

HEWLETT-PACKARD



Using Vectra

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**Personal Office Computer Division
974 E. Arques Avenue
P.O. Box 486
Sunnyvale, CA 94086, U.S.A.**

To order this manual, specify Part Number 45951-90001

Printing History

First Edition—September, 1985

Printed in Singapore

Using Vectra



**Manual Part No.
45951-90001**

HP Computer Museum
www.hpmuseum.net

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FCC Statement

Federal Communications Commission Radio Frequency Interference Statement

Warning: This equipment has been certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC Rules. Only peripherals (computer input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to this computer. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

More About Radio and Television Interference

Because the HP Vectra PC generates and uses radio frequency energy, it may cause interference with radio and television reception in a residential installation.

Hewlett-Packard's system certification tests were conducted with HP-supported peripheral devices and HP shielded cables, such as those you receive with your system. HP Vectra meets the requirements for a Class B computing device in accordance with the specifications of Part 15, Subpart J, of FCC rules. These rules are designed to provide reasonable protection against interference with radio and television reception in a residential installation.

Hewlett-Packard provides instructions for using this computer in manuals covering setup, connection of peripheral devices, operation, service, and technical reference.

Installing and using the computer in strict accordance with Hewlett-Packard's instructions will minimize the chances that the HP Vectra will cause radio or television interference. However, Hewlett-Packard does not guarantee that the computer will not interfere with radio and television reception.

If you think your computer is causing interference, turn it off to see if the radio or TV reception improves. If the reception:

- Does not improve, your computer is not causing the problem.
- Does improve, your computer is causing the problem.

To correct interference, take one or more of the following steps:

- Relocate the radio or TV antenna
- Move the computer away from the radio or television
- Plug the computer into a different electrical outlet, so that the computer and the radio or television are on separate electrical circuits.
- Make sure that all of your peripheral devices are certified Class B by the FCC.
- Make sure you use only shielded cables to connect peripheral devices to your computer.
- Consult your computer dealer, Hewlett-Packard, or an experienced radio/television technician for other suggestions.
- Order the FCC booklet called *How to Identify and Resolve Radio-TV Interference Problems* from the U.S. Government Printing Office, Washington, D.C. 20402. The stock number of this booklet is 004-000-00345-4.

Warning: Electrical Safety

For the user's safety, the power cords supplied with this product have grounded plugs. The power cords should be used with properly grounded (3-hole) wall outlets to avoid electrical shock. (You can also use multiple-outlet strips that have their own circuit breakers.)

**Warning:
Batteries**

This computer uses lithium batteries which may explode if mistreated. DO NOT recharge, disassemble, or dispose of in fire. When the batteries need replacement (every 3 to 5 years), use only lithium batteries, Part No. 45935-60201, available from your Hewlett-Packard dealer. Use of any other batteries may present a risk of fire or explosion.

**Corrections and
Updates**

Corrections and update information for this manual are provided through the *HP PC Communicator* magazine. A recent copy is included with your system; to stay up-to-date, we recommend that you order a subscription (HP Product Number 45530).

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Section I. Getting Acquainted With Your Vectra System





1

Computer
System

Computer System

Computer
System

Computer
System

Computer
System

1

Introduction

This manual contains all the information you need to start using your Hewlett-Packard Vectra Personal Computer after it has been set up. It explains how to start your system, and how to use its disc drives and input devices such as the keyboard, mouse, and touchscreen. It describes, in detail, how to use PAM—Vectra's user interface program. It also introduces you to the most commonly-used MS-DOS commands.

Other Manuals About the Vectra System

This manual is part of a four-book documentation set. The set includes:

- *Setting Up Vectra*. This book explains how to install accessory cards and internal disc drives in your Vectra, and how to connect the monitor and keyboard.
- *Connecting Peripherals to Vectra*. This book explains how to connect printers and plotters, and other peripherals to your Vectra.
- *Using Vectra, DOS Version*. This is the book you are reading. It describes how to use your Vectra. The binder for this book also contains the two Vectra discs that come with your system, the Vectra DOS 3.1 Master Disc and the Vectra Supplemental Disc.

- *Vectra DOS User's Reference*. This book is a complete guide to the structure and use of your MS-DOS operating system.

The language and application programs that you purchase for your Vectra are accompanied by their own manuals.

Who Should Read This Manual?

All Vectra users should read this manual. Even if you have used a similar personal computer, you will benefit by being aware of Vectra's unique features such as the PAM (the Personal Application Manager) user interface and the HP Touch accessory. If you have used other Hewlett-Packard personal computers, you will see that this one is somewhat different—even PAM is different.

If you have never used a personal computer, you should read this manual carefully. Everything you learn will be of benefit when you begin using application programs or doing your own programming. If you are acquainted with personal computers, you may find that you know about some of the information in this manual. For example, you may not need to read the chapter on the keyboard. If you do not have HP Touch or the HP Mouse, there is no need to read the sections on them. If you already know and understand MS-DOS, you can skip a lot of the MS-DOS information.

How to Use This Manual

It is important to go through this manual sequentially. The information in each chapter is built on the information presented in previous chapters. Therefore, for your first reading, make sure that you don't skip around; you may miss something important if you do.

Wherever possible, practice what you learn in each chapter before you go on to the next one. When information is presented in steps, you should use your Vectra to duplicate each step as you read. Giving yourself this "hands-on" experience locks the information into your mind, thus reducing the need to refer to this manual at a later date.

What is in This Manual

Basically, this manual is a PAM (Personal Applications Manager) manual. PAM is Vectra's user interface program. This manual also introduces you to the most commonly-used MS-DOS commands. Do not consider it an MS-DOS manual, however. For complete MS-DOS information you should refer to the *Vectra DOS Reference* manual.

This manual consists of four sections. Each one addresses a different set of information:

SECTION 1. *Getting Acquainted With Your Vectra System*, prepares you to use your system.

■ Chapter 1. *Introduction*.

Explains what is in this manual, and how to use it. It also tells where to go for more help.

■ Chapter 2. *Getting to Know Your Vectra System*

Describes Vectra's major hardware components and explains how to care for them. Also tells you a little about your flexible discs.

■ Chapter 3. *Starting Vectra for the First Time*

Explains how to turn on the system and introduces you to PAM.

■ Chapter 4. *Preparing Your Discs for Use*

Explains how to format your flexible and hard discs, and how to copy files onto them.

SECTION II. *Communicating With Your Vectra* contains information about your input devices: the keyboard, the HP Mouse, and the HP Touchscreen.

■ Chapter 5. *The Vectra Keyboard*

Describes what the Vectra keyboard does.

■ Chapter 6. *Using Vectra Input Devices: Three Tutorials*

Shows you how to use the keyboard, mouse, and touchscreen to give information to Vectra.

SECTION III. *Using Vectra's PAM* explains how to use PAM, the user interface program.

■ Chapter 7. *Your First PAM Session*

Acquaints you with PAM's Main Menu and some of PAM's capabilities.

■ Chapter 8. *Files, Directories, and Pathnames*

Introduces you to the way MS-DOS stores, names, and handles files, directories, and pathnames.

■ Chapter 9. *Using Vectra's PAM*

Shows you how to use PAM to start an application program, set the date and time, add an application to PAM, reread a disc, and enter an MS-DOS command from a PAM menu.

■ Chapter 10. *Using Vectra's File Manager Application*

Explains how to use the File Manager to create new directories; change directories; and copy, delete, and rename files.

SECTION IV. *Using MS-DOS Commands* provides general information about MS-DOS commands, and how to type them. Twelve commands are described.

■ Chapter 11. *Typing MS-DOS Commands from PAM*

Provides you with the general information you need to use MS-DOS commands effectively, and explains the various ways to type MS-DOS commands.

■ Chapter 12. *Essential MS-DOS Commands*

Describes—at the beginning user level—several commonly used MS-DOS commands.

GLOSSARY Defines Vectra-related words that appear in this manual.

APPENDIXES Provides supplementary information about using Vectra. Includes information about discs and disc drives, running Vectra without PAM, maintaining your Vectra, error messages, and an MS-DOS command syntax summary.

What to Do If You Need Help

If you are having trouble using your Vectra, refer to the section "Answers to Your Questions" in the Current Information" section of *The HP PC Communicator*. A recent copy is included with your system: to stay up-to-date, we recommend that you order a subscription (HP Product Number 45530).



The books listed at the beginning of this chapter should be consulted if you want to add a new board or an external device.

Summary

The main purpose of this chapter has been to introduce you to what is in this manual and how to use it. The next chapter introduces you to your Vectra's hardware components.

Getting a Good but Vague Answer

- A Look at the Major Hardware Components
- The Computer
- The Monitor
- The Keyboard
- The Mouse
- The Printer
- Case of the Printer
- Case of the Monitor
- Case of the Keyboard
- Case of the Mouse
- About Your Storage Drive
- How to Buy Storage Discs
- The Video Game
- Case of the Video Game
- Summary

2

Getting to Know Your Vectra System

2

Understanding your system's physical components will make you more comfortable with your Vectra system. The physical components of a computer system are called **hardware**. This chapter acquaints you with each of your system's major hardware components. You will also learn how to take care of your system.

This chapter contains:

- a look at your Vectra's hardware components.
- a section about the care of your Vectra.
- important information about flexible discs.

A Look at Your Vectra's Hardware Components

Your Vectra system contains four major hardware components: the computer, one or more disc drives, the keyboard, and the video monitor. Most people add a printer to the system so they can get paper copies of output from the computer. Here is a typical Vectra system with a printer.

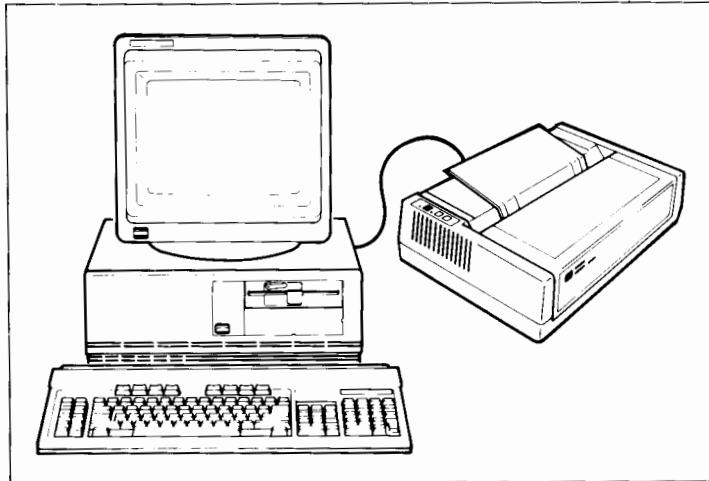


Figure 2-1. A Typical Vectra System

2-2 Getting to Know Your Vectra System

The Computer

The **computer** is the large rectangular box-shaped part of your Vectra. It contains the boards and cards that give Vectra its "intelligence." The box also contains the power supply that changes the input AC power to DC power. In addition, it contains the hard disc and flexible disc drives, and connections for peripheral devices such as printers and plotters. Vectra's computer is shown below.

2

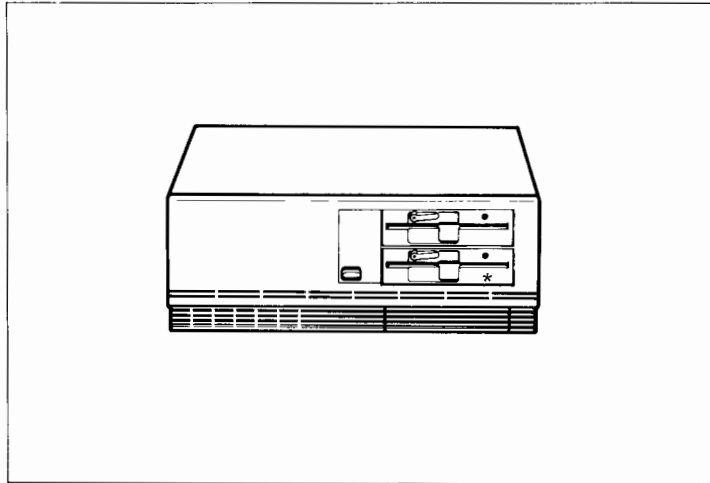


Figure 2-2. The Vectra Computer

The front of the computer has one or two slots into which you can insert flexible discs, the ON/OFF button, and disc activity lights. Whenever any internal disc drive is operating, its associated activity light turns on. The front of your computer may also contain a security lock. The back of the computer contains plugs for AC power, and ports for data transmission to and from external storage devices, printers and plotters, and other computers.

The Security Lock

The front of your computer may contain a **security lock**. This lock protects the computer from unauthorized access. The figure below shows the security lock's three positions.

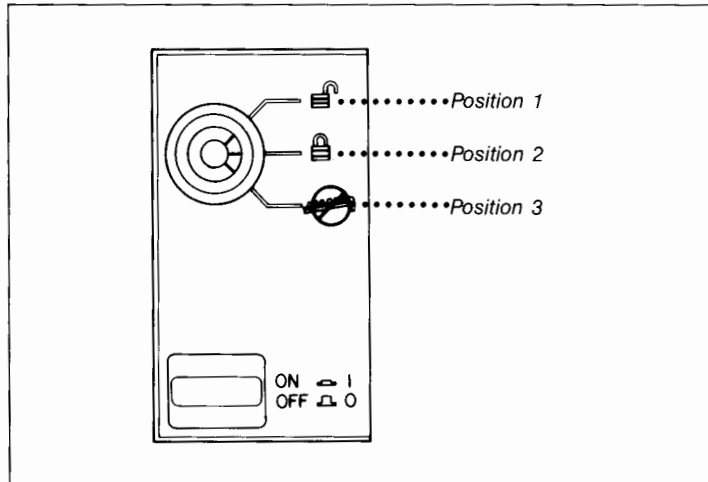


Figure 2-3. Vectra's Security Lock

Use the key to change from position to position:

- Position 1 allows complete access to data and to components inside the computer.
- Position 2 allows complete access to data, but it protects the accessory cards by preventing removal of the computer's cover.
- Position 3 protects the accessory cards by preventing removal of the computer's cover *and* it locks the keyboard. This prevents access to the data on your internal disc drives.

The Monitor

Your Vectra uses the **monitor** to communicate with you. It displays messages, menus, and the text you type on the keyboard. Your Vectra has either a monochrome (single color) display or a full color display. The monitor's screen contains a cursor (a bright line, rectangle, or arrow) that indicates where the next character you type will appear on the screen.

2

The monochrome monitor has its own ON/OFF button and dials with which you can adjust the contrast and brightness of the display on the screen as shown below.

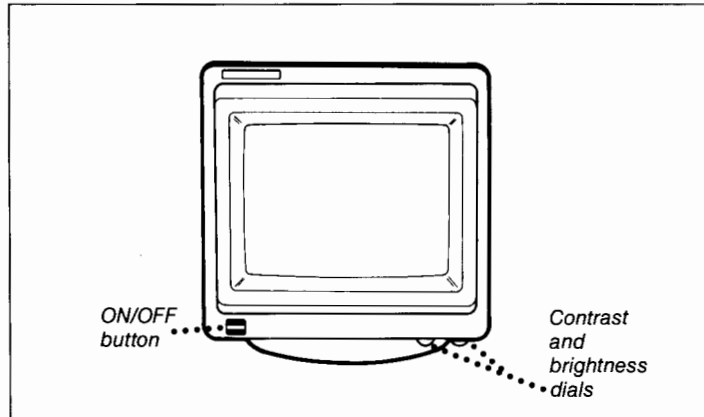


Figure 2-4. Vectra's Monochrome Monitor

Press the ON/OFF button to turn on the monitor. Press it again to turn it off. Adjust the brightness and contrast by rolling the adjustment dials to the right or left.



The Keyboard

The **keyboard** is the means through which you communicate with your Vectra. The keyboard contains:

- standard typewriter keys on which you can type text,
- control keys with which you can control computer operation,
- function keys that enable you to give commands to the computer quickly and easily,
- cursor keys that allows you to move the cursor on the screen,
- and a numeric keypad that is arranged like a calculator keypad.

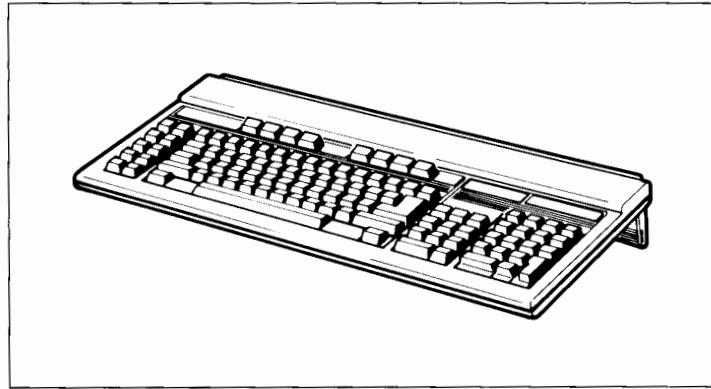


Figure 2-5. Vectra's Keyboard

The keyboard's functionality is described in detail in the chapter titled *The Vectra Keyboard*.

The Disc Drives

Disc drives are the devices that enable the Vectra to read and write data onto discs. To **read** means to look at the information on a disc. To **write** means to place information on a disc.

Your Vectra has two kinds of internal disc drives: one or two **flexible disc drives** and, possibly, an internal **hard disc**. Here is a Vectra with three disc drives.

2

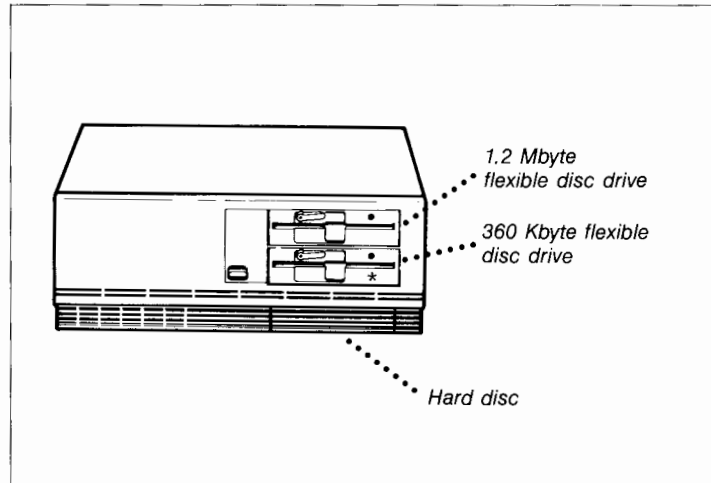


Figure 2-6. Disc Drives in a Vectra Computer

The flexible disc drives have slots into which you can insert the flexible discs. The hard disc is situated below the flexible disc drive. You cannot see it because there is no need to access it from the outside.

Whenever a disc drive is in use, its amber **activity light** turns on to indicate that the disc is being read or data is being written on it.

Vectra has space for two internal flexible disc drives. If your Vectra has one flexible disc drive, it is called drive A: If your Vectra has two flexible disc drives, the top one is known as drive A: and the bottom one is known as drive B:.

Hewlett-Packard provides two kinds of internal flexible disc drives: a 360Kb drive and a 1.2Mb drive. The 360Kb drive has an asterisk (*) embossed on the front of it for easy identification.

Hewlett Packard also provides two kinds of internal hard discs. The table that follows shows the four disc drives and their approximate equivalents of typewritten pages of text storage.

Table 1-1. Internal Disc Storage Equivalents

Type	Capacity	Text Storage Equivalent
Flex.	360Kb	144
Flex.	1.2Mb	480
Hard	20Mb	8000
Hard	40Mb	16000

Care of Your Vectra

Your Vectra is remarkably sturdy, but reasonable care should be taken to assure it a long and trouble-free life.

The biggest enemies of "high-tech" devices are dust and cigarette smoke. You should keep your Vectra in a relatively dust- and smoke-free environment. If your work area is excessively dusty, cover the computer when you are not using it.

It is wise to protect your Vectra from excessive static electricity and power surges. An anti-static mat under your chair is usually sufficient protection against static electricity. If your power supply is subject to fluctuations, you should consider obtaining a surge protector. These items are available at most computer stores.

Care of the Monitor

The monitor's screen collects dust because of static electricity. Wipe it occasionally with a soft static-free cloth to remove the dust that builds up.

Care of the Keyboard

Little care of the keyboard is needed. Keep it free of dust. It's a good idea to keep liquids (like your morning coffee) as far away as possible. Spills can cause serious damage.

Care of the Disc Drives

Care of a flexible disc drive is important but not difficult. First, if you move the computer, make certain that you reinsert the cardboard shipping insert in the disc drive slot so that the drive head does not get out of alignment. If you do not have a shipping insert, insert a blank flexible disc.

Depending on how much you use your Vectra, you should clean the flexible disc drive heads occasionally. See Appendix A for detailed information on the care of flexible disc drives.

Your internal hard disc needs no special care, except when you move your computer. When moving the computer, make certain that it is well-cushioned. Jarring and bumping can cause a loss of data. Before moving a computer with an internal hard disc, you should make a backup disc of the contents of the hard disc, and run the SETUP program to prepare the internal hard disc for moving.

About Your Flexible Discs

Flexible discs are the media on which your Vectra programs are distributed to you and on which you store data. After you have used your Vectra for a while, you will find that you have quite a collection of flexible discs. Therefore, devise a good system for labeling your discs, keeping track of them, and keeping them safe from harm.

Data is stored on the surface of your flexible discs in magnetic form. Before you can use a flexible disc you must first **format** it. Formatting lays down a system of magnetic **tracks** and **sectors** on the disc. The tracks and sectors act as a "roadmap" so that the drive head can find where to read and write data.

