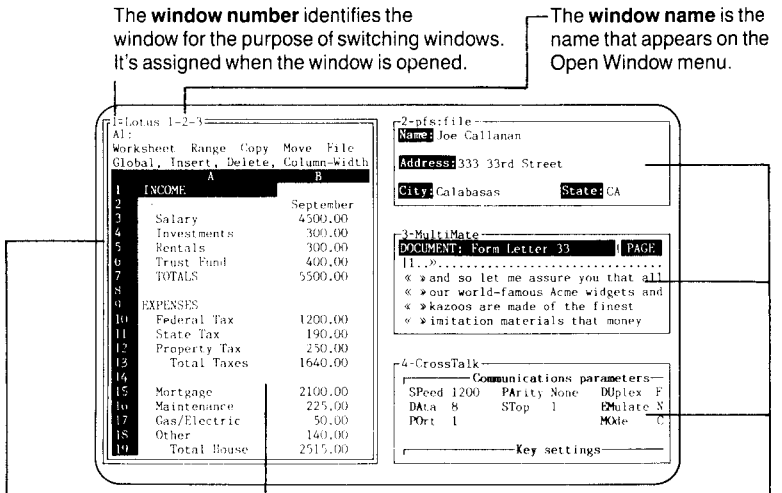
When you're not running DESQview, you run only one program at a time. Your view of that program is through your display screen, which is 25 lines by 80 characters. DESQview calls your view of a program a ***window.***

Windows can be as large as a full screen (25 x 80) or as small as one line by one character. You determine how big or small a window is, how many windows are open at one time, and where the windows are positioned on the screen. A full-screen DESQview window looks no different from what you see when you run a single program under DOS on your computer. It has no distinguishing characteristics.

The purpose of having smaller windows is to be able to view several programs at the same time. In order to distinguish information in one window from that in another, all windows smaller than a full-screen have frames.

When you run a program in a full-screen window or in a small window, the program is unchanged. You use the same program commands as you do when the program is not running in DESQview.

You can have up to nine windows open at one time.



Identifying the Current Window

DESQview assigns each window a number and a name, which are displayed in the window's top frame bar.

DESQview calls the window in which you're currently working the ***current window***.

When you have several small windows open, you can distinguish the current one by its frame—a double line. The frames of noncurrent windows consist of a single line.

Noncurrent windows are said to be ***running in background***. The programs in these windows continue to run until they need input from the keyboard. Then they stop running until you switch to that window and enter further commands.

To prevent a program from running in background, press the Ctrl-NumLock key just before you switch away from it.

Programs That Run Only in Full-Screen Windows

Some programs write directly to the display screen. Such programs cannot run in small windows and are thus said to be ***full-screen-only***.

You can still put such programs in small windows but, when you do, they're suspended. You can perform DESQview operations (move, resize, mark, and so forth) on these windows, but you must zoom them back to full screen when you want the programs in them to resume running.

When you place a window that contains bit-mapped graphics information in a small window, the graphics information is scaled so that the original contents of the full (25 x 80) screen are visible in the small window.

The full-screen-only limitation is overcome for programs for which Quarterdeck provides an xx-LOAD.COM file (see Appendix B).

Keyboard Usage

DESQview commands are performed by displaying the appropriate DESQview menu and then either typing the letter (or letters) listed to the right of the command† or clicking on the menu line containing the command.

In DESQview you can use the keyboard and the mouse interchangeably. Except for starting a Learn operation, which can only be done from the keyboard, all DESQview operations can be performed with the keyboard or with the mouse—whichever you find easiest.

Moving, resizing, and switching windows are simpler with the mouse since you can bypass menus when you use the mouse for these operations.

For switching windows, there is a keyboard shortcut as well. Display the DESQview menu and type the number of the window you want. It's not necessary in this case to display the Switch Windows menu first.

This section summarizes the keys that DESQview uses. The description of the key identifies when and how the key is used by DESQview. Except for the DESQ key, the Learn key, and the ` key, these keys only function in the manner described when a DESQview menu is displayed. Some keys only work as described when you're typing in a fill-in field.

†Alternately, you can move the menu cursor to the command line you want using the four arrow keys and the Tab key and then select the command by pressing the space bar or the gray + key—the two are equivalent.

DESQ

Because programs run in DESQview unmodified, DESQview must make all keys available to programs at all times. However, DESQview requires a special key for its own use—to get DESQview's attention.

DESQview uses the Alt key as its special key, and calls it the ***DESQ key***.

Tapping (pressing and releasing) the DESQ key displays the DESQview menu. The program in the current window continues running in background, if it's permitted to do so.

Most programs use the Alt key like the Shift key: you hold it down while you press another key. To use Alt as the DESQ key, don't hold it down. Press and release it like any other key.

Learn

In order to start and finish DESQview scripts (see Chapter 5), DESQview requires a second special key for its own use.

DESQview uses ***Shift-DESQ*** as this special key—that is, the keystroke formed by holding down the Shift key and tapping the DESQ (Alt) key.

Pressing the Learn key (Shift-DESQ) displays the Learn menu, from which you select the Learn action you want.

See Chapter 5 for more information on Learn.

(Backtab)
Tab

Pressing the Tab key moves the cursor to the next menu entry that can be selected. This may be a command, an option, or a fill-in field.

Each time you press the Tab key, the menu cursor moves to the next entry in turn. Pressing Tab on the last entry moves the menu cursor to the first entry.

When the Tab key is pressed while holding down the Shift key, it's called the Backtab key. It moves the cursor from the current entry to the prior entry.

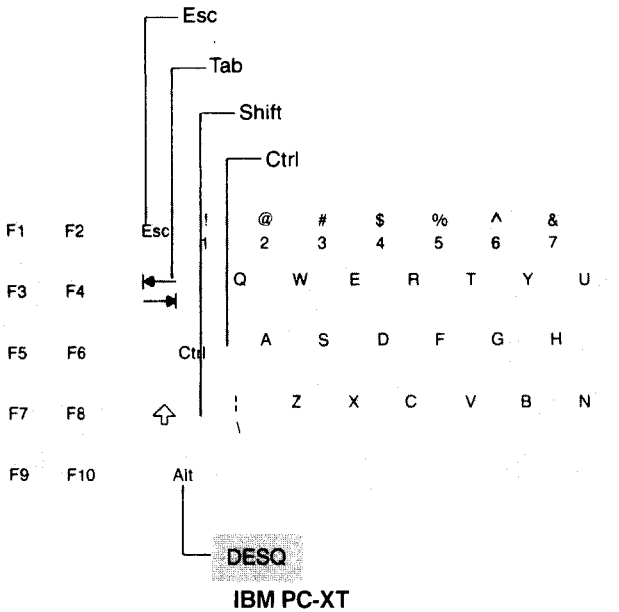
Space Bar

The space bar "selects" the entry pointed to by the menu cursor.

Pressing the space bar has the same effect as clicking on a menu entry. The command or option pointed to by the menu cursor is selected.

The easiest way to select a command or menu option is to type the letter to the right of the entry. An alternate method is to move the cursor to the entry you want (using the four arrow keys and the Tab and Backtab keys) and then select the entry by pressing the space bar.†

†You may optionally use the gray + key in place of the space bar.



← Enter

When ← appears on a menu, pressing the ← (Enter) key completes the action associated with the menu.

If ← appears on a menu, it always appears first. Most often it selects the DONE or START commands.

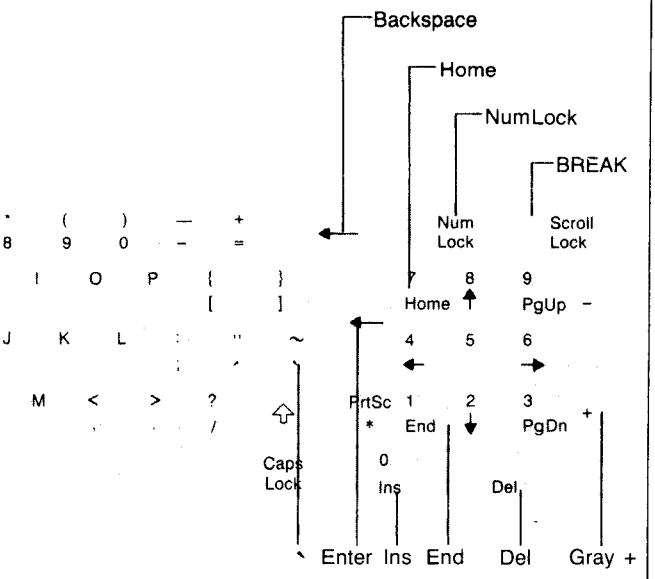
Before you press ← , you should fill in all the information in the menu's fill-in fields and turn all the menu options on or off, as you require.

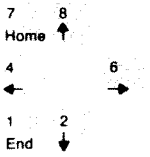
Esc

Pressing the Esc key when the DESQview menu is displayed causes the menu to be removed and the cursor to reappear in the current window so you can continue working in that window. (If the program in that window was suspended, it resumes running.)

Pressing the Esc key when any other menu is displayed causes the previously displayed menu to reappear—in most cases.

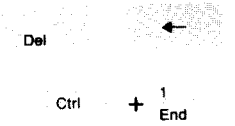
If you're running a built-in DESQview program—DOS Services, Add a Program, and so forth—Esc will only back up to the program's main menu.





The Home, End, left arrow, right arrow, up arrow, and down arrow keys are used to move the typing cursor within the menu area:

- *Home* moves the cursor to the beginning of the first fill-in field.
- *End* moves the cursor to the right-most position in the current fill-in field that contains a character.
- *Left Arrow* moves the cursor left one position on the menu (or in the fill-in field).
- *Right Arrow* moves the cursor right one position on the menu (or in the fill-in field).
- *Up Arrow* moves the cursor up one position on the menu.
- *Down Arrow* moves the cursor down one position on the menu.



The Del, Backspace (←), and Ctrl-End keys are used to erase characters in a fill-in field:

- *Del* erases the character at the cursor.
- *Backspace* moves the cursor left one position and erases the character at that position.
- *Ctrl-End* erases the field from the current cursor position to the end of the field.

0
Ins

The Ins key controls "insert mode" when the typing cursor is in a fill-in field.

Initially, when the cursor first appears in a fill-in field, insert mode is turned off. Characters you type overstrike any existing text in the field.

When you press the Ins key, insert mode is turned on. Characters you type are inserted in front of the cursor.

Each time you press Ins, insert mode is reversed—from off to on, or from on to off.

~
`

The ` key has a special meaning in DESQview. It tells DESQview that the next key you press should *not* play back the DESQview script that is assigned to it.

In DESQview, when you use the Learn feature to create scripts (keystroke macros), you assign each script you create to a key on the keyboard. The key you reassign (called the ***mapped key***) no longer performs its original function. When you press it, the script you defined for it is played back.

Pressing ` immediately followed by a mapped key overrides the key's mapped meaning. The key's original action is performed instead.

The ` character is called a ***quoting character***. To enter the ` character itself, type it twice: ``.

See Chapter 5 for more information on Learn.

Ctrl + Scroll Lock

Ctrl-Break

Pressing the Ctrl-Break key stops playback of the DESQview script currently being performed and aborts the script.

For built-in DESQview programs—DOS Services, Add a Program, and so forth—pressing Ctrl-Break aborts the command in progress, if possible.

"BREAK" is located on the front edge of the Scroll Lock key.

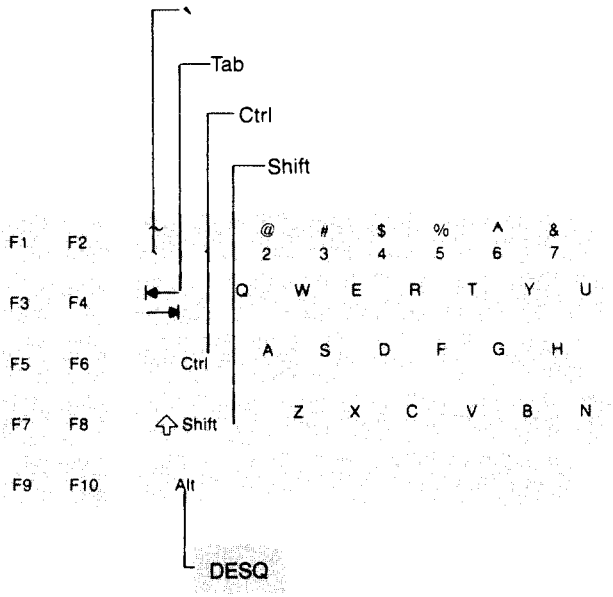
Ctrl + Num Lock

Ctrl-NumLock

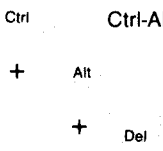
Pressing the Ctrl-NumLock key suspends or "freezes" the program running in the current window.

The program resumes running the next time you press a key—except the DESQ key or the Learn key.

By pressing Ctrl-NumLock and then immediately switching to another window, you prevent the program running in the window you switched away from from continuing to run in background. (Normally, when you switch to a program, the program you switched away from continues to run in background—if it's permitted to do so.)



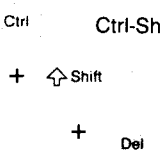
IBM PC-AT



When you press Ctrl-Alt-Del in DOS, DOS aborts whatever you're doing and reboots your system. This is commonly known as the ***three-finger crash***.

When you press Ctrl-Alt-Del in DESQview, however, only the program running in the current window is aborted (and its window closed). DESQview is not aborted and your system is not rebooted.

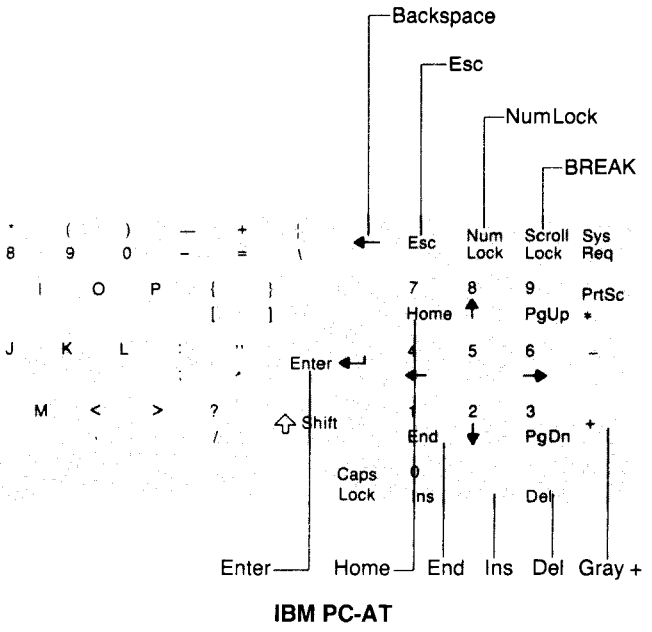
To abort DESQview and reboot DOS, you must use the key combination Ctrl-***Shift***-Del.



Pressing Ctrl-***Shift***-Del aborts whatever you're doing and reboots your system. (This is the DESQview equivalent of DOS's three-finger crash.)

In DESQview, the normal three-finger crash combination, Ctrl-Alt-Del, only aborts the program running in the current window. To abort DESQview, you must use the combination Ctrl-Shift-Del.

If pressing Ctrl-Shift-Del has no effect, you must turn your system's power off and back on.



IBM PC-AT

Mouse Usage

Use of a mouse is optional. When you have a mouse, you can use it and the keyboard interchangeably. You can perform part of a command using the mouse and part using the keyboard—whichever you find easiest.

The position of the mouse on the screen is indicated by a white diamond—called the ***mouse cursor***. As you move the mouse, this diamond also moves.

When you move the mouse cursor onto a DESQview menu, it moves the menu cursor.

DESQview uses two mouse buttons: the select button and the DESQ button. To use a button, you ***click*** it—that is, you press and release it. (DESQview does not use modes where you hold down or double-click a button.)

> Before you can use a mouse in DESQview, you must tell DESQview the type of mouse you have. Normally, this is done when you install DESQview. However, you can install a mouse at any time—see Appendix A.

Displaying the DESQview Menu

Whenever you want to perform a DESQview operation, you start by displaying the DESQview menu.

You do this by clicking (pressing and releasing) the DESQ button, which is the middle button on a three-button mouse and the right-most button on a two-button mouse.

On a three-button mouse the right-most button is not used by DESQview.

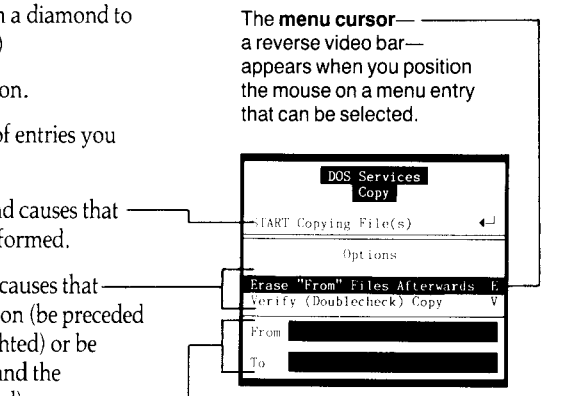
Selecting an Entry on a Menu

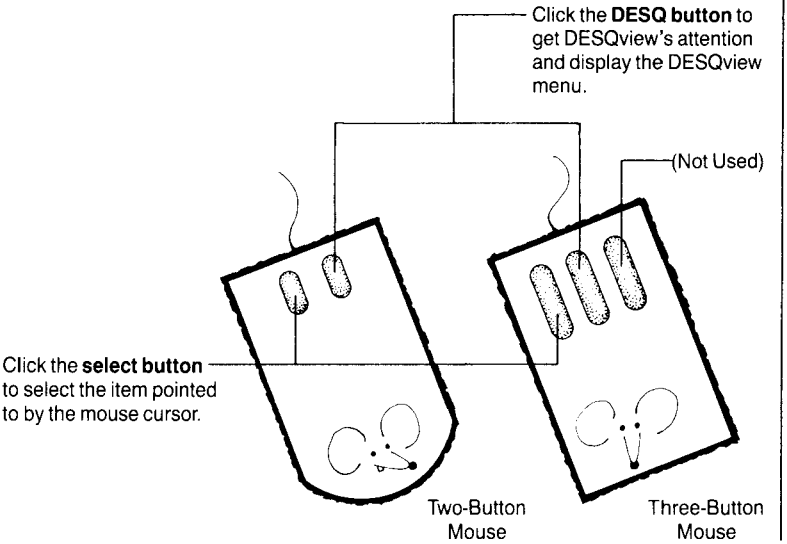
To select an entry on a DESQview menu:

- Position the mouse on the entry you want to select. (The mouse cursor changes from a diamond to a reverse video bar.)
- Click the select button.

There are three types of entries you can select:

- ☐ Selecting a command causes that command to be performed.
- ☐ Selecting an option causes that option to be turned on (be preceded by » and be highlighted) or be turned off (have » and the highlighting removed).
- ☐ Selecting a fill-in field causes the typing cursor to appear in that field at the mouse cursor position.





Switching Windows

To switch windows:

- Position the mouse on any visible part of the window you want to switch to.
- Click the select button.

If no part of the window is visible:

- Click the DESQ button to display the DESQview menu.
- Click on Switch Windows to display the Switch Windows menu.
- Click on the name of the window you want to switch to.

Marking Information

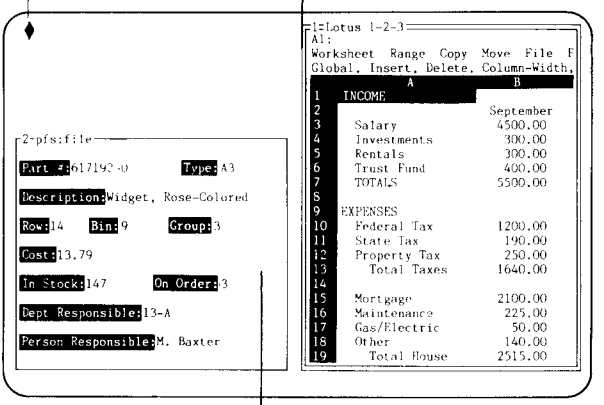
To mark information in the current window:

- Click on the left frame bar of the window to display the Mark menu.
- Move the cursor to the beginning character and click twice.
- Move the cursor to the ending character and click twice.

To transfer the marked information to another program, use the Transfer command (see pages 90-97).

The **mouse cursor**—a diamond—appears if you have installed a mouse.

To **mark** information, click on the left frame bar. Then click twice at the beginning and ending points.



To **switch windows**, click on any visible part of the window you want to switch to.

Moving and Resizing a Window

To move the current window:

- Click on the top frame bar of the window to display the Move menu.

Or, to resize it:

- Click on the bottom frame bar to display the Resize menu.

Then:

- Move the mouse until the window is positioned and sized the way you want.

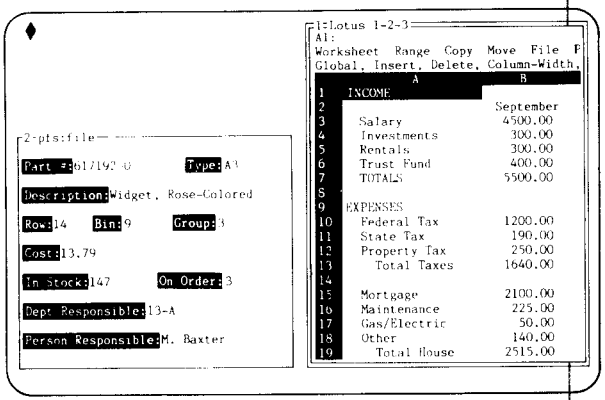
To alternate between moving and resizing:

- Click twice.

To finish the move or resize operation:

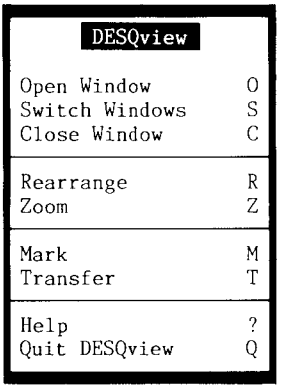
- Click once to make the Move or Resize menu reappear.
- Click anywhere in the current window—or on DONE, if you prefer.

To **move** the window, click on the top frame bar. Then move the mouse until the window is where you want it, click once, then click on any visible part of the window (or on DONE).



To **resize** the window, click on the bottom frame bar. Then move the mouse until the window is sized the way you want, click once, then click on any visible part of the window (or on DONE).

The DESQview Menu



The DESQview menu is the master list of DESQview commands available to you:

- Open Window, Switch Windows, and Close Window are used to start programs running in DESQview, switch between programs, and close down programs.
- Rearrange and Zoom control the size, position, and color of windows.
- Mark and Transfer let you move information from one program to another.
- Help gives you on-line help for DESQview.
- Quit DESQview exits DESQview and returns control to DOS.

Open Window

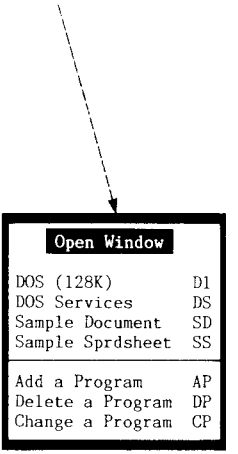
You use the Open Window command to display the master list of programs installed in DESQview.

To start up a program, you first select this command. Then you select the program you want to start up from the Open Window menu that appears.

When you start up a program, a window frame appears (or the screen clears if the program is full-screen-only) and then, after a moment, the program is started up in the window.

If you've created scripts for the program you're loading, they're also loaded.

To add a program to the Open Window menu, select Add a Program from the Open Window menu.



Switch Windows

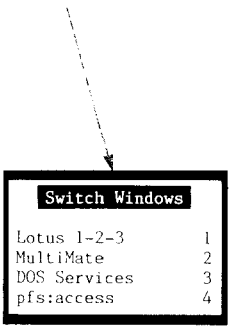
You use the Switch Windows command to display a list of all the programs currently running in DESQview.

This menu lists all programs, including those that are hidden and those that are put aside to disk (see page 76).

To switch to another window, you first select this command. Then you select the window you want from the Switch Windows menu that appears.

There are two shortcuts for switching windows:

- Using the keyboard, tap the DESQ key and then type the number of the window you want.
- Using the mouse, click on any visible part of the window.



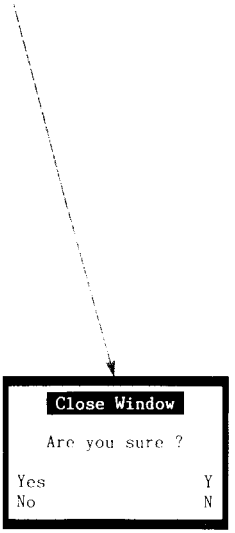
Close Window

You use the Close Window command to close down the program running in the current window and then discard the window.

You should finish whatever you're doing in the program —and save any files you want to keep—before selecting Close Window.

To prevent closing a window accidentally, the Close Window menu appears, asking you to confirm that you really want to close the window:

- Select Yes or No.



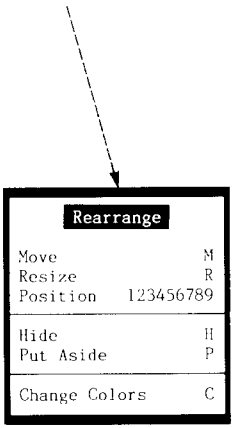
Rearrange
Zoom

You use the Rearrange command to:

- Move or resize the current window.
- Change its colors (if you have a color display).
- Hide it by removing it from the screen.
- Remove it from the screen and, additionally, put it aside to disk and free up the memory that the program running in the window is using.

See pages 74-77 for more information.

You use the Zoom command to zoom (enlarge) a small window to a full-screen window or, if the window is already full-screen, to shrink it back to its original size and position.



Mark
Transfer

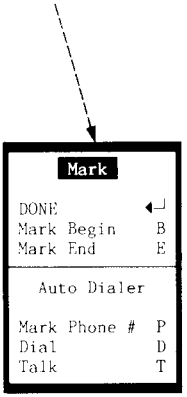
You use the Mark and Transfer commands to move information from one program to another.

When you select Mark, the cursor is locked into the current window and the Mark menu appears. You then mark the block (or blocks) of information you want to transfer.

After you're finished marking, you switch to the window to which you want to transfer the information, move the cursor to the transfer point, and select Transfer to display the Transfer menu. Then you complete the transfer.

DESQview types what you marked into the running program, just as if you had typed it from the keyboard yourself.

See pages 90-97 for more information.



Help

You use Help to get information about DESQview.

When you select Help, the on-line Help window appears. This window lists the various categories of Help available for DESQview.

To get help for a particular item of interest, using the keyboard:

- Move the cursor to the entry that identifies the item.
- Press the space bar.†

Or, using the mouse:

- Click on the item you want.

The item you select may list further subcategories of Help available, provide the Help information about the item, or both.

†You may optionally use the gray + key at the far right side of the keyboard in place of the space bar.

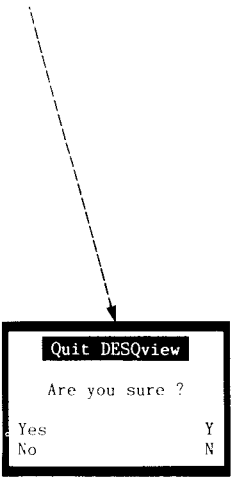
Quit DESQview

You use the Quit DESQview command to end your session of DESQview and return control to DOS.

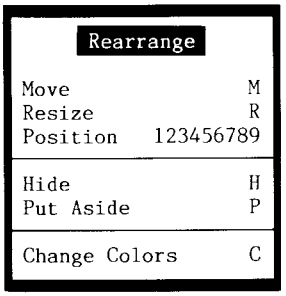
You should be sure that you've stored all open files in all the programs currently running in DESQview (including those hidden and put aside) to prevent loss of information.

To prevent accidentally quitting DESQview, the Quit DESQview menu appears, asking you to confirm that you really want to exit DESQview:

- Select Yes or No.



Rearranging Windows



The Rearrange command lets you control the appearance of the current window. You can:

- Move the window to the position you want or resize it to the size you want.
- Place the window in one of nine predesignated areas.
- Hide the window—or both hide it and put the program running in the window aside to disk.
- Change the colors of the window.

If the current window is full-screen-only (see page 57), you can still place it in a small window. However, when you do, the program running in the window is suspended until you use the Zoom command to enlarge it back to full-screen. (If the window contains bit-mapped graphics information, that information is scaled to fit in the small window.)

If you're using a mouse, you can bypass the Rearrange menu to move and resize a window.

Move
Resize
(Using the Mouse)

The Move and Resize commands let you change the position and size of the current window:

- Select Move by clicking on the top frame bar or Resize by clicking on the bottom frame bar.
- Move the mouse until the window is positioned or sized the way you want.

To alternate between moving and resizing:

- Click twice.

When the window has the appearance you want:

- Click once to make the Move or Resize menu reappear.
- Click on any visible part of the current window— or on DONE, if you prefer.

Move
Resize
(Using the Keyboard)

You can also move or resize the current window using the keyboard.

- Select the Move or Resize command from the Rearrange menu.
- Use the four arrow keys to move or resize the window, until it is positioned or sized the way you want.