How to Buy Flexible Discs

Your Vectra is designed to be used with Hewlett-Packard flexible discs, although you can also use other manufacturer's discs. For best results, you should use the Hewlett-Packard flexible discs. You should use the discs in the drives for which they are designed. Although you may find that the discs do work in drives other than the ones for which they are designed, their reliability is somewhat decreased. When ordering packages of ten Hewlett-Packard flexible discs, specify:

- Flexible discs (360Kb), part number 92190A
- High-capacity flexible discs (1.2Mb), part number 92190X

When you buy discs from a computer store for your 360Kb flexible disc drive(s) you should ask for "5 1/4-inch double-sided, double density flexible discs." When you buy discs for your 1.2Mb drive(s), ask for "5 1/4-inch double-sided, quad density (or high-capacity) flexible discs." You can also use the double density discs in the 1.2Mb drive, but you may lose a small amount of reliability. A flexible disc is illustrated on the next page.

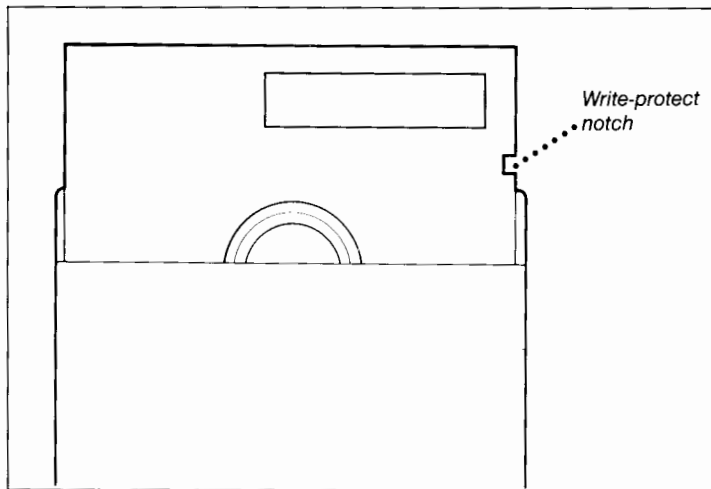


Figure 2-7. A Flexible Disc

The Write-Protect Notch

A flexible disc has a notch in its side called a **write-protect notch**. When this notch is covered, the disc is **write-protected**. When a disc is writeprotected, data can be read from the disc, but it cannot be written onto the disc. You may want to write-protect your back-up discs, some copies of master discs, and discs that contain important data that you want to save.

To write-protect a disc, cover the notch with the shiny adhesive paper tab that comes with the disc. Do not use a substitute such as transparent adhesive tape to cover the notch because Vectra uses an optical system to determine whether the disc is write protected.

To use a disc for both reading and writing, make sure that the notch is not covered.

The master discs that come with your Vectra do not have write-protect notches; they are permanently write-protected. You can read data from them, but you can not write data on them.

Care of Flexible Discs

Follow these rules to keep your discs and their stored data in good condition.

1. Always keep your discs in their envelopes in a covered container to keep dust particles off of them and to protect them from damage.
2. Never place a disc on or near a magnetic source such as a magnetic paper clip holder or a telephone. Magnetism destroys data.
3. Never write on the disc label with a pencil or ball point pen because they may damage the disc. A felt tip pen works best. The best course is to write on the disc label before you affix it to the disc.
4. Do not keep your discs in a hot environment.
5. Always make backup discs of your programs and other data. Keep the backup discs in a location separate from the discs you are working with.
6. Do not fold, staple, bend or squeeze flexible discs.

Summary

This chapter has taken you on a tour of your Vectra's hardware. You have learned about the various hardware parts of your system and how to take care of your hardware. You have also learned how to buy and take care of your flexible discs.

You are now ready to start using your Vectra.

Important Notice to Users of the Vectra PC

Caution: You should not attempt to remove or change discs while you are running COMMAND.COM, or utility or application programs on your system unless you are instructed to do so by the application. Specifically, you should never remove or change discs while the amber disc activity light is lit, or while the application or utility program is processing information. If you do, you risk losing data from one or more discs.

Most applications, including COMMAND.COM, will let you know when to remove or change discs; if you should inadvertently remove a disc from its drive while a program is in process, however, HP has provided you with a safe procedure for recovering without losing data.

When a disc is removed from its drive at the wrong time, you will see an error message indicating that a

`Disc error...`

has occurred. Other information may follow the words "Disc error."

To recover, you can perform one of the two following steps:

1. Place the SAME disc back in the SAME drive, and follow instructions on the message line on your screen. This will allow you to continue the operation you were performing without losing any data.

2. If you are not sure which disc you removed from the drive, stop the operation by pressing the appropriate keys to return to the application's main menu, and start over.

If you place a disc other than the same, original disc in the drive, information that should be written on that disc will be written to the second disc, thus destroying information on the second disc.

In some cases, you will see a message similar to the following:

```
Disc error while <reading>/<writing> on drive  
<d:> Abort, Retry, Ignore:
```

The information in angle brackets (<>) will be replaced with the correct information for your system.

To recover, you can perform one of the two following steps:

1. Put the SAME disc back in the SAME drive and type "R" for Retry. This will allow you to continue the operation you were performing without losing any data.
2. If you are not sure which disc you removed from the drive, enter "A" for Abort, then start the operation over.

Do not type "I" for Ignore; you should respond either by Retrying or by Aborting the procedure.

If you place a disc other than the same, original disc in the drive, information that should be written on that disc will be written to the second disc, thus destroying information on the second disc.

3

Starting Windows for the First Time

Inserting a Disc into a Flexible Disc Drive	
Starting Windows from the BIOS 31 Master Disc	
If Something Goes Wrong	
An Important Note of Caution	
The BIOS	
The MS-DOS Command Line	
Choosing an Application to Run	
Turning Off Windows	
Summary	

3

Starting Vectra for the First Time

Starting a computer for the first time is often a time of anxiety for a new user. You may ask yourself, "Will I do it right?" "Will I break the computer?" "What should I do if I make a mistake?"

You will probably do it right. If you don't, just try it again. If you make a mistake, all the instructions you need to remedy the situation are right here in this chapter.

This chapter explains:

- how to insert a disc in a disc drive
- how to start Vectra
- what to do if PAM doesn't appear on the screen
- some of the tasks that PAM can perform for you
- how to turn off Vectra.

Inserting a Disc into a Flexible Disc Drive

Before you can use Vectra, you have to know how to insert a flexible disc in a disc drive.

Follow this procedure:

1. If your system is brand new, the cardboard shipping insert may still be in the drive. Turn the drive lever to a horizontal position and gently remove the insert. Save the insert so that you can use it again if you move your Vectra.
2. Make certain that there is no disc in the disc drive already. If there is one, move the drive lever to a horizontal position and gently remove the disc. Place it in its envelope and put it in a safe place.
3. Insert the disc in the disc drive so that the disc label is close to you and facing up as shown in the following figure.

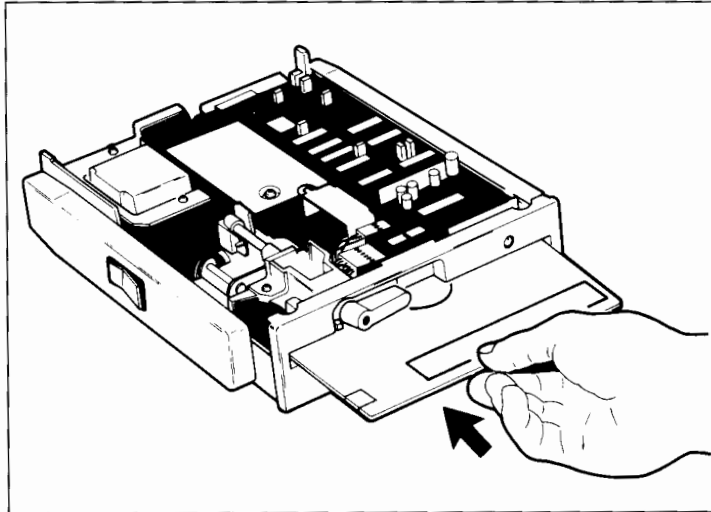


Figure 3-1. Inserting a Flexible Disc in a Disc Drive

3-2 Starting Vectra for the First Time

4. Rotate the disc drive lever so that it is in a vertical position as shown below.

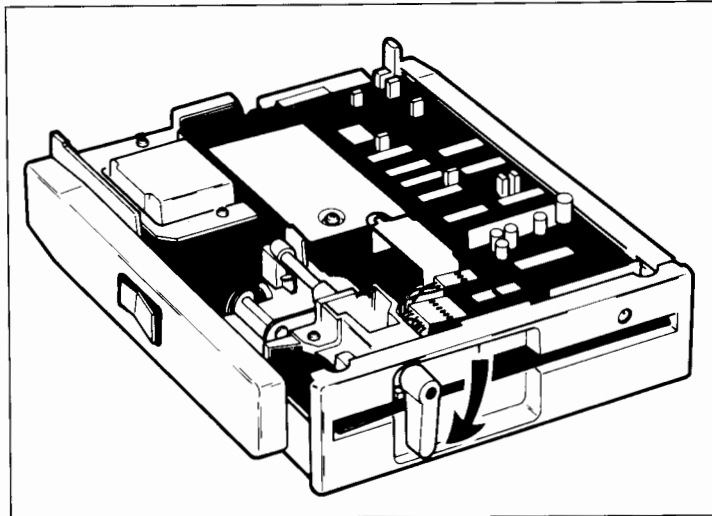


Figure 3-2. Rotating the Flexible Disc Drive Lever

To remove the disc, rotate the disc drive lever so that it is in a horizontal position. Then gently remove the disc from the drive.

Caution



Never remove your disc while the activity light is on.

Starting Vectra from the DOS 3.1 Master Disc

Although starting Vectra is not difficult, you should make certain that you follow the proper procedure.

Whenever you start your Vectra, the operating system is copied into Vectra's memory. It is copied from the disc in drive A: or the internal hard disc (drive C:). Your DOS 3.1 Master Disc contains a copy of the operating system.

For now, it is recommended that you start the system with the DOS 3.1 Master Disc in drive A:. The DOS 3.1 Master Disc is in the plastic envelope in the back of this manual.

The instructions that follow explain how to start the system from the DOS 3.1 Master Disc that you have placed in drive A:.

Note



All instructions in this chapter start with your Vectra turned off. It is also assumed that the monitor's AC connector is plugged into the Vectra rather than into a wall outlet and that the monitor's ON/OFF button is always in the ON position.

1. Insert the DOS 3.1 Master Disc in drive A:. Drive A: is the top flexible disc drive if you have two drives. If you have one flexible disc drive, it is drive A:. Remember to turn down the lever after you have inserted the disc.
2. Turn on the computer by pressing the ON/OFF button on the front of the computer. The button should be in the "in" position.

You will hear the computer fan start and then hear the disc drive activate. The amber disc drive activity light goes on. The screen displays a start-up message and finally, the PAM Main Menu, shown below, is displayed. It is at this point that you can begin to use Vectra by choosing items from the menu.

3

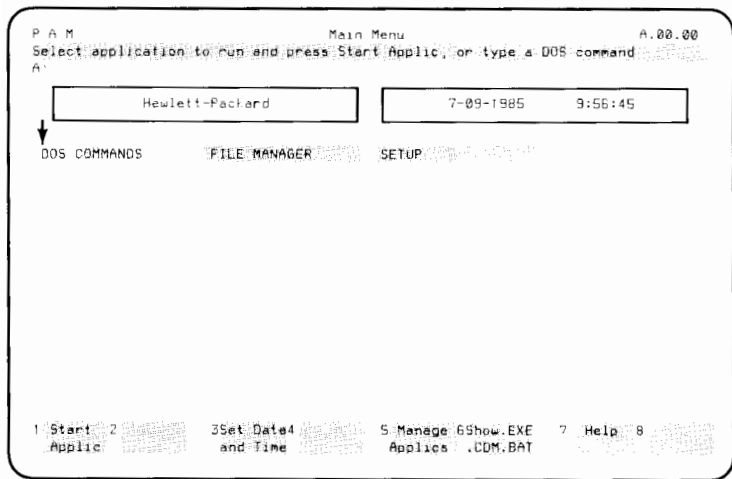


Figure 3-3. The PAM Main Menu



If Something Went Wrong

In the unlikely case that something went wrong, check these items to see if you forgot to do something.

- The computer and/or the monitor are not plugged in.
- The monitor and computer are not connected to each other.
- The monitor and/or computer are not turned on.
- The disc drive lever is not turned down.
- The wrong disc is in drive A:.
- There is no disc in drive A:.

If you have verified that none of the above is the problem, consult the "Current Information" section of *The Communicator*.

An Introductory Tour of PAM

Vectra's PAM (Personal Application Manager) is a special program that makes Vectra easier to use. In this section, you'll get acquainted with PAM's Main Menu and then look at some of the ways PAM can assist you in the use of your Vectra.

PAM's Main Menu should be on the screen. If you started your system from the hard disc and PAM did not come onto the screen, restart your system from the MS-DOS work disc in drive A:.

PAM's Main Menu

The PAM Main Menu, shown below, is the menu from which you start your application programs, and from which you move to other menus to perform various tasks.

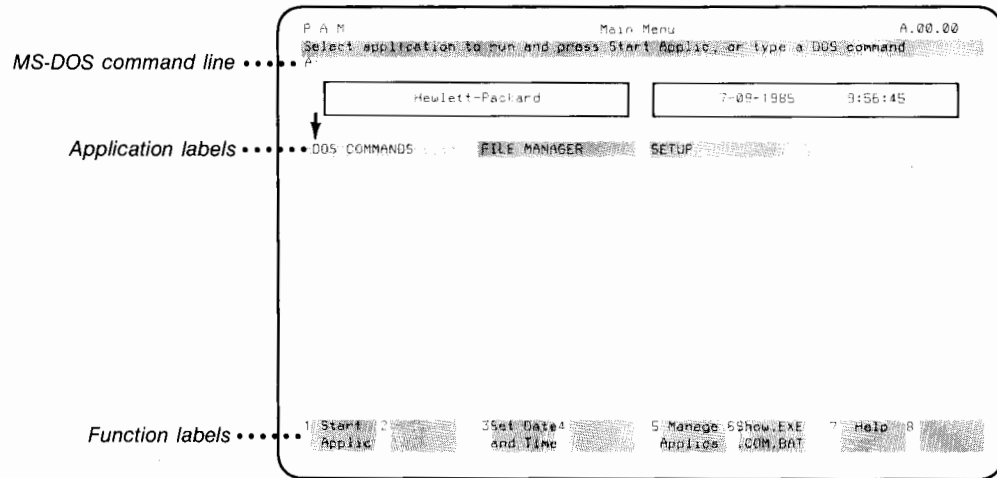


Figure 3-4. The PAM Main Menu

The Main Menu contains three important sections:

- An **MS-DOS command line** on which you can type MS-DOS commands. (MS-DOS commands are operating system commands that enable you to copy, delete, create, and print files and find out about your system) After Vectra has executed the command you typed, you can return directly to PAM to continue with your work. This is one way that PAM makes using Vectra very easy.
- **Application labels** that you can select so that you can start application programs directly from PAM.
- **Function labels** that contain the names of the tasks that are assigned to the function keys across the top of your

keyboard. For example, the third function label **Set Date and Time** corresponds to function key **F13**. If you press **F13**, you can set the computer's date and time. If you press function key **F17**, the screen shows Help displays that explain how to use PAM.

Let's look at a few of the tasks that PAM can perform. You should have the Main Menu on the screen. Do the steps that are described in the next sections.

The Help Displays

Whenever you need help, you can get it right on the screen. PAM's Help displays remind you of how to use the PAM display that is currently on the screen.

Do this:

1. Press function key **F17**.

The Help display that appears explains what is on the PAM Main Menu. If another menu or display had been on the screen, pressing function key **F17** would have caused a different Help display to be shown.

2. Press **F18** to return to the PAM Main Menu.

The MS-DOS Command Line

You can type MS-DOS commands from PAM's Main Menu. This is a helpful feature because if you need to use only a few MS-DOS commands, you don't have to bother to leave PAM. For example, you can display the names of all the files in the current directory.

Try this:

1. Type:

```
dir
```

The text you type appears on the third line of the display.

2. Press `Enter`.

The PAM Main Menu leaves the screen and a directory (list) of your files appears on the screen.

Did the file names go by pretty fast? Read on.

3. Press any letter or number key to return to PAM.

The PAM Main Menu returns to the screen.

4. If you want, repeat steps 1 through 3. This time stop the scrolling of the directory by holding down `CTRL` and pressing `S` simultaneously. To start scrolling again, hold down `CTRL` and press `Q` simultaneously.

5. Press `Enter` or any letter or number key to return to the PAM Main Menu.

You can type any MS-DOS command from the PAM Main Menu.



3


Choosing an Application to Run

You can run application programs from PAM. Because we don't know which applications you have available to you, we can't demonstrate this for you. We can, however, demonstrate how easy it is to choose the application you want to run.

Notice that the first application name on the menu is highlighted and has a pointer above it. This means that the application is "selected" or chosen.

Here's how you select an application:

1. Press the right cursor key  to select the next application to the right.
2. Press the left cursor key  to return to the previous application.

If you were to run a selected application, you would press the  function key to start the application running. Don't attempt to start an application right now because it may not be available to run at the moment, or you may not yet know how to return to PAM.

This tour has given you just a small taste of what PAM can do for you. You will learn more about PAM in Section III, *Using Vectra's PAM*, in this manual.

Turning Off Vectra

To turn off Vectra, do this:

1. Make certain that the PAM Main Menu is on the screen.
2. Make certain that all disc drive activity lights are off.
3. Press the ON/OFF button at the front of the computer to turn the system off. The button should be in the "out" position.
4. Remove all flexible discs from the drives.
5. Return the discs to their envelopes and put them in a safe place.

As you become more familiar with Vectra, you will learn that PAM doesn't have to be on the screen to turn off your system. The important point is that you should completely finish using a program before you turn off the system. If you do not do this, you risk losing data.

3

Summary

This chapter has shown you how to start your Vectra and how to make a copy of your DOS 3.1 Master Disc. You have also taken a short tour of PAM.

Based on what you have learned in this chapter, you can now go on to the next chapter, *Preparing Your Discs for Use*. In that chapter you will learn how to format your discs, put the operating system on them, and copy files onto them.



Installation For Use

- Installation For Use 1
- Mastering the Discs and Data 2
- Mastering the Discs 3
- Mastering the 3.1 Master Disc 4
- Copying the Disc 5
- Copying the Discs 6
- Copying the Discs and Work Disc 7
- Copying the Discs 8
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- Copying the Discs 10
- Copying the Discs 11
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4

Preparing Your Discs For Use

Before you can use your discs, you must first prepare them for use. This chapter provides you with a rote method for preparing your discs so that you can get started using your system. Later in this manual, you will learn more about disc preparation.

This chapter explains how to:

- format flexible discs,
- make copies of your master discs,
- format your hard disc(s),
- copy files onto your hard disc.

You will use the MS-DOS FORMAT, FDISK and COPY commands to perform the tasks listed above.

About Your Master Discs

Two master discs come with your system as standard software. The Vectra DOS 3.1 Master Disc contains the MS-DOS operating system, PAM—the Personal Applications Manager—and a few commonly-used MS-DOS utility programs. The Vectra Supplemental Disc contains a large number of MS-DOS utility programs that you may need to perform a variety of tasks. Most, but not all, of these programs are used by programmers rather than by application program users.

Your write-protected master discs should be used only to make "work discs." A work disc is a copy of a master disc. You use work discs for your everyday work, modifying their contents to match your own specific needs. Make sure you store your master discs in a safe place after you have made copies of them.

Matching and Nonmatching Flexible Discs and Drives

The 360Kb flexible disc drive and the 1.2Mb flexible disc drive are technologically different and are not completely compatible. The discs you purchase and use with these drives cannot be used interchangeably between the two drives.

The drives themselves look quite similar, but the 360Kb drive has an asterisk (*) embossed on its lower right side beneath the drive activity light. The drive in the top-most position is always referred to as drive A:.

HP strongly recommends that you use 360Kb discs in your 360Kb drive, and 1.2Mb discs in your 1.2Mb drive. We further recommend that you use HP discs. HP's 360Kb and 1.2Mb discs are differentiated for you by their product labels.

The table below shows how these discs can and cannot be interchanged between the drives.

Table 4-1. The Relationship Between the 360Kbyte and 1.2 Mbyte Drives.

Disc Media	Used With An HP 45811A 360Kb Drive	Used With An HP 45812A 1.2Mb Drive
Double-sided Double-density (360KB)	Read/Write	Read Only*
High-Capacity (1.2MB)	---	Read/Write

Notice that you can **read** a 360Kb disc in a 1.2Mb drive, but you cannot use a 1.2 Mb disc in a 360 Kb drive for any purpose. It is best to use your discs in the drives designed for them.

**You cannot format the disc or record information onto it.*

4

Making Work Copies of Your Master Discs

In the following pages, you will make work copies of your DOS 3.1 disc and your Supplemental disc. To do this, you need the following things:

- Your DOS 3.1 Master Disc
- Your Supplemental Master Disc
- Two new, unformatted discs that match the drive they will be used in.

Before you can begin, you must start your Vectra system. If your system is turned on and you have the PAM Main Menu displayed on your screen, you can proceed to the next section on *Making a Work Copy of Your DOS 3.1 Master Disc*. If your system is not turned on, follow these steps:

1. Place your DOS 3.1 Master disc in drive A:. If you have two flexible disc drives, the top one is drive A: and the lower one is drive B:. If you have one flexible disc drive, it is drive A:. Remember to turn the disc drive lever down after you have inserted the disc.
2. Turn on the computer by pressing the ON/OFF button on the front of the computer. The button should be in the "in" position.

PAM's Main Menu appears on the screen as shown in the figure below:

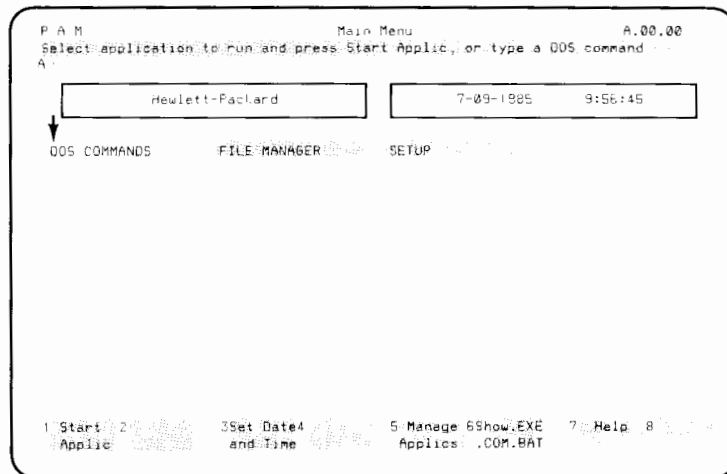


Figure 4-1. PAM's Main Menu.

Leave the DOS 3.1 Master Disc in the drive. Now you are ready to create a work disc of the DOS 3.1 Master Disc.

4-4 Preparing Your Discs For Use

Making a Work Copy of Your DOS 3.1 Master Disc

Follow these steps to create your DOS 3.1 work disc. The DOS 3.1 Master disc should be in drive A:. If you don't see A> on the MS-DOS Command Line, type:

A:

1. If the DOS 3.1 Master disc is not in drive A:, insert it now and turn the lever down.
2. Type:

```
Format A: /s/p
```

after the greater-than symbol (>) and press twice.

This is the command to format a new disc and copy the operating system files onto it. The text you type appears on the third line of the display after the A> prompt. This display changes slightly. Don't worry about this now.

3. Press . In a few seconds, you see this message:

```
Insert new diskette for drive A: and  
strike ENTER when ready
```

4. Remove the DOS 3.1 Master disc from drive A:. Insert a new, unformatted disc in drive A: and turn the lever down.



Caution



The disc you just inserted in drive A: is the disc you are formatting. It should be the same capacity as the disc drive.

5. Press . You see this message:

```
Formatting...
```

After 1 to 1-1/2 minutes, MS-DOS will display:

```
Formatting complete
```

Wait for a few seconds until you see this message:

```
Format another (Y/N)?
```

4

6. Type N (No) and press . You see a message telling you to **Press any key to continue**.
7. Press . You see the PAM Main Menu again.

You have just formatted a disc and copied the operating system and PAM files onto it. But there are more files on the DOS 3.1 Master disc that must be copied. Leave the newly formatted disc in drive A: and proceed to the next section to copy these files.

Copying Files to the DOS 3.1 Work Disc

If your system has just one flexible drive, skip to the section titled *If You Have One Flexible Drive*.

If You Have Two Flexible Drives:

If you have two flexible drives, follow these steps. The disc you just formatted should be in drive A:.

1. Place the DOS 3.1 Master disc in Drive B: and turn the lever down.
2. Type this command:

Copy B: *.* A:

and press .

This is the command to copy the remaining files from the DOS 3.1 Master disc in drive B: to the newly formatted work disc in drive A:. As each file is copied, its name appears on your screen.

3. When all the files are copied, you see this message:

Press any key to continue

Press to return to the PAM Main Menu.

4. Remove the DOS 3.1 Master disc from drive B:, and store it in a safe place away from your computer.

You now have a work disc of your DOS 3.1 Master disc in drive A:. Leave the DOS 3.1 Work disc in drive A:—you will use it to make the work copy of your Supplemental Master disc. Proceed to the section titled *Making a Work Copy of Your Supplemental Master Disc* now.

If You Have One Flexible Drive:

Follow these steps to copy files to your newly formatted disc. The newly formatted disc with the operating system files should still be in drive A:.

1. Type this command:

```
Copy B: *.* A:
```

This is the command to copy the remaining files from your DOS 3.1 Master disc to the newly formatted work disc.

2. Press . You see this message:

```
Insert diskette for drive B: and strike  
any key when ready
```

3. Remove the formatted disc from the drive and insert the DOS 3.1 Master disc in the drive. Turn the lever down.
4. Press . A file will be read from the DOS 3.1 Master disc into your system's memory, and you will be instructed to

```
Insert diskette for Drive A: and strike  
any key when ready
```

5. Remove the DOS 3.1 Master Disc from the drive and place the disc you formatted back into the drive. Close the lever.
6. Press . The file that was read into your system's memory will be copied to the disc, and you will again see this message:

```
Insert diskette for drive B: and strike  
any key when ready
```
7. Repeat steps 3 through 6 until all the files are copied from the DOS 3.1 Master disc to the new disc.
8. When the last file has been copied, you will see this message:

```
Press any key to continue
```

Press to return to the PAM Main Menu.

You now have a work copy of your DOS 3.1 Master Disc. Place your DOS 3.1 Master disc in a safe place, away from the computer. Leave the DOS 3.1 work disc in the drive—you will use it in the next section to create a work copy of your Supplemental Master disc.

Making a Work Copy of Your Supplemental Master Disc

To make a work copy of your Supplemental Master disc, you perform these steps:

- Format a new disc
- Copy files from the Supplemental Master disc to the new disc.

Follow these steps to format the new, unused disc.

1. If the DOS 3.1 work disc you just created is not in drive A:, insert it now and close the drive lever.
2. Type this command:
`Format A:`
This is the command to format the disc in drive A:.
3. Press `Enter`. In a few seconds, you see this message:
`Insert new diskette for drive A: and
strike ENTER when ready`
4. Remove the DOS 3.1 work disc from drive A:. Insert the new, unformatted disc in drive A: and turn the lever down.

Caution



The disc you just inserted in drive A: is the disc you are formatting. It should be the same capacity as the disc drive.

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5. Press `Enter`. You see this message:
`Formatting...`
After 1 to 1-1/2 minutes, MS-DOS will display:
`Formatting complete
Format another (Y/N)?`
6. Type N (No) and press `Enter`. You then see a message telling you to Press any key to continue.

7. Press . You see the PAM Main Menu again.

You have completed the steps to format the disc. You must now copy the files from the Supplemental Master disc onto it. Leave the newly formatted disc in drive A: and proceed to the next section to copy these files.

Copying Files to the Supplemental Work Disc

If your system has just one flexible drive, skip to the section titled *If You Have One Flexible Drive*.

If You Have Two Flexible Drives:

If you have two flexible drives, follow these steps. The disc you just formatted should be in drive A:.

1. Place the Supplemental Master disc in Drive B: and turn the lever down.
2. Type this command:

`Copy B: *.* A:`

Press .

This is the command to copy all the files from the Supplemental Master disc in drive B: to the newly formatted work disc in drive A: . As each file is copied, its name appears on your screen.

3. When all the files are copied, you see this message:

`Press any key to continue`

Press to return to the PAM Main Menu.

4. Remove the Supplemental Master disc from drive B:, and store it in a safe place away from your computer.

5. Remove the work copy of the Supplemental disc from drive A:

You now have work copies of both the DOS 3.1 and Supplemental discs. Label both work discs with their names, contents, and the date they were created. Stick-on labels are included with every box of discs. Use a felt-tip pen. Your discs should be labeled with this information:

<name> Work Disc

Contains <program names>

Created <mm-dd-yy>

From now on you will only use your DOS 3.1 and Supplemental work discs.

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If You Have One Flexible Drive:

Follow these steps to copy files from the Supplemental Master disc to your newly formatted disc.

1. Type this command:

Copy B:*. * A:

This is the command to copy all the files from the Supplemental Master disc to the newly formatted work disc.

2. Press . You see this message:

Insert diskette for drive B: and strike any key when ready

3. Remove the formatted disc from the drive and insert the Supplemental Master disc in the drive. Turn the lever down.

4. Press `[Enter]`. A file will be read from the Supplemental Master disc into your system's memory, and you will be instructed to:

Insert diskette for Drive A: and strike
any key when ready

5. Remove the Supplemental Master disc from the drive and place the disc you formatted back into the drive. Close the lever.
6. Press `[Enter]`. The file that was read into your system's memory will be copied to the disc, and you will again see this message:

Insert diskette for drive B: and strike
any key when ready

7. Repeat steps 3 through 6 until all the files are copied from the Supplemental Master disc to the new disc.
8. When the last file has been copied, you will see this message:

Press any key to continue

Press `[Enter]` to return to the PAM Main Menu.

You now have work copies of both the DOS 3.1 and Supplemental discs. Label both work discs with their names, contents, and the date they were created. Stick-on labels are included with every box of discs. Use a felt-tip pen. Your discs should be labeled something like this:

<name> Work Disc

Contains <program names>

Created on <mm-dd-yy>

From now on you will only use your DOS 3.1 and Supplemental work discs.

Preparing your Hard Disc for Use

Just like flexible discs, your hard disc must be formatted with the FORMAT program before it can be used. Make certain your hard disc has already been prepared (initialized) for formatting by Hewlett-Packard or your dealer using the SETUP program.

Prior to using the FORMAT program on your hard disc, you must use a program called FDISK. This program allows you to place the MS-DOS operating system on the hard disc.

If your Vectra contains a 20Mb hard disc it is called drive C:. If your Vectra contains a 40Mb hard disc, it has been divided into two sections. The first section is called drive C: and the second section is called drive D:. You treat your 40Mb hard disc as if it were two separate hard discs.

Creating an MS-DOS Partition

You will need your DOS 3.1 work disc and your Supplemental Work Disc to create an MS-DOS partition on your hard disc.

1. Place the DOS 3.1 work disc in disc drive A:. If you have two flexible disc drives, the top one is drive A:. If you have one flexible disc drive, it is drive A:.
2. Turn on the computer.
Remember to turn the lever down after you have inserted the disc. PAM's Main Menu appears on the screen.
3. Remove the DOS 3.1 work disc from drive A: and replace it with the Supplemental Work Disc.
(Remember to turn the drive lever down.)

4. Type:

`fdisk`

5. Press `Enter`.

This menu appears on the screen:

```
Generic FDISK Utility version 3.1
Fixed Disk Setup Program
Copyright (c) 1983,85 Phoenix Software Associates, Ltd.

FDISK Options

Choose one of the following:

  1. Create DOS Partition
  2. Change Active Partition
  3. Delete DOS Partition
  4. Display Partition Data

Enter choice: [1]

Press Esc to return to DOS.
```

Figure 4-2. The FDISK Main Menu

6. To create an MS-DOS partition, press `Enter`.

7. If you are prompted with this message:

```
Do you wish to use the entire fixed disc
for DOS (Y/N)...[Y]
```

press `Enter`.

Now this menu appears on the screen:

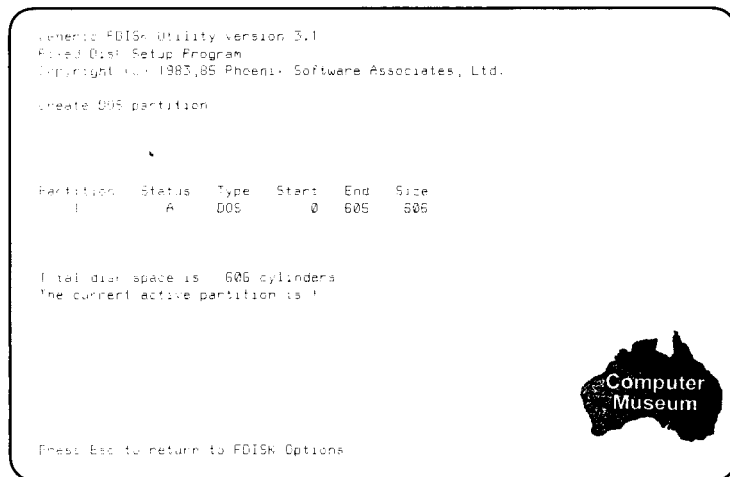


Figure 4-3. The Second FDISK Menu

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8. Press **[ESC]** now to return to the FDISK Main Menu.
9. Press **[ESC]** again. You see this message:

```
System will now reboot  
Insert DOS diskette in drive A: Press any  
key when ready...
```
10. Remove the Supplemental work disc from drive A:
and reinsert the DOS 3.1 work disc.
11. Press **[Enter]**.
The system restarts and the PAM Main Menu returns
to the screen.

You are now ready to format your hard disc.

Formatting the Hard Disc

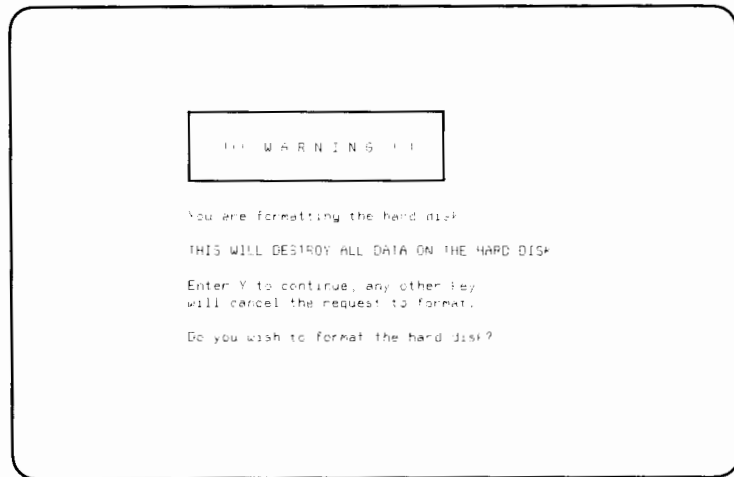
Follow these instructions to format drive C:. The PAM Main Menu should be displayed on the screen.

1. If the DOS 3.1 work disc is not in drive A:, insert it now.
2. Type this command:

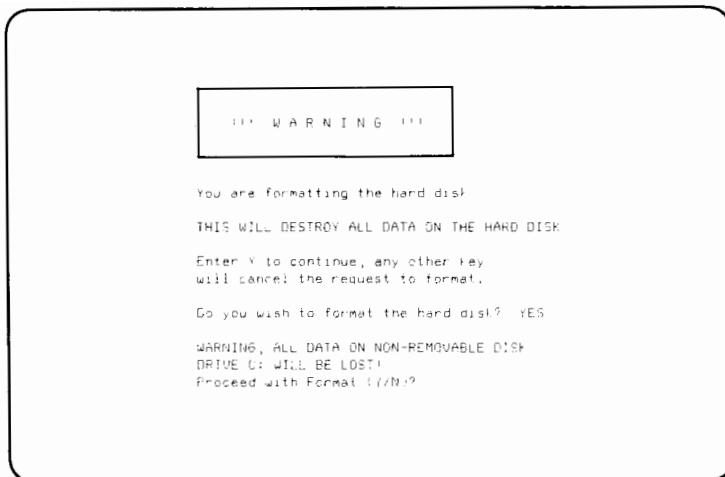
```
format c:/s/p/v
```

This command tells the FORMAT program to format drive C:. The /S and /P place the operating system and the PAM files on the disc. The /V allows you to give the disc a volume name (chosen by you).

3. Press . You see this message:



4. Type Y (Yes). You see this message.



4

5. Type Y (Yes) and press

Formatting begins. It takes about two minutes to format a hard disc. When formatting is finished, this message appears:

```
Formatting... Format complete
System transferred
```

Wait a few seconds until you see this message:

```
Volume label (11 characters, ENTER for none)?
```

6. Type a descriptive name with a maximum of 11 characters for your hard disc.
7. Press .

Your hard disc is now ready to use.

Copying Files Onto Your Hard Disc

It is common practice to put all the files from your Vectra DOS Master Disc on to the hard disc (drive C:) if you have one. With all your MS-DOS and PAM files on the hard disc, you can use your flexible drives mainly for copying new programs onto the hard disc, and for making backup copies of the information on the hard disc.

To copy files to your hard disc (drive C:), use the COPY command. This command copies files from one disc to another disc.

Copying the DOS 3.1 Work Disc Files Onto the Hard Disc

Follow these steps to copy all the files from your MS-DOS 3.1 work disc onto your hard disc.

These instructions assume the PAM Main Menu is on the screen.

1. Insert the DOS 3.1 work disc into drive A:.
2. Type:

```
COPY A: *.* C:
```

This command tells the COPY program to copy all the files on the disc in drive A: to the hard disc, drive C:.

3. Press .

All the files on the Work Disc are copied onto the hard disc. This procedure takes about one minute. You can see the hard disc activity light go off and on as the data is copied from the disc in drive A: to the hard disc. Each file is listed on the screen as it is copied.

When the files are copied, you can press any key to return to the PAM Main Menu.

4. Remove the DOS 3.1 work disc from drive A:.
5. Insert the Supplemental Work Disc into drive A:.
6. Repeat steps 2 and 3.
7. Remove the Supplemental work disc from drive A:

All your Vectra MS-DOS and PAM files are now on the hard disc (drive C:).

Copying Other Files Onto your Hard Disc

Usually, people place their most used application programs on their hard discs. Seldom-used applications are often accessed from flexible discs. If you want to copy your application files onto your hard disc, follow the instructions that come with the application.

Starting Your System From the Hard Disc

Now that you have your MS-DOS and PAM files on the hard disc (drive C:) you can start the operating system from it.

To start your Vectra from the hard disc, remove any disc that may be in drive A:. Then you can either:

- perform a **reset** by pressing **CTRL**, **Alt**, and **DEL** simultaneously.
- turn off the system and then turn it on again.

Remember, in order to start the system from drive C:

- your hard disc must contain the operating system.
- drive A: must be empty.

If Something Went Wrong

If your system started from drive A:

- you forgot to remove the A: disc containing the operating system from drive A:.
Remove the disc and restart the system.

If your Vectra didn't start at all:

- Your system may have encountered a disc *without* the operating system on it in drive A:.. When this happens, this message appears on the screen:

```
Non-System disk or disk error  
Replace and strike any key when ready.
```

In addition to producing the message, Vectra stops looking for the operating system. Thus, it never finds the operating system in drive C:..

Remove the disc from drive A: and restart the system.

- There may be no operating system on drive C:.. You see the same message as shown above.

Make sure that the hard disc is formatted with the /S and /P options of the FORMAT command. If the system still won't start, consult the "Current Information" section of *The Communicator*.

Summary

In this chapter you made copies of your master discs, you formatted your hard disc, and you copied files onto your hard disc.

The next chapter shows you how to use your input devices—the keyboard, the mouse, and the touchscreen. Read the chapter carefully so that you will not be hindered when you begin to learn about PAM.

Section II.

Communicating With Vectra



5

The Nylon Keyboard

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 Tel: (617) 495-3800
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 E-mail: info@cambridge.edu
 Website: <http://www.cambridge.edu>



5

The Vectra Keyboard

The keyboard is your means of communicating with Vectra. Through the keyboard you can tell the computer to execute application programs, list your files, perform file maintenance chores, put information on disc, and print files.

This chapter provides you with a general description of the keyboard as it applies to its use in the PAM environment.

This chapter explains:

- how to adjust the keyboard tilt
- what the keyboard looks like
- how to use the special keys on the typewriter keypad
- how to use the function keys
- how to move the cursor on the screen
- how to edit a line you have typed
- how to use the numeric keypad
- how to use the special computer control keys
- what the status indicator lights mean.

Adjusting the Keyboard Tilt

You can adjust the keyboard for your comfort so that it is level or slightly tilted. To tilt it, fold down the brace on the back of the keyboard as shown below.

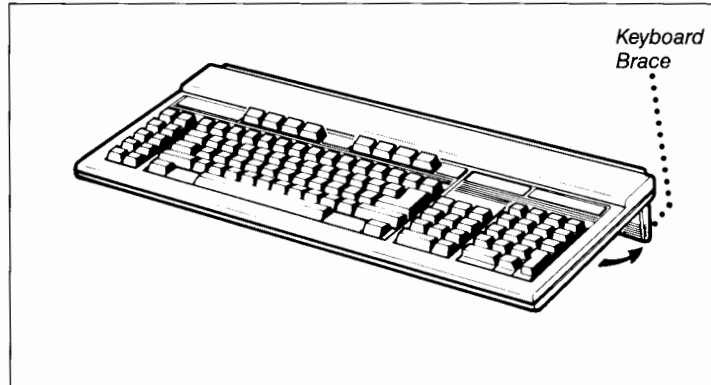


Figure 5-1. The Keyboard Brace

An Overview of The Keyboard

Your Vectra keyboard is divided into five keypads and one status indicator area. The figure below shows the keyboard.

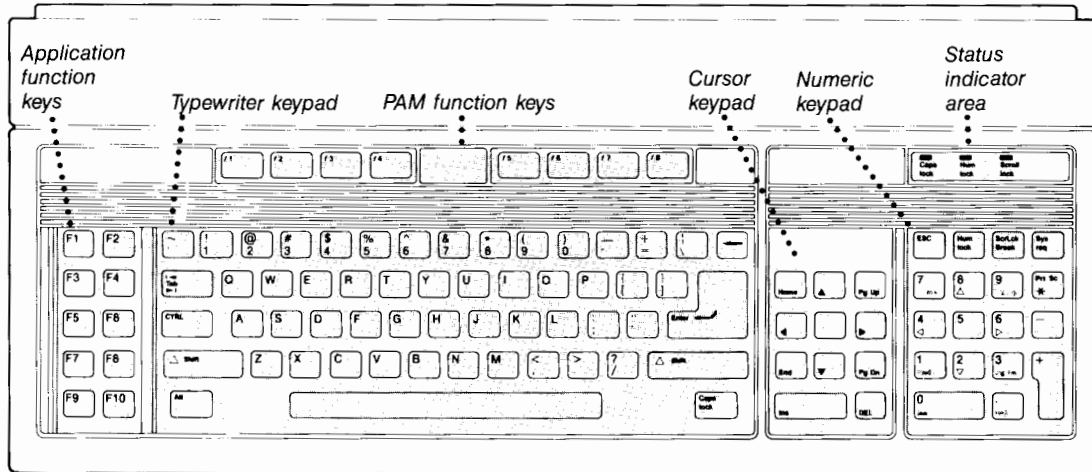


Figure 5-2. The Vectra Keyboard

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The keys on each keypad are grouped according to general function, and for ease of use.