To alternate between moving and resizing:

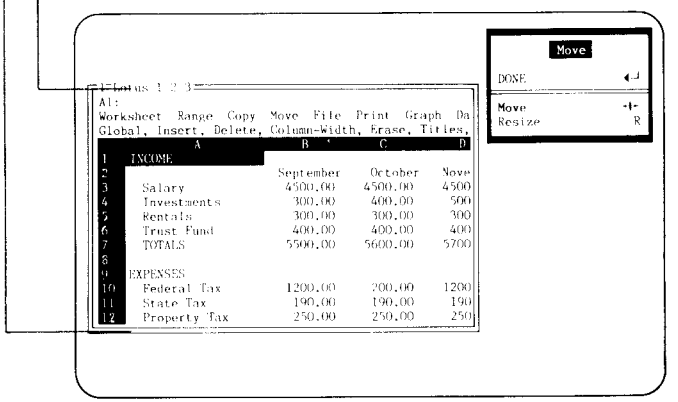
- Type *M* to start moving (if you're resizing) or *R* to start resizing (if you're moving).

When the window has the appearance you want:

- Press ↵.

To **resize** the current window using the mouse, click on the bottom frame bar. Then, as you move the mouse, the window will stretch or shrink.

To **move** the current window using the mouse, click on the top frame bar. Then, as you move the mouse, the window will move.

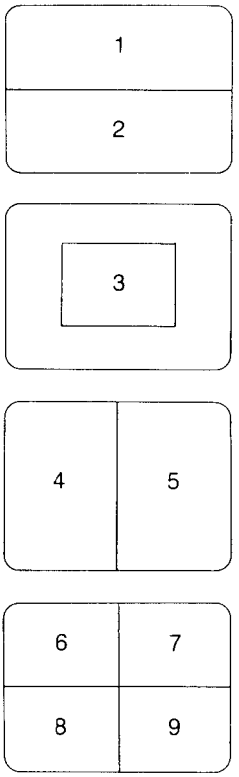


Position

The Position command lets you place the current window in one of nine predesignated areas on the screen.

- Type the number of the area you want, or select that number with the mouse.

The default areas are shown in the following diagrams. You can change these defaults using the Setup program (see Appendix A).



Hide
Put Aside

The Hide and Put Aside commands let you remove a window from the screen without closing it.

Hide removes the window from the screen. The program running in the window continues to run—if it is permitted to run in background.

Put Aside hides the window and then, additionally, suspends the program running in the window and swaps the program out to disk.

By ***swap to disk*** we mean that the information in your computer's memory for the program is checkpointed and transferred to disk so other programs can use that memory.

To bring a hidden window back to the screen, display the Switch Windows menu. Then select the hidden window.

Note: When you put a program aside to disk, it's written to the root directory of the drive that was the default when you started up DESQview—or to the SWAP logical drive, if you have defined that drive (see Appendix A).

Change Colors

The Change Colors command lets you change the text and background colors of the current window.

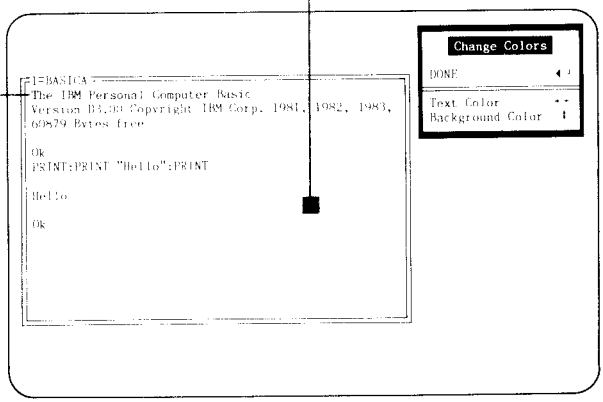
- Use the left and right arrow keys to change the text color.
- Use the up and down arrow keys to change the background color.

Each press of an arrow key displays the next (or previous) text or background color in sequence.

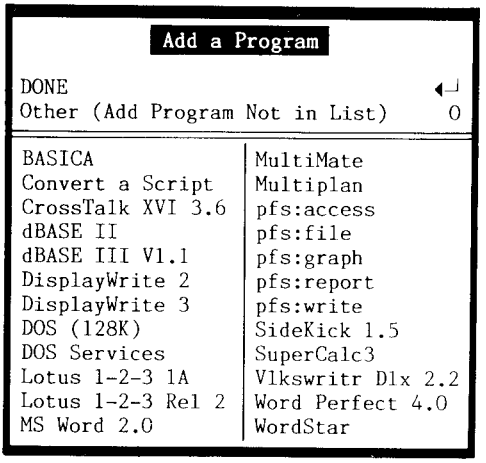
To change the colors of the DESQview menus, use the Change Colors command when no windows are open.

Some programs impose their own color schemes. (Most programs that run full-screen-only do this.) This command has no effect on such programs.

You cannot change colors if you're using a monochrome display.



Adding a Program



Before you can run a program in DESQview, you must give DESQview some basic information about the program—its name, the DOS command that starts it up, and how much memory it needs.

To make this as easy as possible, DESQview comes with the necessary information already set up for many popular programs. All you need do is tell DESQview which programs you want to use by marking the names of those programs on the Add a Program menu. (If you have a hard disk system, the DESQview installation procedure may have automatically installed some of these programs for you.)

If the program you want isn't one of those listed, use the Other command (see pages 82-85). If you have a diskette containing DESQview Program Information Files (DVPs) or IBM TopView Program Information Files (PIFs), you can use the Other command to list the files on this diskette on the Add a Program menu. Then you can select the ones you want from this menu.

If you don't have a DVP or PIF for your program, you must enter the information DESQview needs.

1. Display the DESQview menu and select Open Window. Then select Add a Program.

Since Add a Program is itself a program, it takes a moment to load.

Then the Add a Program menu appears, with instructions explaining how to use the menu in a window to its left.

IMPORTANT: If you're using a floppy-based system, your everyday DESQview diskette must be in drive A (or in the drive from which you started DESQview) when you select Add a Program.

2. Mark the programs you want to install in DESQview. (If the program you want isn't in the list, select Other.)

To mark a program using the keyboard:

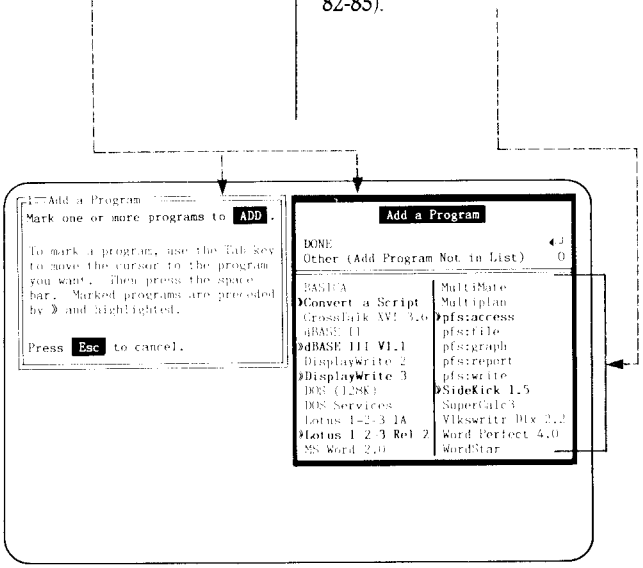
- Use the four arrow keys or the Tab key to move the menu cursor until it appears on the program name you want to mark.
- Press the space bar.

Using the mouse:

- Click on the program name you want.

When you select a name, it's preceded by » and highlighted. If you change your mind, select it again to unmark it. You may mark as many names as you like.

If the program you want isn't listed, select Other to display the Add OTHER Program menu (see pages 82-85).



3. Select DONE.

Selecting DONE starts installing all the programs you've marked into DESQview.

You must answer one question for each program: where is that program stored?

To obtain this information, DESQview displays the Program Location menu for each program you marked, in turn.

4. Type the drive and directory where you have stored the indicated program.

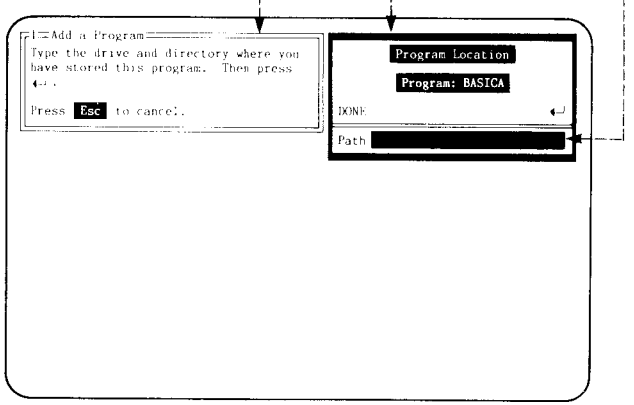
If the program is to be run from a diskette in drive A or B, type :

A: or *B:*

If the program is stored on your hard disk, type the drive letter of your hard disk and the name of the directory in which the program is stored. For example:

C:\LOTUS

You can install the same program as many times as you wish. The only restriction is that each instance must designate different keys on the Open Window menu. If you install a program with conflicting keys, you will be asked to choose new keys.



5. Select DONE.

The indicated program is installed in DESQview and its name added to the Open Window menu, in alphabetical order, above Add a Program.

The program is now operational in DESQview—*if* you have installed the program itself on your system according to the program manufacturer's instructions.

Remember: Before a program will work on your computer, you must install the program according to the installation instructions given in the user's manual for the program. The Add a Program command only tells DESQview about the program. It does not make the program operational on your system. Only you can do this.

IMPORTANT: To install a program in DESQview, your everyday DESQview diskette must be in the drive from which you started up DESQview—or, if you're using a hard disk, the DVP or PIF must be on the drive and directory in which you've installed DESQview. (If you installed the program from a PIF, DESQview creates a DVP for it.)

6. Complete steps 4 and 5 again for each of the other programs you marked.

After you complete the Program Location menu for the first program you marked, it will reappear again for the second program—and so forth, until you have told DESQview where you have stored all the programs you marked.

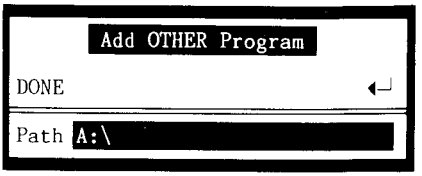
After you supply the path information for the last program marked, a menu appears asking if you want to add any more programs at this time. If you don't:

- Select DONE.

To see the results of your actions, or to start up one of the programs you just installed, display the Open Window menu:

- Display the DESQview menu.
- Select Open Window.

Other: Adding Your Own Program



If the program you want to install in DESQview isn't listed on the Add a Program menu, you can add it using the Add OTHER Program menu. The steps you need to perform depend on whether you have an information file for the program:

- If you have a DESQview Program Information File (DVP) or a TopView Program Information File (PIF) for the program, DESQview will use that information file.
- If you don't have an information file, you can enter the necessary information.

DESQview will automatically determine for you whether you have an information file for your program.

You complete the Add OTHER Program menu by entering the path to your program in the Path field and selecting DONE. DESQview then examines the path you specified for information files. If it finds any, it lists them on the Add a Program menu. You can then select the programs you want to install from this list.

If DESQview doesn't find any program information files, it displays the Specify OTHER Program Information menu. To install your program, just enter the four pieces of information requested.

1. Display the Add a Program menu and select Other.

The Add OTHER Program menu appears, with instructions explaining how to use the menu in a window to its left.

2. Type in the Path field the drive and directory where the program you want to install is stored.

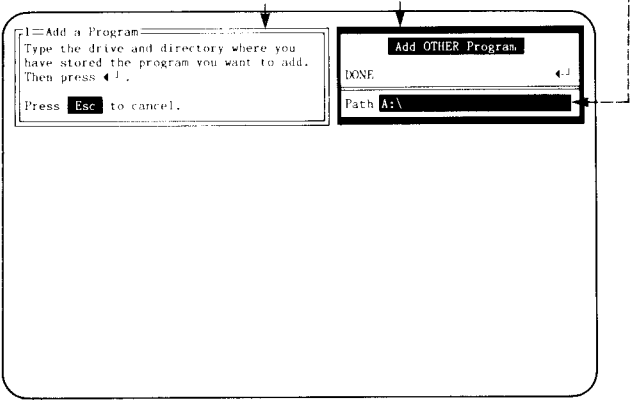
The Path field is automatically filled in with "A:\". If the program you want to install is to be run from drive B, type instead:

B:

If the program is stored on your hard disk, type the drive letter of your hard disk and the name of the directory in which the program is stored. For example:

C:\dBASE

IMPORTANT: If your program is stored on diskette, put that diskette in the drive you indicated before pressing DONE in step 3.



3. Select DONE.

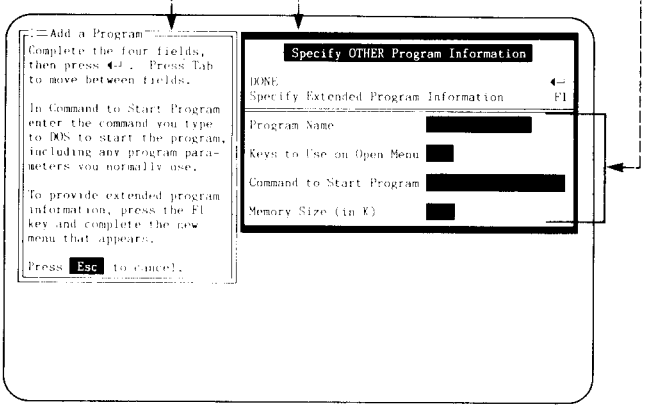
DESQview examines the path you specified in the Path field for information files—that is, for files with the extensions ".DVP" and ".PIF".

If any information files are found, the Add a Program menu is redisplayed—with a list of the programs specified by the information files replacing the standard list of programs. Complete this menu in the usual manner, as described on pages 78-81.

If no information files are found, the Specify OTHER Program Information menu appears. Complete this menu as described in steps 4 and 5.

4. Complete the four fill-in fields.

- Enter in the Program Name field the name you want to appear on the Open Window menu.
- Press Tab and enter in the Keys to Use on Open Menu field the two letters you want to use to start up the program. (This letter combination cannot already exist on the Open Window menu.)
- Press Tab and enter in the Command to Start Program field the DOS command you use to start the program, exactly as you would type it to DOS. *Do not* include a path since you specified one in step 2.
- Press Tab and enter in the Memory Size field the minimum amount of memory needed to run the program.



5. Select DONE.

The program is installed in DESQview and its name added to the Open Window menu, in alphabetical order, above Add a Program.

Then a menu appears asking if you want to add any more programs at this time. If you don't:

- Select DONE.

Remember: Before a program will work on your computer, you must install it according to the installation instructions given in the user's manual for the program. The Add a Program command only tells DESQview about the program. It does not make the program operational on your system. Only you can do this.

NOTES

DESQview requires more information about a program than the four pieces you supply on the Specify OTHER Program Information menu. It uses default or preassigned values for the remaining information it needs.

You can specify the complete set of information, if you like. To do so, instead of completing steps 4 and 5, select Specify Extended Program Information. A menu will appear that is identical in form and content to the Change a Program menu—see Chapter 7.

DESQview makes the following assumptions about a program:

- ☐ It can be swapped to disk.†
- ☐ It runs full-screen-only and cannot run in background.
- ☐ Its data files are in the same directory as the program file.
- ☐ It doesn't display bit-mapped graphics.

If any of these assumptions are wrong, use the Change a Program command to correct them—see Chapter 7.

†IMPORTANT: You ***must*** make communications programs ***non***swappable—see Appendix D.

Deleting a Program

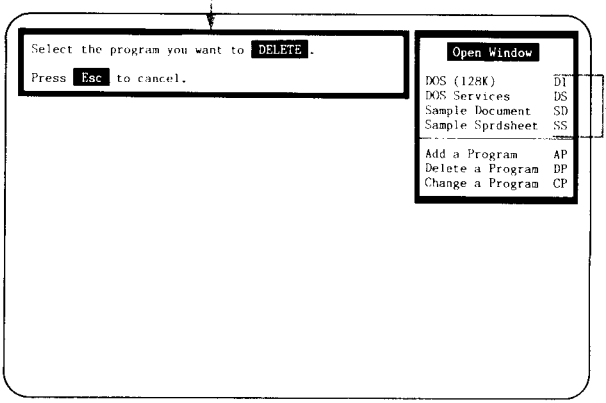
If you no longer want to use a program in DESQview, you can delete it using the Delete a Program command.

Deleting a program removes it from the Open Window menu and discards all knowledge DESQview has about the program. The program itself is not affected and will continue to run under DOS in its usual manner.

The Delete a Program command also deletes the DESQview Program Information File (DVP) for the program.

1. Display the DESQview menu and select Open Window. Then select Delete a Program.

The Open Window menu remains on the screen. Instructions appear in a window to its left telling you to select the program you want to delete from DESQview.



2. Select the program you want to delete.

To select the program using the keyboard:

- Type the two letters to the right of the program name.

Or, using the mouse:

- Click on the name of the program you want to delete.

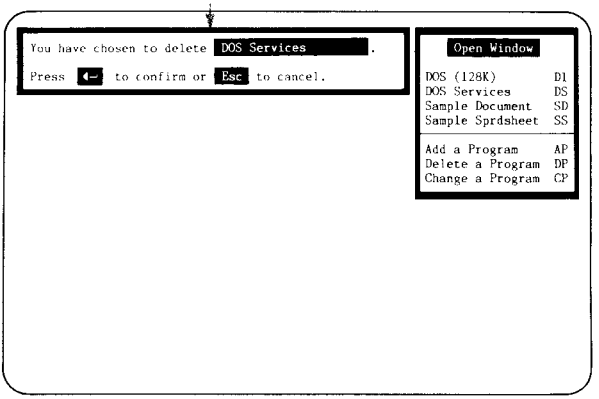
New instructions appear in the window to the left of the Open Window menu asking you to confirm that you really want to delete the program you selected.

3. Confirm that you've chosen the correct program by pressing ←.

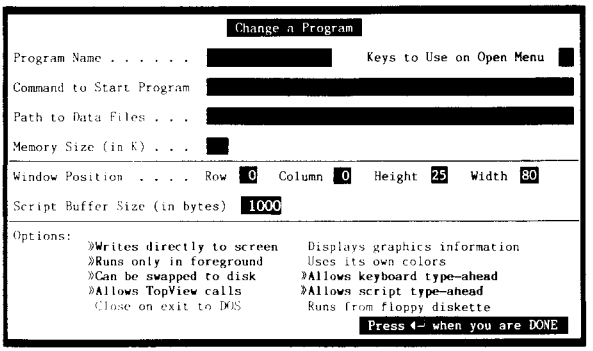
The program is removed from the Open Window menu and Delete a Program terminates.

If you've selected the wrong program, or changed your mind about deleting the program:

- Instead of pressing ←, press Esc to cancel the Delete a Program command.



Changing Program Information



The Change a Program menu gives you access to the complete set of information that DESQview has for a program. You use this menu to change the program information for an existing program or to define the information for a new program:

- To change the program information for an existing program, select Change a Program from the Open Window menu. DESQview will display the Change a Program menu with the program's current information filled in. Make any changes you want and press ↵.
- To define information for a new program, select Specify Extended Program Information from the Specify OTHER Program Information menu. DESQview will display the Specify Extended Program Information menu (which is identical in content to the Change a Program menu) with the standard default settings for a new program filled in. Complete the five fields above the first line, change any of the other program information as you require, and press ↵.

In general, you do not need to use the Change a Program command. DESQview comes with the correct information predefined for many popular programs—in the DESQview Program Information Files (DVPs) supplied with DESQview. DESQview also accepts IBM TopView Program Information Files (PIFs), which provide the correct information for many other programs.

For a complete description of the Change a Program menu, and of the meaning of each of the fill-in fields and options, see Chapter 7, ***Changing a Program's Information***.

1. Display the DESQview menu and select Open Window. Then select Change a Program and choose the program you wish to change.

When you select Change a Program, the Open Window menu remains on the screen and instructions appear in a window to its left telling you to select the program you want to change.

To select the program using the keyboard:

- Type the two letters to the right of the program name.

Or, using the mouse:

- Click on the name of the program you want to change.

Since Change a Program is itself a program, it takes a moment to load. Then, the Change a Program menu appears.

IMPORTANT: If you're using a floppy-based system, your everyday DESQview diskette must be in drive A (or in the drive from which you started DESQview) when you select Change a Program.

2. Change the incorrect information and then press ←┘.

The program's information is changed to reflect the settings you made and Change a Program terminates.

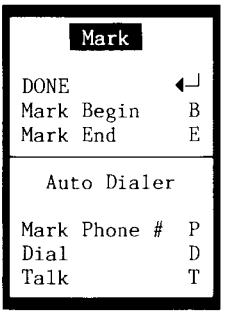
See Chapter 7 for more complete information on Change a Program.

IMPORTANT: To change a program, your everyday DESQview diskette must be in the drive from which you started up DESQview—or, if you're using a hard disk, the DVP must be on the drive and directory in which you've installed DESQview.

When you change a program's information, the DESQview Program Information File (DVP) for the program is updated.

> When you install a communications program in DESQview using the Add OTHER Program command, you ***must*** turn off the "Can be swapped to disk" option—see Appendix D.

Marking and Transferring a Single Line of Text



DESQview lets you transfer information from one program to another, even if the programs know nothing of each other.

When you select the Mark command, DESQview takes a snapshot of the full (25 x 80) screen that the program has written and then places the program in ***Mark Mode***. You then mark the text you want to transfer from this snapshot.

If you're viewing the program in a small window —that is, in a window that doesn't occupy the full screen— you can scroll the contents of the snapshot within the small window.

When you've marked the text you want, you switch to the program you want to transfer it to and perform the Transfer command.

1. Display the Mark menu.

> IMPORTANT: These steps only apply if the text you mark is all on one line. See pages 94-97 for the steps to use to mark multiple lines of text.

Using the keyboard:

- Display the DESQview menu and select Mark.

Using the mouse:

- Click on the left frame bar of the current window.

DESQview takes a snapshot of the screen and places the program in Mark Mode. The text cursor and the mouse cursor become the same (a blinking underscore) and are locked in the window. If you try to move the cursor outside the window, the underlying (25 x 80) snapshot scrolls— if you're working in a small window.

2. Move the cursor to the first character of the text you want to mark and select Mark Begin.

Using the keyboard:

- Use the four arrow keys to move the cursor to the point where you want to set the begin mark.
- Type *B*.

Using the mouse:

- Double click on the character on which you want to set the begin mark.

Clicking the mouse once moves the mouse cursor to the Mark Begin command on the Mark menu. Clicking it again selects Mark Begin.

The character on which you set the begin mark appears in reverse video —that is, its text and background colors are reversed. As you move the cursor, the rectangle defined by the begin mark and the current cursor location appears in reverse video to indicate the block of text being marked.

3. Move the cursor to the last character of the block of text and select Mark End.

Using the keyboard:

- Use the four arrow keys to move the cursor to the point where you want to set the end mark.
- Press ↵.

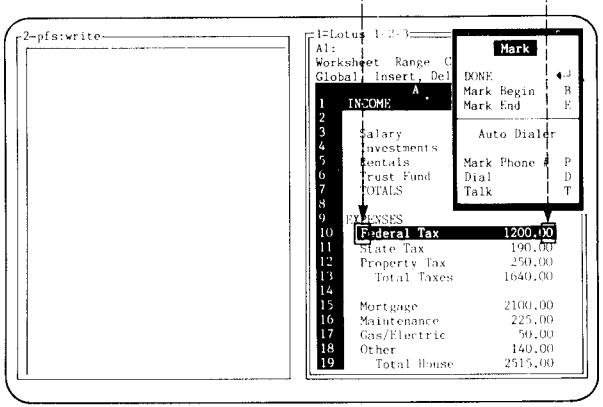
Using the mouse:

- Double click on the character on which you want to set the end mark.

Clicking the mouse once moves the mouse cursor to DONE on the Mark menu. Clicking it again selects DONE.

On selecting DONE, the reverse video marking is removed and the Mark menu disappears. The block of text you marked is saved until you're ready to transfer it.

Note: Selecting Mark End has the same effect as selecting DONE, except the Mark menu isn't removed from the screen.



4. Switch to the program to which you want to transfer the block of text you marked.

Using the keyboard:

- Display the DESQview menu and type the number of the window you want to switch to.

Using the mouse:

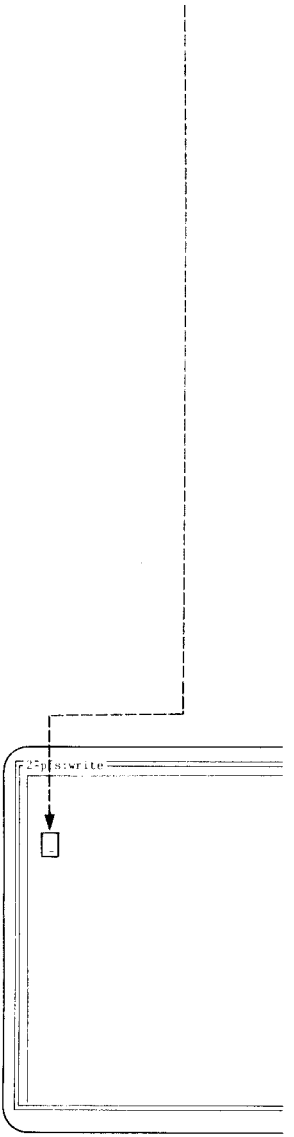
- Click on any visible part of the window.

The window you selected becomes the current window.

If you want, you can transfer the text you marked back into the same program.

5. Move the cursor to the point where you want to transfer the text you just marked.

You do this using the program's commands for positioning the cursor.



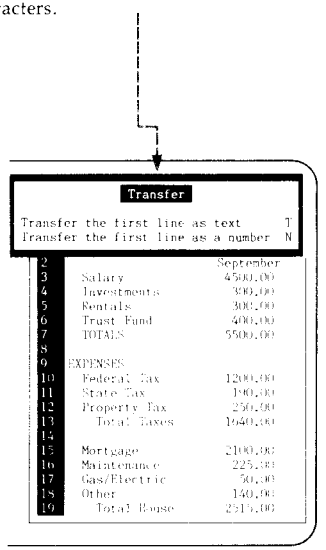
6. Display the DESQview menu and select Transfer.

The Transfer menu appears. You have two options:

- You can have DESQview type the text you marked into the program (at the current cursor position) exactly as you marked it.
- Or, you can have DESQview treat the text you marked as a number when it is typed. If you choose this option, all spaces and nonnumeric characters, except periods and minus signs (hyphens), are removed. A left parenthesis is converted to a minus sign.

There is no mouse shortcut for starting a transfer. You must select Transfer from the DESQview menu.

The "as a number" option is useful because most spreadsheet programs won't accept numbers with embedded commas, dollar signs, or other characters.



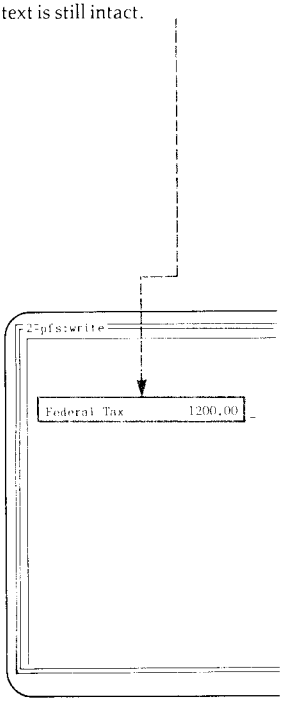
7. Select the "as text" or "as a number" option.

DESQview types the marked text into the program—just as if you had typed it yourself from the keyboard. If you selected the "as a number" option, DESQview edits the text prior to typing it in.

Since all the text you marked was on one line, DESQview automatically terminates the transfer.

If you marked more than one line of text, additional steps are required—see pages 94-97.

DESQview remembers the marked text. You can transfer it again, if you like. If you transferred the text using the "as a number" option, the original, unedited text is still intact.



Marking and Transferring Multiple Lines of Text

The preceding four pages, 90-93, explain how to mark and transfer text that is entirely contained on a single line. However, you're not limited to marking and transferring only a single line of text.

DESQview's Mark and Transfer feature lets you mark and transfer any of the following organizations of information—limited only by the fact that all the text must be contained in the (25 x 80) snapshot of the screen:

- □ You can mark and transfer two or more contiguous lines of text.
- □ You can mark and transfer disjoint blocks of text.
- □ You can mark and transfer repeating patterns of information—for example, fields of a database record or rows and columns of a spreadsheet.

In addition, you can have DESQview extract a telephone number from text on the screen and dial it for you (see pages 98-101).

This section discusses the first case—marking and transferring multiple, contiguous lines of text. See Chapter 6, ***Advanced Mark and Transfer***, for information on marking and transferring disjoint blocks and repeating patterns of information.

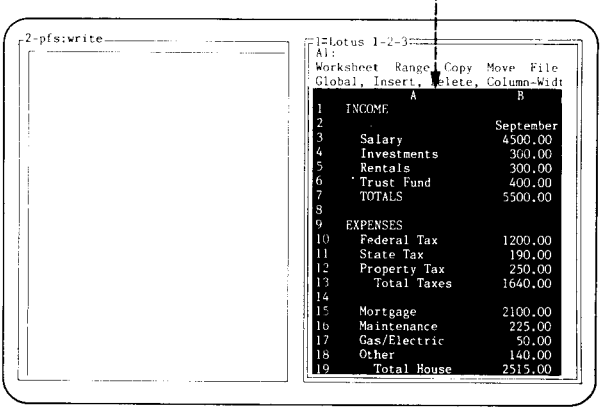
Note: You cannot use the Mark and Transfer feature to transfer graphics information.