- The *typewriter keypad* contains the keys that correspond to a standard electric typewriter. In addition, it contains a few keys that are specific to computer function.
- The *function keys*, when programmed appropriately, perform commands or functions associated with specific programs.
- The *cursor keypad* contains keys that allow you to move the cursor.

- The *numeric keypad* at the far right is arranged like a calculator to allow you to enter numbers quickly and easily.
- The status indicator area contains three indicator lights to indicate when `Caps lock`, `Num lock`, and `ScrLck` are in effect.

The Typewriter Keys

The typewriter keypad contains the keys that you find on a standard typewriter. Most of the keys on this keypad repeat as long as you hold them down. Here, we describe the keys that you would find on an electric typewriter, but that operate a little differently. The figure below indicates the keys that are described in this section.

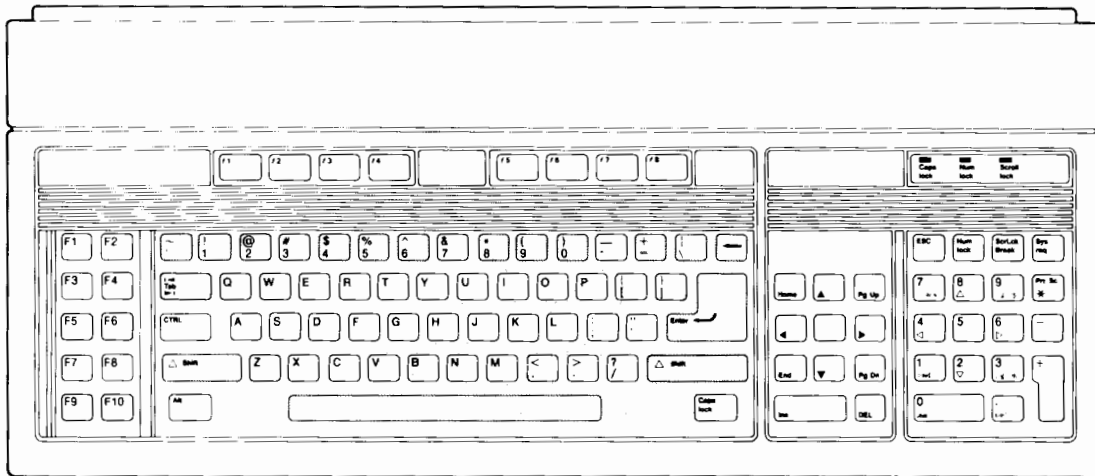



Figure 5-3. The Typewriter Keys

5-4 The Vectra Keyboard

Back space The Backspace key  on PAM's text lines moves the cursor one space to the left every time you press it. It also erases the characters on the screen as the cursor passes over them.

Tab The **Tab** key moves the pointer to the next label to the right. When used in conjunction with the shift key, it moves the pointer to the previous label.

Enter The **Enter** key works much like the Return key on a typewriter. Whenever function key **F1** is assigned to the **Start Applic** function, **Enter** duplicates its function. Otherwise, **Enter** signifies that you have finished typing a line of data.

Caps lock The **Caps lock** key locks the alphabetic keys into capital letters until you press **Caps lock** again. The **Caps lock** key differs from the **Shift** key in that it does not shift the numeric keys. If **Caps lock** is in effect, you still have to press the **Shift** key to type the characters associated with the numeric keys. When **Caps lock** is in effect, the **Caps lock** status light is lit. To turn off **Caps lock**, press the key again.

The Function Keys

The function keys on both keypads are defined so that you have only to press a single key to perform certain tasks. These tasks would otherwise require several—or even many—keystrokes. The next figure indicates the keys that are described in this section.

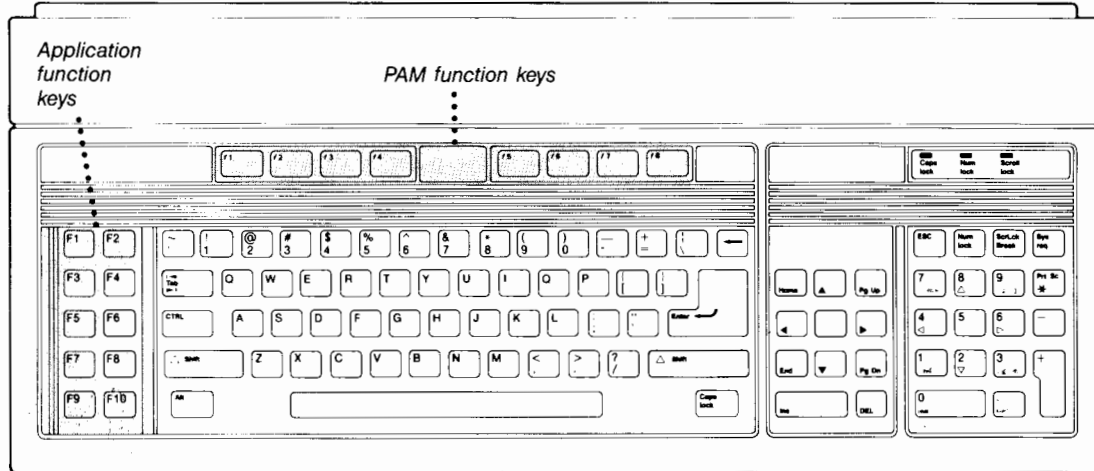


Figure 5-4. The Function Keys

The tasks assigned to the function keys depend on the program that is running. For example, pressing function key **f1** causes an application program to start running when the PAM Main Menu is on the screen. Within an application program, however, pressing **f1** might cause text to be printed. The keys labeled **F1** through **F10** are used by application programs.

The assignments of function keys often change within programs. Whenever the text in a function label changes, the task of the associated function key changes.

5-6 The Vectra Keyboard

In PAM you always know how function keys **F1** through **F8** are assigned because their assignments are listed in function labels at the bottom of the screen. The next figure shows the relationship between the function keys and the function labels when the PAM Main Menu is on the screen.

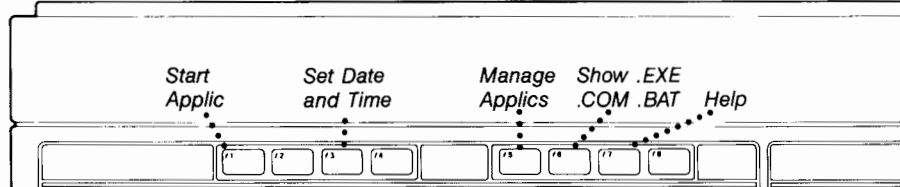


Figure 5-5. The Function Keys and the Function Labels



The Cursor Keys

The cursor keys control the movement and placement of the cursor or pointer on the screen. In general, the position of the cursor indicates where the next character you type will appear on the screen. The pointer points to an item on a menu to be selected. The figure below shows the cursor control keys.

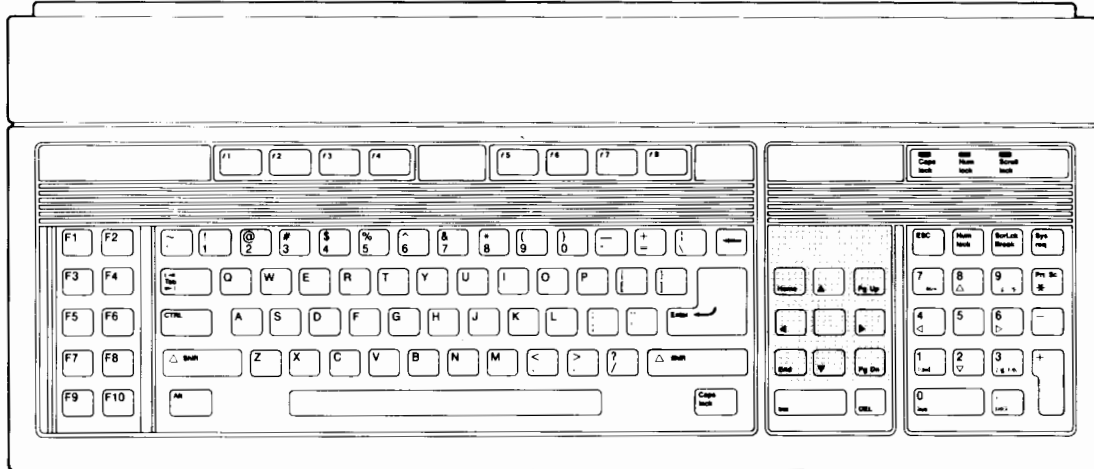


Figure 5-6. The Cursor Control Keys

When there is more information in a long list than will fit on the screen, some of the cursor control keys can be used to bring the unseen portions of the list into view. The figure below illustrates how the **Pg Up** and **Pg Dn** keys move the contents of the list to the screen.

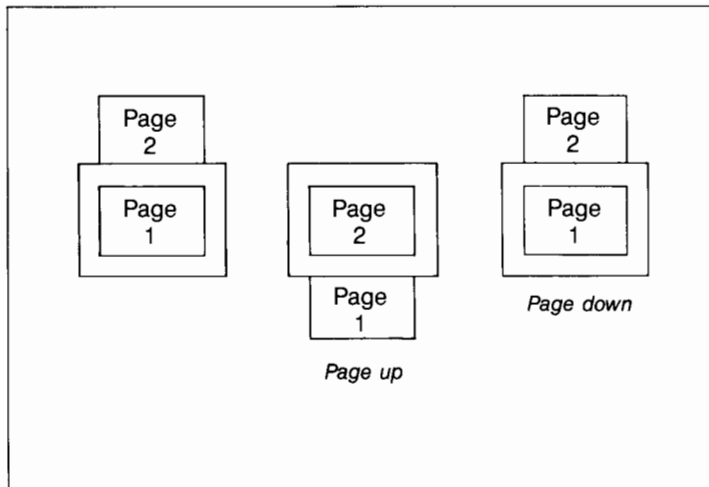


Figure 5-7. Viewing the Contents of the List

▲ ▼ On the PAM menus, the ◀ and ▶ keys move the pointer from one end of a line to the other end of the line label by label. The ▲ and ▼ keys move the pointer straight up and down a column of labels on your screen. On PAM text lines, you can use the ◀ and ▶ to move the cursor to the left and right for editing purposes.

Home The Home key moves the pointer to the top left label of the list.

End The End key move the pointer to the last label of the list.

Pg Up
Pg Dn

These keys move the contents of the top and bottom of the list into view on the screen. The pointer remains stationary, but it points to different information because the contents of the screen have changed. When you come to the top or bottom of the list, nothing happens when you press Pg Up or Pg Dn.

The Line Editing Keys

The line editing keys allow you to edit the contents of a line you have typed. Line editing is effective only if you have not pressed the Enter key after typing a line. Enter sends the line to the computer. Therefore, you should look at a line and edit it, if necessary, before you press the Enter key. That way, the computer receives the corrected line, not the incorrect line. The next figure shows the line editing keys.

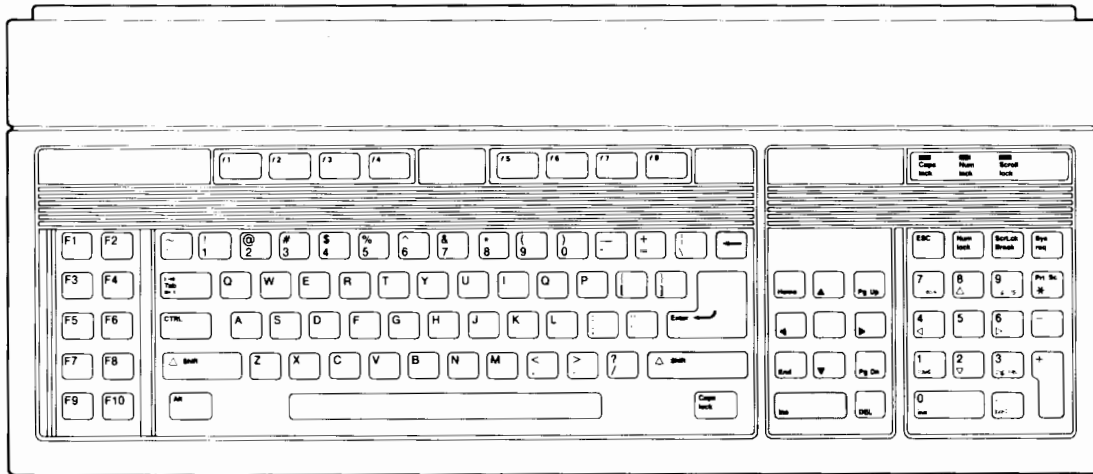


Figure 5-8. The Line Editing Keys

5-10 The Vectra Keyboard

Ins

The Insert key, when pressed, places the keyboard into "Insert Mode." In PAM, whenever the keyboard is in Insert Mode, the characters "Ins" appear between function labels **f4** and **f5**.

While in Insert Mode, you can insert characters into a line. This causes all the existing characters to the right of the inserted characters to move to the right. To leave Insert Mode, press the **Ins** key again.

DEL

When you press the Delete key, the character on which the cursor is positioned is erased. When you delete a character, all characters to the right of the deleted character move to the left.

Back space

This key, which was described in the typewriter key section, can also be thought of as an editing key. It erases characters as it backs up over text.

◀ and
▶

These keys can be used for editing text lines in PAM. Use them to move the cursor to the place at which you want to insert or delete a character.

5

The Numeric Keys

The numeric keypad contains a calculator arrangement of numbers and symbols. It can be used for number and symbol entry only when the **Num lock** key has been pressed and the Num lock status light is lit. Otherwise, the number keys function exactly like the keys on the cursor control pad. The following figure shows the numeric keys that are discussed in this section.

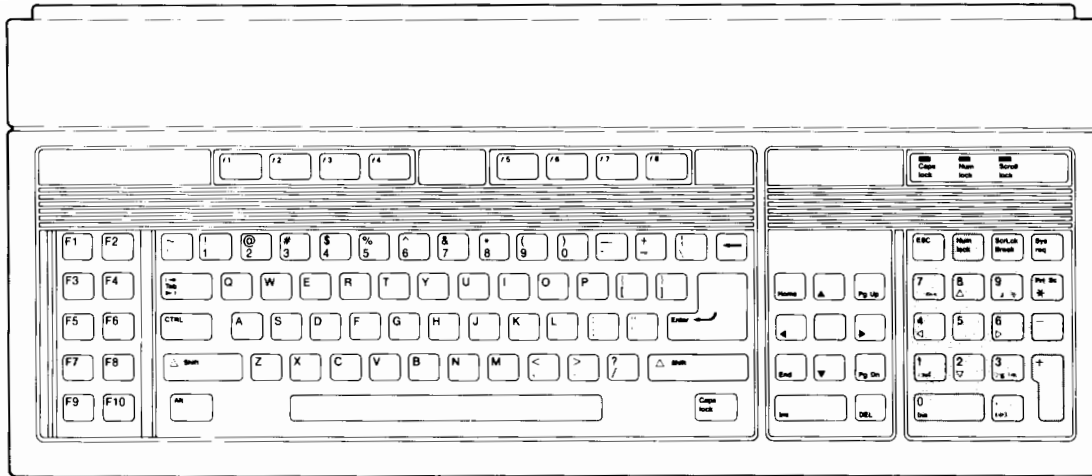


Figure 5-9. The Numeric Keys

Num lock This key causes the numeric keypad to function in its numeric mode. When you press **Num lock**, the Num lock status light comes on and remains lit until you press **Num lock** again to return the numeric keypad to its cursor control function.

The Computer Control Keys

The computer control keys are located on the typewriter keypad and the numeric keypad. Those that are located on typewriter keypad are there to be used in conjunction with the alphabetic and numeric keys. Those that are located on the numeric keypad are there because they are seldom used and they are out of the way there. This figure shows the locations of the computer control keys.

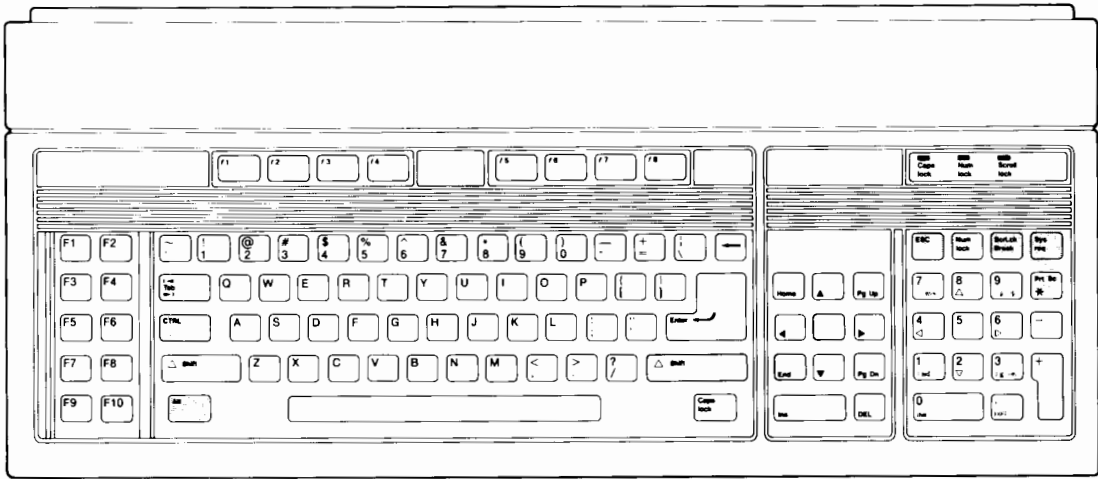


Figure 5-10. The Computer Control Keys

CTRL This key is used in conjunction with one or two other keys to perform certain computer functions. Generally, you hold this key down while pressing another key. The use of this key is described in the manuals that accompany programs that use it.

Alt This key is used much like the **CTRL** key. In this manual, the only use of the **CTRL** and **Alt** keys is to reset your Vectra. Resetting is like turning your system off, then on again, to restart your system. It is easier on your Vectra, however, than removing power and reapplying it again.



To perform a reset press **CTRL**, **Alt**, and **DEL** simultaneously. The operating system is reloaded and Vectra is restarted in the usual way.

Caution



Do not reset your Vectra when you are in the middle of an application program or at any time you have not written data onto a disc. To reset at this time will cause a loss of data.

ESC

When you press this key a function or process is interrupted. For example, in PAM it cancels the current DOS Command input line. The use of this key is described in the manuals that come with the applications that use it.

ScrLck

When you press this key, the cursor no longer moves up and down on the screen. Instead, the text moves up or down when the Up or Down cursor keys are pressed. When **ScrLck** is in effect, only the **▲** and **▼** keys operate. The **◀** and **▶** keys become inactive.

When **ScrLck** is in effect, the Scroll lock status light is lit until you press the **ScrLck** key again to return the screen and cursor to their normal functions.

Break

This key usually stops a process. Its exact use is described in the manuals that accompany the programs that use it.

Sys req

This key is not used in PAM.

Prt. Sc

When you press this key and hold down a Shift key at the same time, the contents of the screen are printed on your printer (your primary list device).

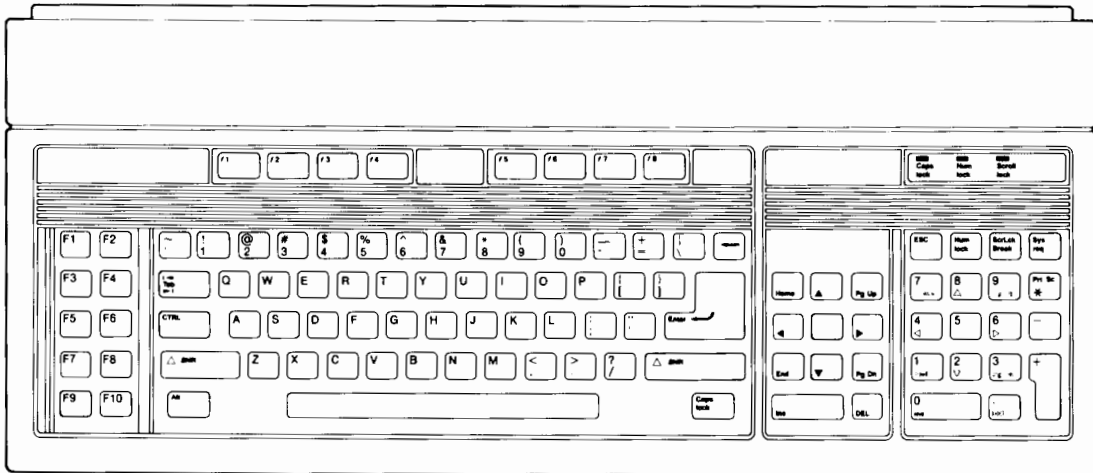
Note



The Print function works only if your primary list device is a parallel printer. It will not work for other kinds of printers.

The Status Indicator Lights

The status indicator lights indicate that the keyboard is in a special mode. Figure 5-11 shows the status indicator lights.



5

Figure 5-11. The Status Indicator Lights

Caps lock **Indicator Light**

When you press the **Caps lock** key, the Caps lock indicator light turns on. This indicates that any typewriter key you press will be displayed and stored as a capital letter. The indicator light remains on until you press the **Caps lock** key again.