1. Mark the block of text you want to transfer.

Follow steps 1 through 3 on pages 90-91 to mark the block of text you want. This time, however, mark multiple lines of text, rather than just a single line.

2. Switch to the window where you want to transfer the block of text you marked.

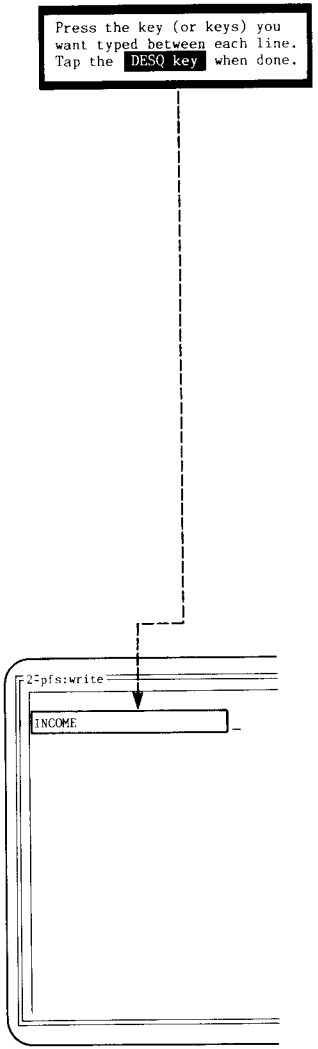
Follow steps 4 and 5 on page 92.



3. Transfer the first line of text.

Follow steps 6 and 7 on page 93.

This time, after you transfer the first line of text, the following instructions appear:

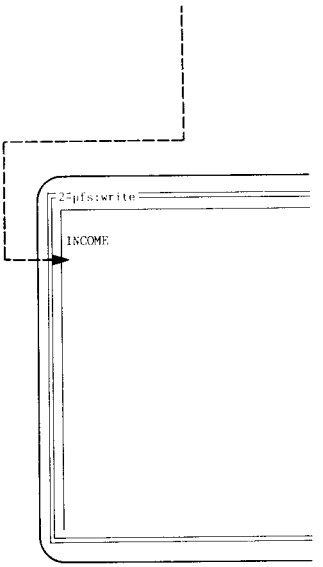


4. Press the key (or keys) you want DESQview to type between each line of text it transfers.

When you transfer information from one program to another, you'll often find that the information you marked isn't in a format the program you're transferring to can use.

The "as text" and "as a number" options let you control the format of each line. But you also need to control the characters that are typed between lines. For example:

- If you're transferring text to a word processor, you might want to put a space (if it performs automatic word-wrap) or an Enter (if it doesn't) between lines.
- If you're transferring information to a spreadsheet program, you may want to put a down arrow (or other cursor movement command) between lines.



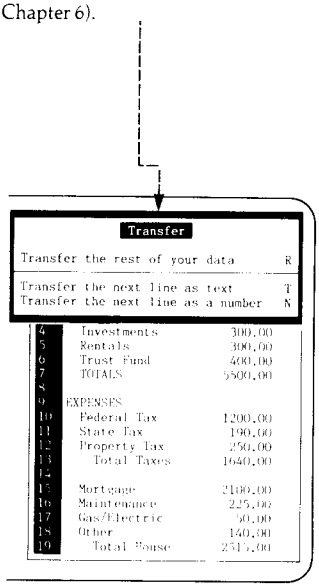
5. Tap the DESQ key.

Tapping the DESQ key tells DESQview that you've entered the key (or keys) you want to separate each line and are now ready to transfer more text.

The Transfer menu reappears with three options:

- You can transfer the remaining lines of marked text, separating them by the key (or keys) you specified in step 4.
- You can transfer the next line as text.
- You can transfer the next line as a number.

Normally you select the "rest of data" option. The "as text" and "as a number" options are used primarily to transfer disjoint blocks or patterns of information (see Chapter 6).



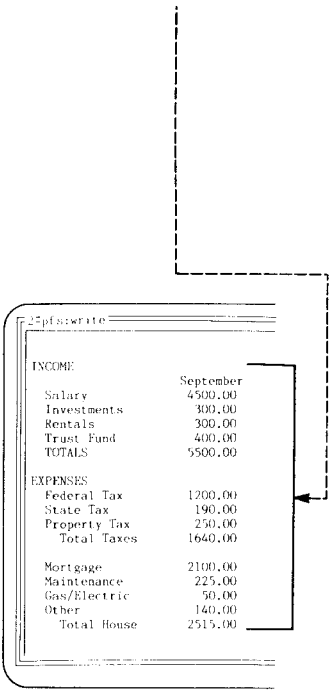
6. Select the "rest of data" option.

DESQview types the remaining lines of marked text into the program. The option you chose ("as text" or "as a number") is remembered and used for each line. DESQview also remembers and reuses the key (or keys) you used to separate lines in step 4.

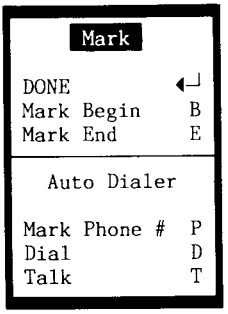
The transfer is finished.

You can use the Learn feature of DESQview (see Chapter 5) to set up scripts which perform mark and transfer operations with a single keystroke.

See Chapter 6, ***Advanced Mark and Transfer,*** for a description of how to mark and transfer disjoint blocks and repeating patterns (for example, rows and columns) of information.



Using the Auto Dialer



An added feature of the Mark command is the ability to have DESQview automatically dial a phone number from information in the current window.

To use the Auto Dialer, you must have a modem that is attached to your system and connected in parallel to your telephone line using a standard "T" adapter (see diagram). You can:

- Have DESQview search the current window for a phone number and then mark this number.
- Have DESQview dial the marked number.
- Have DESQview precede the number you marked by any one of three access codes.

DESQview assumes that you have a Hayes modem (or compatible) attached to communications port 1. By running the Setup program (see Appendix A), you can:

- Override the assumption that you have a Hayes modem and specify the protocol your modem uses.
- Specify the communications port your modem is attached to.
- Specify the three access codes you want, giving each a name that will appear on the Dial menu. For example, you could specify that the name "Sprint" is to appear on the Dial menu and that it is to dial the access code "386-3500,,293872". (The commas cause a Hayes modem to wait for a dial tone.)

1. Display the DESQview menu and select Mark.

The current window is put into Mark Mode and the Mark menu appears.

2. Move the cursor before the phone number you want to dial.

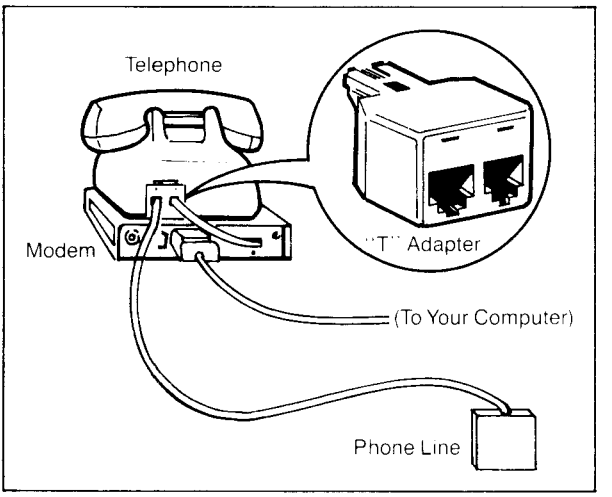
You can put the cursor anywhere prior to, or on the first character of, a phone number.

A ***phone number*** is a string of three or more digits. The number ends when DESQview finds two spaces, a letter, or any symbol except: – / ( ) . : , * # $ % & + ;.

If you have a Hayes modem, the symbols comma (,) and semi-colon (;) have special meanings (see the table on page 101). The other symbols listed are ignored.

Some examples of valid phone numbers are:

828-5103
(213) 373-5910
800-353-2945
212 777-1440
011-44-338-382844



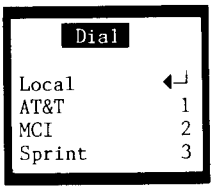
3. Select Mark Phone #.

DESQview searches forward from the cursor until it finds a phone number. Then it marks that number.

If you want, you can also mark a phone number manually, using the Mark Begin and Mark End commands. (You might want to do this to send modem commands that contain embedded letters or other symbols not recognized by DESQview.)

4. Select Dial.

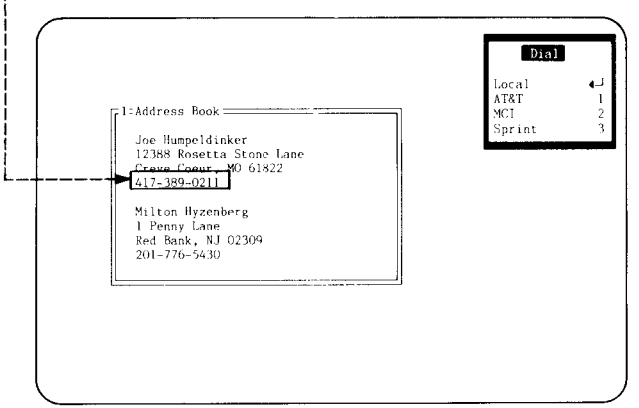
The Dial menu appears:



The Local option is listed first. The other three options depend on how you've customized the Dial menu to your personal needs.

The words "Access Code" initially appear on the Dial menu (after the Local option). Each specifies that DESQview should send the number "1" prior to the number you marked.

To personalize the access codes, run the Setup program (see Appendix A). You can specify both a name to replace "Access Code" on the menu and a phone number or dialing command to send. (You must run Setup outside of DESQview. It cannot be run while DESQview is running.)



5. Select Local or the access code you want.

The Mark menu reappears. Then DESQview dials the number you marked.

If you selected Local, DESQview dials the number exactly as you marked it.

If you selected one of the access codes, DESQview first sends the access code to the modem, then the number you marked.

If your modem has a speaker, you will hear the dialing sequence as DESQview performs it.

6. Select Talk.

Once the phone you dialed starts ringing, pick up the receiver and select Talk to disconnect the modem. The Mark menu disappears. You can now talk normally.

If you get a busy signal, select Talk to disconnect the modem and hang up.

The following commands are recognized by Hayes modems and compatibles:

D — Dial the number that follows.

, — Pause for a second dial tone before proceeding.

T — Touch-Tone dialing.

P — Pulse dialing.

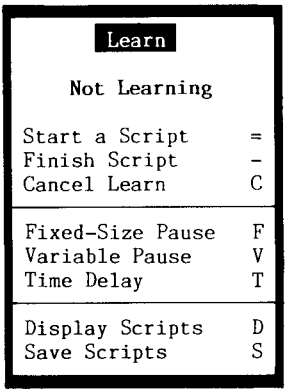
R — Reverse mode.

A/ — Repeat the last command.

; — Terminate dialing.

See the Hayes instruction manual for further information.

Learn: DESQview's Keystroke Macro Feature



One of DESQview's most powerful features is Learn, DESQview's keystroke macro feature. Using Learn, you tell DESQview to remember a sequence of your keystrokes and to assign these keystrokes to a particular key on your keyboard. Then, whenever you want, you can play back these keystrokes by pressing the assigned key.

A sequence of remembered keystrokes is called a ***script*** or a ***keystroke macro***. You can create two types of scripts:

- Program scripts are scripts you create while running a program—for example, Lotus 1-2-3. When you press the key you assigned to the script—for example, the Ctrl-X key—the script (keystrokes) are played back to 1-2-3.
- Global scripts are scripts you create on DESQview menus. You can play back a global script whenever a DESQview menu is displayed. Such a script might, for example, start up several programs or transfer information between programs.

In order to start and finish scripts, DESQview requires a special key, the ***Learn key***. We use ***Shift-DESQ***—that is, the keystroke formed by holding down the Shift key and tapping the DESQ key—as the Learn key. This displays the Learn menu, from which you select the Learn action you want.

For a complete description of the Learn command, see Chapter 5, ***Learn: DESQview's Keystroke Macro Feature***.

Learning a Script

The basic steps to learn a script are:

- Get your program at the point where you're ready to type the first keystroke of the script.
- Display the Learn menu and select Start a Script.
- Tell DESQview the key you want to assign to the script.
- Enter all the keystrokes for the script. DESQview will remember these keystrokes as you enter them.
- Display the Learn menu again and select Finish Script.

DESQview assigns the keystrokes it remembered to the key you specified.

To learn a global script, start with a DESQview menu displayed rather than with a program running.

A script can have pauses and time delays in it. A ***pause*** tells DESQview that, when it plays back the script, it should stop and let you type in variable information—such as a file name. A ***time delay*** tells DESQview to stop playing back the script and wait for some number of second before proceeding—usually until the program has finished its current operation.

Playing Back a Script

Once you've learned a script, you can play it back at any time.

If the script is a global script, you can play it back when any DESQview menu is displayed. If the script was learned for a particular program, you can play it back whenever you're working in that program.

To play back a script:

- Move the cursor to the point in the program where you want to play back the script. Or, display the DESQview menu on which you want to start playing back the script.
- Press the key you assigned to the script.

DESQview types the keystrokes it previously remembered.

To abort a script, after you've started playing it back, press Ctrl-Break.

DOS Services

DESQview's DOS Services gives you access to all the features of DOS while you're using DESQview.

The most commonly used DOS commands—Copy, Erase, Format Diskette, Rename, Type, and so forth—can be performed using DESQview menus. You don't have to remember the format of the command—just fill in the information indicated in the DESQview menu. For the less-used DOS commands, DESQview doesn't provide a menu but does permit you to enter the command in the standard DOS format.

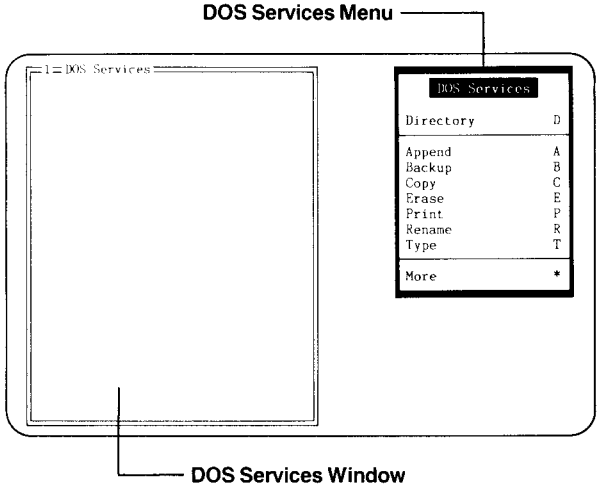
The DESQview Directory command has two major features not available in DOS:

- ☐ You can sort the directory to two levels by any of eight sort criteria.
- ☐ Once you have a directory of sorted file names on the screen, you can mark (select) one or more of these names and then perform one of the seven main DOS commands on the files you marked.

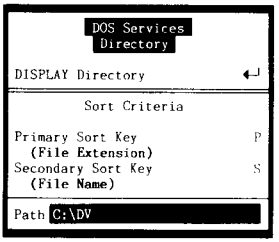
For example, you could sort your "current work" directory on the hard disk by Newest Time (meaning that the most recently created document would be listed first), mark all the files you created today, and then select the Copy (or Backup) command to save all these files to diskette.

When you start up DOS Services, the DOS Services window appears in the left half of your screen and the DOS Services menu appears in the upper right-hand corner. When you select a DOS command, that command is performed in the DOS Services window.

If, after starting a DOS command, you switch away to another window, the command will continue to operate in background while you do other work.



Displaying a Directory and Marking Files



DESQview's most useful enhancement to DOS is the DOS Services Directory command.

With this command you can sort the files in your directory and then, if you wish, mark a file (or group of files) and perform one of the seven main DOS commands on the files you marked.

For example, if you wanted to erase all the files you created more than a month ago, you would display a directory of those files sorted by date, mark the ones created more than 30 days ago, and select the Erase command.

The following steps describe how to display a sorted directory, mark some files you want to copy, and then perform the Copy command on these files. The same steps apply to using all seven main DOS Services commands.

1. Display the Directory menu, then type the name of the file or group of files you want to list.

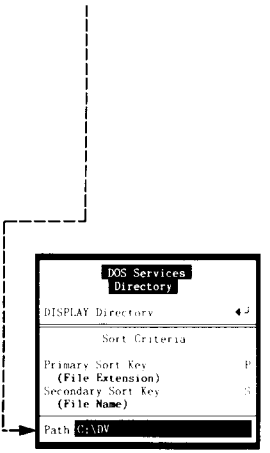
The first time you use the Directory command, the Path field is filled in with the path from which you started up DESQview, usually:

A:\ or C:\DV

Thereafter, DESQview remembers the last path you used and fills it in for you.

A path name consists of three parts:

- The drive letter, which specifies the drive to use.
- The path name, which specifies the DOS subdirectory to use.
- The file name, which specifies the file or group of files to list. (To specify a group of files, use the DOS global characters, ? and *.)



2. If you want to change the primary sort key, select Primary Sort Key.†

The Primary Sort Key menu appears.

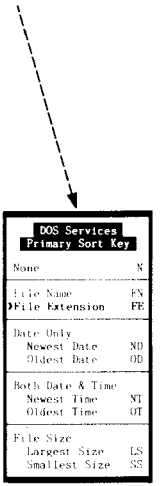
- Select the primary sort criteria you want.

The Directory menu reappears with the sort criteria you selected listed (highlighted) under the Primary Sort Key entry.

The list of files you select is sorted to two levels. First, it is sorted by the primary sort key. Then, within each group of files with the same primary sort key, a second sort is performed, using the secondary sort key.

The default primary sort key is initially set to File Extension. Thereafter, DESQview remembers the last key you used and fills it in for you.

†Using the keyboard, press Tab and type *P*.



3. If you want to change the secondary sort key, select Secondary Sort Key.†

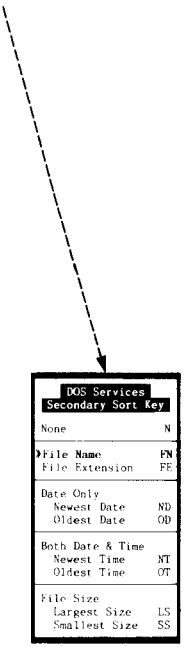
The Secondary Sort Key menu appears.

- Select the secondary sort criteria you want.

The Directory menu reappears with the sort criteria you selected listed (highlighted) under the Secondary Sort Key entry.

The default secondary sort key is initially set to File Name. Thereafter, DESQview remembers the last key you used and fills it in for you.

†Using the keyboard, press Tab and type *S*.



4. Select DISPLAY Directory.

The DOS Services window is cleared. Then, after a moment, the sorted list of files appears and the DOS Services menu reappears with three additional commands.

The cursor appears in the DOS Services window so you can mark file names. If the entire list isn't visible, you can scroll it by moving the cursor below the last line or by using the PgUp or PgDn keys.

The following commands are also available.

- ☐ ***Home/End*** move the cursor to the top/ bottom of the window.
- ☐ ***Ctrl-Home/Ctrl-End*** move the cursor to the beginning/end of the list.

You can also move the cursor, mark file names, and scroll using the mouse. (To scroll, click the entries on the top line of the DOS Services window.)

5. Mark the file names you want.

To mark a file name using the keyboard:

- Use the up and down arrow keys to move the cursor to the name you want to mark.
- Press the space bar.†

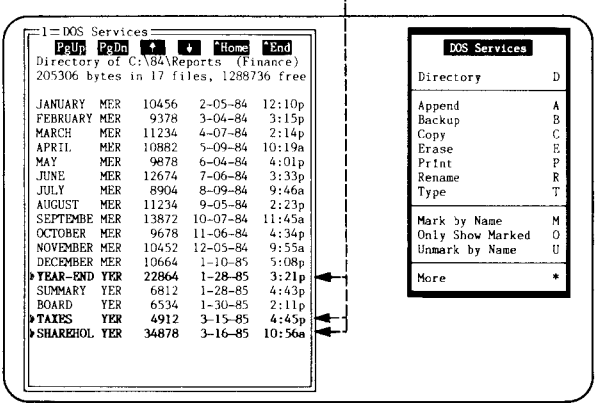
Or, using the mouse:

- Click on the name you want to mark.

Repeat this process until all the names you want are marked. (Marked names are preceded by » and highlighted.)

If you mark a directory name—<DIR>—the Directory menu reappears with the directory name you selected filled into the Path field. Complete this menu in the normal manner.

†You may optionally use the gray + key at the far right side of the keyboard in place of the space bar.



6. Select the command you want to perform on the marked files.

- Select one of the seven commands shown on the DOS Services menu: Append, Backup, Copy, Erase, Print, Rename, or Type.

See pages 124-125 for a description of how to use the Mark by Name, Only Show Marked, and Unmark by Name commands.

The following sequence of actions occurs:

- ☐ All unmarked file names are cleared from the DOS Services window.
- ☐ The menu for the command you selected appears with the name of the first marked file filled into its From (or File) field. The name is highlighted to indicate that you can't change it.

7. Supply any additional information needed to complete the command and then select START.

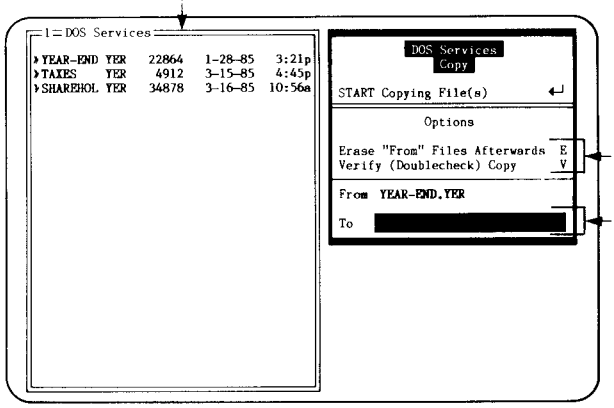
- If the command has a To field, enter the appropriate file name in this field.
- If you want to turn on any of the command options, select those options.
- Select START.

The DOS Services window is cleared and DESQview performs the command you selected on the first marked file. Then it performs the command on each remaining marked file in turn.

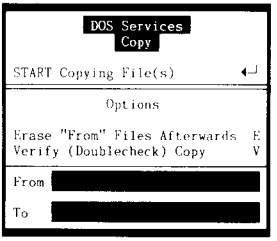
The DOS commands that correspond to the actions being performed appear in the DOS Services window as each marked file is processed.

You may abort the command by pressing Ctrl-Break.

If you switch away from the DOS Services window, the processing of files continues in background.



How to Perform a DOS Services Command



All the DOS Services commands are performed in a similar manner.

The instructions on pages 112-113 show how to perform the Copy command. Follow these general instructions for all the other DOS Services commands.

If a directory is displayed in the DOS Services window at the time you select a command, and you have marked one or more file names in the directory, the command operates on the names you marked.

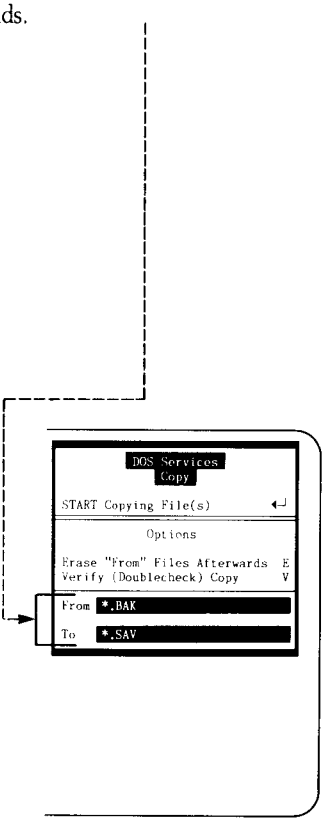
Each marked name is automatically filled into the From (or File) field in turn. You must still complete the other fields as described in step 1. (See pages 108-111 for more information on using directories.)

1. Type the file name or other information requested in the fill-in field (or in each field if there are several).

Most commands require you to enter one or two file names. Some require you to enter a drive letter. Some require both.

When a file name is required, you may usually specify either a single file or a group of files. To specify a group of files, use the DOS global characters (? and *) in the file name according to standard DOS conventions.

If the command has several fill-in fields, press Tab to move between fields.



2. If you want to turn on any of the command options, select those options.

Most commands have one or more options. When the menu first appears, each of the options is turned off.

To select an option using the keyboard:

- Press the up arrow key, then type the letter corresponding to the option.

To select an option using the mouse:

- Click on the desired option.

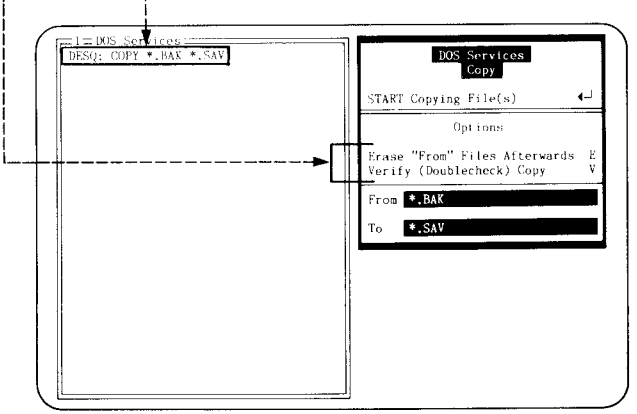
When an option is turned on, it is preceded by » and highlighted.

3. Select START to perform the command.

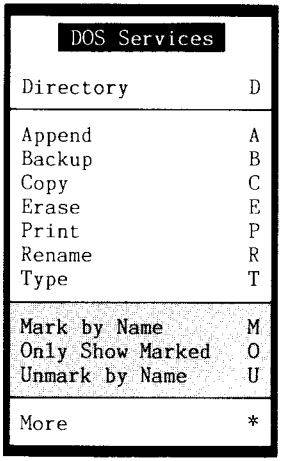
The list of files, if any, in the DOS Services window is removed and the DOS command corresponding to the command you selected is typed into the window.

DOS then performs the command in the normal manner. If DOS requires a response from you— as, for example, it does when you format a diskette— DOS's message appears in the DOS Services window. You respond to it in the normal manner.

When the command being performed is completed, the DOS Services menu reappears.



The DOS Services Menu



The DOS Services menu is the master list of DOS commands supported by DESQview. The most often-used commands are listed on this menu. Less often-used commands are listed on the More menu. You can enter commands not listed on either menu using the Other command (listed on the More menu).

The three commands shown shaded on the above menu— Mark by Name, Only Show Marked, and Unmark by Name—are used to mark and unmark names in a directory. These commands only appear when you've listed a directory in the DOS Services window using the Directory command.

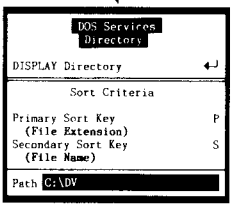
Directory

You use the Directory command to display a list of files in the DOS Services window. You can list all the files on the drive, in the DOS directory, or with the name you want.

You can sort the directory at two levels and by any one of eight sort criteria at each level. For example, you could sort by day and then alphabetically within each day.

Once you have used the Directory command to display a directory in the DOS Services window, you can mark one or more files and then perform any of the commands listed on the main DOS Services menu on the files you marked.

See pages 108-111 for more complete information on how to use the Directory command.

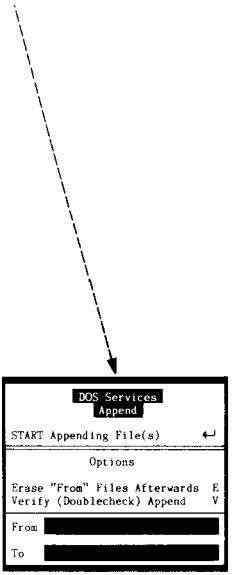


Append

You use the Append command to append two or more files together:

- Type in the From field the name of the files to be appended to the To file.
- Press Tab and type in the To field the name of the file to which you want the From files appended.
- Select any options you want turned on.
- Select START Appending File(s).

The To file cannot contain the DOS global characters (? and *).

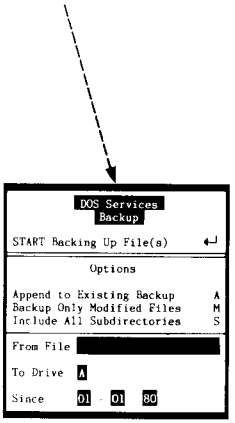


Backup

You use the Backup command to back up files from your hard disk to floppy diskettes:

- Type in the From File field the name of the files to be backed up.
- If you're not using drive A, press Tab and type the letter of the drive you are using in the To Drive field.
- If you wish to back up only those files created on or after a certain date, press Tab and enter that date in the Since field. (Leave the date 01-01-80 to back up all files.)
- Select any options you want turned on.
- Select START Backing Up File(s).

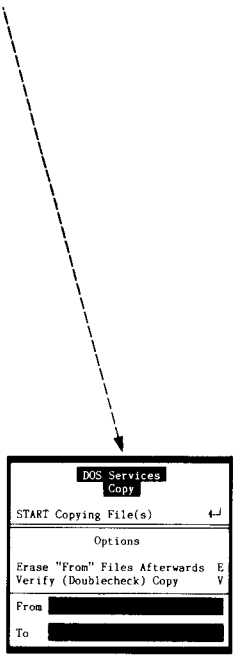
Note: See Appendix D for an important warning.



Copy

You use the Copy command to make a copy of one or more files:

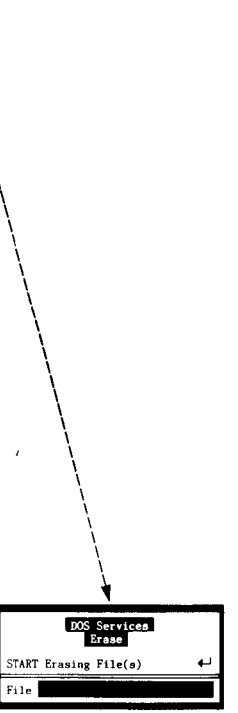
- Type in the From field the name of the file(s) to be copied.
- Press Tab and type in the To field the name you wish to give to the copy of the file(s).
- Select any options you want turned on.
- Select START Copying File(s).



Erase

You use the Erase command to delete one or more files from a floppy diskette or from your hard disk:

- Type in the File field the name of the file(s) to be deleted.
- Select START Erasing File(s).



Print

You use the Print command to manage the DOS print queue of files being printed in background.

To add a file (or files) to the print queue, or to delete files from the print queue:

- Type in the File field the name of the file(s) to be added to the queue or deleted.
- Select the ADD or REMOVE command.

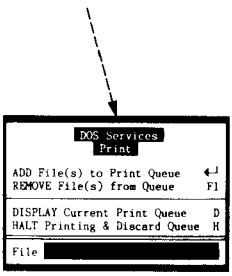
To display the current contents of the queue:

- Select the DISPLAY command.

To halt printing and discard the queue:

- Select the HALT command.

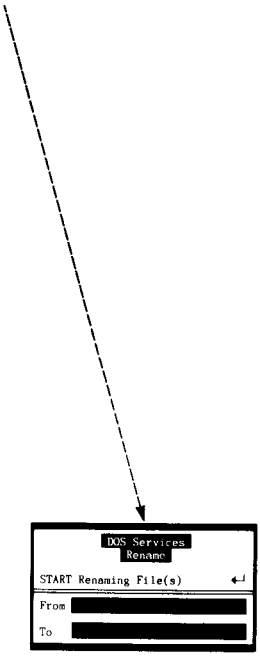
See Appendix D for more information about using print spoolers in DESQview.



Rename

You use the Rename command to change the names of one or more files:

- Type in the From field the name of the file(s) to be renamed.
- Press Tab and type in the To field the new name you wish to use for the file(s).
- Select START Renaming File(s).



Type

You use the Type command to display the contents of one or more files in the DOS Services window.

- Type in the File field the name of the file(s) to be typed.
- Select START Typing File(s).

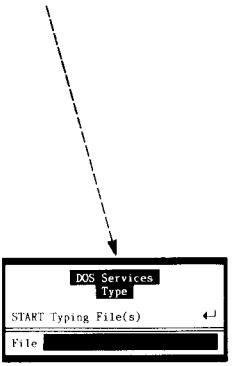
To suspend typing, so you can read the contents of the file:

- Press the Ctrl-NumLock key.

Then, to continue typing, press any key.

To cancel the Type command, when you don't want to see any more of the text:

- Press the Ctrl-Break key.



Mark by Name
Only Show Marked
Unmark by Name

You use these commands to mark and unmark file names that you've displayed in the DOS Services window using the Directory command.

You can:

- ☐ Mark a group of file names.
- ☐ Keep only the marked file names and discard the rest.
- ☐ Unmark a group of file names.

See pages 124-125 for more information on these commands. You can also mark names using the keyboard and the mouse (see page 110).

These three commands only appear on the DOS Services menu when you have displayed a directory in the DOS Services window using the Directory command.

More

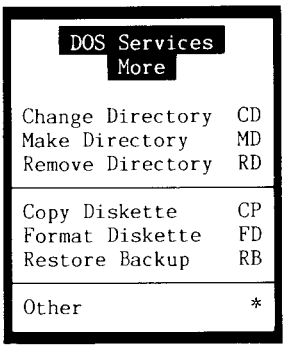
You use the More command to display a menu of additional, less-used DOS commands for which DESQview provides built-in support.

The entries on the More menu are divided into three groups:

- The first group lets you change the default directory for the DOS Services window or create or delete a directory.
- The second group lets you copy or format a diskette or restore files you backed up (using the Backup command).
- The Other command lets you perform all the remaining DOS commands.

See pages 120-123 for additional information.

More DOS Services



In addition to the commands listed on the main DOS Services menu, DESQview supports six other, less-used DOS commands, plus Other.

You use Other to perform the remaining DOS commands. You can also use Other to perform any of the commands built into DOS Services if you wish to use one of these commands in an unusual way.

Change Directory

You use the Change Directory command to change the default drive or directory used by commands performed in the DOS Services window.

When the DOS Services window is first opened, the default is set to the path from which you started up DESQview, usually:

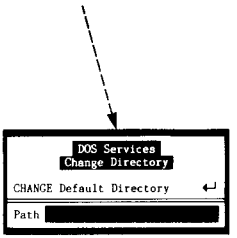
A:\ or C:\DV

To change the default drive:

- Type in the Path field the new default drive letter followed by a colon—for example, "A:".

Or, to change the default directory:

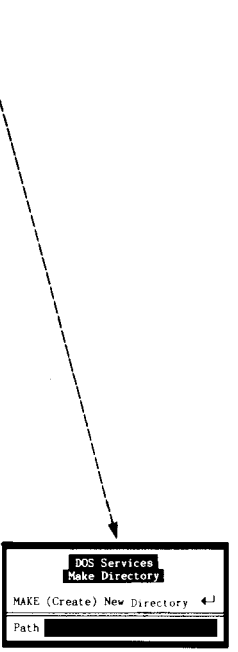
- Type in the Path field the new default directory name—for example, "\1-2-3".
- Then, select CHANGE Default Directory.



Make Directory

You use the Make Directory command to create a new directory entry on the current default drive:

- Type in the Path field the name of the new directory you want to create—for example, "\dBASE".
- Select MAKE (Create) New Directory.



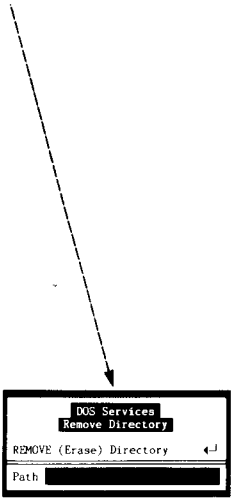
Remove Directory

You use the Remove Directory command to delete an existing directory entry from the current default drive:

- Type in the Path field the name of the directory you want to delete—for example, "\WordStar".

This command will give an error and leave the directory still defined:

- ☐ If there are any files in the directory being removed.
- ☐ If the current default directory is set to the directory being removed.



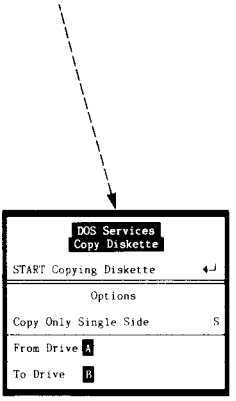
Copy Diskette

You use the Copy Diskette command to make a copy of a diskette. This is primarily useful on a dual-floppy drive or RAM disk system.

If you're not copying from drive A to drive B:

- Type in the From Drive field the letter of the drive containing the diskette to be copied.
- Press Tab and type in the To Drive field the letter of the drive containing a blank diskette.
- Select the option if you want it turned on.
- Select START Copying Diskette.

Follow the instructions displayed in the DOS Services window.

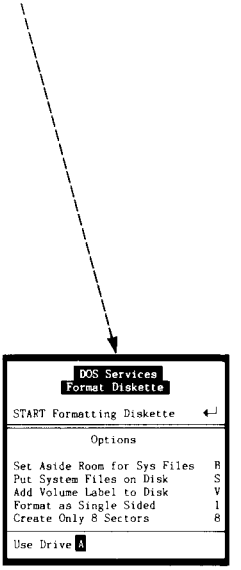


Format Diskette

You use the Format Diskette command to format a new diskette before you use it on your system:

- If you're not using drive A, type the letter of the drive you are using in the Use Drive field.
- Select any options you want turned on. (See your DOS Manual for a more complete explanation of these options.)
- Select START Formatting Diskette.

Follow the instructions displayed in the DOS Services window.



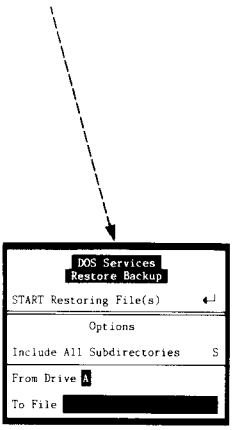
Restore Backup

You use the Restore Backup command to restore files saved using the Backup command:

- If you're not using drive A, type the letter of the drive you are using in the From Drive field.
- Press Tab and type in the To File field the name of the files to be restored.
- Select the option if you want it turned on.
- Select START Restoring File(s).

Follow the instructions displayed in the DOS Services window.

Note: See Appendix D for an important warning.



Other

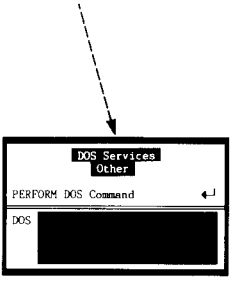
You use the Other command to perform those DOS commands not built into DOS Services.

You can also use Other to perform any of the built-in commands, if you wish. For example, to copy a binary file, you would use the Copy command with the /B option.

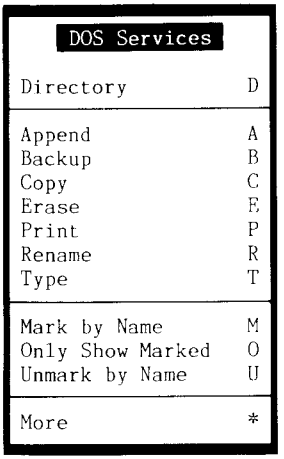
- Type in the DOS field the DOS command to be performed (up to 112 characters long).
- Select PERFORM DOS Command.

The command you enter is performed in the DOS Services window. Then the main DOS Services menu reappears.

There are no restrictions on what you may enter in the DOS field. However, any program you invoke must fit in the memory space allotted to DOS Services, after subtracting the space for the DOS Services program itself.



Marking and Unmarking File Names



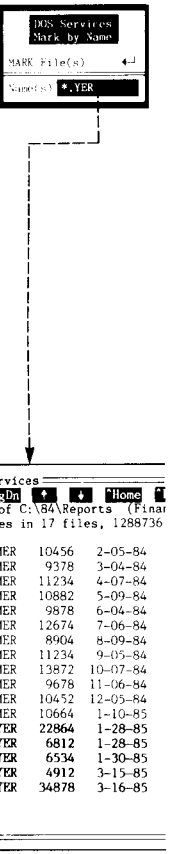
In addition to marking and unmarking file names by using the up arrow key, the down arrow key, and the space bar (see page 110), you can use the Mark by Name, Only Show Marked, and Unmark by Name commands.

Mark by Name

You use the Mark by Name command to mark a file or group of files explicitly by name:

- Type in the Name(s) field the file name(s) to be marked.

To specify a group of names, use the DOS global characters (? and *) in the file name according to standard DOS conventions.

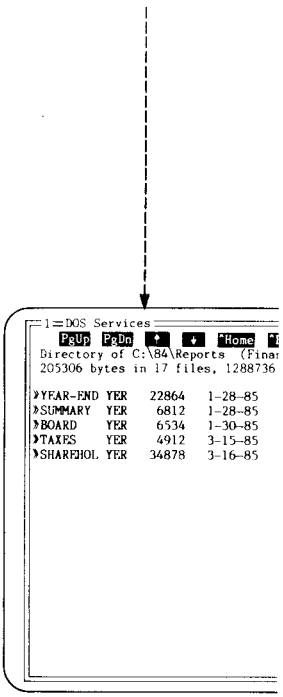


Only Show Marked

You use the Only Show Marked command to remove all unmarked files from the list of files, thereby leaving in the DOS Services window a list consisting of only the marked files.

You can also change the order of files in the list. You do this by using the Ins key to move a file name to another point in the directory:

- Mark a file name using the space bar or the mouse.
- Position the cursor on the line above which you want the name you just marked to be moved.
- Press the Ins key.

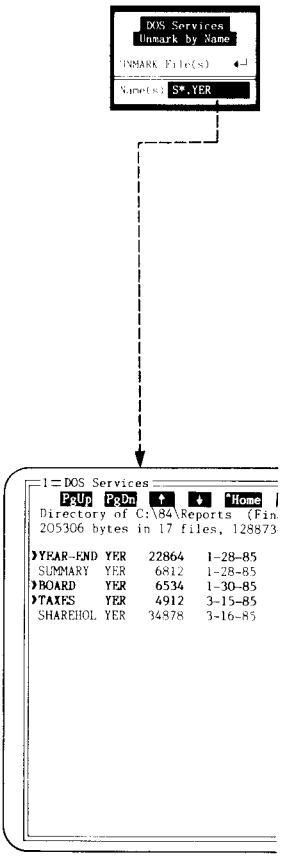


Unmark by Name

You use the Unmark by Name command to unmark a file or group of files explicitly by name:

- Type in the Name(s) field the file name(s) to be unmarked.

To specify a group of names, use the DOS global characters (? and *) in the file name according to standard DOS conventions.



Learn: DESQview's Keystroke Macro Feature

One of DESQview's most powerful features is Learn. Using Learn you tell DESQview to remember a sequence of your keystrokes and to assign these keystrokes to a particular key on your keyboard. Then, whenever you want, you can play back these keystrokes by pressing the assigned key.

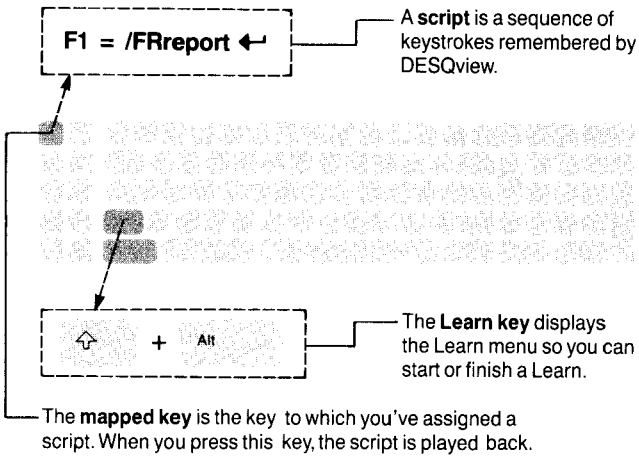
A sequence of remembered keystrokes is called a ***script*** or a ***keystroke macro***. The key to which you've assigned a script is called the ***mapped key***. (It's mapped because, when you press it, DESQview maps—translates—the key into the script.)

Once you've assigned a script to a key, the key's previous use (if any) is replaced by the script, as long as you're in the same context as you were when the script was created. By "in the same context" we mean:

- ☐ If you created the script while running a program—for example, Lotus 1-2-3—and assigned it to the Ctrl-X key, then whenever you're running 1-2-3 in DESQview, pressing Ctrl-X will play back the script.
- ☐ If you created the script while a DESQview menu was displayed and assigned it, for example, to the F1 key, then whenever a DESQview menu is displayed and you press the F1 key, the script is played back.

In order to start and finish scripts, DESQview requires a special key, which we call the ***Learn key***. We use ***Shift-DESQ***—that is, the keystroke formed by holding down the Shift key and tapping the DESQ key—as the Learn key. This displays the Learn menu, from which you select the Learn action you want.

Scripts are loaded automatically by DESQview. When you start up DESQview, the scripts you created on DESQview menus are loaded. When you start up a program, scripts you created for the program are loaded.



Learning a Script

The basic steps to learn a script are:

- ☐ Get your program at the point where you're ready to type the first keystroke of the script. Or, if you want to create a script that works only when a DESQview menu is displayed, display the menu you want.
- ☐ Display the Learn menu and select Start a Script. Then tell DESQview which key you want to use. Also, if you like, you can give the script a descriptive name, like "Load Report."
- ☐ Enter all the keystrokes for the script. DESQview will remember these keystrokes as you enter them.
- ☐ Display the Learn menu again and select Finish Script.

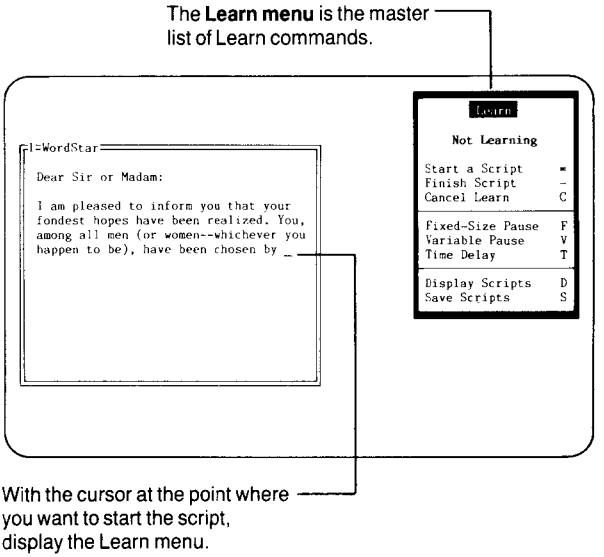
The script is now operational. To play it back, just press the key assigned to it.

Starting a Learn

The first step in creating a script is to tell DESQview you want to start a Learn operation. After you've reached the point where you're ready to enter the first keystroke of the script:

- **Hold down the Shift key and tap the DESQ key to display the Learn menu.**

We call Shift-DESQ the ***Learn key.*** There is no mouse equivalent. You must start a Learn from the keyboard.



- **Select Start a Script. You can do this using either the keyboard or the mouse.**

The following message appears:

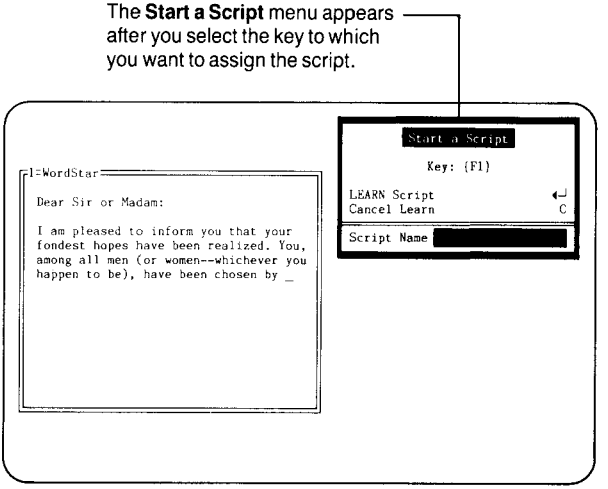
```
Press the Key You
 Want to Redefine
```

■ **Press the key you want to use—for example, the F1 key.**

The Start a Script menu appears.

You cannot redefine the DESQ key, the Learn key, or any of the mouse buttons. You can redefine all other keys. You can override your key redefinition temporarily using the ` key (see page 63).

A script assigned to the ! key (on the DESQview menu) has a special meaning. It is performed at the time you start up DESQview, immediately after the DESQview menu appears. This is called a ***startup script***. You should learn the startup script (if any) with no windows open and with the DESQview menu displayed to be sure it will play back properly.



You may optionally give the script a name. We recommend you do so to help remind you what the script does. You can display a list of the scripts you've created using the Display Scripts command on the Learn menu.

■ **If you want your script to have a name, type that name.**

■ **Select LEARN Script.**

The Start a Script menu disappears. Everything you type, until you press the Learn key again, is recorded as part of the script.

To cancel the Learn: Instead of selecting LEARN Script, press Tab and then type *C*.

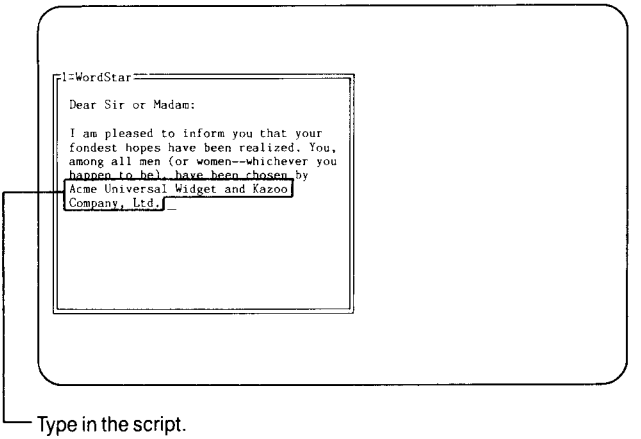
Entering the Script

■ **Perform whatever action you want to be recorded as the script.**

All the keystrokes you type are remembered by DESQview, up to the limit of the learn buffer. DESQview clicks after each keystroke to remind you that you're learning. (Clicks may be hard to hear on a noisy keyboard.)

A script is saved in the ***learn buffer*** while you're learning it. When you finish the Learn operation, it's transferred to the ***script buffer.*** There is a script buffer for each program and one for scripts you create on DESQview menus. You can control the size of these buffers. See Appendix A for more information.

Scripts can be nested to any level—that is, while you are learning a script, you can start learning another script. The only limit is the length of the learn and script buffers.



Finishing the Script

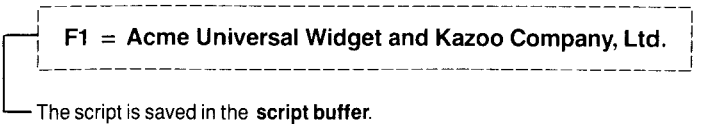
When you've finished the last keystroke of the action you want to record, finish the Learn:

- **Press the Learn key (Shift-DESQ) to redisplay the Learn menu.**
- **Select Finish Script.**

The script is completed and assigned to the key you selected—for example, the F1 key.

Remember, you must always finish (or cancel) a script once you start it. If you don't, a loud beep will occur when the learn buffer is full.

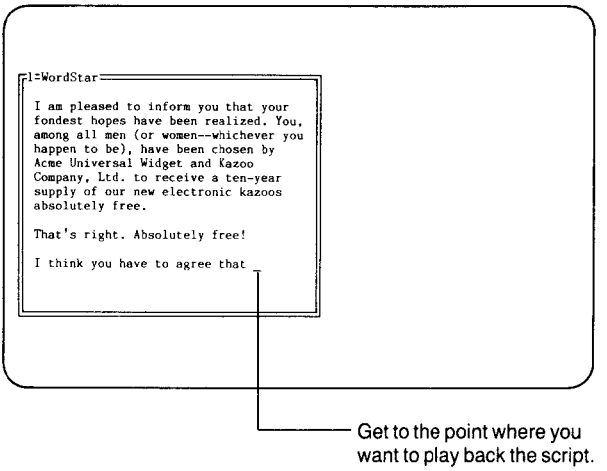
To cancel the Learn: Redisplay the Learn menu and select Cancel Learn.



Playing Back a Script

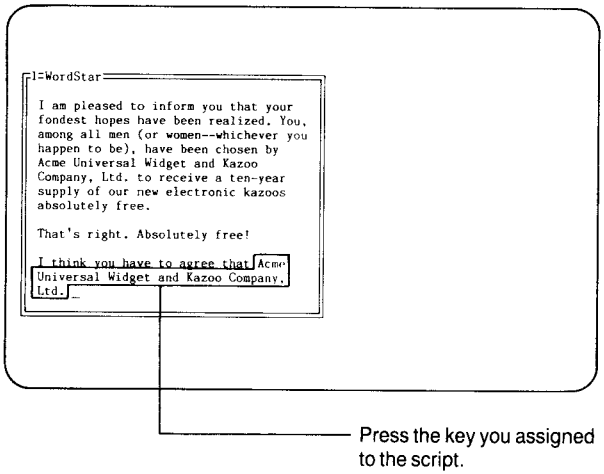
Once you've learned a script, you can play it back at any time. If the script was learned on a DESQview menu, you can play it back when any DESQview menu is displayed. If the script was learned for a particular program, you can play it back whenever you're working in the program.

- **Move the cursor to the point in the program where you want to play back the script. Or, display the DESQview menu on which you want to start playing back the script.**



■ **Press the key you assigned to the script—for example, the F1 key.**

DESQview types the keystrokes it previously remembered.



When a script is played back, it is loaded into the playback buffer—the entire script must fit. The initial length of this buffer is 1,000 bytes. You can change the length using the Setup program (see Appendix A). If you nest scripts, each nested script is loaded into the playback buffer (in its entirety) at the time it's referenced. When playback of a nested script is complete, its playback buffer space is released.

Pausing During a Script

Often you need to create a script that will temporarily stop during playback to allow you to enter variable information—for example, a file name—or to wait for some action to complete—for example, a spreadsheet recalculation.

DESQview allows you to stop playback by entering a ***pause*** in a script. A pause merely tells DESQview that, when it plays back the script, it should stop and either let you type in variable information or wait for a fixed length of time. There are three kinds of pauses:

- ☐ A ***fixed-size pause*** allows you to type a fixed number of characters. This is appropriate, for example, where you have to enter a ZIP code, a phone number, or other information of fixed length.
- ☐ A ***variable pause*** allows you to type any number of characters. (You signal you're done by pressing ←┘.)
- ☐ A ***time delay*** halts playback for a given number of seconds.

Defining a Fixed-Space Pause

To define a fixed-size pause:

- **Start your script. Then enter keystrokes until you reach the point where you want to start the pause.**
- **Press the Learn key (Shift-DESQ) to display the Learn menu.**
- **Select Fixed-Size Pause.**

The menu disappears and you're back where you were.

- **Type the text you want in the pause.**

  DESQview will count the number of characters you type. When you've entered all the pause text:

- **Display the Learn menu and select Fixed-Size Pause again.**

  DESQview finishes the pause and resumes learning the script.

- **Continue entering the script. Finish it in the normal manner—by selecting Finish Script from the Learn menu.**

Playing Back a Fixed-Space Pause

When you play back a script with a fixed-size pause in it, DESQview stops at the point where you defined the pause:

- **Type the correct number of characters.**

  As soon as you type the last character of the pause, the script resumes playing back.

Defining a Variable Pause

The steps for creating a variable pause are basically the same as for creating a fixed-size pause:

- **Start your script. Then enter keystrokes until you reach the point where you want to start the pause.**
- **Press the Learn key (Shift-DESQ) to display the Learn menu.**
- **Select Variable Pause.**
- **Type the text you want in the pause.**
- **Display the Learn menu and select Variable Pause again.**
- **Continue entering the script. Finish it in the normal manner.**

Playing Back a Variable Pause

When you play back a variable pause, DESQview stops at the point where you defined the pause:

- **Type whatever variable information you want, of any length.**

Since DESQview has no way of automatically determining when you're finished typing the variable information, you must indicate when you're done:

- **Press ← when you've entered all the text you want.**

The script resumes playing back.

Creating a Time Delay

To halt the script for a given number of seconds:

- **Start your script. Then enter keystrokes until you reach the point where you want a time delay.**
- **Press the Learn key (Shift-DESQ) to display the Learn menu.**
- **Select Time Delay to display the Time Delay menu.**
- **Type the number of seconds you want the script to wait and then select DONE.**
- **Continue entering the script. Finish it in the normal manner.**

When you play back the script, it will halt at the point where you entered the Time Delay, for the number of seconds you indicated, and then automatically resume playing back.

Saving Scripts

When you create scripts, they're stored in your computer's memory. The areas set aside for scripts are called ***script buffers***. There is a script buffer for each program running and one for the scripts you create on DESQview menus.

When you close a program, the script buffer for that program is discarded and all scripts are lost—unless you saved the scripts first. When you quit DESQview, all script buffers are discarded and all scripts are lost.

You save the scripts you've created with the Save Scripts command on the Learn menu. You must save the scripts for each program and for DESQview menus separately.

While a script is being learned, it is stored in the ***learn buffer***. When the script is complete, it is transferred to the program's script buffer or to the DESQview script buffer. Initially, the learn buffer and each script buffer are 1,000 bytes long. The script buffer size is cumulative—it is the maximum limit for *all* scripts you create for a program or for *all* scripts you create on all DESQview menus. (The 256 characters in the standard IBM ASCII character set each use up a single byte. The extended characters—the F-keys, the cursor keys, and so forth— each use up two bytes.)

You can change the script buffer size for program scripts using the Change a Program command (see Chapter 7). You can change the learn buffer size and the script buffer size for DESQview scripts by running the DESQview Setup program (see Appendix A).

Saving Program Scripts

To save the scripts for a program:

- **Resume work in the program, if you aren't already working in it.**
- **Display the Learn menu and select Save Scripts.**

The scripts are saved to disk under the name xx-SCRIP.DVS, where *xx* are the keys on the Open Window menu for the program. (This guarantees that the name is unique.) The file is created on the drive and directory from which you started up DESQview.

Saving DESQview Scripts

To save the scripts you've created for DESQview menus:

- **Display any DESQview menu.**
- **Display the Learn menu and select Save Scripts.**

The scripts are saved to disk under the name DESQVIEW.DVS.