Num lock **Indicator Light**

When you press the **Num lock** key, the Num lock indicator light turns on. This indicates that you can use the numeric keypad for numeric data entry. The indicator light remains on until you press the **Num lock** key again.

ScrLck **Indicator Light**

When you press the **ScrLck** key, the Scroll lock indicator light turns on. This indicates that when you press the Up or Down cursor key, the display on the screen will scroll, rather than the cursor move. The indicator light remains on until you press the **ScrLck** key again.

Summary

You now know how the keys on Vectra's keyboard work. The next chapter will give you some practice using the keyboard as well as two other input devices—the HP mouse and HP Touch.

6

Using the Keyboard, HP Touch, and the HP Mouse

Learning to Use the Keyboard	
The Function Keys	
The Control Keys	
The Line Editing Keys	
Learning to Use HP Touch	
How HP Touch Works	
Adjusting the Function Labels	
Choosing Applications	
Learning to Use the HP Mouse	
How the HP Mouse Works	
Adjusting the Function Labels	
Choosing Applications	
Page Up and Down	
Summary	

6

Using the Keyboard, HP Touch, and the HP Mouse

Your Vectra system supports several user input devices. Three of them are described in this manual. The keyboard, of course, is standard with every system. Optionally, you can use the HP Mouse or the HP Touch accessory for some kinds of input to the computer.

HP Touch is an HP accessory that allows you to touch the screen to select and activate programs and functions.

The HP Mouse is a small hand-operated device with which you can move the cursor or pointer to a specific place on the screen to select and activate programs and functions.

This chapter contains three tutorials that teach you how to:

- use the keyboard
- use HP Touch
- use the HP Mouse.



The tutorials illustrate how to use the keyboard, HP Touch, and the HP Mouse with PAM. Be aware that all three input devices may operate differently when you are using MS-DOS or application programs. Some application programs are not programmed to take advantage of the mouse or HP Touch.

Learning To Use The Keyboard

The keyboard is your primary means of communicating with the Vectra. Through the keyboard, you can give the computer commands, select functions, and view and work with your files. This tutorial will familiarize you with how to use the keyboard to perform these tasks. The entire keyboard is shown below.

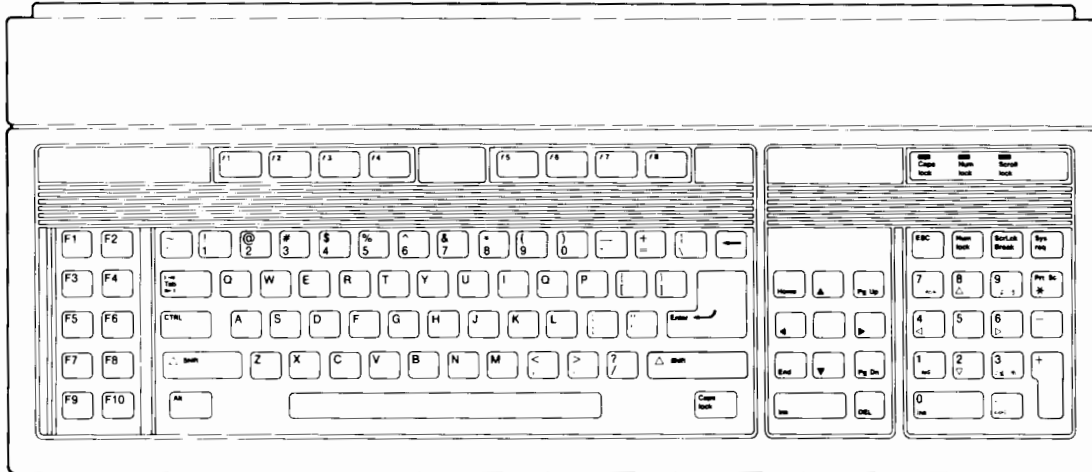


Figure 6-1. The Vectra Keyboard

6-2 Using the Keyboard, HP Touch, and the HP Mouse

The Function Keys

The function keys provide you with an easy way to tell Vectra to perform tasks. The PAM function keys across the top of the keyboard are labeled **F1** through **F8**. The application function keys are provided for use with industry standard applications.

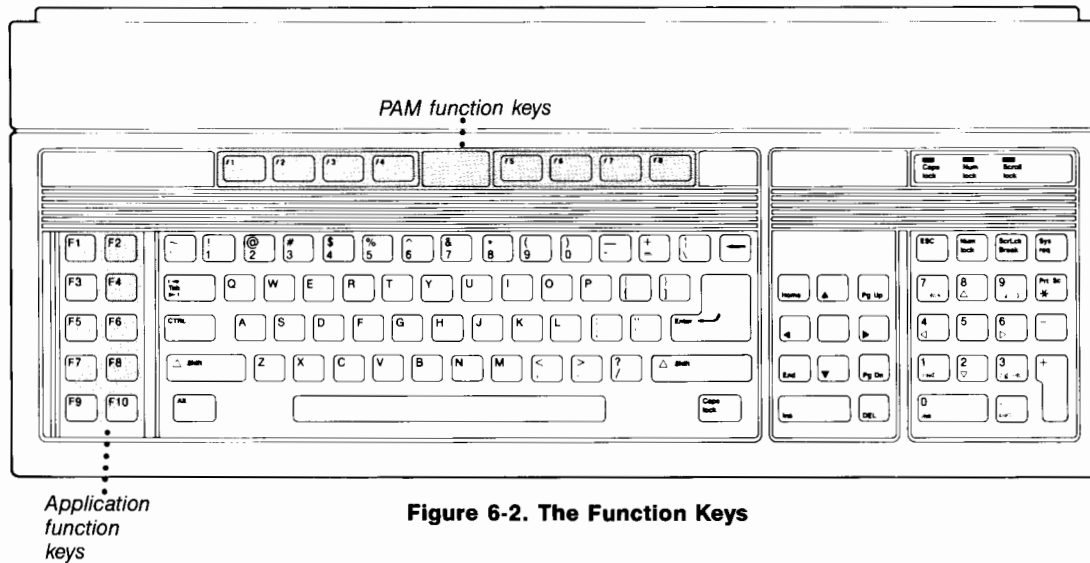


Figure 6-2. The Function Keys

In this tutorial, you'll use the PAM function keys to perform a few PAM tasks. Turn on your Vectra and display the PAM Main Menu.

Now follow these instructions:

1. Look at the function labels at the bottom of the screen. They say:

```
1 Start 2          3Set Date4          5 Manage 6Show.EXE  7 Help  8
  Applic          and Time          Applics .COM.BAT
```

2. Look at the function keys across the top of the keyboard. The function labels on the screen show how the function keys are assigned. The function keys down the side of the keyboard (F1 through F8) are assigned to the same functions as the function keys at the top of the keyboard.
3. Press the F5 **Manage Applics** key. The Main Menu leaves the screen and is replaced by the Application Manager menu. You see that the assignments of the function keys have changed:

```
1 Add 2 Delete  3 Modify 4          5Reorder 6 Auto  7          8 Exit
                                     Start          Manage
```

4. Let's go one step deeper into the Application Manager. Press F1 to see the **Add Application** menu.
5. You see that the assignments of the function keys have changed again. Now let's return to the PAM main menu. Press F8, **Exit Add**.
6. Press F8, **Exit Manage**.

The PAM main menu is now back on the screen.

The Cursor Keys

The cursor keys move the pointer or cursor to the desired place on the screen. Just as there are two sets of function keys that perform the same functions, there are two sets of cursor keys that do the same things. The figure below shows these two sets of keys.

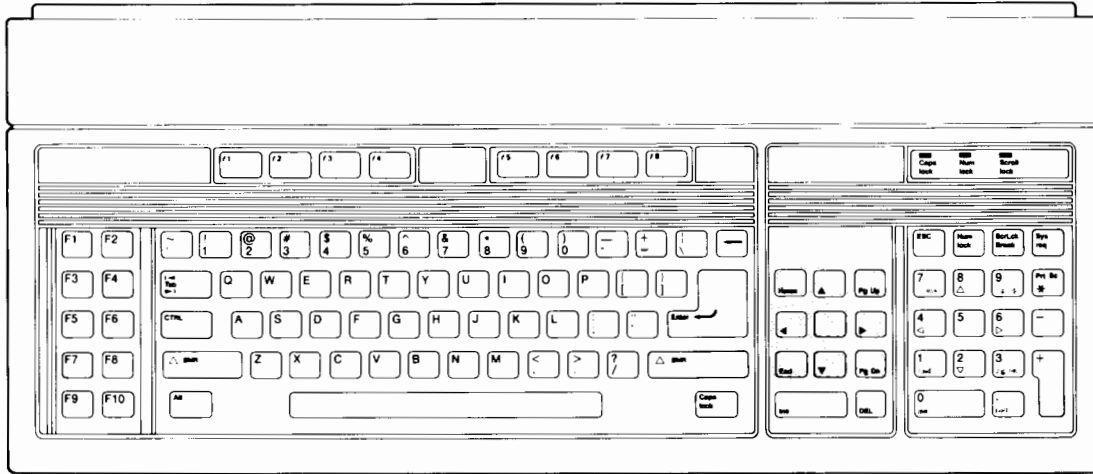


Figure 6-3. The Cursor Movement Keys

Starting at the PAM Main Menu, try this:

1. Press **[f5]** to go to the Application Manager.
2. Press **[f1]** to view the names of some of the applications that can be added to PAM. Now you can get acquainted with the cursor (or pointer) movement keys.
3. Press the right cursor key **[→]** to move the pointer to the application label to the right.
4. Continue to press the right cursor key until the pointer comes to the last application label on the line.

5. Now press the **Home** key. Voila! The pointer is back at the first application label.
6. Press the **End** key. The pointer is is at the last application label on the screen.
7. Press **Pg Up** once to return to the previous page.
8. Experiment with all the cursor keys and the **Home** and **End** keys while you are displaying this menu.
9. When you are finished, return to the PAM Main Menu by pressing **F8** until the main menu is on the screen.

If you wish, repeat these steps using the cursor keys on the numeric keypad. If the Num Lock status light is lit, the numeric keypad is in numeric mode; its cursor movement function is inactive. Press the **Num lock** key to turn off the Num Lock status light and activate the numeric keypad's cursor keys.

The Line Editing Keys

The keyboard has three line editing keys: **Ins**, **DEL**, and **Back space** as shown below.

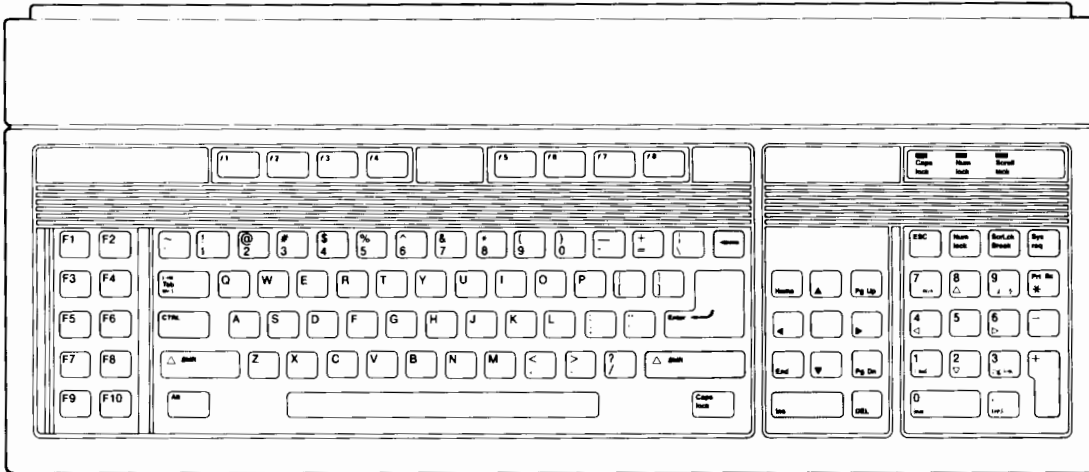


Figure 6-4. The Line Editing Keys

The third line of the PAM Main Menu is a reserved line on which you can type MS-DOS commands. You can use it to practice editing a line. You will type over a word, insert a new word, and delete some characters.

1. With the PAM Main Menu on the screen, type the words:

The rose is red.

Do *not* press **Enter**.

2. Use the **←** key to move the cursor back to the "r" in "rose".

3. Press the **Ins** key to turn on the Insert Mode. Notice that the word **Ins** appears on the display between function labels 4 and 5.

4. Type the word "hedge" so that you now see:

The hedgerose is red.

5. Press the **Ins** key again to turn off the Insert Mode.

6. Use the **▶** to move the cursor to the "r" in "red". Type the words "quite scarlet." Now the line reads:

The hedgerose is quite scarlet.

7. Finally, remove the word "quite" from the sentence. Move the cursor to the "q" in "quite" and press the **DEL** key five times for the letters and once for the space after the "e".

8. Now you have an unexecutable command on the command line. If you press **Enter**, MS-DOS will not recognize your command and will send you an error message. Since it will do no harm, press the **Enter** key. MS-DOS sends the message:

Bad command or file name
Press any key to continue...

Press any alphanumeric key to cause the PAM Main Menu to return to the screen.

Not every key has been demonstrated in this tutorial. Some keys assignments change with the current program and generalizations cannot be made about them. Their uses are explained in the manuals that accompany the programs that use them.

Learning to Use HP Touch

The HP Touch accessory enables you to tell your Vectra what to do by touching the monitor's screen. With HP Touch you can select functions and start applications.

HP Touch is easy to use. It duplicates many of the uses of the function and cursor keys. HP Touch is not mentioned in this manual (except in this tutorial) because some readers may not have the HP Touch accessory. If you have HP Touch, remember that any time a PAM menu is on the screen, you can use HP Touch. Most HP applications use HP Touch. Non-HP applications may or may not use HP Touch.

Note



If your HP Touch gets out of alignment, use the SETUP program to realign it. The use of the SETUP program is described in *Setting Up Vectra*.

How HP Touch Works

The HP Touch accessory consists of a bezel (or frame) that surrounds the screen with light emitting diodes. The lights, invisible to the eye, cross the screen in a matrix that provides over 230 touch areas. When you touch the screen, your finger interrupts the light beams. An interrupted light beam is interpreted by the computer as an instruction in the same way a keystroke on the keyboard is interpreted.

Active touch areas are indicated on the screen by labels and menu choices. You can use your index finger as a pointer or you can use an object such as the eraser end of a pencil. Avoid sharp objects because they may scratch the screen. Pointers that are too thick do not work very well because they they may interrupt too many light beams. Pointers that are too thin may not interrupt a light beam.

If you have HP Touch, use this tutorial to learn to perform a few PAM tasks. Turn on your Vectra and display the PAM Main Menu.

Activating the Function Labels

Starting at the PAM Main Menu, follow these instructions:

1. Look at the function labels that run across the bottom of the screen. They say:



1 Start Applic 2 3 Set Date and Time 4 5 Manage Applics 6 Show.EXE .COM.BAT 7 Help 8

2. Touch the function label that says **Manage Applics**.

The Main Menu leaves the screen and is replaced by the Application Manager menu. You see that the contents of the function labels have changed:



1 Add 2 Delete 3 Modify 4 5 Reorder 6 Auto Start 7 8 Exit Manage

Now let's look at the **Add Application** menu.

3. Touch **Add**.

You see that the contents of the function labels have changed again.

Choosing Applications

You can choose applications on your PAM menus by touching the application labels. (The application labels are the labels in the middle of the menu contain the names of the application programs you can run from PAM.)

Do this:

1. Touch the last application label in the first row. It becomes highlighted.
2. Touch various application labels on the screen to highlight them.
3. Now press the `Home` key.

Now you are back at the first application label. Notice that you can't do *everything* with HP Touch. You have to use the keys whenever typed text is required.

Now let's return to the PAM main menu.

4. Touch the `Exit Add` label.
5. Touch the `Exit Manage` label.

The PAM main menu is now back on the screen.

You could have used the function and cursor keys to do what you have done in this tutorial. If you have HP Touch, you always have the choice.



Learning to Use the HP Mouse

The optional HP Mouse enables you to tell your Vectra what to do by moving the mouse or pressing its buttons. You can use the mouse to select functions and start applications.

The mouse duplicates the use of the function and cursor keys. The HP Mouse is not mentioned in this manual (except in this tutorial) because some readers may not have one attached to their systems. If you have an HP Mouse, remember that any time a PAM menu is on the screen, you can use the mouse. Many HP applications use the mouse. Non-HP applications may or may not use it.

How the HP Mouse Works

The HP Mouse is connected to Vectra by a thin cable that is attached to an outlet on the back of your computer. A special software program that comes with the mouse installs it automatically every time you turn on your computer.

By moving the mouse to the left and right, and up and down, you can duplicate the the actions of the cursor keys and the **Home** and **End** keys. By pressing the buttons on the mouse, you can activate the functions shown on the function labels at the bottom of the PAM displays. In PAM, you can both buttons perform the same function, so you can use the one that is most comfortable for you.

When you use the mouse, it should be on a flat, hard surface. Place your hand over the mouse to move it. Your index and middle fingers should rest lightly on or next to the two buttons. In PAM, the two buttons do the same thing; you can use whichever one is the easiest for you.

Activating the Function Labels

Follow these instructions:

1. Look at the function labels that run across the bottom of the screen. They say:



1 Start Applic 2 3 Set Date and Time 4 5 Manage Applics 6 Show EXE .COM.BAT 7 Help 8

You will use the mouse to select and activate the Manage Applics function label.

2. Move the mouse toward you so that the pointer is on the function label line.
3. Move the mouse to the right or left so that the pointer points to the **Manage Applics** label.
4. Press either of the buttons on the mouse to display the Manage Applications menu.

The Main Menu leaves the screen and is replaced by the manage Applications menu. You see that the contents of the function labels have changed:



1 Add 2 Delete 3 Modify 4 5 Reorder 6 Auto Start 7 8 Exit Manage

5. Move the pointer to the **Add** function label if it is not there already.
6. Press either button on the mouse to display the names of the applications that can be added.

You see that the contents of the function labels have changed again.

Choosing Applications

You can use the mouse to select applications on your PAM menus. (The application labels are the labels in the middle of the menu that contain the names of the application programs you can run from PAM.)

Do this:

1. Move the pointer to the last application label in the first row of application names.
2. Select the application by pressing a button on the mouse. The application label becomes highlighted.
3. Practice selecting applications by moving the pointer to them and touching a mouse button to highlight them.

Paging Up and Down

You can use the mouse move from one page of a menu to the next page of a menu. The Add Applications menu has more application names than fit on one "page."

To see the names on the second page, do this:

1. Move the pointer to the last application name on the screen by moving the mouse.
2. Display the contents of the second page of application names by moving the mouse to the right.
The second page appears on the screen.

To return to the first page, do this:

1. Move the pointer to the first application name on the screen by moving the mouse.
2. Move the mouse to the left to display the first page of application names.

Voila! You are back at the first application label. Notice that you can't do *everything* with the mouse. You have to use the keys sometimes, for example, whenever typed text is required.

Now let's return to the PAM main menu.

1. Move the pointer to the **Exit Add** label and press one of the mouse's buttons.
Now the label says **Exit Manage**.
2. Press one of the mouse's buttons.

The PAM main menu is now back on the screen.

You could have used the function and cursor keys to do what you have done in this tutorial. When you have an HP Mouse, you always have the choice.

Summary

This chapter has given you some hands-on experience in using the keyboard, the HP Mouse, and HP Touch.

So far, you have looked at PAM and you have learned how to use PAM functions to prepare discs for use. You have also used the keyboard and—if you have them—the HP Mouse and HP Touch to select functions and applications from PAM's Main Menu and from the Application Manager's menus.

In the next section, you will find out more about PAM's Main Menu. You'll also learn how to use the Application Manager.

Section III. Using Vectra's PAM

Your First PAM Session

- What Vector's PAM Can Do
- Getting to the PAM Main Menu
- The PAM Main Menu
- Adding Application Names
- The PAM Executable Files Menu
- Refresh Files
- Returning to the PAM Main Menu
- Help: Getting More Information
- Summary

7

Your First PAM Session

Meet Vectra's Personal Application Manager (PAM).

PAM for the Vectra Personal Computer makes it easy for you to run applications and programs without having to remember a lot of commands. PAM also has a Manage Applications feature that allows you to tailor your PAM Main Menu so it is easy for you to use.

In this chapter, you will learn about two PAM menus: The **PAM Main Menu** where names of your applications are listed, and the **Executable Files Menu**, where the executable files that are on the discs currently in your drives are listed. You will learn how to generate each of these menus, and you will also learn some of the functions you can perform from these menus.

First, let's take a look at what you can do using PAM.

What Vectra's PAM Can Do

Through PAM you can:

- Start an application or program
- Set the Date and Time
- ReRead the list of Executable Files on the Executable Files Menu when you change the discs in your disc drives
- Use the Applications Manager to tailor your PAM Main Menu. You can:
 - Add application information to the PAM Main Menu
 - Delete application information from the PAM Main Menu
 - Modify information about an application; for example, change its name on the display
 - Reorder the list of applications on the display
 - Select an application to start automatically when you first turn on your system.
- Display the names of Added applications on the PAM Main Menu, or the names of Executable Files on the discs in your drives on the Executable Files Menu
- Type MS-DOS Commands and run executable programs from a PAM Menu
- Display quick-reference information about all of the PAM functions listed above.

Note

Although PAM performs many operations, you cannot use it to create or edit files on Vectra. To do this, you should use an application program, such as Executive Spreadsheet or AdvanceWrite; or the MS-DOS Command Processor. Refer to the appropriate manual for more information.