Other Learn Features

DESQview has three additional Learn features:

☐ You can delete a script you no longer want.

☐ You can get a list of all the scripts you've created.

☐ You can nest scripts.

Deleting a Script

You delete a script by re-learning an empty script for the key:

- **Display the Learn menu and select Start a Script.**
- **Press the key for the script you want to delete.**
- **Select LEARN Script.**

Now, immediately end the Learn:

- **Display the Learn menu again and select Finish Script.**

The key you used for the script is now restored to its normal usage.

Getting a List of Scripts

To see a list of all the scripts you've created:

- **Display the Learn menu and select Display Scripts.**

A menu listing the scripts you've created appears. Both the key and the name you gave to the script in the Script Name field (if any) are shown.

- **Select the script you want—or press Esc to remove the menu.**

Nesting Scripts

A ***nested script*** is a script embedded in another script. You create a nested script by starting a Learn while a Learn is already in progress. A nested script behaves exactly like a variable pause, except that the keystrokes you type during the pause are remembered and assigned to the mapped key for the nested script. Just as with a variable pause, you end the script by pressing ←┘.

For example, assume you created the following script (by telling DESQview to learn a script onto key F2 while it was already in the middle of learning a script onto key F1):

F1 = Please enter today's date: {Learn {F2} "Date"}

When you play back this script, DESQview pauses after typing "Please enter today's date:." Whatever you type after that, until you press ←┘, is assigned to F2. Now, you can use F2 to type today's date.

The Convert a Script Program

The scripts you create are written to disk in a special, encoded format. They cannot be viewed or changed. Sometimes it's useful to be able to see these scripts, to edit them, or to create your own scripts directly, by typing in the keystrokes to a word processor. The Convert a Script program lets you do this.

When you run the Convert a Script program, you may read a script file written by the Save Scripts command, or convert a script you prepared with your word processor (as an ASCII file) into the format of a script file.

Getting Started

To learn how to use Convert a Script, we suggest you create a couple of scripts for a program (say 1-2-3), save them (using the Save Scripts command), convert them (using Convert a Script on file LT-SCRIP.DVS), and then look at the resulting ASCII file with your favorite word processor. What you'll find is a series of ***key definitions***, one for each script you created, of the form:

{Learn key "name"}keystrokes{Finish}

where ***{Learn key "name"}*** and ***{Finish}*** are special keys that mark the boundaries of the script and ***keystrokes*** are the keystrokes that make up the script. Within {Learn key "name"}, ***key*** is the key being defined and ***name*** is the script name.

Directly Creating a Script

To create a script directly, use your favorite word processor to create an ASCII file of key definitions. Then convert this file to script file format using Convert a Script. (If there's an error in a key definition, Convert a Script stops with the erroneous line displayed. Press any key to continue.)

Editing a Script

To edit a script you created using the Learn command, use the Convert a Script program to convert it to ASCII format, edit it using your favorite word processor, then convert it back to script file format. Since DESQview only loads scripts when you start up a program, you must close and then re-start the program to have the script file reloaded.

Using Curly Brackets to Define Keys

When a script contains a key that doesn't have a corresponding letter or symbol—like the F1 key, the ← key, the Home key, and so forth—DESQview puts the name of the key in curly brackets: {F1}, {Enter}, {Home}. This is necessary because Convert a Script must be able to distinguish, for example, the word "End" from the End key. It does this by representing the End key as {End} and the word "End" simply as itself, End. Some special keys are: {Delay n} for a time delay of ***n*** seconds, {Fixed-Pause n} for a fixed-size pause of length ***n***, and {Variable-Pause} for a variable pause. Other examples are: {{} for {, {^C} for Ctrl-C, {Alt-X}, {Shift-F10}, {Gray-+}, {Left}, and so forth.

6 Advanced Mark and Transfer

DESQview's basic mark and transfer feature lets you mark a block of information and transfer it to another program, or to another point in the same program. When you mark multiple lines of information, you can specify the key (or keys) you want typed at the end of each line when it's transferred. See pages 41-48 of Chapter 2, ***Getting Started: A Tutorial***, and pages 90-97 of Chapter 3, ***Using DESQview***, for a discussion of the basic mark and transfer process.

DESQview also lets you perform more sophisticated transfers:

- ☐ You can mark and transfer disjoint blocks of information.
- ☐ You can mark and transfer repeating patterns of information—for example, records in a database or rows and columns in a spreadsheet.
- ☐ You can use DESQview's Learn feature with mark and transfer to create scripts (keystroke macros) that transfer information from one program to another, reformatting the information as you require.

This chapter shows you how to use these advanced features by walking you through two examples:

- ☐ The first example describes how you would mark and transfer disjoint blocks of information by transferring information from a database (dBASE III) to a word processor (pfs:write).
- ☐ The second example describes how you would mark and transfer rows and columns of information by transferring information from a communications program (CrossTalk) to a spreadsheet program (Lotus 1-2-3).

> This chapter is for advanced users. You should familiarize yourself with the basic mark and transfer process before reading this chapter.

Transferring Disjoint Blocks of Information

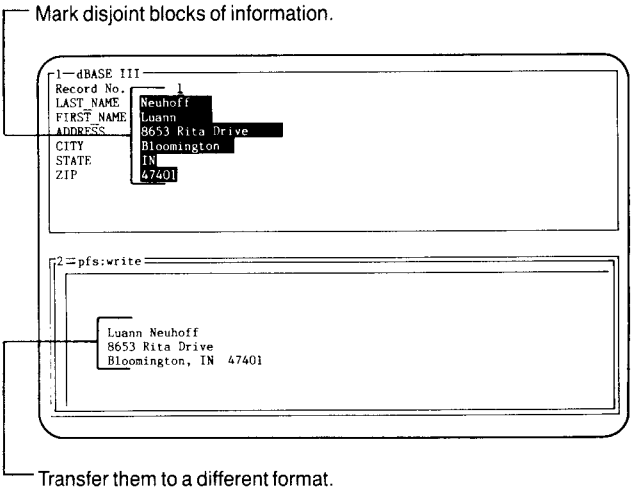
The basic mark and transfer process (that you learned about in Chapters 2 and 3) described the steps to mark and transfer a single, multi-line block of information:

- ☐ Mark the block of information, using the Mark Begin and DONE commands.
- ☐ Switch to the program where you want to transfer the information, put the cursor at the transfer point, and select Transfer.
- ☐ Select "as text" or "as a number" to transfer the first marked line.
- ☐ Press the key (or keys) you want to type between each line.
- ☐ Select "rest of data" to transfer the remaining lines of marked information.

In addition, DESQview gives you the following capabilities:

- ☐ You can mark more than one block of information to be transferred. (These blocks must all be in the same snapshot.)
- ☐ You can mark a set of disjoint blocks and then repeat the same sequence of steps to mark additional blocks with the same pattern. For example, after you've marked columns 2, 4, and 6 in row 4 of a spreadsheet, you could tell DESQview to repeat this marking pattern on rows 5 through 15.

- ☐ You can type a specific key sequence at the beginning of each line you transfer—in addition to the key sequence you type at the end of each line.
- ☐ You can type a different key sequence between each line of a block, rather than using the same sequence for each line.
- ☐ You can transfer the same marked information more than once. For example, after marking fields in a database, you could transfer the information to a spreadsheet program and then to a word processing program.



Disjoint Blocks: Defining the Problem

The best way to understand DESQview's advanced capabilities is to walk through an example. The example we'll use is building a set of mailing address labels from a database of names and addresses. For the database, we'll use the sample database called "NAMES" that comes with dBASE III. We'll construct the mailing labels in pfs:write.

The "NAMES" database consists of 10 records, as follows:

#	LAST_NAME	FIRST_NAME	ADDRESS	CITY	STATE	ZIP
1	Neuhoff	Luann	8653 Rita Drive	Bloomington	IN	47401
2	Lakeland	Lionel	4902 Bluffside Road	Muskegon	MI	49450
3	Butler	Sarah	45 Macedonia Road	Raleigh	NC	27606
4	Roarke	John	87899 Gallatin SW	Roanoke	VA	24018
5	Randolph	Charles	894 Grigsby Road	Knoxville	TN	37922
6	Greystoke	Arthur	8897 Plaines Lane	Cheyenne	WY	82005
7	Lock	Joseph	5788 Certified Way	Carson City	NV	89701
8	Campbell	Chester	2716 Etoile Way	LaFayette	KY	42254
9	Cooke	Jonathan	568 East Westbourn	Mission Ridge	SD	57557
10	Lyman	William	78 Rye Street	Topeka	KS	66699

The format of a mailing address label is:

```
Luann Neuhoff
8653 Rita Drive
Bloomington, IN  47401
```

Disjoint Blocks: Defining the Steps

For this example, we'll assume that you've started dBASE III running in window 1 and issued the command "USE NAMES". Also, we'll assume that you've started pfs:write running in window 2 and performed the "Edit/Type" command to create a typing window.

Overall, the way we want the database-to-mailing-label procedure to work is this:

- ☐ First, use the "EDIT n" command in dBASE III to display the first record you want to transfer.
- ☐ Second, tell DESQview to mark the record and transfer it into the format of a mailing label in the pfs:write window.
- ☐ Third, switch back to the dBASE III window so you can display the next record to transfer.

To perform this procedure, we'll use DESQview's advanced mark and transfer features in combination with DESQview's Learn command. The basic steps are:

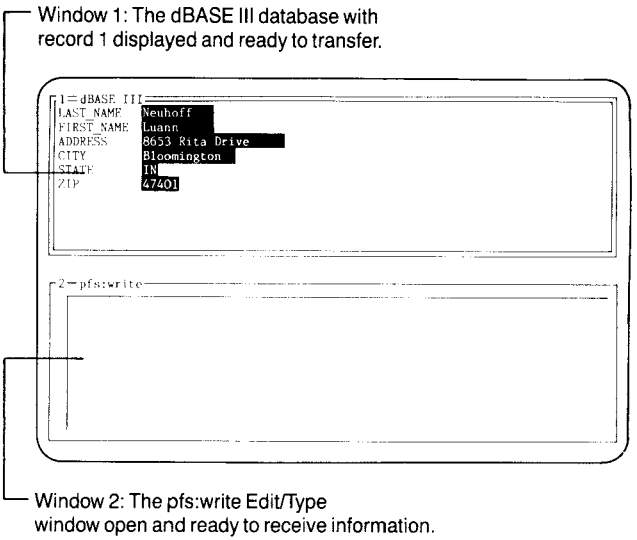
- ☐ Starting with window 1 as the current window, use the "EDIT n" command to display the first record you want to transfer.
- ☐ Perform DESQview's Start a Script command to start learning a script.
- ☐ Use DESQview's Mark command to mark the 6 fields in the database in the order you want them to appear in the address label: FIRST_NAME, LAST_NAME, ADDRESS, CITY, STATE, ZIP. (Note that the order of the first and last names is reversed.)
- ☐ Switch to window 2—pfs:write—and use DESQview's Transfer command to transfer the 6 fields into pfs:write in the format of an address label.
- ☐ Switch back to window 1.
- ☐ End the Learn.

Now, you have a script that performs the desired transfer and reformatting of information. To transfer another record:

☐ Use the PgUp and PgDn commands—or whichever dBASE III commands you prefer—to display the next record you want to transfer.

☐ Perform the script.

Repeat these two steps until all the records you want are transferred.



Disjoint Blocks: Marking the Blocks

To begin, open a dBASE III window and display record 1 of the "NAMES" database. Then open a pfs:write window, select "Edit/Type" mode, and switch back to window 1:

- **Open dBASE III in window 1. Then enter the "USE NAMES" command, followed by the "EDIT 1" command.**
- **Open pfs:write in window 2 and select "Edit/Type." Then switch back to window 1.**

Now, start learning a script which will be assigned to the Alt-A key:

- **Display the Learn menu (Shift-DESQ) and select Start a Script. Then press the Alt-A key, type** Address Label **for the script name, and press ←┘.**

Now mark the 6 fields:

- **Display the Mark menu.**
- **Move the cursor down to the FIRST_NAME field and mark it—but end the Mark by selecting Mark End rather than DONE. Be sure to mark all 10 characters of the field, not just the name "Luann."**

  When you select Mark End, the Mark menu remains on the screen and Mark Mode remains in effect so you can mark more blocks. You need to mark the entire field, not just "Luann," because you're going to repeat this marking step on other FIRST_NAME fields, some of which may contain names longer than "Luann."
- **Mark the remaining 5 fields in the order: LAST_NAME, ADDRESS, CITY, STATE, ZIP—again, be sure to end each Mark by using Mark End rather than DONE and to mark the entire field.**

Now all 6 fields are marked and remembered by DESQview. You're ready to transfer this information into pfs:write.

Disjoint Blocks: Transferring the Blocks

To transfer the information to pfs:write:

- **Switch to window 2 and display the Transfer menu.**
- **Select "Transfer the first line as text."**

Now you must indicate the key you want typed between the first field (FIRST_NAME) and the second field (LAST_NAME):

- **Type a space. Then tap the DESQ key to redisplay the Transfer menu.**

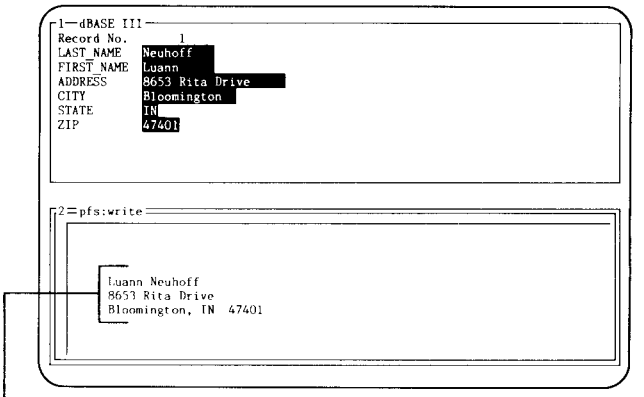
Next transfer the 5 remaining fields:

- **Select "Transfer the next line as text," type the appropriate key or keys (as shown below), and tap the DESQ key.**

after	LAST_NAME	type	↵
after	ADDRESS	type	↵
after	CITY	type	a comma and one space
after	STATE	type	two spaces
after	ZIP	type	two ↵'s

Finally, switch back to window 1 and end the Learn:

- **Switch to window 1, display the Learn menu (Shift-DESQ), and select Finish Script.**



The six dBASE III fields are transferred to pfs:write, reformatted as a mailing label.

Disjoint Blocks: Transferring More

To transfer additional records:

- **Use the PgDn (or PgUp) key to display the next record you want to transfer.**
- **Press Alt-A.**

Repeat these steps until all the records you want are transferred.

Transferring Rows and Columns

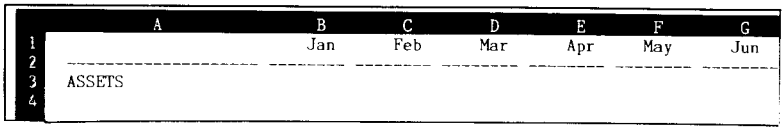
The discussion on the preceding several pages, ***Transferring Disjoint Blocks of Information***, examines the case of marking and transferring disjoint blocks of information. Another frequent use of mark and transfer is to transfer rows and columns of information into a spreadsheet from a word processor or from a communications program that has downloaded information from a mainframe or other computer.

Rows and Columns: Defining the Problem

Let's assume you've used CrossTalk, running in window 1, to download some revenue information from your mainframe. Now you'd like to transfer this information to Lotus 1-2-3, running in window 2. The table produced by your mainframe has the format shown below. (This is the same information contained in Sample Sprdsheet.)

	Jan	Feb	Mar	Apr	May	Jun
ASSETS						
Accts Receivable	$1,000.0	$1,050.0	$1,102.5	$1,157.6	$1,215.5	$1,276.2
Cash	300.0	500.0	525.0	551.2	578.8	607.7
Unsold Goods	250.0	262.5	65.6	289.4	303.8	319.0
TOTAL ASSETS	$1,550.0	$1,812.5	$1,693.1	$1,998.2	$2,098.1	$2,202.9
LIABILITIES						
Accts Payable	$1,000.0	$ 916.6	$ 840.2	$ 770.2	$ 706.0	$ 647.2
Storage Costs	50.0	50.0	50.0	50.0	50.0	50.0
Labor	100.0	105.0	110.2	115.7	121.5	127.6
Materials	50.0	52.5	55.1	57.8	60.7	63.8
TOTAL LIABILITIES	$1,200.0	$1,124.1	$1,055.5	$ 993.7	$ 938.2	$ 888.6
NIBT	$ 350.0	$ 688.4	$ 637.6	$1,004.5	$1,159.9	$1,314.3
Dep. Allowance	100.0	100.0	100.0	100.0	100.0	100.0
Taxable Income	250.0	588.4	537.6	904.5	1,059.9	1,214.3
Taxes(@30%)	75.0	176.5	161.3	271.4	318.0	364.3
NET INCOME	$ 275.0	$ 511.9	$ 476.3	$ 733.2	$ 841.9	$ 950.0

Assume that window 2—Lotus 1-2-3—contains a spreadsheet that you've already prepared by setting up columns A-G. Column A is 20 wide. The remaining columns (B-G) are each 9 wide. You've typed the 6 months on row 1, hyphens on line 2, and the word "ASSETS" on line 3, as shown below. You've also set numbers to 1 decimal place by "Worksheet Global Format Fixed 1" and set labels to be left-justified by "Range Label-Prefix Left A1.G30."



Rows and Columns: Defining the Steps

To transfer the CrossTalk information into 1-2-3, the steps are:

- ☐ Starting with window 1 as the current window, display the Mark menu.
- ☐ Skipping the months row, position the cursor at the beginning of the "Accts Receivable" row. Then start a Learn.
- ☐ First, mark the label itself—"Accts Receivable." Then mark each of the 6 columns of numbers in turn.
- ☐ Position the cursor at the beginning of the "Cash" line. (Be sure to use the arrow keys, not ↵, to move the cursor back to the beginning of the next line. Remember, pressing ↵ ends the Mark command.)
- ☐ End the Learn.

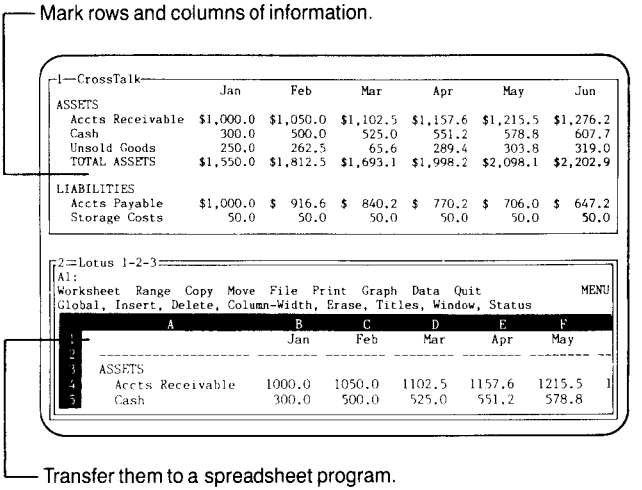
☐ Use the script you just created to mark the remaining 17 lines (including the 3 blank lines).

☐ Switch to window 2 and position the 1-2-3 spreadsheet cursor at A4.

☐ Tell DESQview to transfer the first marked block—"Accts Receivable"—as text. Then type a right arrow.

☐ Then tell DESQview to transfer the next 6 blocks as numbers. Separate all but the last block by a right arrow. After the last block, put 6 left arrows and a down arrow to move the cursor to A5.

☐ Tell DESQview to transfer the "rest of data." This repeats the same key sequence until all the remaining 17 rows are transferred.



Rows and Columns: Defining the Blocks

To mark the rows and columns:

- **Start up CrossTalk in window 1 and download the information. (Or, if you prefer, start up the Sample Sprdsheet program—see page 31.)**
- **Start up Lotus 1-2-3 in window 2, set the column widths for columns A-G, type in the text for rows 1-3, and switch back to window 1.**
- **Position the cursor at the beginning of the "Accts Receivable" row—under the "A" of "ASSETS."**
- **Display the Mark menu.**
- **Display the Learn menu (Shift-DESQ) and select Start a Script. Then press the Alt-M key, type** Mark Line **for the script name, and press ←┘.**
- **Mark the "Accts Receivable" entry. Be sure to mark all 20 characters, through the column just before the dollar sign ($).**
- **Mark the number "$1,000.0;" starting at the dollar sign and extending through the ".0" of "$1,000.0"—8 characters.**
- **Mark the remaining 5 numbers (Feb-Jun) in the same way, as 8-column wide entries.**
- **Position the cursor at the beginning of the "Cash" line. Use the arrow keys to move the cursor, *not* the ←┘ key.**
- **Display the Learn menu (Shift-DESQ) and select Finish Script.**
- **Press Alt-M 17 times to mark the remaining 17 rows.**
- **Select DONE to end marking.**

Rows and Columns: Transferring the Blocks

- **Switch to window 2 and position the 1-2-3 spreadsheet cursor at A4.**
- **Display the Transfer menu.**
- **Press the Esc key, type a double quote mark ("), and press the Esc key again. (This puts a double quote prior to the first entry.)**
- **Select "Transfer the first line as text," press right arrow, and then tap the DESQ key. (This transfers the "Accts Receivable" entry and moves the cursor to B4.)**
- **Select "Transfer the next line as a number," press right arrow, and then tap the DESQ key. (This transfers "$1,000.0" as a number—namely as "1000.0".) Repeat this 4 more times to transfer the information for Feb-May.**
- **To transfer the "Jun" value, select "Transfer the next line as a number," press the left arrow 6 times, press the down arrow once, and tap the DESQ key. (This moves the cursor to A5.)**
- **Select "Transfer the rest of your data" to transfer the remaining marked information.**

The result is the following 1-2-3 spreadsheet:

	A	B	C	D	E	F	G
1		Jan	Feb	Mar	Apr	May	Jun
2	---	---	---	---	---	---	---
3	ASSETS						
4	Accts Receivable	1000.0	1050.0	1102.5	1157.6	1215.5	1276.2
5	Cash	300.0	500.0	525.0	551.2	578.8	607.7
6	Unsold Goods	250.0	262.5	65.6	289.4	303.8	319.0
7	TOTAL ASSETS	1550.0	1812.5	1693.1	1998.2	2098.1	2202.9
8							
9	LIABILITIES						
10	Accts Payable	1000.0	916.6	840.2	770.2	706.0	647.2
11	Storage Costs	50.0	50.0	50.0	50.0	50.0	50.0
12	Labor	100.0	105.0	110.2	115.7	121.5	127.6
13	Materials	50.0	52.5	55.1	57.8	60.7	63.8
14	TOTAL LIABILITIES	1200.0	1124.1	1055.5	993.7	938.2	888.6
15							
16	NIBT	350.0	688.4	637.6	1004.5	1159.9	1314.3
17	Dep. Allowance	100.0	100.0	100.0	100.0	100.0	100.0
18	Taxable Income	250.0	588.4	537.6	904.5	1059.9	1214.3
19	Taxes(@30%)	75.0	176.5	161.3	271.4	318.0	364.3
20							
21	NET INCOME	275.0	511.9	476.3	733.2	841.9	950.0
22							

Changing a Program's Information

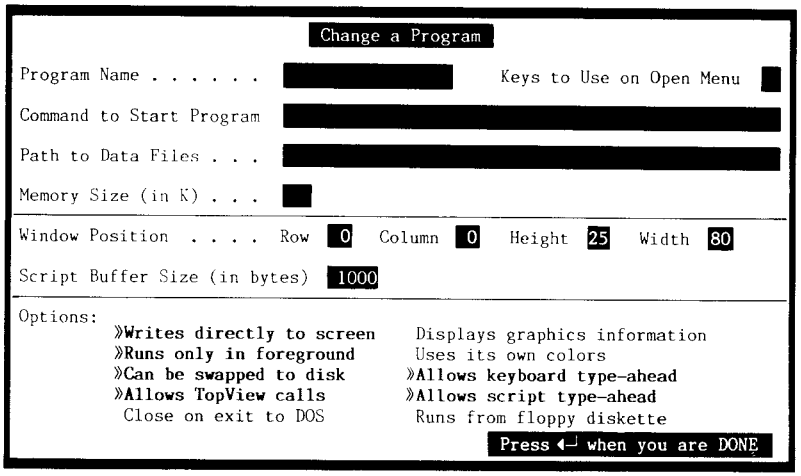
When you install a program in DESQview (using the Add a Program command), you provide DESQview with the information it needs to run the program.

You can provide the information DESQview needs about a program in two ways:

- ☐ If you have a TopView Program Information File (PIF) or a DESQview Program Information File (DVP) for the program, DESQview will automatically use the information in this file. (This occurs when you select the program from the Add a Program menu.) The program information file contains all the information that DESQview needs, except the drive and directory on which the program is stored. You're asked to provide this when you complete the Add a Program command.

- ☐ If you don't have a PIF or a DVP for the program, you must provide the four basic pieces of information about the program that DESQview needs—the program's name, the keys to use to select it from the Open Window menu, the DOS command that starts it up, and the amount of memory it needs. You furnish DESQview with this information using the Add OTHER Program menu. DESQview will use default or preassigned values for the remaining information it needs.

The Change a Program menu lists the complete set of information that DESQview has about a program. If you want to change any of this information, display the Change a Program menu, make the changes you want, and press ←.



The Change a Program Menu

The Change a Program menu lists the complete set of information that DESQview has about a program. You can use this menu to change the program information for an existing program or to define the information for a new program:

- To change the program information for an existing program, select Change a Program from the Open Window menu (see page 89). DESQview will display the Change a Program menu with the program's current information filled in. Make any changes you want and press ↵.

- To define information for a new program, select Specify Extended Program Information from the Specify OTHER Program Information menu (see pages 82-85). DESQview will display the Specify Extended Program Information menu (which is identical in content to the Change a Program menu) with the standard default settings for a new program filled in. Complete the five fields above the first line, change any of the other program information as you require, and press ↵.

If you have a DESQview Program Information File (DVP) for a program, you do not, in general, need to use the Change a Program menu, since the DVP correctly defines all the program's information.

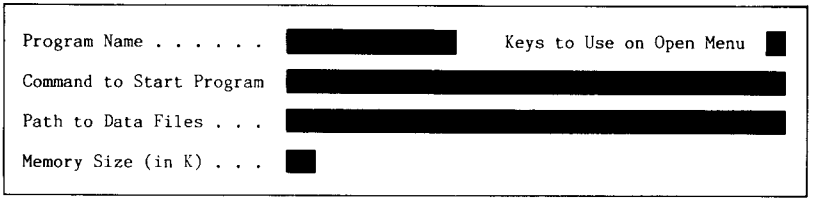
If you have a TopView Program Information File (PIF) for a program, you also do not, in general, need to use Change a Program. However, with a PIF, DESQview uses default values for some of the information it needs. Changing these values may enhance the performance of some programs in DESQview.

IMPORTANT: If you're using a floppy-based system, your everyday DESQview diskette must be in drive A (or the drive from which you started DESQview) when you select the Add a Program or Change a Program commands.

Notes:

- When you install a program, DESQview creates a DVP for it—unless one already exists. (A DVP is created if the program was installed from a PIF or if you defined the program information from the Specify OTHER Program Information menu.)
- When you change the information for a program, the program's DVP is updated.
- DESQview always looks for the program information file in the drive and directory from which you started DESQview. (See Appendix B for further information.)

Basic Program Information



The information on the Change a Program menu is divided into three sections. The first section specifies the five basic pieces of program information:

- ☐ The ***Program Name*** field specifies the name of the program. This is the name that appears on the Open Window menu for the program and in the top frame bar of the program's window when the program is running. The name can be up to 17 characters long.
- ☐ The ***Keys to Use on Open Menu*** field specifies the keys that appear on the Open Window menu, next to the program's name, and may consist of either one or two letters or symbols. (We recommend you use two characters to avoid future naming conflicts.) The keys you pick must be different from any that currently appear on the Open Window menu. These keys also define the file names DESQview uses for files related to the program: xx-PIF.DVP is the DESQview Program Information File for the program with keys *xx*; xx-SCRIP.DVS is its script file; and xx-LOAD.COM is its special customization file, if any. (See Appendix B for more information on these files.)

☐ The ***Command to Start Program*** field specifies the DOS command used to start up the program. This can be the name of a program file or of a batch file that runs the program. Optionally, you can precede the program or batch file name by the drive and directory where the program is stored, "d:\prog-dir." (If you omit "d:\prog-dir," DESQview searches for the program or batch file using the PATH command in effect when you started up DESQview, "initial-path" with ";C:\DV" appended—assuming you started DESQview from the DV directory of drive C.) If you normally follow the program or batch file name by program parameters, you may also specify these parameters.

Thus, the Command to Start Program field has the form:

[d:\prog-dir\]program [parameters]

where items shown in square brackets are optional. (Programs with special Quarterdeck customization precede this value with "xx-LOAD," where *xx-LOAD* is the name of the special customization file for the program—see Appendix B.) To create a DOS window, omit "program" or substitute a DOS command in its place—for example, CD\MEMOS.

DESQview loads and runs the program by sending to DOS:

PATH initial-path; C:\DV [;d:\prog-dir] ↵
[e: ↵]
[CD\data-dir ↵]
program [parameters] ↵

☐ The ***Path to Data Files*** field specifies the drive and directory on which you've stored the data for the program, namely:

e:\data-dir

Most commonly, this is the same as the drive and directory, "d:\prog-dir", on which you've stored the program. If "e:\data-dir" is omitted, the program's data is assumed to be in the DV directory of drive C—or in whatever drive and directory you were in when you started up DESQview.

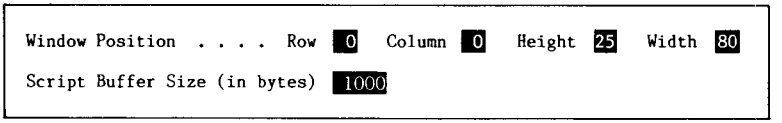
- ☐ The ***Memory Size (in K)*** field specifies the minimum amount of memory the program needs. The number you give must include enough room to load COMMAND.COM, but doesn't need to include room for DOS.

When you install a program, the Path field information you specify on the Program Location menu (see pages 78-81) or on the Add OTHER Program menu (see pages 82-83) is placed in the Path to Data Files field. This allows the program to operate properly in the most common case—when the program and its data files are both on the same path, "e:\data-dir." However, if the program is on a different path than its data files, you must display the Change a Program menu and manually enter "d:\prog-dir" into the Command to Start Program field.

Normally, a program is loaded using COMMAND.COM, DOS's command processor. This has the advantage that you can load batch files, which require COMMAND.COM, but the disadvantage that loading is slow and requires a minimum of 32K. DESQview lets you bypass COMMAND.COM and directly load a program—but ***not*** a batch file. To do so, you must specify the .COM or .EXE extension on the program name you enter in the Command to Start Program field—that is, "program.COM" or "program.EXE" rather than just "program." When you do this, and also turn on the "Close on exit to DOS" option (see page 167), DESQview uses its own loader, SHELL.COM, instead of COMMAND.COM. Using this technique you can load a program as small as about 4K-5K.

When you use a PIF or DVP to install a program, the Memory Size (in K) field is set to the minimum size recommended by the program's manufacturer. Many programs—especially spreadsheet programs—will use any additional memory you specify over the minimum to store more program data. See Appendix D for more information about selecting the proper memory size for a program.

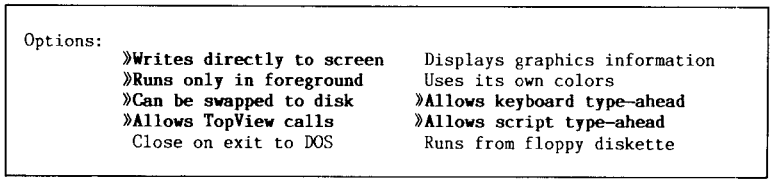
Screen and Buffer Information



The second section of the Change a Program menu specifies information about how you want the program placed on the screen and about how much memory you want set aside for the program's script buffer:

- ☐ The ***Window Position*** field specifies the position on the screen where the window for the program should be placed. If you want to place the window at a specific position, set the Row, Column, Height, and Width values to reflect this position, excluding the frame. The frame will be drawn around the window you specify. (The upper left-hand corner is Row 0, Column 0.) If you don't care where the window is placed and want to let DESQview place it for you automatically, set the values to: 0, 0, 25, 80. For example, to place a window so it occupies exactly the left half of the screen (25 x 40), set the values to: 1, 1, 23, 38.
- ☐ The ***Script Buffer Size (in bytes)*** specifies the amount of memory set aside for the program's script buffer. See pages 132, 139, and 176 for more information.

Options



The third section of the Change a Program menu specifies on/off options for the program. (See page 55 for how to turn options on and off.)

- ☐ The ***Writes directly to screen*** option indicates, when "on," that the program writes directly to the screen and, therefore, requires the entire (25 x 80) screen when it's running. It cannot run in a small window. (The way to find out whether a program writes directly to the screen, if you don't know, is to experiment. Turn off this option and run the program in a small window. If the program writes any information outside the window boundaries, it writes directly to the screen and you must turn this option back on.)

- ☐ The ***Runs only in foreground*** option indicates, when "on," that the program cannot continue to run in background when you switch away from it. Programs that write directly to the screen cannot, in general, run in background. So, normally, this option should be set to on in such cases.

- ☐ The ***Can be swapped to disk*** option indicates, when "on," that the program can be swapped out of memory to disk when DESQview needs memory to load a new program. This allows DESQview to have more windows open than your personal computer's memory allows. Most programs can be swapped to disk. The major exception is communications programs—it's *extremely important* that you set this option "off" for such programs (see Appendix D).

- ☐ The ***Allows TopView calls*** option indicates, when "on," that the program is TopView "aware"—that is, that the program uses TopView commands to manage the information it writes on the screen and, possibly, for other purposes. DESQview supports most, but not all, TopView commands. Set this option to on if the program is TopView aware and then run the program. If the program doesn't behave properly, set this option back to off. (If the program doesn't use any TopView commands, this option is ignored.)

- ☐ The ***Close on exit to DOS*** option indicates, when "on," that when the program running in the window returns control to DOS—usually as a result of your performing the program's "quit" command—DESQview should automatically perform the Close Window command.

- ☐ The ***Displays graphics information*** option indicates, when "on," that the program displays some or all of its information in graphics.
- ☐ The ***Uses its own colors*** option indicates, when "on," that the program has its own color scheme and that you wish to use this color scheme instead of the window colors that DESQview normally provides for the window. (DESQview automatically sets this option to on if the "Writes directly to screen" option is on.)
- ☐ The ***Allows keyboard type-ahead*** option indicates, when "on," that the program remembers keystrokes that you type while the program is still processing previous keystrokes. If the program loses keystrokes that are typed ahead, this option should be set to off.
- ☐ The ***Allows script type-ahead*** option indicates, when "on," that when DESQview plays back a script to the program, it can send the characters in the script to the program as quickly as it wants. This is advantageous because it causes the script to play back more quickly. If the program behaves incorrectly when you play back a script, set this option to off. (This option applies only if the "Allows keyboard type-ahead" option is set to on. DESQview never types ahead if "Allows keyboard type-ahead" is off.)
- ☐ The ***Runs from floppy diskette*** option indicates, when "on," that the program resides on a floppy diskette, rather than on the hard disk. When you start up the program, DESQview will remind you to insert the program diskette.

Appendix A: The DESQview Setup Program

When you install DESQview on your system, certain assumptions are made about how your system is configured and about how you would like DESQview's options set. You can change these default assumptions by running the Setup program:

- **If you're running DESQview, quit DESQview and return to DOS.**

If you're running on a floppy-based system:

- **Place your everyday DESQview diskette in drive A, type** A:**, and press ↵.**

If you're running on a hard disk system:

- **Type** C: **and press ↵. Then type** CD\DV **and press ↵. (This assumes you've installed DESQview in the DV directory of drive C.)**

Then, in either case:

- **Type** SETUP **and press ↵.**

The DESQview Setup program copyright notice appears for a moment. Then the main DESQview Setup menu appears.

IMPORTANT: The changes you make to DESQview's options using Setup do not take effect until you close down and restart DESQview. So, although it's permissible to run the Setup program in DESQview, none of the options you change will take effect until the next time you start up DESQview.

Setup for the First-Time User

The main DESQview Setup menu gives you the choice of using either the simple setup procedure, for the first-time user, or the advanced setup procedure, for the experienced user.

If you choose the simple procedure, you need answer only two questions:

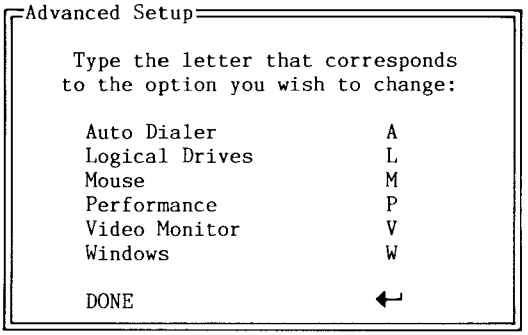
- ☐ Are you using a monochrome monitor or a color/graphics monitor?
- ☐ Have you installed a mouse on your system? If you have, you're asked which brand (Mouse Systems, Microsoft, Logimouse, Visi On, or Maynard) and how it's attached (as an add-on board or to communications port 1 or 2).

That's all.

If you install DESQview without running the Setup program, DESQview automatically determines whether you're using a two-color monochrome monitor or a color/graphics monitor. DESQview also determines if you're using a Microsoft mouse. It cannot determine if you're using any of the other brands of mice.

Setup for the Advanced User

If you choose setup for the advanced user, the following window appears:



This window lists the complete set of DESQview options that you can configure using the Setup program. The following sections of this appendix explain each of these options in detail.

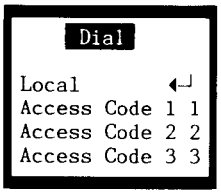
Option: Auto Dialer

The Auto Dialer option lets you specify:

- ☐ What port your modem is attached to.
- ☐ What dialer protocol you're using. (The Auto Dialer is initially configured to use Hayes Smartmodem protocol.)
- ☐ What names and access codes you want to appear on the Dial menu.

If you want to change the modem protocol, you must specify the commands to send before the number (the "Prefix"), the commands to send after the number (the "Postfix"), and the commands to send to hang up (the "Hangup"). Setup recognizes "^X" as meaning "Ctrl-X."

The Dial menu (see page 100) initially appears as:



Each "Access Code" is set to dial "1." You can replace the words "Access Code" by any text you choose—for example, Sprint, MCI, AT&T. You can replace the default access code "1" by any access code up to 25 digits long. You can embed any characters that your modem understands in this access code. (See page 101 for the characters that a Hayes modem understands.)

Option: Logical Drives

The Logical Drives option lets you take full advantage of DOS directories even when your programs don't understand about directories.

Many programs don't allow you to enter file names that include a directory path specifier. On the other hand, virtually all programs allow you to enter file names that include a drive specifier. For example, the file name "c:\db\inventry" is not acceptable to dBASE II. However, the name "g:inventry" is acceptable.

The Logical Drives option lets you associate a drive letter with a DOS directory name. DESQview then maps this drive assignment to the directory path for you. The program continues to think it's addressing a physical disk drive and thus is satisfied.

When you select the Logical Drives option, the Setup program displays a window containing 17 fields, corresponding to drives A through P and SWAP. Each field allows room for 20 characters. For each drive you want to reassign, enter in the field for that drive the drive and directory you want referenced when that drive specifier is used by a program running in DESQview. For example, you might enter in the field for drive G "c:\db". Now, when you use the file name "g:inventry" in dBASE II, DESQview will remap it so that dBASE II accesses the file "c:\db\inventry."

IMPORTANT: You must enter *both* a drive letter and a directory name. A drive letter or directory name standing alone is invalid. Also, *do not* reassign the drives that physically exist on your system—most commonly, A, B, and C.

The SWAP drive has a special use in DESQview. It specifies the drive and directory to which DESQview should swap out programs when it needs memory to start up another program—or when you explicitly tell DESQview to swap out a program using the Put Aside command. If you leave this field blank, or if there's no more room on the drive you specify, programs are swapped to the root directory of the drive on which you started DESQview. (If you have a RAM disk, we recommend using it as the swapping disk.)

Option: Mouse

The Mouse option lets you specify:

- ☐ Whether you have a mouse installed on your system.
- ☐ If you do have a mouse installed, what brand you're using: Mouse Systems, Microsoft, Logimouse, Visi On, or Maynard.
- ☐ How the mouse hardware is attached: as an add-on board, to port 1, or to port 2.
- ☐ Whether you want to use the mouse right-handed or left-handed.

Option: Performance

The Performance option lets you customize the performance characteristics of DESQview to your personal needs. You can specify:

- ☐ The number of clock ticks that DESQview should give to the foreground and backgound programs. (The clock ticks 18 times a second.) In general, you should give each program a minimum of 3 ticks. With anything less, the program will have too little time to do any work.

  DESQview allocates time to each program in round-robin fashion. First, the foreground program is given the number of foreground ticks indicated. Then, each background program is given, in turn, the number of background ticks indicated. If a background program is waiting for keyboard input, and none is ready, DESQview skips this program.

The correct settings for these tick counts depend on what you do in foreground and background. If you work mostly in foreground, and only occasionally run programs concurrently in background, the default settings of 9 foreground ticks and 3 background ticks are probably correct. If you do light work in foreground—word processing, entering information in data base records, constructing spreadsheets (with few recalculations or automatic recalculation turned off)—and heavy background processing—sorting databases, downloading from mainframes, recalculating large spreadsheets, checking long documents for spelling errors, and so forth—you may want to change these settings to increase the time allocated to the background.

The way to determine the correct settings is by trial and error. Change the settings to the new values you think are appropriate and run the combination of programs you're working with. Don't give extreme values to either count. For example, if you set foreground to 3 ticks and background to 50 ticks, the foreground program will virtually grind to a halt.

- ☐ The number of bytes to allocate to the following DESQview buffers: the Playback Scripts buffer, the Learn Scripts buffer, the DESQview Scripts buffer, and the System Memory buffer.
- ☐ Whether DESQview should scroll smoothly or jump scroll, when it scrolls information in a window. (Smooth scrolling looks nicer but takes more time. Jump scrolling is jerky, but quick.)
- ☐ Whether DESQview should swap programs to disk when it needs memory to start up another program—or when you use the Put Aside command. (If you set the "Swap to Disk?" option to "No," program swapping is completely disabled.)

DESQview has three global script buffers, plus a script buffer for each program you run in DESQview. The size of the script buffer for a program is determined by the value in the Script Buffer (in bytes) field on the Change a Program menu for that program. The size of each global script buffer is determined by the settings you make in Performance:

- ☐ The ***DESQview Scripts*** buffer is the area of memory where all scripts learned on all DESQview menus are stored (see page 139).
- ☐ The ***Learn Scripts*** buffer is the area of memory used to record a script while it's being learned. When the script is complete, it's transferred into the DESQview Scripts buffer or the program script buffer. Thus, the Learn Scripts buffer must be large enough to accommodate the longest script you ever intend to learn, including nested scripts.
- ☐ The ***Playback Scripts*** buffer is the area of memory used when you perform (play back) a script. DESQview begins by loading the entire script into this buffer. Then it performs the script. If the script invokes other scripts, these other scripts are also loaded into this buffer as needed. When playback of a script (or nested script) is complete, the buffer space for that script is released. Thus, the Playback Scripts buffer must be large enough to contain the largest script (including all nested scripts) that you ever intend to play back.

The size of all script buffers is initially set to 1K (1,024 bytes). For more information on the DESQview Scripts, Learn Scripts, and Playback Scripts buffers, see Chapter 5, ***Learn: DESQview's Keystroke Macro Feature***.

The ***System Memory*** buffer is the area of memory used to store the information to manage windows and to store the contents of the file DESQVIEW.DVO. The size of the System Memory is initially set to 12K. If you get the message "Insufficient system memory" when trying to open a window, you should increase the System Memory size. We recommend increasing it in increments of 2K. (DESQVIEW.DVO contains the information on the Open Window menu—see Appendix B.)

Option: Video Monitor

The Video Monitor option lets you specify:

- ☐ What type of video monitor you have: monochrome or color.
- ☐ If you have a monochrome monitor, whether this monitor displays only two colors (black and white) or displays gray scale and graphics.
- ☐ If you have a color monitor, whether your display hardware requires synchronization during video retrace. (If you get "snow" on your screen, it requires synchronization.)

Option: Windows

The Windows option lets you specify:

- ☐ The nine predefined window positions used by DESQview when it opens a window and when you use the Position command on the Rearrange menu (see page 76).
- ☐ The color schemes to be used for the nine standard windows and for DESQview menus.

When you open a window, DESQview uses the position information you specified on the Change a Program menu for that window to determine its size and position on the screen. However, if you specified no position, or specified a full-screen window (0, 0, 25, 80) for a program that can run in a small window, DESQview instead uses one of nine predesignated positions for the window, in round-robin fashion. The nine default positions are shown on page 76. To change any of these nine default positions, enter the new position you want.

DESQview also assigns a color scheme to a window when it opens it—unless the program has the "Uses its own colors" option on the Change a Program menu set to on. There are four color schemes, assigned in round-robin fashion. To change a color scheme, enter the text and background colors you want. You can also specify the colors you want for DESQview menus.

The color values are shown in the following table:

0 Black	4 Red
1 Blue	5 Magenta
2 Green	6 Brown
3 Cyan	7 White

Values 8-15 are also permitted—8 corresponding to black, 9 to blue, and so forth. When 8-15 is used as the Text Color, the result is that the corresponding color is displayed in high-intensity. When 8-15 is used as the Background color, the result is that the text blinks.

Appendix B: DESQview Program Information Files

In order for a program to run in DESQview, DESQview needs to know certain information about the program. (See Chapter 7, ***Changing a Program's Information***, for a complete description of that information.)

Between DESQview sessions, the information for each program is retained in a DESQview Program Information File—"DVP" for short—for the program. The DVP for a program is named xx-PIF.DVP, where *xx* are the keys used to select the program on the Open Window menu. (This guarantees uniqueness.) For example, the DVP for Lotus 1-2-3 is named "LT-PIF.DVP".

The DVP for a program contains all the information specified on the Change a Program menu for the program. When you start up a program (by selecting it from the Open Window menu), DESQview reads this file. Thus, to open a program, DESQview must be able to locate the program's DVP.

DESQview has a fixed rule about where a DVP must be stored: on the drive and in the directory you were in when you started up DESQview (see page 23, ***Starting Up DESQview***). If you have a hard disk system, all your DVPs will be stored in the DV directory of drive C (or on whatever drive and directory you installed DESQview). If you have a floppy-based system, DESQview will look for the DVPs on drive A (or on whatever drive you started up DESQview).

Normally, this rule would mean that you must place your everyday DESQview diskette in drive A before you can start up a program (open a window). However, you can turn this rule to your advantage. If you put the DVP for your program on the program diskette for the program, you can start it just by placing the program diskette in drive A. You don't need to use the DESQview diskette at all. However, there is one additional requirement: you must also put the file COMMAND.COM (or SHELL.COM, see page 165) on your program diskette.

Configuring a Program Diskette

If you wish to configure a program diskette so you don't have to place the DESQview diskette in drive A every time you start up the program, follow these steps (we'll use Multiplan as the example):

- **Place your Multiplan diskette in drive A. (Be sure it isn't write-protected.)**
- **Place your DOS boot diskette in drive B.**
- **Type** COPY B:COMMAND.COM A: **and press** ↵.

  This puts COMMAND.COM on your Multiplan diskette.

- **Place your everyday DESQview diskette in drive B.**
- **Type** COPY B:MP-*.* A: **and press** ↵.

  This puts the DVP for Multiplan on your Multiplan diskette, along with any other DESQview files for Multiplan (see the next page).

  Now, whenever you want to run Multiplan:

- **Place the Multiplan diskette in drive A.**
- **Display the Open Window menu and select Multiplan.**

The Files DESQview Uses

The complete set of files DESQview keeps for each program are:

- ☐ The *xx-PIF.DVP* file†, which contains the information on the Change a Program menu for the program (see Chapter 7).
- ☐ The *xx-SCRIP.DVS* file† (if any), which contains all scripts (keystroke macros) you created for the program using DESQview's Learn feature (see page 139).
- ☐ The *xx-LOAD.COM* file (if any), which contains Quarterdeck's special customization for the program. This allows programs that write directly to the screen to run in small windows and may overcome other program limitations (see Appendix C).

If you wish to configure your program diskette so you don't need to put the DESQview diskette in drive A to start up the program, you must place all three files on the program diskette—plus COMMAND.COM or SHELL.COM (see page 165).

Additionally, DESQview itself uses five files:

- ☐ The *DESQVIEW.DVS* file†, which contains all the scripts you created on DESQview menus.
- ☐ The *DESQVIEW.DVO* file†, which contains the information for the Open Window menu.
- ☐ The *DESQVIEW.DVH* file, which contains DESQview's online Help information.
- ☐ The *DESQVIEW.DIR* file, which contains the list of program names that appear on the Add a Program menu and the information AUTOINST uses to perform automatic installation—see page 18 and Appendix D.
- ☐ The *DVSETUP.DV* file†, which contains the setup information created by the DESQview Setup program.

The other files on the DESQview diskette are program files (DOS Services, Add a Program, Change a Program, and so forth), or DESQview installation files.

† You should occasionally back up this file.

The XDV.COM File

The DESQview diskette contains two versions of DESQview: the standard version, DV.EXE, and the extended version, XDV.COM. When you install DESQview according to the installation instructions on pages 16-18, the standard version, DV.EXE, is installed.

Extended DESQview (XDV.COM) causes part of the DESQview program to be loaded into AST enhanced expanded memory above 640K. This allows you to run larger programs that can be run when all of DESQview is loaded in lower memory. (DESQview is normally loaded just above DOS and any resident drivers or programs.) Depending on your hardware configuration, using XDV.COM may increase the largest program you can run by up to 80K.

To use extended DESQview, rename XDV.COM to DV.COM. Now, when you start up DESQview, part of DESQview will be loaded into enhanced expanded memory.

XDV.COM will not work with all hardware configurations. We suggest that you first run DV.EXE to verify that DESQview is operational. Then, switch to XDV.COM. If DESQview no longer works, you cannot use extended DESQview on your system. Rename DV.COM back to XDV.COM.

See Appendix F for additional information on using extended DESQview.

Appendix C: More About What Programs Run in DESQview

Most programs that run under DOS will run in DESQview. In general, programs that interface to the hardware using DOS or ROM BIOS calls will run more successfully in DESQview than programs that deal directly with the hardware. However, Quarterdeck has made every effort to accommodate the anomalous behavior of all programs it's evaluated.

Potential incompatibilities between programs and DESQview can be grouped into the following categories: memory management, screen management, keyboard management, file management, and communications management.

Memory Management

Programs are expected to conform to the standard DOS conventions for determining their memory size and their location in memory. They should either inspect offset 02H in their program prefix or use the ROM BIOS memory check call (interrupt 12H) to find the maximum address they're allowed to reference. If a program assumes that it will run in a particular area of memory or that it can use memory above that allowed by DOS, it won't run in DESQview.

Screen Management

Programs that display textual information on the screen by calling DOS or the ROM BIOS will run in small DESQview windows. Programs that write directly to the hardware screen memory can only run in small windows if they're customized for DESQview by the program developer or by Quarterdeck. Otherwise, such programs run in full-screen-only windows and must be installed with the "Writes directly to screen" option set to on.

If a program switches into graphics mode, it should do so using the standard ROM BIOS interrupt 10H interface and must be installed with the "Displays graphics information" option set to on. While in graphics mode, the program will be run in a full-screen-only window. If you place a graphics screen in a small window, the graphics information is scaled to fit in that window.

Notes:

- ☐ Although you cannot "run" an uncustomized full-screen-only program in a small window, you can "view" such a program in a small window. When you place a full-screen-only window in a small window, it's suspended until you zoom it back to full-screen (see page 74).
- ☐ You can determine if Quarterdeck has customized a program by looking for a file named xx-LOAD.COM on the DESQview diskette, where *xx* are the keys used to select the program on the Open Window menu. For example, the presence of the file WS-LOAD.COM indicates WordStar has been customized.

Keyboard Management

Programs that call DOS or the ROM BIOS to receive keyboard input can make use of the DESQview Learn facility. Such programs fall into two categories: those that wait for keyboard input when they have nothing else to do and those that continuously test for input without waiting. If a program waits for input, DESQview can always tell when it's done processing and ready for more input. If a program only tests for input, DESQview cannot tell when it's done processing. Playing back scripts to such programs is controlled by the "Allows script type-ahead" option. When this option is set to on, characters are sent to the program as fast as it can take them. When this option is set to off, DESQview alternately sends a character and then tells the program it has no characters waiting.

Some programs completely bypass DOS and the ROM BIOS and read the keyboard directly by intercepting the keyboard hardware interrupts. Such programs will often still run in DESQview, but you'll be unable to learn or perform DESQview scripts for these programs.

File Management

DESQview doesn't interfere with normal DOS file operations except to provide a Logical Drive mapping facility (see Appendix A) and to map files named DESQTMP?.* to the DV directory. (This is useful for creating mark and transfer scripts since it allows a program to write a file that always goes into a known directory, independently of the directory in which the program is running.)

Any program using standard DOS file management should run without problems in DESQview. You must be careful, however, that two programs don't use the same file at the same time. If you try to process the same data file in two different windows, or if a program running in two different windows uses a fixed temporary file name, problems might arise.

Communications Management

Communications programs generally attach themselves directly to the communications port's interrupt vectors. DESQview does not interfere with these connections, thereby allowing the program to run in background. However, it is critical that a program connected to these vectors be installed with the "Can be swapped to disk" option set to off. If this option is set on, and the program is ever swapped out, the interrupts will point to a random spot in some other program.

To help manage this problem, DESQview sets ROM BIOS locations 40H:01H and 40H:02H to zero for any program whose "Can be swapped to disk" option is set to on. This indicates that there are no communications ports available. The correct port address values are left in place if this option is set to off.

If you use a communications program and also have a mouse that attaches to a communications port, you must be sure to attach each to a different port—similarly, if you want to use two communications programs simultaneously.

Appendix D: Troubleshooting Guide

This appendix tries to answer the questions you're most likely to have when you use DESQview. So, when you have a question, check here first. If you can't find the answer, technical support is available. But we do have one request. Please collect the information outlined on the ***DESQview Problem Report*** form at the end of this manual before you call or write. That will help both of us get your problem solved faster.

☐ Important information you should know:

- When You Run Communications Programs
- When You Run Memory-Resident Programs: Sidekick, ProKey, Print Spoolers, RAM Disks, File Facilities, DOS's "Mode" and "Print" Commands
- Before You Close a DESQview Window
- When You Use DOS's "Check Disk" (CHKDSK) Command
- When You Run Lotus 1-2-3
- When You Use the DOS Services "Backup" Command
- When You Run Microsoft Word
- When Your System Has a Preview or Hercules Card
- When Your System Has an Enhanced Graphics Adaptor Card
- When You Run Several Copies of the Same Program Simultaneously
- If You Use the "ANSI.SYS" Display Driver

☐ Helpful hints:

- More About Using Batch Files to Start Up Programs
- How to Figure Out the Amount of Memory a Program Needs
- How to Figure Out How Much Memory You Have to Run Programs
- How to Install Several Versions of the Same Program
- More About Automatic Program Installation

□ When you have a problem, what to do:

- ▲ If a Program Won't Start Up
- ▲ If DESQview Hangs When You Start Up a Program or Switch Windows
- ▲ If Your AST Enhanced Expanded Memory, RAM Disk, or Print Spooler Doesn't Work
- ▲ If You Get an "Out of Memory" Message When You Start Up a Program
- ▲ If the Screen Switches to Black and White and Won't Go Back to Color
- ▲ If the DOS Services "Backup" and "Format" Commands Won't Work

■ *When You Run Communications Programs*

It is ***extremely important*** that a communications program has its "Can be swapped to disk" option set to "off" (see page 167) ***and*** that it be loaded first.

If a communications program is not loaded first on a system with an AST enhanced expanded memory (EEMS) board, it may not be able to keep up with your modem. (EEMS boards have two sets of mapping registers. One set can be switched to instantly. The other has additional overhead. The first program loaded is mapped through the "instantaneous" registers. All other programs are mapped through the slower registers.)

If a communications program is ever swapped to disk, your system will almost certainly hang or crash. Communications programs attach themselves directly to hardware interrupt vectors. If the programs these vectors point to are swapped out of memory, and other programs are swapped in in their place, the results are unpredictable, but usually fatal. Also see ***Communications Management*** on page 188.

■ *When You Run Memory-Resident Programs: Sidekick, ProKey, Print Spoolers, RAM Disks, File Facilities, DOS's "Mode" and "Print" Commands*

Most of the programs you use—Lotus 1-2-3, MultiMate, dBASE III, and so forth—are designed to run alone. However, there are four classes of ***memory-resident programs*** that are designed to remain in memory while you run other programs (excluding DESQview itself):

- ☐ Keyboard enhancers—ProKey, SuperKey, and so forth.
- ☐ Accessories—Sidekick, Spotlight, and so forth.
- ☐ File facilities—IBM File Facility, dPATH, and so forth.
- ☐ System drivers for expanded memory, print spoolers, RAM disks, plotters, multiple hard disk drives, communications ports, and other peripheral devices. (These drivers are often loaded automatically by your CONFIG.SYS or AUTOEXEC.BAT files, so you may not even be aware of them.)

Keyboard Enhancers. DESQview's Learn feature (see Chapter 5) provides built-in keystroke macros, eliminating, for most of you, the need to use other keyboard enhancers with DESQview. If you've developed a macro library under ProKey (or other keyboard enhancer), or for some other reason want to continue using ProKey, *you must run it in a DESQview window.* (We recommend that you create a batch file that loads ProKey and then the program you're using.)

Accessories. If you use accessory programs, we recommend that you run these programs *in full-screen DESQview windows,* rather than loading them before you start up DESQview. (However, most programs—such as Sidekick—will work either way.) Running them in a DESQview window gives you two major advantages:

- ☐ The program can be swapped to disk (using DESQview's virtual memory feature), thereby making its memory available to run other programs, when necessary.