Getting to the PAM Main Menu

The instructions to start Vectra are explained earlier in this manual. When you first start your computer, the PAM Main Menu should appear. If it does not appear, look in the chapter titled *Starting Vectra for the First Time*, in the section titled *What if the PAM Main Menu Doesn't Appear*, for possible sources of the problem and what to do.

PAM has two "main" menus: the **PAM Main Menu**, and the **Executable Files Menu**.

The PAM Main Menu

When you first load your operating system, the PAM Main Menu is displayed, and you see the list of application names that have been "added" by HP so that you can run them easily when you load your Operating system for the first time.. Your display will look similar to this:

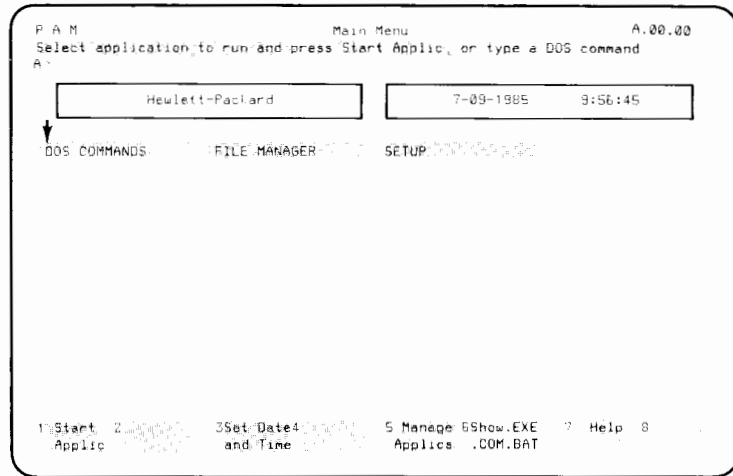


Figure 7-1. The PAM Main Menu

Added Application Names

This application list does not reflect what is on the discs in your drives, but is the screen that you can tailor by adding, deleting and reordering the names of applications you use. You will learn how to do these things in the chapter titled *Using Vectra's PAM*.

For now, look at the label on the display that corresponds to the **F6** function key. It is labeled **Show.EXE.COM.BAT**. When you press **F6**, you see the second PAM Menu.

The PAM Executable Files Menu

Press **F6** **Show.EXE.COM.BAT** now. Pressing this key causes PAM to search the current directories of the discs in all the drives on your system for files with extensions of .EXE, .COM, and .BAT, in that order. The search begins on drive A, then drive B, and so on. As the files are found, they are listed on your display.

Note



You will learn about “current” and “Root” directories in the next chapter on *Files, Directories, and Pathnames*.

Executable files contain instructions to the computer to perform tasks and solve problems. Executable files all have extensions of .EXE, .COM, and .BAT. You will learn more about executable files in the chapter on *Using Vectra's PAM*.

Your display will look similar to this if you have the DOS 3.1 work disc in drive A:


```

P A M                               Executable Files                               A.00.00
Select program to run and press Start Program, or type a DOS command
A:
Hewlett-Packard                       7-09-1985  17:24:56
↓
MNGEPAM.EXE A:  CHKDSK.EXE A:  JOIN.EXE A:  PRINT.EXE A:
SHARE.EXE A:  SUBST.EXE A:  COMMAND.COM A:  PAMCODE.COM A:
SETUP.COM A:  ASSIGN.COM A:  DISKCOMP.COM A:  DISKCOPY.COM A:
FORMAT.COM A:  SRAFTABL.COM A:  KEYBUS.COM A:  MODE.COM A:
SYS.COM A:

Press PgUp or PgDn for more programs

1 Start 2          3Set Date4 ReRead 5 Manage 6 Show 7 Help 8
Program and Time Discs Applies MainMenu

```

Figure 7-2. The PAM Executable Files Menu.

If there are more executable file names than can be shown on one display, you see the following message just above the function labels:

Press Pg Up or Pg Dn for more programs

To see the next display of program names, press **Pg Dn**. Press **Pg Up** to return to the previous display.

Notice that three function labels have changed:

- **Start Program** now appears in the label corresponding to **f1**, where **Start Applic** appeared before.
- **ReRead Discs** now appears in the label corresponding to **f4**, which was formerly blank, and
- **Show MainMenu** now appears in the label corresponding to **f6**, where **Show.EXE.COM.BAT** appeared before.

Unlike the Main Menu, you cannot change or tailor this display, because it is created by your computer when it “reads” the names of files with extensions of .EXE, .COM, and .BAT from the discs in your drives.

You can, however, change the display by placing another disc with executable files in a flexible drive and pressing **f4** **ReRead Discs**.

ReRead Discs

The **ReRead Discs** function takes an inventory of the executable files on the discs in your drives. This label is displayed only when Executable Files are displayed. You use it when you put a new disc in a flexible drive.

There may be more file names than can be shown on one display. to see the next page (display) of executable file names, you can press **Pg Dn**. Press **Pg Up** to return to the previous display.

Returning to the PAM Main Menu

When you press **f6** **Show MainMenu**, you once more see the Main Menu with the the list of Added application names. Press **f6** now to return to the PAM Main Menu.

When you add more application names to this display, there may be more names than can be shown on one display. You can use **Pg Dn** and **Pg Up** to see the next and previous displays.

Help: Getting More Information

HP has provided information to help you with many of the the PAM functions. The **Help** function label always corresponds to function key **F7**. You can read the Help information for the PAM Main Menu by pressing **F7** now. You will see Help information specific to using the PAM Main Menu.

Help information is always specific to the function or menu you are using, and the **Help** label is always in the position corresponding to **F7**.

Similarly, **Exit**, or **Cancel**, and sometimes **Continue**, are always in the position corresponding to **F8**. You can press **F8** **Continue** now to return to the PAM Main Menu.

Summary

In this chapter, you learned about the two menus you will see and use most often when you use Vectra's PAM. You are now ready to learn to use all of PAM's functions.

The remaining PAM functions are described in the chapter titled *Using Vectra's PAM*. Each function is described in detailed, step-by-step fashion to ensure your first-time success.

Before you use PAM, however, we recommend that you read the next chapter on *Files, Directories, and Pathnames* so that you can understand and use Vectra's very powerful file organization facilities to organize data on your discs.

8

Files, Directories, and Pathnames

While using PAM, you often have to refer to MS-DOS files, directories, and pathnames. You have to tell PAM where to find certain files and, occasionally, you have to give names to new files.

The information in this chapter is important to PAM users and to those users who will be using MS-DOS commands from the MS-DOS environment. Read this chapter carefully because a good understanding of its contents spells success in working with PAM and MS-DOS.

This chapter explains how to:

- name files.
- use wildcards to refer to files.
- use directories and subdirectories.
- name directories.
- specify pathnames.

Overview

A **file** is a collection of information stored on a disc under a filename. For example, when you use a word processing application to write a letter, you save the letter on a disc by giving it a filename and telling the program to save the file. If you later want to edit or print the letter, you will be asked to type the name of the file you want. It then searches the disc for that file.

If you use a computer language such as BASIC to write a program, you save the program as a file. If you later want to run that program from BASIC, you must use the filename to tell the computer which program you want.

As part of the filename, you can use an optional three-character **extension**. You can use the extension to identify similar files or to describe a file more completely.

Files are saved on discs in **directories**. Directories provide a convenient way to group files of similar types. Every disc has at least one directory, the Root directory. In addition to the Root directory, you can create your own directories and **subdirectories** (subsets of a directory). The list of directories and subdirectories that the computer has to go through to locate a particular file is the **pathname** for that file.

The remainder of this chapter explains files, filenames, extensions, directories, subdirectories, and pathnames. It explains the rules for naming files and directories and explains how to use directories to organize your files.

What is a File?

You use application programs to do work—for example, to write a letter or write a program in BASIC. The application program uses your Vectra's internal memory (and sometimes the application disc) to hold the letter or program while you are working on it.

As you may know, information held in the computer's memory is erased whenever you turn the computer off. To save your letter or BASIC program so that you can work on it in the future, you must save it as a file on a disc. Discs hold information whether the computer's power is on or not.

If you save a file on a disc, you can later have the computer copy the file back from the disc into the computer's memory. There you can add information to the file, change the information that is there, or delete information from the file. When you are finished, you can save the new version of the file with a new name or you can overwrite the existing version by using the same name.

A file on a disc is very much like a file in the drawer of a file cabinet.

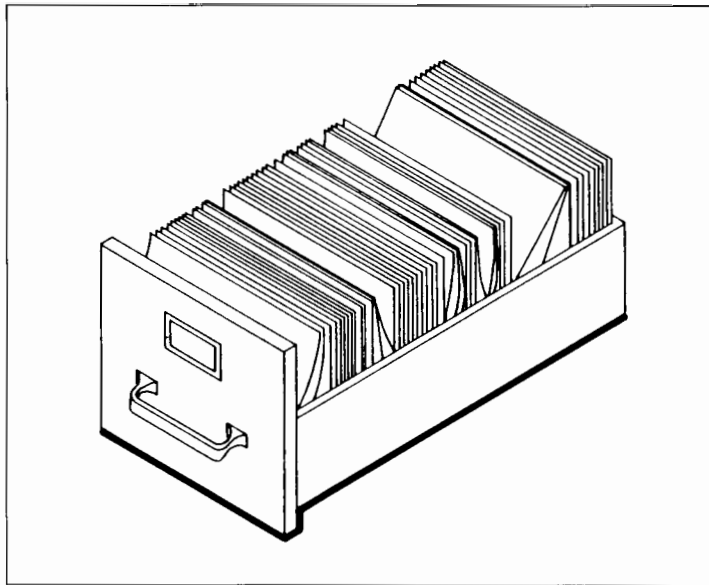


Figure 8-1. A File Drawer

Naming a File

When you save a file, you must name the file. You should choose a filename that accurately describes the file contents and that is easy to remember. For example, if you use AdvanceWrite to write a letter to Bob, a descriptive filename would be Bob. If you name your files descriptively, you can find the right file even if you have stored 50 (or 500) files on a disc.

You cannot have two files with the same name in the same directory on a disc. If you save a new file using the name of a file that already exists in that disc and directory, the new file will write over the existing file and replace it. For example, suppose you already have a file named Bob in the Root directory on your disc. If you give a new file the name Bob, the computer will write the new file named Bob over the old one. The old Bob file will be lost forever. Therefore, you must use different names for different files on a disc,

for example, Bob, Bob2, LtrJones, LtrSmith. Whether a file contains data or a program, it must have a name. A **file name** consists of two parts, an eight character **filename** and a three character **extension**. The filename and extension are separated by a period as in the Figure below.

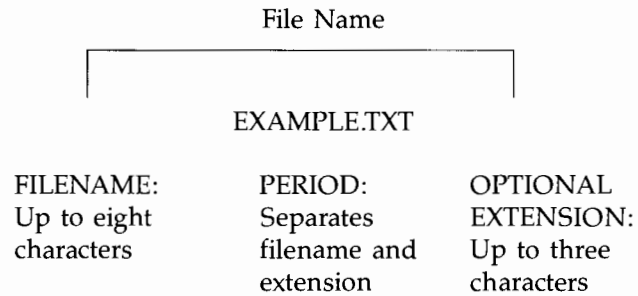


Figure 8-2. The Make Up of a File Name

Valid Filenames

A filename can be one to eight characters long. You can use these characters in a filename:

- | | |
|----------------|---------------------|
| A through Z | () Parentheses |
| 0 through 9 | _ underscore |
| \$ dollar sign | @ "at" sign |
| & ampersand | ^ caret |
| # pound sign | { } braces |
| % percent sign | ~ tilde |
| ' apostrophe | ' single quotation |
| - hyphen | ! exclamation point |

These are valid filenames:

Chapter4	BOB!!
bob&sue	Bob1
Memo#123	Bob-25
letter	BobJune\$

Invalid Filenames

You cannot use these characters in a filename:

. period	+ plus sign
[] brackets	* asterisk
? question mark	: colon
\ backslash	; semicolon
/ forward slash	< > angle brackets
= equal sign	space
" quote mark	

These are examples of filenames that are invalid because they contain one or more of the special characters listed above:

Filename	What's wrong with it
Chap 4	[space]
<bob>	[< >]
Memo123?	[?]
letter=	[=]

If you put a space in a filename, File Manager will use the characters up to the space and ignore everything after the space.

It doesn't matter whether you use upper-case or lower-case letters in your filenames. The file Chapter4 can be retrieved by specifying chapter4, CHAPTER4 or any combination in between. And a new file called Chapter4 will write over the old file whether you spelled the old file CHAPTER4, chapter4, or any combination of upper- and lower-case letters.

Specific Filenames Not to Use

Some filenames are used by MS-DOS (the operating system for your Vectra). If you use a filename listed below, it will either be ignored or you will receive an error message.

This filename	Is used by MS-DOS
AUX	for data sent to or from an auxiliary device.
CON	for data sent to or from the keyboard and to or from the screen.
NUL	for information that will be discarded.
PRN, LST, or INT	as names for printers.
LPT1, LPT2, LPT3	as names for printers.
PLT	as a name for a plotter.
CLOCK	for internal use.
HPIBDE	for internal use.

Some applications you use with your computer may also have specific filenames you should not use. Be sure to check the manual that comes with each application.

Using a Filename Extension

In addition to the filename's eight characters, you can use up to three characters as an extension to the filename. The extension is separated from the filename by a period. The following filenames include extensions:

BOB.LET	CHAP#1.TXT
BOBJUNE\$.OWE	CHAP#2.TXT
BOB&SUE.1	CHAP#3.TXT
MEMO#123.FEB	CHAP#4.TXT

You can use the extension to identify similar files or to describe a file more completely. For example, MEMO#123.FEB could be the filename for a memo written in February. If you have other files containing other memos from February you might give all of them the extension .FEB. Then when you display a list of the files on your disc, you can tell quickly which files are your February memos.

The extension helps to make a filename different from other filenames. You could have all three of these files with letters to Bob in the same directory on a disc:

BOB.MAY
BOB.JUN
BOB.JUL

Valid and Invalid Extensions

The same rules that apply to filenames also apply to extensions, that is, the same set of valid characters can be used in extensions as in filenames, and the same set of invalid characters cannot be used.

To remind you: you cannot use the following characters in an extension:

. period	+ plus sign
[] brackets	* asterisk
? question mark	: colon
\ backslash	; semicolon
/ forward slash	< > angle brackets
= equal sign	space
" quote mark	

You must use a period (.) between the filename and its extension. You cannot use a period (.) within a filename or extension.

Specific Extensions Not to Use

Some applications and programming languages assign an extension to each file automatically or reserve certain extensions for special purposes. With these applications and programming languages, if you include an extension which you shouldn't use, the application or language will ignore the extension or send you an error message.

MS-DOS, the operating system for your Vectra, also uses certain extensions for special purposes.

The following is a partial list of extensions that you should not use for your files. Refer also to the manual that comes with your application or programming language to see if any other extensions are assigned automatically or reserved for special purposes.

- .BAK EDLIN (the MS-DOS line editor) uses this extension for back up files.
- .BAT MS-DOS uses this extension for batch files.
- .CIF PAM uses this extension.
- .COM MS-DOS uses this extension for program files.
- .EXE MS-DOS uses this extension for program files.
- .LNK The MS-DOS linker uses this extension for files created with EDLIN, the MS-DOS line editor.
- .MSG Applications from Hewlett-Packard use this extension for message files.
- .OVL MS-DOS uses this extension.
- \$\$\$ MS-DOS uses this extension for temporary files.

If you use one of these extensions, you run the risk of losing your file or overwriting an important file.

In addition to the extensions listed above, you must also be aware of any other extensions used by your application programs, and avoid them.



Using Wildcards to Refer to Files

Now that you have learned to name your files, you need to be able to refer to them. You can always refer to them one-by-one in commands, etc., by including their full file names. Sometimes, however, it is helpful to refer to a group of files. By inserting one or more **wildcard** characters into a file name, the file name no longer refers to one file, but to many.

Two wildcard characters are available on MS-DOS systems such as Vectra: the question mark (?) and the asterisk (*). The '?' means "match any single character". The '*' means "fill with any characters, any length."

Assume you have created a report with four chapters:

CHAP#1.TXT CHAP#2.TXT CHAP#3.TXT CHAP#4.TXT

You can refer to these four files with one of these file references:

CHAP#?.TXT or CHAP#?.???

You can use as many '?' wildcards in your file reference as you wish. For example, if our book went beyond 9 chapters, we could add a second '?' to cover the tens digit in the chapter number as shown below:

CHAP#???.TXT

One of the more common uses of wildcards is to refer to all the files with the same name or same extension. Instead of

using the '?' wildcard we can use the '*' wildcard. The '*' means "fill with any characters". The example we used above:

CHAP#?.TXT or CHAP#?.???

now becomes:

CHAP#**

We'll end the discussion of wildcards with two observations:

- First, the examples above should give additional emphasis to the importance of good file naming. If there is no consistency in the names of related files, wildcards are of no advantage.
- Second, file references with wildcards only **refer** to files; they are not file names. Remember, ? and * are on the lists of invalid characters.

We will use wildcards and file references often when we discuss the File Manager Application, and MS-DOS commands.

What is a Directory?

A directory is a group of files on a particular disc. It's that simple, although it can seem more complicated.

All directories are groups of files, and some directories (called parent directories) also contain one or more sub-directories which themselves contain files. In other words, you can create levels of directories—a hierarchy. Or you can rely on a single Root directory on any disc you have. In

this section you'll find explanations and examples to make you familiar with the different possibilities.

What is the Root Directory?

Every disc has at least one directory—the Root directory. If you do not create any directories on your disc, all of your files will be saved in the Root directory. The Root directory is created when you format your disc. It is always present on a formatted disc; you cannot remove it. The Root directory is designated by a backslash \.

For example:

A:\ indicates the Root directory on the disc that is in drive A.

B:\ on the disc that is in drive B.

A:\BOB.LET is a file named BOB.LET which is stored in the Root directory of the disc that is in drive A.

You can compare the Root directory to a file drawer where each of the file folders in it represents a file or a directory (of files).

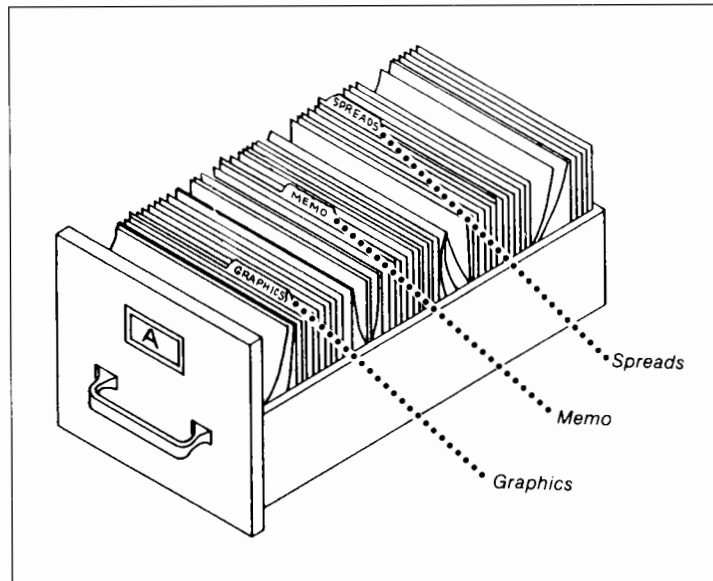


Figure 8-3. Files Divided Into Four Sections Like Directories

Making New Directories

You do not have to store all of your files in the Root directory of a disc. You can create and use your own directories.

You can make directories using File Manager, which is described in the chapter titled *Using the File Manager Application*. (You can also use the MS-DOS MKDIR command; the Syntax for all MS-DOS commands is given in Appendix B.)

When you make a directory, you must give it a name. The rules for directory names are the same as for filenames. A directory name can be from one to eight characters long.

You cannot use these characters:

. period	+ plus sign
[] brackets	* asterisk
? question mark	: colon
\ backslash	; semicolon
/ forward slash	< > angle brackets
= equal sign	space
“ quote mark	

These are the same characters that are illegal for filenames and extensions.

As with a filename, it doesn't matter whether you use upper-case or lower-case letters to name your directories. You can use extensions on directory names, too. Some people use the extension .DIR for all their directories.

With some applications and programming languages, you can use only one directory. To save a file that you've created with one of these programs, you can specify only the disc and filename. The file will be saved in the directory in which the application is installed. (To find out if an application can use multiple directories, refer to the manual that comes with the application.)

Why Make New Directories?

There are several reasons why you may want to create your own directories:

1. Directories, other than the Root, let you keep an unlimited number of files in them. You are limited only by the amount of space available on the disc.

Depending on your own needs, you may find that the capacity of the Root directory is not sufficient for storing all of your files. The Root directory on a 360Kb flexible disc holds up to 128 files and directories; the Root directory on a 1.2Mb flexible disc holds up to 224 files and directories; and the Root directory for hard discs lets you store up to 512 files and directories.

2. Directories help you locate and identify your files quickly.

Rather than scanning all of the files in the Root directory each time you want to locate a file, you only need to look at the subset of files in a particular directory.

3. Directories let you reuse filenames on the same disc, as long as the files with the same names are in different directories.