☐ Programs running in background continue to run while you use the memory-resident program. (If you load the memory-resident program before you start up DESQview, background processing stops when you switch to it.)

File Facilities. File facility programs should be loaded separately in each window. (We recommend that you create a batch file that loads the file facility and then the program you're using.) If you load the file facility prior to starting up DESQview, its search path must include all search paths for all windows. If you load it in a DESQview window, its search path need only specify the search paths for the program running in the window.

System Drivers. If you use DOS's Mode or Print commands, or load device drivers, we recommend that you do so *before* you load DESQview. (Drivers loaded by CONFIG.SYS must be loaded first. Never try to load these in DESQview.) If you load a device driver—for example, a print spooler or a RAM disk—in a DESQview window, it will be available only to programs running in that window. If you load it before starting up DESQview, it will be available to all programs running in DESQview. (It's permissible to load Mode, Print, and device drivers both before you start DESQview *and* in a DESQview window).

Notes:

☐ DESQview only supports Sidekick version 1.5.

☐ Memory-resident programs are often loaded by AUTOEXEC.BAT, so be sure to check this file to ensure that keyboard enhancers, accessories, and file facilities aren't being loaded before DESQview.

☐ Don't create a RAM disk in memory below 640K. Doing so uses up memory you'll need to run programs. You should create a RAM disk only if you have extended memory above 640K or an AST enhanced expanded memory (EEMS) board.

Before You Close a DESQview Window

Before you close a DESQview window, be sure that all the files in use by the program running in the window are closed. As a rule of thumb, before you close a window, issue the program's command to close down all its files, then wait until this command has finished. If, for some reason, you want to abort the program, press Ctrl-Alt-Del. This will immediately abort the current program and close its window—it does not reboot your system (see page 65).

When You Use DOS's "Check Disk" (CHKDSK) Command

Never use CHKDSK with the /F parameter in a DESQview window—unless you've first closed all files in all other windows. Programs often create temporary files while they're running. CHKDSK/F may collect and destroy these files.

CHKDSK can be safely used without the /F parameter. However, the "bytes total memory" value will be incorrect and the "bytes free" value will indicate the number of free bytes in the current window only—not the total remaining memory available to load programs. The various disk space values will be correct.

When You Run Lotus 1-2-3

When you start up a program in DESQview, DESQview determines how much memory it requires by examining the program's DESQview Program Information File (DVP). For 1-2-3—and other programs that keep large amounts of data in memory—the default memory size provided by Quarterdeck allows for only a small, one- or two-page spreadsheet. If you intend to work with larger spreadsheets, you should increase the memory size by changing Memory Size on the Change a Program menu (see Chapter 7).

The amount of memory a single 1-2-3 screen occupies obviously depends on what's on that screen. However, a rough rule of thumb is that an "average" screen of data uses 2K-3K of memory. If you already have a worksheet file (xxx.WKS), the approximate amount of memory required to load it is the size of xxx.WKS plus 100K (version 1A) or 180K (version 2.0).

When You Use the DOS Services "Backup" Command

When you back up a directory using the DOS Services Backup command (or perform BACKUP in a DOS window), be sure that *all* files in the directory being backed up are closed and not in use by programs running in other windows. If Backup is performed on an open file—for example, LETTER.DOC—the copy of LETTER.DOC on the backup diskette will have a length of zero. If you later restore this diskette, any existing LETTER.DOC file will be destroyed.

When You Run Microsoft Word

DESQview only supports Word version 2.0 and above. The defaults in the DESQview Program Information File (MW-PIF.DVP) for Word allow it to run on a monochrome display in text mode. If you're using a Hercules or Preview card (or equivalent), or if you prefer to run Word in graphics mode on a color display, delete "/C" from "WORD/C" in the Command to Start Program field on the Change a Program menu (see Chapter 7).

When Your System Has a Preview or Hercules Card

DESQview supports the AST Preview and Hercules (or compatible) monochrome graphics cards only in text mode. If you're going to run Preview or Hercules programs that display information in graphics mode, you should load DVMG.EXE prior to starting up DESQview. This loads a driver that lets you switch between text and graphics mode as needed.

When Your System Has an Enhanced Graphics Adaptor Card

DESQview supports the Enhanced Graphics Adaptor Card (and compatibles). However, we recommend that you always *put your EGA program in text mode* before you tap the DESQ key. If you do this, the information on your screen will be maintained correctly in all cases. If you tap the DESQ key when your EGA program is in one of the enhanced graphics modes, DESQview draws a curtain over the screen prior to displaying the DESQview menu. Then you resume running the EGA program, the curtain is removed and the screen restored—however, color may be lost and, in some cases, part of the information on the screen may be lost.

When You Run Several Copies of the Same Program Simultaneously

When you run two or more copies of the same program, two problems may arise. First, some programs use fixed file names. If your program does this, running two copies will almost certainly fail. Second, if you try to edit (or otherwise modify) the same file in two different windows at the same time, only one set of changes will be retained—usually the last set you save to disk.

If You Use the "ANSI.SYS" Display Driver

DESQview has the ANSI.SYS driver built-in into each window—there's no need for you to load it in CONFIG.SYS. However, for it to be operational, you must turn off the "Writes directly to screen" option on the Change a Program menu for the program (see page 167).

More About Using Batch Files to Start Up Programs

It's often convenient to use batch files to start up programs, especially if the start-up process requires several steps. When you use batch files in this manner, they're usually stored in the root directory and the path is set to include the root directory (PATH C:\). This allows the batch file to be invoked from any subdirectory. When you use this arrangement, you should:

- ☐ Be sure the path is set to C:\ before you start up DESQview. You can do this by setting the path in your AUTOEXEC.BAT file or adding "PATH C:\" to the DV.BAT file that DESQview creates in your root directory.
- ☐ Enter the batch file name in the Command to Start Program field on the Change a Program menu and set the "Close on exit to DOS" option to off—see Chapter 7. (If you leave this option on, the window will be closed after performing the first command in your batch file.) If you want the window to close on exit to DOS, put the command EXIT as the last line of the batch file.

These instructions assume that, before the batch file issues the command to run the program, it performs "CD\prog-dir" to set the correct program directory.

How to Figure Out the Amount of Memory a Program Needs

To figure out how much memory a program needs, first check the program's installation manual. If it gives you a memory size, subtract about 20K from it (because it allows for DOS). If the manual doesn't give a size, you can make a good guess by adding together the size of the .COM or .EXE file that starts up the program and the size of the largest overlay file.

If the program keeps a lot of data in memory (1-2-3, Symphony, Framework, Multiplan, and so forth), add at least 5K-10K for a minimum data area. If you know you'll be working with large amounts of data, add more. It's always better to start with too much memory and then reduce it since, with too little memory, you may have problems getting the program to run. Also see ***If a Program Won't Start Up*** in this appendix.

How to Figure Out How Much Memory You Have to Run Programs

You can estimate how much memory is available for programs by running CHKDSK in a DOS window—with no other windows open. To compute the available memory, subtract "bytes total memory" from the amount of memory on your system and add in "bytes free". For example, if CHKDSK gives "bytes total memory" as 333492 and "bytes free" as 131072, you have about 442K = (655360–333492+131072)/1024 on a 640K system. The largest program you can run is this number minus about 10K overhead.

Note: This method doesn't work on a system with an AST enhanced expanded memory (EEMS) board. The number you compute will be too small. Use the Memory Status program (see pages 221-222) to determine the amount of available memory.

How to Install Several Versions of the Same Program

You may install as many versions of the same program in DESQview as you want. For example, you could install a 128K, a 192K, and a 256K version of 1-2-3 or a character mode and a graphics mode version of Microsoft Word. Given that you've already installed the standard version of 1-2-3, to create a new version:

- ☐ Pick the keys you're going to use on the Open Window menu—say "LX". Then make a copy of the 1-2-3 DVP file (LT-PIF.DVP), naming the copy LX-PIF.DVP.
- ☐ Display the Add a Program menu, select Other, type in the Path field **C:\DV**, and press ↵. The Add a Program menu reappears with two entries for "Lotus 1-2-3". Select the first entry and press ↵.
- ☐ A message should appear telling you that the keys "LT" already exist on the Open Window menu. (If no message appears, you selected the wrong "Lotus 1-2-3". Press Esc, select the other one, and press ↵.) Type the new keys, **LX**, and press ↵ twice. You've now installed a second 1-2-3.
- ☐ Display the Change a Program menu for "LX" and change the desired information. Be sure to change the Path to Data Files field setting.

● *More About Automatic Program Installation*

You can perform automatic program installation any time you like. This is a convenient way of installing a new program into DESQview after you've installed it on your hard disk—if it's one of the programs listed on the Add a Program menu. To perform automatic installation, quit DESQview and run AUTOINST from the DV directory. Then restart DESQview. Programs that are already installed are not reinstalled. (You must run AUTOINST outside of DESQview because it updates a file that's loaded when you start up DESQview.)

You can perform automatic installation on a specific disk drive by adding a drive specifier to the AUTOINST command—for example, AUTOINST D:. If you have several hard disk drives, the Install program only runs AUTOINST on the drive on which you install DESQview. You must run it on other drives yourself.

▲ *If a Program Won't Start Up*

If you can't get a program to start up at all in DESQview, but it runs okay outside of DESQview, you most likely have one of three problems:

- ☐ If no window appears, either COMMAND.COM or xx-PIF.DVP (see pages 165 and 182) no longer exists in C:\DV, or on your everyday DESQview diskette. Copy COMMAND.COM from your DOS diskette. Copy xx-PIF.DVP from your master DESQview diskette. Then reinstall it with Add a Program.

- ☐ If the window flashes momentarily, either SHELL.COM (see page 165) is missing or an error message was posted but the window closed before you could see it. Check if SHELL.COM is in C:\DV or on your everyday DESQview diskette. If it is, change the "Close on exit to DOS" option (see page 167) to off and try again. When you correct the problem, turn this option back on.

- ☐ If the window appears but you get the message "Bad command or file name", the path you specified in the Command to Start Program or Path to Data Files field is incorrect (see page 164). Correct it using the Change a Program command. If you used a batch file to start up the program, see *More About Using Batch Files to Start Up Programs* in this appendix.

▲ *If DESQview Hangs When You Start Up a Program or Switch Windows*

If DESQview hangs when you start up a program, the most likely problem is that it's been given too little memory. If DESQview hangs when you switch windows, it's most likely that the program you switched away from had too little memory.

Most programs won't load with insufficient memory. However, some programs that use overlays don't check that there's sufficient room to load their overlays. (1-2-3 behaves this way.) If you load such a program with insufficient memory, its overlay will load over another program's memory space. The result depends on circumstance. Sometimes the system hangs immediately. Sometimes the system works okay until you switch to the program that was damaged.

If you suspect this is your problem, increase the amount of memory specified in the Memory Size field on the Change a Program menu (see page 165) and then repeat the sequence that caused the hang. Also see *How to Figure Out the Amount of Memory a Program Needs* in this appendix.

▲ *If Your AST Enhanced Expanded Memory, RAM Disk, or Print Spooler Doesn't Work*

If your AST enhanced expanded memory (EEMS) board, your SuperDrive RAM disk, your fASTdisk RAM disk, or your SuperSpool print spooler (or equivalent programs) won't work, the most likely cause is that you haven't loaded the correct drivers. Expanded memory drivers are always loaded in CONFIG.SYS. The drivers for RAM disks and print spoolers are often loaded in AUTOEXEC.BAT, but don't have to be. Check the user's manual. Also see *When You Run Memory-Resident Programs* in this appendix.

▲ *If You Get an "Out of Memory" Message When You Start Up a Program*

There are three messages you can get:

- ☐ If the window opens, the command to start the program is sent to DOS, and the message "Program too big to fit in memory" appears, it means that you didn't allocate enough space to load the program. Change the Memory Size field on the Change a Program menu. See ***How to Figure Out the Amount of Memory a Program Needs*** in this appendix.

- ☐ If you get the message "Not enough memory available to open that window now," it means you've tried to load a program that's exceeded the maximum memory available (see ***How to Figure Out How Much Memory You Have to Run Programs*** in this appendix). If the message "Swapping..." appears before the "Not enough memory..." message, it means either that there's not enough disk space left to swap a program out or that you've loaded so many nonswappable programs that there's no room left to load the program you want. In the latter case, you must close down one of the nonswappable programs.

- ☐ If you get the message "Insufficient system memory," it means that you don't have enough DESQview system memory left to load any more programs. You must close down a program or increase System Memory (see page 176).

▲ *If the Screen Switches to Black and White and Won't Go Back to Color*

When the program you're running switches into (high-resolution) graphics mode, DESQview responds by switching to black and white so it, too, can display menus and other windows in graphics mode. If you switch to another program while the screen is still in graphics mode, the window you switch to will be in black and white, even if that window is normally in color. The only way to restore color is by removing the graphics window from the screen. You can switch the graphics program back to text mode (if possible), hide or put aside the program (see page 76), or close the graphics window.

▲ *If the DOS Services "Backup" and "Format" Commands Won't Work*

The most common DOS commands—Copy, Directory, Erase, Rename, Type—are built into DOS. The remaining commands—Backup, Format, and so forth—require a program to be loaded. If the Backup and Format commands won't work, it's usually because the DOS path at the time you started up DESQview didn't include a path to the Backup and Format programs. Most commonly, these programs are kept in the root directory (PATH C:\) or in the DOS directory (PATH C:\;C:\DOS). To solve this problem, close down DESQview, add the indicated Path command to AUTOEXEC.BAT or DV.BAT (in the root directory), then restart DESQview.

Note: If you're running from a floppy-based system, you must place your DOS diskette in drive A before starting a Backup or Format command.

Appendix E: Using DESQview with a Network

DESQview can be used with most networks. The following guidelines suggest how to deal with the four major issues of network usage:

- ☐ What are the legal ramifications of using DESQview on a network.
- ☐ How DESQview should be installed on a network.
- ☐ Why you shouldn't run DESQview on network server machines.
- ☐ How to optimize use of DESQview on a network.

Legal Considerations

Your license agreement specifically prohibits you from assigning or transferring DESQview to any other person. You are bound by the terms of this license agreement when you use DESQview on a network. Each and every individual user of DESQview on any network must have purchased (or otherwise legally acquired) a copy of DESQview.

The contents of this appendix shall not be construed in any way as modifying, qualifying, or otherwise abrogating the license agreement printed on the inside front cover of this manual. Nor shall this appendix be construed in any way as limiting, restricting, qualifying, or otherwise altering Quarterdeck's legal rights and remedies under this license agreement.

Installing DESQview on a Network

DESQview can be installed on a network in several ways:

- ☐ The simplest method is for each individual user to install and run DESQview off his own system's local hard disk.
- ☐ Another way is for each individual user to install and run DESQview from one of his private areas on a shared disk.
- ☐ A third way is to place DESQview in the public area of a shared disk.

If you use either of the first two methods, your copy of DESQview isn't shared with other users. If you use the third method, where DESQview is shared, there's an additional step: you must change DESQview's SWAP drive to a location on your local disk or to a private area on a shared disk.

When DESQview needs memory, it swaps programs to the ***SWAP drive*** (see pages 76 and 173). Initially, the SWAP drive is set to "none," which causes DESQview to use the root directory of the drive on which you installed DESQview. To change the SWAP drive, you run the Setup program (see Appendix A). On a non-network system, the SWAP drive is usually left as the root directory or changed to a RAM disk. However, for DESQview to function properly on a network, the SWAP drive must be set to a ***unique location*** for each individual user.

To do this, each individual DESQview user must have a private drive assigned to DESQview. The easiest way to do this is to agree on a convention: that drive G: (for example) is the swap drive for DESQview users. Each individual user must assign G: to his local disk or to a private area on a shared disk. The user who creates the shared public area must run the Setup program and assign the SWAP drive to G:. (Don't try to assign G: to the root directory since most networks won't allow "normal" users to write to the root.)

Installing DESQview on a Server Machine

Many networks allow a machine to be used as both a "normal" computer and as the network server at the same time. ***Do not run DESQview on a server machine***. To run a machine as a server, a special, concurrent extension to DOS is loaded. The server's concurrency and DESQview's concurrency will interfere with each other and (most likely) disable or crash your server.

Optimizing DESQview on a Network

The simple methods for installing DESQview on a network don't make the best use of network resources, since they don't allow users to share programs and data. If you want to optimize DESQview usage by sharing resources, you need to know which DESQview files can be shared, which cannot be shared, and which can optionally be shared (see page 182 for a complete list of DESQview's files):

- ☐ Files that can be shared by all users are: *.EXE and *.COM.
- ☐ Files that can never be shared between users are: SWAP*.DV—the files containing the memory image of programs swapped out.
- ☐ Files that may optionally be shared are: xx-PIF.DVP, xx-SCRIP.DVS, DESQVIEW.DVS, DESQVIEW.DVO, DESQVIEW.DVH, DESQVIEW.DIR, and DVSETUP.DV†.

The fully shared and optionally shared files should be placed in a public area. The SWAP*.DV files should be placed on a local disk or on a private area of a shared disk. (As noted in ***Installing DESQview on a Network***, if you set the SWAP drive to G:, DESQview will create the SWAP*.DV files on drive G.)

If you want a customized version of DESQview, you should first copy ***all*** the optionally shared files to drive G. Then you should create a batch file that starts up DESQview by changing to drive G, sets the path to search the default directory where the fully shared DESQview files are kept, and then issues the command to start up DESQview. (If your network provides a "file facility" feature, you may put only the optionally shared files you want on drive G. If you don't have a file facility, ***all*** the optionally shared files must reside on the drive from which you start up DESQview.)

†DVSETUP.DV specifies (among other things) the type of display and mouse you have. So, most commonly, each user will require his own version of this file.

Appendix F: Using Expanded Memory with DESQview

DESQview gives your IBM PC, IBM PC-XT, IBM PC-AT, Compaq, Compaq Plus, Compaq Deskpro, Compaq Deskpro 286, Compaq Portable 286, and Compaq Portable II (and other 100% IBM PC- and AT-compatibles) even greater power when you add one or more AST enhanced expanded memory boards, such as the RAMpage!, RAMpage AT, or SixPakPremium. AST enhanced expanded memory boards support both:

- ☐ The Lotus/Intel/Microsoft Expanded Memory Specification (LIM-EMS).
- ☐ The AST/Quadram/Ashton-Tate Enhanced Expanded Memory Specification (EEMS)—a superset of the LIM-EMS.

The version of DESQview included with your AST EEMS product automatically detects the presence of an AST enhanced expanded memory board (or boards) and makes use of them. This version of DESQview will not function unless at least one AST EEMS board is installed on your system and the RAMpage Expanded Memory Manager (REMM) is loaded.

When DESQview is used in combination with an AST EEMS board, you have the following additional capabilities that aren't available on a system without such a board:

- ☐ You can simultaneously run several different programs that use expanded memory for data or program storage—such as 1-2-3 Release 2, Symphony Release 1.1, and Framework II, among others.
- ☐ You can use expanded memory as a RAM disk (with AST's fASTdisk or SuperDrive utilities) or as a disk cache.
- ☐ You can use expanded memory as a print spooler (with AST's SuperSpool utility).
- ☐ And, most importantly, ***you can run up to nine different programs concurrently in the expanded memory area***. The first program you run can be as large as 636K[1] and the eight others as large as 624K[1] each—a total of over 5MB (if you have that much expanded memory and your system is optimally configured).

[1] Notes begin on page 223.

You can use any combination of these four capabilities at the same time, limited only by the amount of AST EEMS memory you have.[2] If you try to run more programs than will fit in your total memory, DESQview automatically swaps programs to your hard disk to make room (see pages 76 and 173).

Installing Your AST Enhanced Expanded Memory Board

The amount of power you get from your AST EEMS board depends on how you configure your computer's memory.

Whether you choose the best configuration or the worst, ***you can always have up to nine programs active at the same time***. Your memory configuration determines how many of these active programs are also ***concurrent***—that is, how many of these programs are both loaded into memory ***and*** simultaneously processing information in foreground or background.

There are two approaches to installing your AST EEMS board with DESQview:

- ☐ The first approach is to install the board as it comes preconfigured from AST (on most systems). If you do this, you'll be able to run *concurrently* one 636K[1] program and one to eight other programs. The maximum size of each "other" program (they all have the same maximum) can vary from 0K to 624K[1]—see the tables on page 215.

- ☐ The second approach is to modify your memory configuration to give you maximum possible "other" program size for your particular hardware configuration. This is the preferred approach. It requires a little more knowledge and effort on your part, but is straightforward if you follow the instructions in this Appendix.

The maximum size of the "first" program (636K[1]) is independent of your memory configuration.[2,3] It's a function of the brand of PC you're using, the type of display adaptor board installed, and the software you're using.

The size of the "other" programs is determined by your memory configuration and the display adaptor board you're using. It's independent of the software you're using (except on a 64K system).

IMPORTANT: The maximum program sizes (636K[1] and so forth) used here and elsewhere in this Appendix are based on the configuration described in note 1 on page 223 and may not be correct for your system. Be sure to read this note carefully. Also see the tables on page 215 and other notes in the *Technical Notes* section on pages 223-225.

AST EEMS Board Installation: The Simple Approach

If you're not sure of your needs, or just anxious to get started, you can take the easy approach to installing your AST EEMS board. You can always optimize your system at a later time.

The easy approach has three steps:

- **Install the AST board and software in your system according to AST's instructions, using the switch settings appropriate to your hardware configuration. (Most commonly, you can use the default factory settings.) Be sure to install the required RAMpage Expanded Memory Manager (REMM) on your system and in your CONFIG.SYS file.**
- **Install DESQview according to the standard installation instructions given in Chapter 1.**
- **Install XDV.COM[4] by** REN \DV\XDV.COM DV.COM

You don't have to tell DESQview that an EEMS board is installed or know about any special DESQview commands—there are none. DESQview will use expanded memory automatically when required.

Notes:

- ☐ XDV.COM doesn't work with all hardware configurations. If XDV.COM doesn't seem to work on your system, see page 183 and also note 4 of this Appendix (page 224).
- ☐ If you're going to use part of your expanded memory as a RAM disk, and if you want DESQview to swap programs to this RAM disk, you must run the DESQview Setup program and assign the SWAP drive to the RAM disk (see page 173).

AST EEMS Board Installation: Optimizing Your System

The simple approach to installing your AST EEMS board isn't the best approach for most of you. We recommend that you optimize your system from the start. It's not very hard.

Your basic hardware configuration (type of PC, type of monitor, type of display adaptor board, and so forth) is already set and not easily changed. The major item that can be changed is your memory configuration.

As noted previously, the maximum size of the "first" program is independent of your memory configuration. Therefore, the following approach is directed at modifying your memory configuration to maximize the size of the eight "other" programs that can be running concurrently.

Each of the eight "other" programs has the same maximum size, which depends on two primary factors: what type of display adaptor board you're using and how much of your system's total memory is supplied by AST EEMS boards.

IMPORTANT: If the total memory[2] on your system, including EEMS memory, is 832K or less, there is no advantage to modifying your memory configuration. Take the simple approach.

How Your Display Adaptor Board Affects Optimization

There are three main types of display adaptor boards:

A ***monochrome adaptor board*** displays text on a monochrome display. If you have this type of board, reduce the "first" and "other" program sizes used in this Appendix by 32K. (This category includes the AST Preview and Hercules monochrome graphics boards, which permit the display of graphics on a monochrome display.)

A ***color/graphics adaptor board*** displays text and graphics on a color display. All memory sizes used in this Appendix (except in the tables on page 215) assume this type of board.

An ***enhanced graphics adaptor (EGA) board*** displays text and high-resolution graphics on a monochrome or color display. If you have this type of board, reduce the "first" and "other" program sizes used in this Appendix by 96K.

You can also purchase so-called "combination" boards, that support several of these formats. If you have such a board, it reduces memory by 32K if it only supports monochrome graphics and by 96K if it is "EGA-compatible"—for most boards.

How Your Memory Configuration Affects Optimization

Your computer may have up to four types of memory installed:

Motherboard memory is the basic memory that comes with every personal computer. It's located on your computer's basic system board (motherboard). The amount of motherboard memory varies from 64K to 640K, depending on the manufacturer and model.

Add-on memory (such as AST SixPak Plus) is optional. If you have it, it's located on an additional memory board installed in your computer. It extends the motherboard memory to a maximum of 640K, and may provide additional memory for use as a RAM disk, disk cache, or print spooler.

Extended memory (such as AST Advantage!) is memory above 1MB that is used as a RAM disk, disk cache, or print spooler. Actual extended memory can only be installed on IBM PC-AT and AT-compatible machines. AST EEMS products can be used to emulate extended memory on IBM PC, PC-XT, and PC-compatible machines by installing the RAMpage Extended Memory Emulator (REX) in your CONFIG.SYS file.

Expanded memory is extra memory that is mapped into the 0K-1024K addressing space of IBM PC, PC-XT, and PC-AT machines. An AST enhanced expanded memory board can supply add-on memory, extended memory, and expanded memory.

AST EEMS products achieve their power over other expanded memory boards by mapping the entire 1MB addressing space of the PC, rather than only the 64K area that LIM-EMS boards map. However, ***an EEMS board can only map the area of memory for which it supplies the RAM***. It cannot map areas of memory already filled in by your system's motherboard or by an add-on or extended memory board.

When the "first" program is maximum size[5], the eight "other" programs run exclusively in expanded memory. Their maximum size is determined by how much mapped memory is available. For example, if your EEMS board supplies memory starting at 256K, the maximum size of an "other" program is 480K. However, if it supplies memory starting at 128K, the maximum size increases by 128K, to 608K.

THEREFORE, IT MAY BE TO YOUR ADVANTAGE TO DISABLE (OR REMOVE) EXISTING MOTHERBOARD AND ADD-ON MEMORY FROM YOUR SYSTEM.

Choosing the Optimization That Serves You Best

The best way to optimize your system is by maximizing the "first" and "other" program sizes for your particular hardware configuration (although you could fine-tune your system to support a specific mix of programs, if you wanted). Since there is little you can do to affect the maximum "first" program size[3], we'll direct our attention towards maximizing the "other" program size.

The easiest way to understand your options is to examine the table on the next page that applies to the type of machine you have:

- ☐ The left column indicates the amount of non-EEMS memory installed on your system—that is, the sum of your motherboard and add-on memory.
- ☐ The remaining columns show the maximum "first" and "other" program sizes that you can expect, according to the type of display adaptor board you're using.
- ☐ Program sizes in black are independent of your memory configuration[2]. They're a function of the type of PC you have, the type of display adaptor board installed, and the software you're using.
- ☐ Program sizes in red are determined by your memory configuration and the display adaptor board you're using. They're independent of the software you're using (except in the 64K case).

As the red sizes in these tables illustrate, the smaller the amount of non-EEMS memory installed on your system, the greater the maximum size of the eight "other" programs.

Non-EEMS Memory	Color/Graphics Adaptor		Monochrome Adaptor		Enhanced Graphics Adaptor	
	"first"	"other"	"first"	"other"	"first"	"other"
64K	636K	624K	604K	592K	540K	528K
128K	636K	608K	604K	576K	540K	512K
256K	636K	480K	604K	448K	540K	384K
512K	636K	224K	604K	192K	540K	128K
640K	636K	96K	604K	64K	540K	0K

Maximum Program Sizes for an IBM PC-1, IBM PC-XT, and Compaq Deskpro
(The minimum memory on a Deskpro is 128K)

Non-EEMS Memory	Color/Graphics Adaptor		Monochrome Adaptor		Enhanced Graphics Adaptor	
	"first"	"other"	"first"	"other"	"first"	"other"
256K	636K	480K	604K	448K	540K	384K
512K	636K	224K	604K	192K	540K	128K
640K	636K	96K	604K	64K	540K	0K

Maximum Program Sizes for an IBM PC-2, Compaq, and Compaq Plus
(All Compaq models have a built-in color/graphics adaptor)

Non-EEMS Memory	Color/Graphics Adaptor		Monochrome Adaptor		Enhanced Graphics Adaptor	
	"first"	"other"	"first"	"other"	"first"	"other"
256K	596K	480K	564K	448K	500K	384K
512K	596K	224K	564K	192K	500K	128K
640K	596K	96K	564K	64K	500K	0K

Maximum Program Sizes for an IBM PC-AT (Most Models),
Compaq Deskpro 286, Compaq Portable 286, and Compaq Portable II
(All Compaq models have a built-in color/graphics adaptor)

Table Notes

The tables on the preceding page assume the following configuration:

Hardware. The model of computer indicated below the table, the type of display adaptor listed at the top of the table, and the amount of non-EEMS memory shown in the left column.

Software. Booted under MS-DOS 2.0 or 2.1 (on an IBM PC, PC-XT, or PC-compatible) or under MS-DOS 3.0 or 3.1 (on a PC-AT or AT-compatible), the RAMpage Expanded Memory Manager (REMM) loaded, 15 file buffers allocated, DESQview System Memory set to 12K, and DESQview started using XDV.COM.

Under some circumstances you must decrease the "first" and "other" sizes given. If you're using DOS 3.0, subtract 16K—except from the IBM PC-AT table. If you load any other device drivers or memory-resident programs, subtract their sizes. If you're using DV.EXE to run DESQview rather than XDV.COM,[4] subtract 80K (on an IBM PC, PC-XT, or PC-compatible) or 64K (on a PC-AT or AT-compatible). If you use DV.EXE, load additional device drivers, or load any memory-resident programs that collectively take up 25K or more, the "other" values for the 128K line may decrease.

"Non-EEMS Memory" is the sum of motherboard memory and add-on memory. To run a "first" program of the maximum size given, you must have at least the amount of AST enhanced expanded memory shown below in the "first" column. To run a maximum size "first" program ***and*** one maximum size "other" program ***concurrently***, you must have at least the amount of EEMS memory shown in the "other" column. (Subtract 16K if you have a PC-AT or AT-compatible.)

Non-EEMS Memory	Color/Graphics Adaptor		Monochrome Adaptor		Enhanced Graphics Adaptor	
	"first"	"other"	"first"	"other"	"first"	"other"
64K	752K	1376K	720K	1312K	656K	1184K
128K	688K	1296K	656K	1232K	592K	1104K
256K	560K	1040K	528K	976K	464K	846K
512K	304K	528K	272K	464K	208K	336K
640K	176K	272K	144K	208K	80K	N/A

Minimum AST EEMS Memory Required for "First" and "Other" Sizes to be Valid

Also see notes 2, 3, 4, 5, and 7 on pages 223-225.

Note: AST EEMS products can only add memory in 256K increments. Values in the above table are *not* rounded up to the nearest 256K boundary. For example, to get 752K of EEMS memory, you would actually have to install 768K.

Reducing Your System's Memory

As the tables on page 215 illustrate, the best strategy for maximizing the size of "other" programs is to reduce the amount of non-EEMS memory on your system to the minimum possible for your hardware configuration.

To reduce your system's memory, first either remove your add-on memory board or disable[6] all its memory. (On an IBM PC-AT or AT-compatible, this may also require changing the way you allocate extended memory.) If this still doesn't reduce the memory enough, you must also disable part of your motherboard memory.

The following sections discuss how to reduce memory on an IBM PC, IBM PC-XT, IBM PC-AT, and all Compaq models. See the one that applies to you.

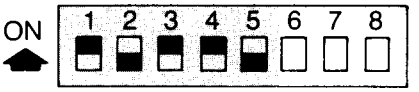
Reducing Memory on an IBM PC-1, IBM PC-2, Compaq, or Compaq Plus

If you have an IBM PC-1, you must have 64K on the motherboard and you ***must upgrade to the new ROM BIOS*** (consult your IBM dealer). You cannot run DESQview Version 1.10 or later with the old PC-1 ROM BIOS. If you have an IBM PC-2, Compaq, or Compaq Plus, it must have 256K of motherboard memory installed. You cannot remove any of this memory.

Your goal is to maximize the size of the "other" programs you can run by removing all add-on memory from your system. Follow these steps:

- **First, remove any add-on memory board from your system, or disable its memory to 0K[6]. You cannot change the amount of motherboard memory.**

- **If your system didn't already have 640K of memory installed, change the motherboard memory switch settings to indicate that you now have 640K. The correct switch settings for an IBM PC are shown below. (Compaq owners should consult their Compaq dealer for the correct settings.) Also see** System Board Memory Switch Settings **in the** Memory Options **section of the IBM PC** Guide to Operations **manual.**



PC-2 System Board Switch 2
(640K Setting)
(Also applies to PC-1 with new ROM BIOS)

- **Change the switches settings on your AST EEMS board as follows:**
  - **Set the "Starting Memory Address" switches to indicate that your EEMS board should start supplying memory at 64K (IBM PC-1) or 256K (IBM PC-2, Compaq, or Compaq Plus).**
  - **On an AST RAMpage! board: Set the "Banks Available as System Memory" switches to "3 Banks" (PC-1) or "2 Banks" (IBM PC-2, Compaq, or Compaq Plus).**
  - **On an AST SixPakPremium board: Set the "Conventional Memory Size" switches to "Up to 640K" (PC-1) or "Up to 512K" (IBM PC-2, Compaq, or Compaq Plus).**

  Be sure to leave the "Dual Page Mode" switch set to ON.
- **Then, install the AST EEMS board and install DESQview and XDV.COM as described on page 210.**

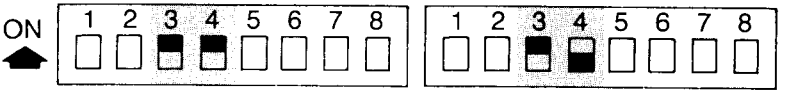
Now, skip ahead to *The Memory Status Program* on page 221.

Reducing Memory on an IBM PC-XT or Compaq Deskpro

If you have an IBM PC-XT, it will have 64K, 128K, 192K, or 256K of motherboard memory. You can disable all but the first 64K. If you have a Compaq Deskpro, it will have 128K, 256K, or 640K of motherboard memory. You can disable all but the first 128K.

Your goal is to maximize the size of the "other" programs you can run by removing any add-on memory and reducing your motherboard memory to 64K (PC-XT) or 128K (Compaq Deskpro). Follow these steps:

- **First, remove any add-on memory board from your system, or disable its memory to 0K.**[6]
- **If you have an IBM PC-XT, set the switches on the motherboard to indicate that you have 64K. If you have a Compaq Deskpro, set the switches to indicate that you have 128K. The correct switch settings are shown below. Also see** System Board Memory Switch Settings **in the** Switch Settings **section of the IBM PC-XT** Guide to Operations **manual.**



PC-XT System Board Switch (64K Setting)

Deskpro System Board Switch (128K Setting)

- **Change the switch settings on your AST EEMS board as follows:**
  - **Set the "Starting Memory Address" switches to indicate that your EEMS board should start supplying memory at 64K (IBM PC-XT) or 128K (Compaq Deskpro).**
  - **On an AST RAMpage! board: Set the "Banks Available as System Memory" switches to "3 Banks" (PC-XT) or "2 Banks" (Compaq Deskpro).**
  - **On an AST SixPakPremium board: Set the "Conventional Memory Size" switches to "Up to 640K" (PC-XT) or "Up to 512K" (Compaq Deskpro).**

  Be sure to leave the "Dual Page Mode" switch set to ON.
- **Then, install the AST EEMS board and install DESQview and XDV.COM as described on page 210.**

Now, skip ahead to *The Memory Status Program* on page 221.

Note: When you reduce motherboard memory, it's not necessary to remove the extra RAM chips. Changing the switch settings is sufficient.

Reducing Memory on an IBM PC-AT, Compaq Deskpro 286, Compaq Portable 286, or Compaq Portable II

If you have an IBM PC-AT, Compaq Deskpro 286, Compaq Portable 286, or Compaq Portable II, it will have either 256K or 512K installed on the motherboard. You can disable the second 256K. You cannot disable any of the first 256K.

Your goal is to maximize the size of the "other" programs you can run by removing any add-on memory, relocating any extended memory above 1MB, and reducing your motherboard memory to 256K. Follow these steps:

- **First, remove any add-on memory board from your system, or disable its memory to 0K.[5] If you have an extended memory board (such as the AST Advantage!) that supplies memory below 640K, change its starting address to 1,024K or higher. If you have several extended memory boards, reallocate them to supply only memory above 1MB.**
- **To reduce a 512K IBM PC-AT system to 256K, move jumper J18 on the IBM PC-AT system board. Jumper J18 is located at the very front of the PC-AT chassis, just below the front edge of the disk controller board in slot 8. Relocate the jumper onto the back two posts of J18. See the user's manual for your AST EEMS product for a diagram and more detailed information. (Compaq owners should consult their Compaq dealer to determine the correct procedure.)**
- **Change the switch settings on your AST PC-AT EEMS board as follows:**
  - **Set the "Non-Paged Memory Already Installed" or "Starting Memory Address" switches—whichever you have—to 256K.**
  - **Set the "Conventional/Extended Memory Size" or "Non-Paged Memory Size Configuration" switches—whichever you have—to 384K. (Optionally, you may allocate more than 384K as non-paged memory. If you do so, any additional memory beyond 384K will be treated as extended memory, and thus be available for use only as a RAM disk or print spooler.)**
- **Then, install the AST PC-AT EEMS board and install DESQview and XDV.COM as described on page 210.**

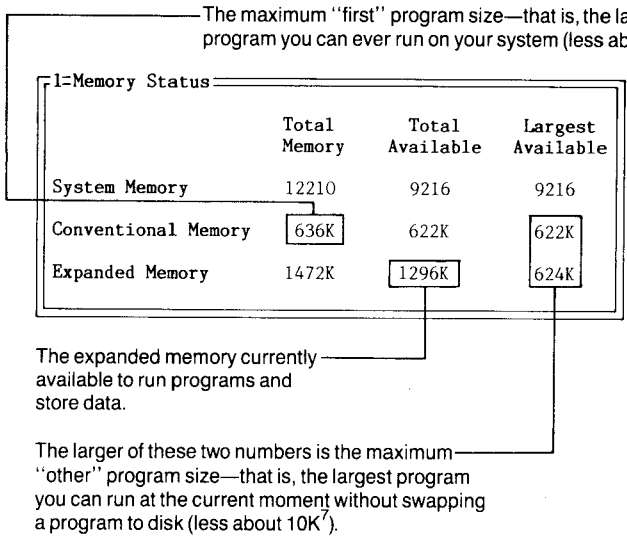
Note: When you reduce motherboard memory on an IBM PC-AT, it's not necessary to remove the extra RAM chips. Moving jumper J18 is sufficient.

The Memory Status Program

So far this Appendix has discussed the concept of "first" and "other" program sizes and how they apply to running programs on systems with particular hardware and memory configurations.

The Memory Status program†, included on your DESQview diskette, lets you see the actual "first" and "other" sizes (and other memory allocation information) on *your* system. In fact, this program dynamically displays the actual memory usage of your running system at any given moment.

When you run Memory Status, the following window appears:



The rows list the three memory areas of interest:

System Memory refers to the amount of memory in DESQview's System Memory buffer area (see page 176). The values it shows are in bytes, not K. (Generally, you can ignore these values. If Largest Available drops below 500 bytes, you might want to allocate a larger System Memory buffer by quitting DESQview and running the DESQview Setup program.)

†To install Memory Status on a hard disk system, display the Add a Program menu (see pages 78-81), select "Memory Status", and press ↵. Then enter " \DV" into the Path Name field and press ↵ again.

Conventional Memory refers to the memory available to you for running programs in the 0K-640K conventional memory area of a PC. It consists of motherboard memory, add-on memory, and EEMS memory used to fill out your system to 640K.

Expanded Memory refers to the memory supplied by AST enhanced expanded memory boards, excluding EEMS memory used to fill in areas between 0K and 640K.

The columns list the current sizes of each of these memory areas:

Total Memory is the total memory available on your system for the given memory category. This value is fixed at the time you start up DESQview and depends on your hardware and memory configuration and on the device drivers, memory-resident programs, and file buffers you loaded prior to starting up DESQview.

Total Available is the total memory available at the current moment in the given memory category. This may consist of pieces of fragmented memory and thus doesn't necessarily reflect the contiguous memory needed to run a program.

Largest Available is the largest area of contiguous memory available at the current moment to run a program. You must subtract the 10K DESQview overhead[7] from the Conventional and Expanded Memory values.

The size shown in the lower right-hand corner (Largest Available Expanded Memory) will correspond to the red size shown in the tables on page 215 for your hardware configuration.

The Memory Status program is small—about 14K, including the 10K DESQview overhead[7]. We suggest you load it first. It runs in background and therefore dynamically reflects changes in memory usage as they occur on your running system.

Note: The Total and Largest Available Conventional Memory sizes shown on page 221 are 622K, rather than 636K, because the 14K Memory Status program is loaded.

Technical Notes

The notes in this section provide additional technical information about installing an AST enhanced expanded memory (EEMS) board with DESQview. Notes 1-7 are referenced by the text of this Appendix. Notes 8-10 are not referenced by the text of this Appendix, but provide technical information not directly addressed elsewhere.

1 The memory sizes 636K and 624K (and other sizes marked with a [1] in this Appendix) are computed for the following configuration:

Hardware. An IBM PC-1 or IBM PC-XT with a color/graphics adaptor board, add-on memory removed or disabled, motherboard memory reduced to 64K, and a minimum of 768K EEMS memory (see note 2 and the table on page 216).

Software. Booted under MS-DOS 2.0 or 2.1, the RAMpage Expanded Memory Manager (REMM) loaded, 15 file buffers allocated (in CONFIG.SYS), DESQview System Memory set to 12K (see page 176), and DESQview started using XDV.COM (see note 4).

If you're using an IBM PC-2, IBM PC-AT, or any model of Compaq, these sizes (and other sizes marked with a [1]) will be smaller. See the tables on page 215 for more information.

DESQview also requires 10K overhead per program, which must be subtracted from all memory sizes used in this Appendix (see note 7).

The memory limits used in this Appendix refer only to the amount of memory used by the program itself. If you're running a program—such as 1-2-3 Release 2, Symphony Release 1.1, or Framework II—that uses expanded memory to store data, these programs still have full use of the expanded memory for data storage.

2 Maximum program sizes are ultimately limited by the total amount of memory installed on your system—that is, by the sum of your motherboard memory, your add-on memory, and your AST enhanced expanded memory.

For example, if you have 128K of motherboard memory, 128K of add-on memory, and 2,048K of EEMS memory, your total memory is 2,304K. Thus, the total of all programs loaded and running ***concurrently*** cannot exceed 2,304K—less any memory you've set aside for RAM disks, disk caches, print spoolers, or other dedicated purposes. If you load more than 2,304K of programs, the remainder is swapped out to disk.

The absolute maximum expanded memory that DESQview can use for running programs, given the optimal configuration, is 5.6MB (636K + 8 × 624K). Any expanded memory beyond this amount can only be used as data storage or as a RAM disk, disk cache, or print spooler.

All program sizes used in this Appendix assume your total memory, including EEMS memory, is at least 832K. If you have less than 832K, your program sizes will generally be smaller by the difference between 832K and your total memory size. However, we strongly recommend upgrading your system memory to at least this mimimum, 832K.

3 About the only way to improve the "first" program size is by deleting all automatically-loaded memory-resident programs (like Sidekick) from your AUTOEXEC.BAT file—in fact, we recommend running such programs in DESQview windows anyway (see pages 192-193). You might also check that you aren't loading any unnecessary device drivers in CONFIG.SYS. We recommend against reducing your file buffers below 10.

4 All program sizes used in this Appendix assume that you start DESQview by invoking XDV.COM (see page 183) rather than DV.EXE. XDV.COM causes part of DESQview to be loaded in expanded memory. This increases the amount of memory available to run programs by 80K (on an IBM PC, PC-XT or PC-compatible) or by 64K (on a PC-AT or AT-compatible) over the amount available if you use DV.EXE.

XDV.COM won't work with some types of local area network boards, with some "combination" graphics adaptor boards, or with some PC-compatibles. (This is the reason both XDV.COM and DV.EXE are provided.) If XDV.COM doesn't work on your system, rename DV.COM back to XDV.COM. In this case the program sizes *may* decrease by up to 80K.

Renaming XDV.COM to DV.COM has the effect of causing the batch file DV.BAT, that was installed in your root directory during DESQview installation, to load DESQview using XDV.COM rather that DV.EXE.

5 If the first program you run doesn't use all the "first" program's maximum memory area, the second program you run will use the remainder—and so forth if the second program doesn't use all the remainder.

6 Some add-on memory boards (such as the AST SixPakPlus) permit you to disable all their memory by setting the switches to 0K. Most boards, however, don't allow a 0K setting. If your memory board doesn't allow 0K, you must remove it.

If your memory board does allow a 0K setting, and has a clock or communications port, you may want to leave it installed so you can continue to use these features.

Don't transfer RAM chips from add-on boards to AST EEMS boards without being sure they're compatible.

7 DESQview requires 10K overhead per program (for most programs), which it takes from the "first" and "other" program areas when you start up the program. Therefore, the maximum memory available for the program itself is 10K less than the memory sizes used in this Appendix. (Although it might seem better to quote program sizes with the 10K subtracted, it substantially complicates the subject matter of this Appendix.)

When you use the Change a Program command (see page 165) to change a program's size, the number you enter in the Memory Size (in K) field ***should not*** include DESQview's overhead. So, when specifying a maximum memory size, always subtract 10K from numbers given in this Appendix (or by the Memory Status program) before you use that number in the Memory Size (in K) field.

Although the 10K DESQview overhead requirement reduces the maximum "first" and "other" programs sizes from 636K and 624K to 626K and 614K, respectively, it should be kept in mind that program sizes quoted by most manufacturers include room for DOS. For example, a program described as "requiring 640K", in fact, runs in 610K (under DOS 2.0 or 2.1) or in 594K (under DOS 3.0 or 3.1).

The overhead per program isn't always exactly 10K. For program script buffers above 1K, add the size over 1K. For programs that have the "Displays graphics information" option set to on, add 12K. Also, most programs that come with DESQview—DOS Services, Add a Program, Change a Program, and so forth—require additional overhead varying from 1K-4K.

8 When you run a communications program that you want to work in background, ***it is essential*** that you turn off its "Can be swapped to disk" option (see page 167) ***and*** that you load it first (see page 191). If you have any other nonswappable programs, load them after your communications program so as not to fragment memory.

9 Expanded memory is allocated on a request basis. When 1-2-3 Release 2 (or some other program that supports expanded memory) requests expanded memory, or when you allocate a RAM disk, disk cache, or print spooler buffer, that memory is removed from the total pool of available expanded memory and is thus not available to run programs—until the program releases it back to the pool.

10 Framework II won't use its LIM-EMS ability to store data in expanded memory unless it has at least 450K. If Framework II doesn't appear to be able to load large files, use the Change a Program command (see page 165) to change the Memory Size (in K) field to 450K or greater.

Glossary

access code. A telephone number or modem command to dial prior to dialing the actual telephone number itself.

add-on board. A board containing electronics hardware that you plug into your computer to add additional features.

assigned key. A key which, when pressed, plays back a DESQview script.

Auto Dialer. A DESQview feature that automatically dials your telephone.

background task. A program running in any window except the program running in the current (active) window.

bit-mapped graphics. A type of display monitor capable of displaying graphics, as opposed to strictly textual, information.

click. The action of pressing down and releasing the select button on the mouse.

concurrency. See background task and foreground task.

Ctrl-Break key. The key that, in most cases, aborts the current DESQview command or script in progress.

current window. The term DESQview uses when referring to the window you are currently working on.

DESQ button. The button on the mouse that interrupts a program and displays the DESQview menu.

DESQ key. The Alt key, when pressed down and released. The DESQ key interrupts a program and displays the DESQview menu.

DESQview menu. The master list of DESQview commands.

expanded memory. A type of memory that permits data to be stored and programs to be run above the normal 640K memory limit for IBM PCs.

fill-in field. An area on a DESQview menu where information of a specific type—for example, a file name—is entered.

foreground task. The program running in the current (active) window.

full-screen window. A window that occupies the entire (25 x 80) screen.

keystroke macro. See script.

Learn. A command that tells DESQview to memorize the sequence of keystrokes corresponding to a routine task that you wish to repeat many times.

menu. A screen display that indicates which DESQview commands are available at a particular time.

modem. A device that you attach to your computer which permits your computer to make and receive telephone calls.

mouse. A pointing device that controls a second cursor (the mouse cursor) on the display screen. By moving the mouse on a hard surface, you move the mouse cursor on the screen in a corresponding direction.

mouse cursor. The second, diamond-shaped, screen cursor which appears when a mouse is used with DESQview.

online Help. A DESQview window that lets you find out information about DESQview commands and menus.

option. A menu entry that lets you select (turn "on") or deselect (turn "off") a DESQview feature.

protocol. The set of commands that a modem uses to dial the telephone.

put aside. The DESQview action of temporarily removing a window from the screen and swapping its associated program out to disk, thus freeing up the memory used by the program.

reverse video. A way that text is displayed in which the text and background colors are reversed.

script. A sequence of steps you have instructed DESQview to memorize.

select button. The left-most button on the mouse. It is used to select commands on DESQview menus, move and resize windows, switch between windows, and mark information to be transferred.

snapshot. An exact image of the full (25 x 80) screen that DESQview makes so you can mark information to be transferred to another program.

swap out. To temporarily store a program on disk because memory is needed to open a new window in DESQview.

window. How a program running in DESQview is viewed and where all DESQview work is done. Several windows and, therefore, several programs, can be viewed on the screen simultaneously.

zoom. A command that enlarges the window in which you are working into a full screen window, or shrinks it back to its previous window size and position.

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DESQview Customer Support Plan

Quarterdeck Office Systems has a strong commitment to excellence in both customer and product support. Our Customer Support Plan is designed to help you receive the full benefits from your Quarterdeck product.

Limited Warranty

Quarterdeck warrants that the DESQview Program Diskette is free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of purchase.

This warranty applies only to the original purchaser and to the recording medium (diskette). It does not apply to the information recorded on the medium and excludes any warranty coverage for incidental or consequential damages.

If a defect occurs during the warranty period, send the defective DESQview Program Diskette, along with a dated proof of purchase, to Quarterdeck Office Systems at the address shown on the back of the title page. See the inside front cover of this manual for the full terms and conditions of the Limited Warranty.

DESQview Service

Because Quarterdeck strives to provide the best possible user interface to your programs, we must be both nimble and vigilant in maintaining a constantly current and versatile environment. As such, we shall be providing upgrades and ongoing enhancements to DESQview. It is our commitment to do this at as nominal a fee as possible, so that it will be reasonable for you to maintain a user commitment to DESQview.

If you've run 1-2-3 in DESQview, you're aware that it runs in a small window and in background. It does so because of a customized DESQview ***loader***. Loaders enable programs that write directly to the screen to run in windows and be concurrent. Quarterdeck will be continually writing loaders for popular programs and making its loader library available to registered users.

And, if you have been using DESQview's Learn (keystroke macro) or Auto Dialer accessories, you'll be glad to know that more accessories will be coming and will also be made available to registered DESQview users.

Participation in Quarterdeck's DESQview support service *does* require that you be a registered Quarterdeck product owner. So, please take a moment now to fill out and return the DESQview Product Registration Card on the following page.

Quarterdeck will notify registered users of all new versions or upgrades of DESQview, loaders, and accessories as soon as they're available.

For those of you who need special support, we also have ***Priority Service***.

Priority Service

For some of you, "today" is not soon enough. If this is you, you'll be interested in our ***Priority Service***. It gives you individual attention on an immediate basis, advance notice and first availability of upgrades for new Quarterdeck products, and access to DESQview programming tips and tricks.

Priority Service is available for $30 annually and gives you the following special benefits:

- ☐ 30 minutes of free DESQview consulting time.
- ☐ Advance notice of DESQview upgrades, loaders, and accessories—with the right to purchase these at 33% below the retail price (when purchased directly from Quarterdeck).
- ☐ Access to DESQview technical notes.
- ☐ Exclusive access to DESQview's online bulletin board, which keeps you up-to-date on the latest new or revised DESQview Program Information Files (DVP's) and custom scripts (keystroke macros)—and, let's you download any of these files to your own, PC-compatible system.
- ☐ Extension of the limited warranty on replacement of defective diskettes from ninety (90) days to one (1) year.

If this special service is for you, please complete the DESQview Priority Service Sign-Up Card and return it along with your DESQview Product Registration Card—or, you can sign up anytime after you've become a registered DESQview user.

REGISTRATION BONUS! DESQVIEW ALARM CLOCK

DESQview's Alarm Clock accessory gives you instant access to the time and date—and, you can have DESQview notify you of important meetings and appointments. This accessory is available to you when you register. Please enclose $10.00 in check or money order with your registration card. (California residents please include sales tax.)

DESQVIEW™ PRODUCT REGISTRATION CARD

To qualify for DESQview's Customer Support Plan, complete the information below and return to Quarterdeck Office Systems, 150 Pico Boulevard, Santa Monica, CA 90405.

Name Title

Company Telephone

Address

City State ZIP

Serial No. Date of Purchase

Computer brand Model

What programs are you now using?

Be sure to complete the other side OVER

Where Did You Purchase DESQview?

- ☐ Computer Dealer
- ☐ Software Only Dealer
- ☐ Mail Order/Discounter
- ☐ Other _____

Salesperson's name

_____

_____
Store

_____
Address

_____
City State ZIP

Where Did You Learn About DESQview?

- ☐ Store Demo
- ☐ Salesperson's Recommendation
- ☐ Friend's Recommendation
- ☐ Magazine Article _____
- ☐ Magazine Advertisement _____
- ☐ Other _____

Computer publications most often read:

_____

_____

_____

DESQVIEW ALARM CLOCK

- ☐ Yes I would like the DESQview Alarm Clock. Enclosed is a $10.00 check/money order (plus sales tax for California residents).
- ☐ No Thanks anyway. Keep me posted on other DESQview accessories.

DESQVIEW™ PRIORITY SERVICE SIGN-UP CARD

Use this card to enroll in DESQview's Priority Service for one year at a cost of $30.00.

Name _____ Title _____

Company _____ Telephone _____

Address _____

City _____ State _____ ZIP _____

Your Purchase Order Number _____

☐ C.O.D. ☐ Check ☐ VISA ☐ MasterCard ☐ American Express

Full Account & Card Number

Name on Card _____

Expiration Date: Month _____ Year _____

Signature _____

DESQview Priority Service
$30.00

DESQview Problem Report

If you're having a problem with DESQview, first check the manual to see if the answer you need is already available. You'll find just about everything we know about DESQview itself in this manual.

If you're having a problem running a program in DESQview, or think you're having hardware problems, be sure to check Appendix D, ***Troubleshooting Guide***. This covers the most common problems and error conditions our users run into.

If you still need technical assistance, check first with your local dealer or user's group. If you have additional questions, AST Research has support staff available to help you. If you call, please be sure to gather all the information listed below first. If you write, please complete both sides of this card and mail to the address on the back of the title page.

DESQview Licensee Information

Your Name _____

Company _____

Address _____

City _____ State _____ ZIP _____

Phone (_____) _____

Dealer Name _____

Address _____

_____

_____

Phone (_____) _____

DESQview Serial # _____ DESQview Priority Service? ☐ Yes ☐ No

Hardware Configuration

Computer (Make/Model No.) _____ Amount of Memory _____

Expanded Memory Board (Make/Amount) _____ Other Add-On Boards (Make/Type) _____

Display (Make/Color or Monochrome) _____ Display Adaptor Board (Make/Type) _____

Diskette Drives (Number) _____ Hard Disk Drives (Number) _____ Hard Disk Drives (Make/Capacity) _____

Mouse (Make) _____ Network _____

Be sure to complete the other side OVER

Software Configuration

DESQview Version _____ DOS (Make/Version) _____

Memory-Resident Programs/Device Drivers Loaded Before DESQview:

_____

Contents of Your AUTOEXEC.BAT File: _____ Contents of Your CONFIG.SYS File: _____

Problem Description

Problem _____

Steps to Re-Create the Problem _____

DESQview™
Quarterdeck

The Multi-Window Software Integrator That Breaks the 640K Barrier†

Runs "Off-the Shelf" Programs as Pop-Ups

DESQview is a unique software integrator that lets you use ***"off-the-shelf" programs*** as pop-ups. You can be working in 1-2-3 and instantly pop-up almost any other program you want, or the DESQview menu.

Concurrency

You can start a program printing sideways, sorting, downloading from a mainframe, or performing some other lengthy task and then pop-up another program and work in it while the other program continues in background.

† Breaks the 640 Barrier

With an AST enhanced expanded memory board (like RAMpage!, RAMpage AT, or SixPakPremium) installed on your system, DESQview breaks the 640 barrier. You can run up to nine 620K programs ***concurrently*** —if you have enough enhanced expanded memory and your system is optimally configured.

Mark and Transfer

You can move information (except graphics) between programs. Not just between a select few programs, but between almost all the leading programs. In addition, you can strip dollar signs and commas from numbers, so data you downloaded from your mainframe can be transferred to 1-2-3 or Symphony.

DOS Services

Included with every DESQview is pop-up DOS. It gives you instant access to all of DOS's commands ***and*** sorted directories. And, you can backup, copy, and erase files just by pointing to them in the directory.

Runs the Programs You Already Own

You don't have to buy a special version of a program to use it in DESQview. DESQview runs the ***standard, off-the-shelf version*** of a program. The one your software dealer has in stock. So, the programs you already own will work in DESQview right now!

DESQview has been tested with most of the leading programs, including 1-2-3, Symphony, Framework I/II, dBASE II/III, Microsoft Word, R:BASE 4000/5000, CrossTalk XVI, the pfs: series, MultiMate, DisplayWrite 2/3, WordStar, and many other productivity and business-oriented packages.

Runs Programs in Small Windows

Most programs will run in small windows. A touch of a key zooms a small window to full-screen, or back.

Built-In Keystroke Macros

DESQview includes a built-in, full-featured keystroke macro capability. Macros that can work with a single program, or operate across several programs. You can have DESQview memorize the macro as you type it. Or, if you prefer, you can create macros with your favorite word processor.

Auto Dialer

DESQview's built-in auto dialer finds and then dials a telephone number for you.

Mouse Is Optional

DESQview supports a mouse, but doesn't require one. It works with equal ease with a keyboard or a mouse. Choose the one you prefer.

Product Name	:	**DESQview**
AST Part No.	:	**000356-001 B**