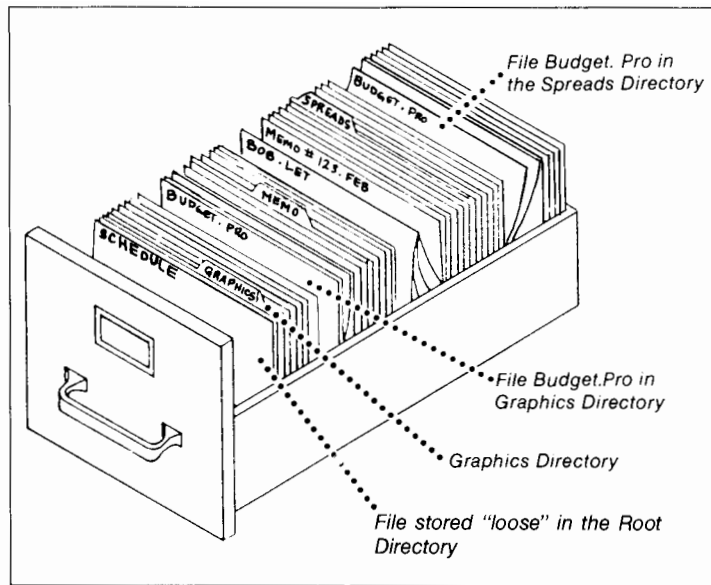


Figure 8-4. Files With the Same Names Stored in Separate Sections, or Directories

4. Directories make it easy for several people to use the same disc. For example, if Joe and Linda are using the same disc, they can create and use their own directories named JOE and LINDA.

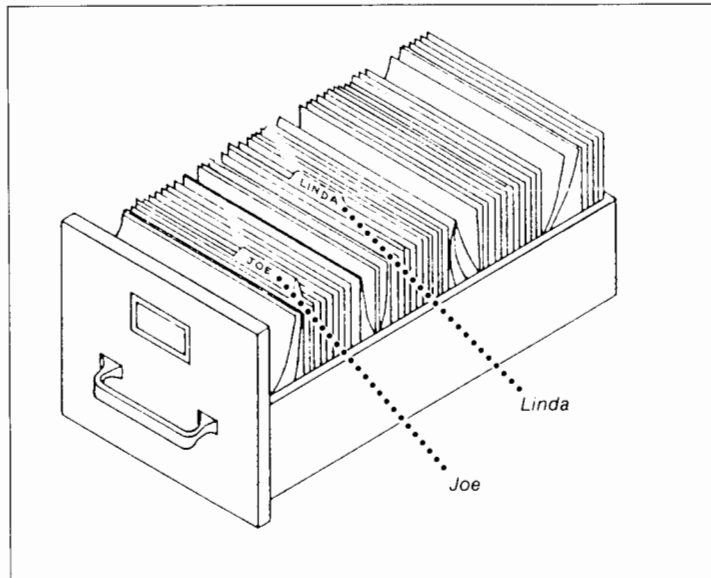


Figure 8-5. The File Drawer, or Disc, can be Shared by Many Users

When Joe saves his files, he saves them in the JOE directory. Linda saves her files in the LINDA directory. When Joe needs to retrieve a file, he does not have to search through Linda's files. Linda can save her files without worrying about whether Joe already has a file with the name she wants to use.

How You Might Use Directories

Suppose you use a hard disc with your Vectra, and that you have four applications on it. As examples, we will use applications named WordStar, Personal Card File, VisiCalc, and Graphics. Within the Root directory, you could create a separate directory for each of these applications.

You might name your four new directories Memo, Cardfile, Spreads, and Graphics. Let's look at some sample files you might put in these directories.

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Because the files in our example are on the same flexible disc, which happens to be in disc drive A, they all start with the drive identifier A: If you put the flexible disc in drive B:, all of these examples would begin with B: the drive identifier for drive B. The filename and directory names do not change—they belong to the file. The drive identifier does change—it indicates which disc drive the disc is in at the moment.

Examples:

What You Type:

What it Means:

A:\MEMO\BOB.LET

A file named BOB.LET is in the directory MEMO, which, in turn, is in the Root directory of the disc in Drive A.

A:MEMO\MEMO#123.FEB

A file named MEMO#123.FEB is in the same directory (MEMO) as A:\MEMO\BOB.LET.

A:\SPREADS\BUDGET.PR

A file named BUDGET.PRO is in the SPREADS directory, which is in the Root directory of the disc in Drive A.

A:\SCHEDULE

A file named SCHEDULE is in the Root directory (not in any other directory) of the disc in Drive A.

The last file in our example (A:\SCHEDULE) does not logically fit into any of the other directories, so we stored it "loose"; that is, we left it in the Root directory.

What is a Subdirectory?

A directory can be further subdivided into subdirectories. A subdirectory is a group of files within a directory. Every directory on a disc is, in fact, a subdirectory of the Root directory.

In our example above, Joe might want to go a step further and create subdirectories within the JOE directory. If he regularly writes both business and personal letters, he might create two directories within the JOE directory, and call these directories BUSINESS and PERSONAL. If a directory is like a divider in the file drawer, then a subdirectory is like a labeled expanding folder behind a divider.

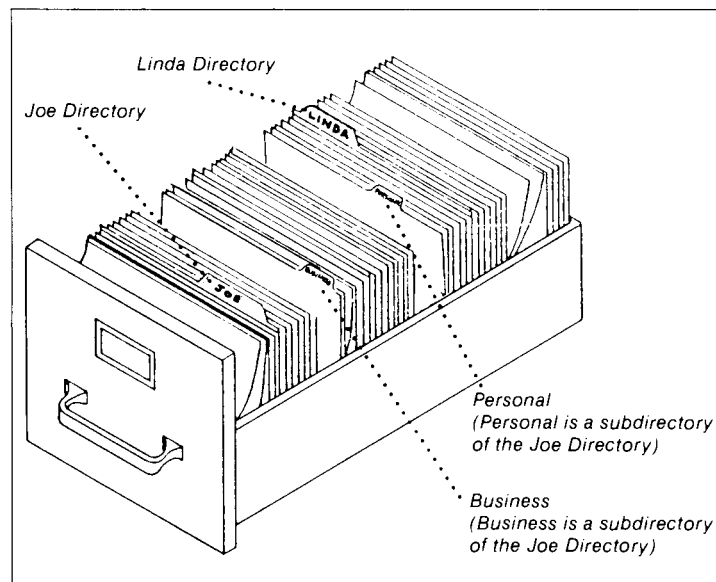


Figure 8-6. Like the File Drawer, the Disc can be Divided into Subdirectories

When Joe stores a business letter, he stores it in the BUSINESS directory (which is a subdirectory of the JOE directory). He saves personal letters in the Personal directory (which is another subdirectory of the JOE directory). If he has a file named CLIENTS that doesn't belong in either subdirectory, he can store it in the JOE directory without putting it in either subdirectory. This is how Joe's work is organized:

B:\JOE\BUSINESS\MEMO#123.FEB

B:\JOE\PERSONAL\CARPOOL.SCH

B:\JOE\CLIENTS

To find a business letter, Joe doesn't have to search through the entire JOE directory. He searches through only the BUSINESS subdirectory of the JOE directory.

What is a Parent Directory?

Any directory which contains subdirectories is called a "parent directory." Only the Root directory has no parent. The JOE directory is the parent of both BUSINESS and PERSONAL.

Displaying a Directory Listing

We use the word "subdirectories" to mean those directories you create inside other directories. However, all directories are really subdirectories of the Root directory. Therefore, when you use the File Manager Application to display any directory listing, you will see on your screen that the directory has a parent (the Root directory).

You will also see the names of any files in the directory, and the names of the directory's subdirectories, if any. The next screen displays the directory listing for the parent directory JOE.

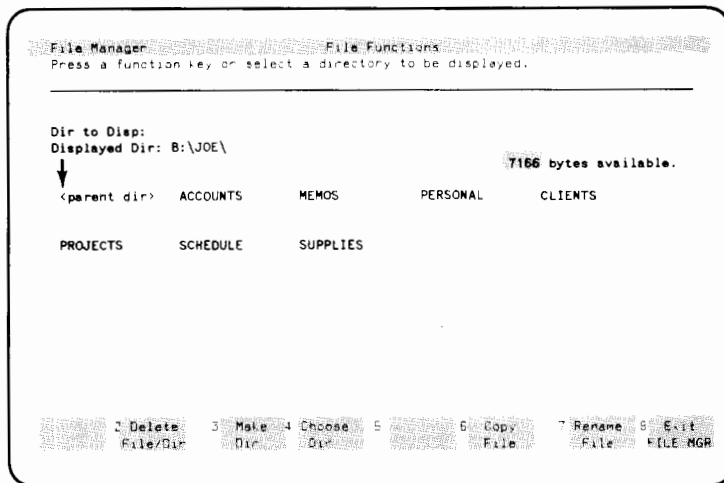


Figure 8-7. Displaying a Parent Directory

When you display a subdirectory listing (say PERSONAL) you will see similar information on your screen: that the subdirectory has a parent (JOE), the names of any files in the subdirectory, and the names of any subdirectories within that subdirectory.

Another Way of Picturing Your Directory Structure

If you prefer to picture your disc as a tree diagram instead of a file drawer, you can have files at any set of branches in the tree. In the diagram below, directories are attached with heavy lines and files with broken lines:

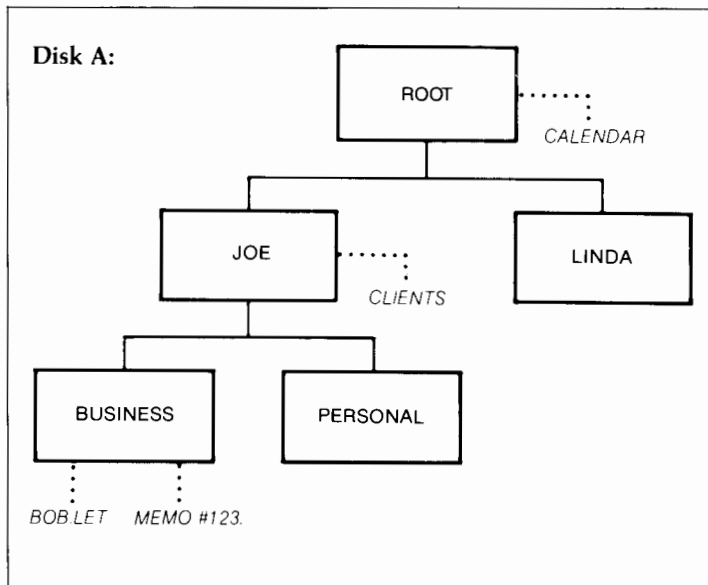


Figure 8-8. Diagram of a Directory with Subdirectories and Files

Because the system treats subdirectories and files the same way, each file and subdirectory within the same directory must have a unique name. You cannot have

A:\Memo (a file named Memo in the Root directory)

and A:\Memo\Bob.let (a directory named Memo in the Root directory.)

How to Move Files into a Directory

You move files into a directory by copying them using a new pathname. To do this, you can use the Copy function of the File Manager application, or you can use the corresponding MS-DOS COPY command.



See the next section for more information about paths and pathnames. See the chapter titled *Using the File Manager Application* for more information about File Manager's Copy function. The MS-DOS COPY command is discussed in the chapter titled *Essential MS-DOS commands*.

How to Save and Retrieve Files—What is a Pathname?

You save and retrieve files by giving the Vectra enough of the "file specification" to identify the file you want.

The file specification is the full location of a file, including the name of the directory, any subdirectory(s), the filename and extension. For example,

`A:\SPREADS\TAXES\BOB.JUN`

tells the computer that in drive A, in the directory SPREADS, in the subdirectory TAXES, is a file named BOB.JUN.

This is like looking in file drawer A for a divider labeled SPREADS; behind that expanding folder called TAXES; and inside that for a file called BOB.JUN.

Pathname is a term used to define the directory(ies) in a file specification through which you must travel from the Root directory to reach the file that you want.

For example, if you ask for the file

`A:\JOE\BUSINESS\MEMO#123.FEB`

you are telling the computer to use the disc in drive A and to follow this path to find the file, MEMO#123.FEB: the main directory, the JOE subdirectory, and finally the BUSINESS subdirectory within JOE.

Notice that a backslash (\) must separate each directory name. The first backslash—the one just after the drive letter—indicates the Root directory. In this case JOE\BUSINESS is the pathname to the file.

The entire file specification may contain no more than 64 characters. However, since most users only use one or two levels of directories below the Root directory, this limitation should not pose a problem.

More on Specifying a File

If you're wondering how you can remember the entire file specification each time you need to use a file, don't worry, you usually don't have to. There is always an active drive and directory—a place where the computer automatically looks for and saves your files when you do not specify a drive or directory. In this context, default means the currently displayed directory on the drive you are currently accessing. For example, if you load your operating system from the hard disc, and the hard disc is Drive C, then Drive C is the active drive until you tell MS-DOS to look for files on a different drive. The Root directory is the default directory until you use the File Manager Choose Dir function or the MS-DOS CHDIR (Change Directory) command to move to another directory.

This active drive and directory is A:\ (the Root directory of drive A) unless you, or an application that you are using, changes it.

When you want to retrieve a file, you need to enter only that part of the file specification that the computer cannot find by default. For example, if the file you want is on the disc in the active drive, you need not specify the drive name. If the file you want is in the currently displayed directory—the one you are working in at the time you want the file—you do not have to specify the directory name.

If you are working on a disc in the active drive (A:) and the file you want is in a subdirectory within the current directory, you need only specify the subdirectory name and the filename. For example, suppose you are working in a directory named JOE, which is on the disc in the active

drive. If you want a file named TAXLETTR in JOE's subdirectory named PERSONAL, you need only specify

PERSONAL\TAXLETTR

If the file you want is not in the current directory, you can do one of two things:

1. specify the directory name each time you want the file, or
2. use the File Manager application to make that directory the current directory. This is convenient when you are going to use the directory many times during a work session.

If you are not sure what to do, you'll always be safe if you specify the full pathname from the Root directory of the disc.

Summary

In this chapter, we've introduced you to a number of different concepts:

a file	Information or data you store on a disc under one name.
a filename	The name you give to the file (one to eight characters long).
a filename extension	Up to three characters you may add to a filename to describe your file in filename by a period. If you put an extension on a filename, you must give the filename and extension to get the file from the disc.

a directory	A set of files you have grouped together. Directories have names that are just like filenames, but they are followed by a backslash (\).
Root directory	The directory that is created when you format a disc. All other directories on a disc are subsets of the Root directory. The Root directory is designated by the drive identifier, which must be followed by a colon (:) and a backslash (\) without any other name.
subdirectory	A subset of the files in a directory.
pathname	The list of directories and subdirectories the computer has to go through to get to a file.
drive identifier	The letter (A, B, C, etc.) that indicates which disc drive holds the disc with the file you want. The drive identifier is always followed by a colon (:).
active drive and directory	The drive and directory (or subdirectory) you have told the computer you are working in at the moment. This is where the computer will look for or store a file unless you tell it to look for or store the file somewhere else. If you have not specified an active drive and directory, the computer considers the Root (or Root) directory to be the active drive and directory. In many applications,

you can go to File Manager to set your default directory and then return to the application.

file specification

What you have to tell the computer about the file to ensure that the computer can find it or save it in the right place, including:

drive identifier

pathname

filename (plus extension)

The computer automatically begins looking for or saving a file in the current directory. Therefore, if you want to use or store it there, you only need to enter the filename and extension.

If you want the computer to look for or store the file somewhere other than your current directory, you must give the full file specification.

Example:

`B:\JOE\BUSINESS\MEMO#123.FEB`

<code>B:</code>	the drive identifier
	the Root directory
<code>JOE</code>	a directory (subdirectory of the Root directory)
<code>BUSINESS</code>	a directory (subdirectory of the JOE directory)
<code>MEMO#123.FEB</code>	the filename with an extension
<code>JOE\BUSINESS\</code>	the file's pathname

Notice how the directory names are separated by a backslash. The backslash is not part of the name.

`B:\JOE\BUSINESS\MEMO#123.FEB` is the file's full file specification.

If this is the active drive and directory,	this is what you have to specify to get the file:
---	--

<code>A:\</code>	<code>B:JOE\BUSINESSMEMO#123.FEB</code>
------------------	---

<code>B:\</code>	<code>JOE\BUSINESS\MEMO#123.FEB</code>
------------------	--

<code>B:\JOE\BUSINESS</code>	<code>MEMO#123.FEB</code>
------------------------------	---------------------------

In the two chapters that follow, you'll find out how this chapter's information relates to using PAM to start your applications, and to using the File Manager to manage your files. In the chapter on MS-DOS commands, you'll use this chapter's information when you type MS-DOS commands.

9

Using Vectra's PAM

PAM for the Vectra Personal Computer makes it easy for you to run applications and executable files without having to remember a lot of commands. You can also tailor your PAM Main Menu so it is easy and convenient for you to use.

In this chapter we explain all of the functions you can perform from PAM. If you haven't read the previous two chapters, *Your First PAM Session* and *Files, Directories and Pathnames*, you should do that now. These chapters contain information you need to understand before you can use the PAM functions.

In this chapter, you will first learn to use functions on the **PAM Main Menu**. These functions are:

- **Start Applic** to Start an Added Application from PAM
- **Set Date and Time**
- **Manage Applics** to Manage Application Information in PAM.

You will then learn to perform the functions available from the **Show Executable Files Menu**. They are:

- **Show MainMenu** to Display the PAM Main Menu with Added Application Names
- **Reread Discs** to Display the Names of Executable Programs Stored on your Discs

■ **Start Program** to Start an Executable File from PAM.

Both the PAM Main Menu and the Executable Files Menu, as well as many other menus, have Help labels that you can use if you aren't sure what to do next. Any time you have a question, press the label that says **Help** (**F7**) for more information.

Don't be afraid to try the PAM functions. You won't "break" anything. PAM always provides you a way to leave any function without actually making changes.

Starting an Added Application From PAM

■ **Start Applic** allows you to run an application whose name has been added to your PAM Main Menu without having to type a complex command.

To Start an application, you must begin at the PAM Main Menu that displays the names of Added applications.

1. Be sure the disc with the application is on the disc in the active drive. The active drive is named on line three of the display.
2. Press the cursor keys (**▲**, **▶**, **▼**, **◀**) to move the arrow and highlight to the label for the application you want to run.
3. Press **F7**, the function key that corresponds to **Start Applic**.

PAM looks first in the drive and the directory specified when the application was Added. If the application isn't found, PAM then searches the Root directories of other drives on your system. If the disc with the application is not found, you will see the following message:

```
Unable to find <application> on  
<drive:directory>
```

In this message “<drive:directory>” will be replaced by the designations for the drive and directory where PAM looked first. Do these things next:

- Place the application disc in the drive specified in the message.
- Press
- Repeat Step 3.

When the application is found, the display goes blank, and you see the following message on the top line of the display:

```
Loading <application name> ...
```

The name of your application will be substituted in the message. This means that your application is being copied from its disc into your system's memory.

What you see next on your display depends on the type of application you have selected.

Example: Start File Manager

Some applications, File Manager for example, have Main menus similar to the PAM Main Menu. You can try **Start Applic** now by following these steps.

1. Press the cursor keys to move the pointer and highlight to the File Manager label. The work disc with the File Manager Application must be in drive A.
2. Press **F1**, the function key that corresponds to the **Start Applic** label on the display. You see the following menu:

```
File Manager File Functions
Press a function key or select a directory to be displayed.

Dir to Disp:
Displayed Dir: A:\
100352 bytes available.
↓
ATTRIB.EXE  BACKUP.EXE  BLDOS.MOS.SYS  COMP.COM  DEBUG.EXE
EOLIN.EXE  EXECBIN.EXE  FC.EXE  FDISK.COM  FILEMGR.MSG
FIND.EXE  FM.EXE  GRAPHICS.COM  LABEL.EXE  LINK.EXE
MORE.COM  RECOVER.EXE  RESTORE.EXE  SORT.EXE  TREE.COM

1 2 Delete 3 Make 4 Choose 5 6 Copy 7 Rename 8 Exit
   File/Dir   Dir   Dir   File   File FILE.MGR
```

Figure 9-1. The File Manager Main Menu

3. Press **F8** **Exit FILE MGR** now to return to the PAM Main Menu.

If You Made a Mistake

Did you start the wrong application? If you did, you will see a different display.

If you see a blank display with A> or C> on it, you started DOS COMMANDS. To get back to PAM, just type EXIT and press **[Enter]**.

If you see a set of labels in the boxes at the bottom of your display that don't match the ones at the bottom of the Figure 9-1 above, just press **[F8]** until you see the PAM Main Menu.

If there is no A> or C>, or no label that says Exit, you must reset your system. The reset procedure is described below.

To Reset Your System

To perform a reset, hold down the keys labeled **[Alt]**, **[CTRL]**, and **[DEL]** at the same time. The working copy of the MS-DOS 3.1 Operating System must be on the disc in the drive from which you load your operating system, usually A or C. Then release all three keys. Your operating system will re-start, and you will see the PAM Main Menu.

If you are Prompted for Parameters

Parameters are specific instructions you include in the command to run an application or program that add information or set limits when the command is being executed. In some cases, you will be asked to type such additional information after you press **Start Applic**. When this is the case, you will see the following display:

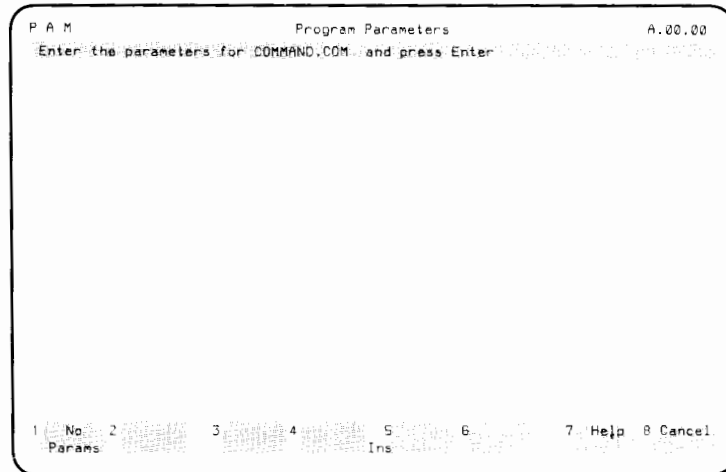


Figure 9-2. The Program Parameters Display

It is unlikely that you will be prompted for parameters the first time you start an application. If you are prompted for parameters, you should refer to the manual that comes with your application for the correct information to type on the Enter Parameters display.

While typing parameters, you can use the **ins** (Insert Mode), **DEL**, or **←** keys to edit the line until it is correct. When you are satisfied that the information is correct, press **Enter** to start your application.

If you want to run your application without parameters, press **[F1]** **No Params**. If you decide not to run your application at this time, you can press **[F8]** to **Cancel** the **Start Applic** function and return to the PAM Show MainMenu Main Menu.

Set Date and Time

Set Date and Time lets you maintain the correct date and time on your Vectra system. Vectra automatically keeps track of the current date and time, even while the computer is turned off. Vectra uses the date and time values to record the date and time files were created or last updated. For this reason, it is important that the date and time be set correctly.

The date and time are displayed at the top of your screen. If the date and time are not correct, they may have been set incorrectly at the factory.

To set the date and time on your system, follow these steps:

1. You can start at either the PAM Main Menu or the Executable Files Menu. Press **[F13]** **Set Date and Time**.

The menu will blank out, and you will see the following message at the top of your display:

`<day-month-year>` is the current date. Type in the new date and press Enter

2. Look at the date at the top of the display and do one of the following:
 - Press **[Enter]** or **[F1]** **Continue** if the date is correct and you want to set the time.
 - Press **[F8]** to **Cancel** and return to the PAM Main

Menu if the date is correct and you do not want to set the time, or

- Type the correct date and press if the date is not correct. When you type the date, use this format: month-day-year. You can enter years in the range from 1980 to 2099. The following examples illustrate correct ways you can type the date:

For this date:	Type:
August 8, 1985	8-8-85
September 3, 1985	9-3-1985
December 25, 1985	12-25-85

If You Made a Mistake

If you type the date in an incorrect format, you will see the following message:

```
Invalid date or format. Type  
Month-Day-Year again
```

Press , and type the date in the correct format.

After you type a date in the correct format, the display changes and you see the current time displayed.

3. Look at the time at the top of the display and do one of the following:
- Press or to and return to the PAM Main Menu if the time is correct.
 - Type the correct time and press if the time is not correct. Vectra uses a 24-hour clock. You can type the time in the format hours : minutes : seconds.

For this time	Type:
12:00 Midnight	0:00:00 or 00:00
8:30 a.m.	8:30 or 08:30
12:00 Noon	12:00
1:45 p.m.	13:45



If You Made a Mistake

If you type the time in the incorrect format, you see the following message:

```
Invalid time or format. Type
Hours:Minutes
```

Press to , and type the date in the correct format.

- After you enter the time in the correct format, the correct date is displayed. Press to return to the PAM Menu.

You will see the correct date and time displayed at the top of the PAM Main Menu.

Managing the PAM Application Display

The **Manage Applics** function in PAM lets you tailor your PAM application display and make modifications to application information. The Manage functions are:

- Add** Add application information to PAM
- Delete** Delete application information from PAM
- Modify** Modify information about an application
- Reorder** Reorder the sequence of application names on the display
- Auto Start** Select an application to start automatically when you first turn on your system
- Exit** Return to the PAM Main Menu.

You can use **Manage Applics** from either the PAM Main Menu or the Executable Files menu. Because you can manage only your Added application names, however, we assume you are starting from the PAM Main Menu.

Note

When you make changes to the PAM Main Menu using the Manage Applics functions, the MS-DOS 3.1 system work disc must be in the drive from which you start your operating system; usually drive A or drive C. PAM stores the information needed to display the PAM Main Menu, and to start applications, in a special, hidden file on this disc.

For this reason, it is good practice to back up this disc after you add, delete, or reorder application names, modify application information, or set an application to start automatically (autostart) when you load your operating system.

You can back up the entire disc using the MS-DOS BACKUP command, described in the chapter titled *Essential MS-DOS Commands*.

To perform one of the Manage functions:

1. Start at the PAM Main Menu. The DOS 3.1 work disc must be in the drive from which you started your system. Press **F5** **Manage Applics**. You see the Manage Applications menu:

```
P A M - Manage          Manage Applications          A.00.00
Select a function by pressing the desired function key below.

-----

1. Add      Add application information to PAM
2. Delete   Delete application information from PAM
3. Modify   Modify application information.
4. Reorder  Reorder the list of applications on the PAM Main Menu.
5. Auto Start Select an application to start automatically when you
              start your system.
6. Exit     Return to the PAM Menu
7. Manage

1. Add 2. Delete 3. Modify 4. Reorder 5. Auto Start 6. Exit 7. Manage
```

Figure 9-3. The Manage Applications Menu

2. Press the function key that corresponds to the function you wish to perform. Each Manage function is described in detail in the pages that follow.
3. Press **F6** **Exit Manage** to return to the PAM Main Menu when you finish using the Manage functions.

Add Application Information to PAM

When you Add an application, you accomplish two things:

- you Add the application's name to your PAM Main Menu, and
- you provide information to PAM that allows you to select and start the application from the PAM Main Menu.

Note



Add does not make a copy of the application. To make work copies of your applications, see the section on Copying, Backing Up and Restoring Your Files in the Chapter titled *Essential MS-DOS Commands*.

To Add an Application:

1. Start at the PAM Main Menu. The DOS 3.1 work disc must be in the drive from which you start your operating system; usually drive A or drive C. Press **F5** **Manage Applics** . Then press **F1** **Add** . You will see a display similar to this:

```
P A M: Manage          Add Application          A.00.00
Select a function by pressing the desired function key below.

-----

DBase Master..... DBase III..... DBase III..... Diagraph.....
added..... added..... added.....
DGE COMMAND..... FILE MANAGER..... Filing Assistant..... FORMAT.....
Harvard Plot Mngn..... Lotus 1-2-3..... Lotus PrintSnap..... Microsoft Project.....
Microsoft Word..... MultiMate..... MultiPlan..... Norton Utilities.....
PFS: File..... PFS: Snap..... PFS: Report..... PFS: Merge.....
Press Esc or PgDn for more applications

I Add..... S Add..... S Add..... Help..... Exit
Applic..... Definst..... Definst..... Add.....
```

Figure 9-4. The First Add Application Display

PAM provides you a list of many currently popular software applications to make the Add process easier for you.

Note



This listing does not represent what is on your discs, but is simply an alphabetical listing of many currently popular applications from which you can choose.

2. Look for your application on this list.

Applications that are already added will have the word "added" above their names.

From this display, you will follow one of the two next procedures, (Step 3 or 4) depending on whether or not the application you want to add is displayed in this list.

Applications are listed alphabetically. To see if the application you want to add is on this list, press **[Pg Dn]** to see the next pages (displays) of application titles. Press **[Pg Up]** to return to the previous display.

If the application you want to add IS NOT on this list, skip to Step 4.

To Add a Listed Application:

3. If the application you want to add IS in this listing, perform the following procedures:
 - a. Use the cursor keys to move the pointer and highlight to the application name you want to add to your PAM Main Menu.
 - b. Press **[F1] Add Applic**. You will see the following instructions at the top of the display:

Type the path (drive and directory) of
<application name> and press Save

```
A:\
```

This means that PAM assumes your application will always be found on drive A in the Root directory. The cursor is under the A, permitting you to change this information if you wish.

Note

Root directories and subdirectories are described in the chapter titled *Files, Directories, and Pathnames*. If you do not want to change this information, skip to Step d.


- c. Type over this information if you want to change it.

For example, if you plan to always load this application from the Root directory on the disc in drive C:, type:

```
C:\
```

If you plan to always load this application from a directory named "MYDIR" on the disc in drive A:, type:

```
A:\MYDIR
```

Notice that the path begins with the \ designation for the Root directory, and you must specify a disc drive. You can use the  (backspace) key to erase incorrect letters, then type the correct characters. Be sure only the information you need remains on this line.

If You Made a Mistake

If your path does not include valid designations for drive and directory, PAM displays this message:

```
Invalid Path
```

Recover by pressing **Continue** and type a valid drive and directory.

If the application you want to Add is already added, PAM will prompt:

```
<Application > already added, do you  
want it replaced with a new one?
```

Press **Save** to Add, or press **No** to continue.

- d. Press **Save** if you want to keep this information.

The message

```
Application Information has been saved.  
appears at the top of the display.
```

- e. Press **[F8]** **[Exit]** to return to the main Add application menu.

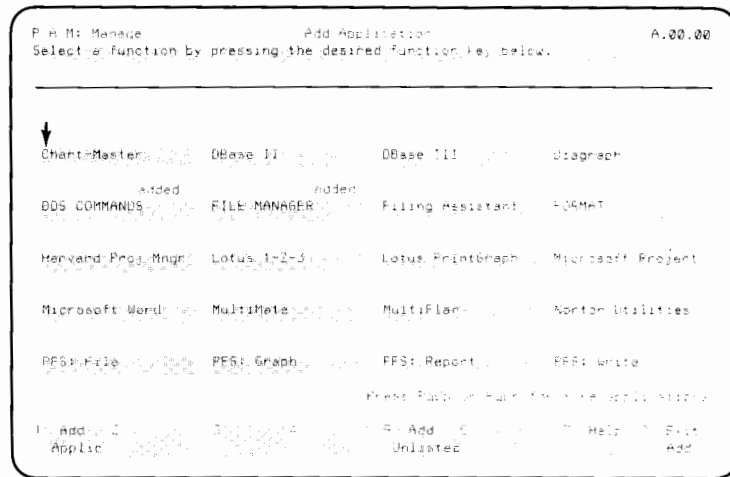


Figure 9-5. The Add Application Menu After an Application has been Added

The word “added” will be above the application name you just added.

In the future, PAM will always look on the specified drive in the specified directory for your application.

If it is not there, PAM will look in the Root directory of the other discs in the drives in your system. If the application is not found, you see this message:

```
Unable to find <application> on  
<drive:directory>
```

At this point, you must either change to the correct directory (see the CHDIR command described in the chapter titled *Essential MS-DOS Commands*); or you must place the disc in the correct drive and press **[F1]** to **[Continue]**.

When you are finished adding applications, skip to Step 5 to return to the PAM Main Menu.

To Add an Unlisted Application:

4. If your application is not in the application list, follow these procedures:
 - a. Press **F5** **Add Unlisted**

You see the following display:

```

P A M: Manage          Add Unlisted Application          Rev: 06.06.99
Type the Path (drive and directory) and press Enter, or Tab between fields

-----

Path: A:\
Applic title:
Run Command:

: Save  Help  Exit
  
```

Figure 9-6. The Add Unlisted Application Display

Notice that the cursor is in the field labeled **Path** under A:\. This means that PAM assumes your application will always be found in the disc on drive A in the Root directory. The cursor is under the A, permitting you to change this information if you wish.

If you do not want to change this information, press . The cursor moves to the **Application Title** Field. Skip to Step c.

- b. Type the Path where the application will be found. The Path consists of the drive and directory names, which together can include up to 64 characters. For example, if your application will always be on drive C in the Root directory, you should type

C:\

If you plan to copy your application into a sub-directory named WP.DIR, and run it from Drive C:, you would type this information:

C:\WP.DIR

Notice that the Path begins with the \ designation for the Root directory, and that you must specify a disc drive. You can use the key to erase incorrect letters, then type the correct characters. Be sure only the information you need remains on this line.

When the information in this field is correct, press or . The cursor will move to the **Application Title** field.

- c. Type the Application name that you want to have appear in the application name box on the PAM Main Menu. The name may be up to 8 characters (including blanks) and will usually be the name of your application, WordStar for example.

Note

You must enter a title in this field. If you try to leave this menu without entering a title, you will see the following message:

You must provide a Title

If you decide not to type an application title at this time, skip to Step f. to leave the Add Unlisted Menu.

When you have typed the Application Title, press or to move the cursor to the field.

- d. Type the command that will cause the application to run. You can find this information in the manual that comes with your application disc. PAM will use this information to load your application. If you wish to be prompted for additional parameters when you run this application, type a ? mark after the command to run. For example

```
A:\WS.COM ?
```

Notice that you must include the extension for the executable file name (.EXE, .COM, or .BAT) and that a space must precede the question mark.

When you have typed the command to run, press .



If You Made a Mistake

Check all of the information on the display. If it is not correct, or if you want to change some of the information, simply press **Tab** until the cursor is in the field you want to change, and type the correct information over the incorrect information. Use the **Ins** (Insert Mode), **DEL**, or **←** keys to edit this information.

- e. Press **F10 Save** when you are satisfied that the Path, Application Title and Command to Run are all correct; or press **F8 Exit** if you change your mind and want to return to the Add Unlisted display.
 - f. Press **F8 Exit** after you have saved the information. You return to the Add Unlisted display.
 - g. Repeat all of Step 4 until you are finished adding unlisted applications.
-

5. Follow these instructions to return to the PAM Main Menu when you have finished adding applications:
 - a. Press **[F8]** **Exit Add** to return to the Manage Applications display.
 - b. Press **[F8]** **Exit Manage** to return to the PAM Main Menu.

In the future, PAM will always look for your application in the drive and directory that you specified in the Path field.

If it is not there, PAM will look in the Root directory of the other discs in the drives on your system. If the application is not found, you will see this message:

```
Unable to find <application> on  
<drive:directory>.
```

At this point you must place the correct disc in the drive and press **[F8]** **Continue**, and start your application again.

When you are finished adding unlisted applications, press **[F8]** until you return to the PAM Main Menu.

Delete Application Information from PAM

The Delete function allows you to remove an application name from the PAM Main Menu.

Note



No files are deleted from a disc; only the name of the application that appears on the PAM Main Menu is removed.

1. Start from the PAM Main Menu. The DOS 3.1 work disc must be in the drive from which you start your operating system; usually drive A or drive C. Press **F5** **Manage Applics** then press **F2** **Delete** . You see the following display:

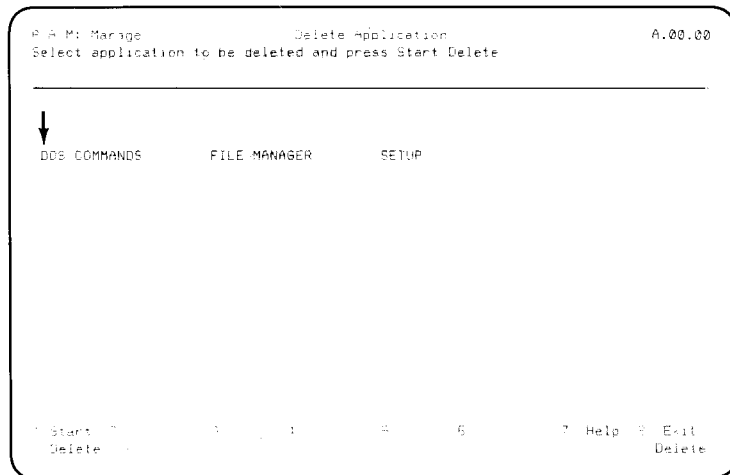


Figure 9-7. The Delete Application Display

You see the names of Added applications that are on your PAM Main Menu, and you are instructed to:

Select application to be deleted and
press Start Delete

2. Use the cursor keys to move the pointer and highlight to the application name you want to delete from the PAM Main menu.
3. Press **[F1] Start Delete** to delete the highlighted application. You will see the following message asking you to confirm the deletion:

```
Do you really want to delete  
<Application Name>?
```
4. Press **[F8] No** if you change your mind. Return to Step 2 to select another application name to delete. If you want to return to the PAM Main Menu, skip to Step 7.
5. Press **[F1] Yes** if you want to delete the selected application name. You will return to the Delete Application menu. The application you selected to delete is no longer on the Delete Application Menu, or the PAM Main Menu.
6. Repeat steps 2 through 5 until you are finished deleting application names from the PAM menu.
7. Press **[F8] Exit Delete** to return to the Manage Applications menu.
8. Press **[F8] Exit Manage** to return to the PAM Main menu.

Modify Information

The Modify function allows you to make changes to the information you entered when you added an application to the PAM Main menu. You can change the Path (drive and directory), Application Title, and Run Command.

To Modify application information:

1. Start from the PAM Main Menu. The DOS 3.1 work disc must be in the drive from which you start your operating system; usually drive A or drive C. Press **F5** **Manage Applics**. Then press **F3** **Modify**. You will see the following display:

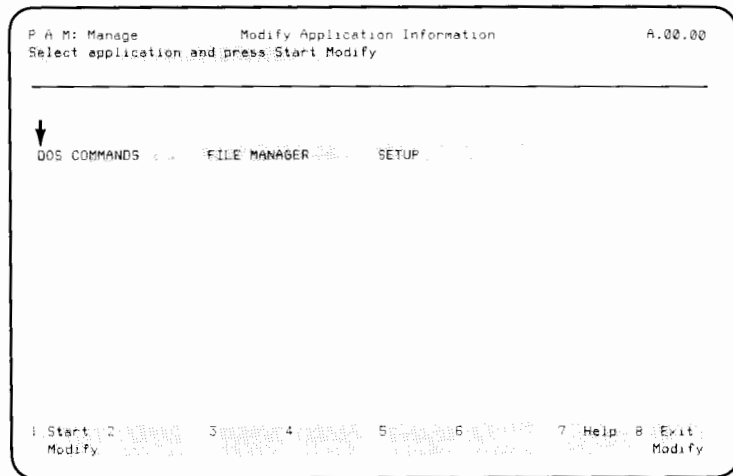


Figure 9-8. The Modify Information Display

The applications listed on this display are the application names that have been added to the PAM Main Menu. You are instructed to

Select application and press Start Modify.

- Use the cursor keys to move the pointer and highlight to the name of the application for which you wish to modify information and press **F1** **Start Modify**. Let us say that you selected DOS COMMANDS. When you press **F1**, you will see the following display:

```

P A M: Manage          Modify Information          Rev R0.07.02
Type the Path (Drive and directory) and press Enter, or Tab between fields

Path: A:\

Applic Title: DOS COMMANDS

Run Command: COMMAND.COM

1 Save 2          3          4          5          6          7 Help 8 Exit

```

Figure 9-9. Modify Information Display for DOS COMMANDS

Notice that the cursor is under the designation for drive and directory (A:\) in the **Path** field.

- Type the new drive and directory if you want to modify the Path. You might, for example, prefer to run DOS COMMANDS from the Root Directory of the disc in Drive C if you have a hard disc. When the information in this field is correct, press **Enter** to move to the **Application Title** field.
- Type the new name to appear on the PAM Main Menu. When information in this field is correct, press **Enter** to move to the **Run Command** field.

5. Type the command to run this application. If you wish to be prompted for parameters, place a ? mark after the command to run. For example:

COMMAND.COM ?

When the information in this field is correct, proceed to Step 6.

If You Made a Mistake

Make changes if necessary. Use **Tab** to move to any of the three fields, and type the correct information over the incorrect information. Use the **Ins** (Insert Mode), **DEL**, or **←** keys to edit information until it is correct.

6. Press **F1** **Save** when all the information on the Modify Information display is correct.
7. Press **F8** **Exit Modify** after you have saved the new information or if you do not wish to save the new information at this time. The Modify Application Information display returns to the screen.
8. Press **F8** **Exit** when you have finished modifying application information. You will return to the Manage Applications menu.
9. Press **F8** **Exit Manage** to return to the PAM Main Menu.

Tailor Your PAM Main Menu

The **Reorder** function allows you to arrange the application names conveniently on the PAM Main Menu. You can order them according to how often you use them, or you can arrange them alphabetically by pressing just one key.

To Reorder application names on the PAM Main Menu

1. Start at the PAM Main Menu. The DOS 3.1 work disc must be in the drive from which you start your operating system; usually drive A or drive C. Press **F5** **Manage Applics**. Then press **F5** **Reorder**. You will see the Reorder Information display:

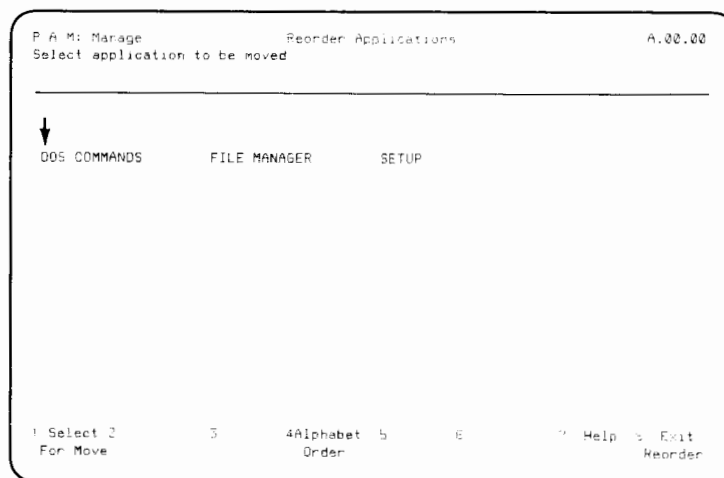


Figure 9-10. The Reorder Information Display

On the top line of the display, you are instructed to:
Select application to be moved

The application list on the display is the list of applications that have been added to the PAM Main Menu.

To rearrange application names in alphabetical order:

2. Press **F4** **Alphabet Order** if you want your applications listed in alphabetical order, reading left to right from the top left of the application list. This will cause the applications to be reordered alphabetically, and the pointer and highlight will move to the top left of the display on the first application name. If you are satisfied with this order, skip to Step 8.

To rearrange application names in a special order:

3. Use the cursor keys to move the pointer and the highlight to the application you wish to move to another position on the PAM Main Menu. Press **F1** **Select For Move**.

The function labels at the bottom of the display change as shown below:

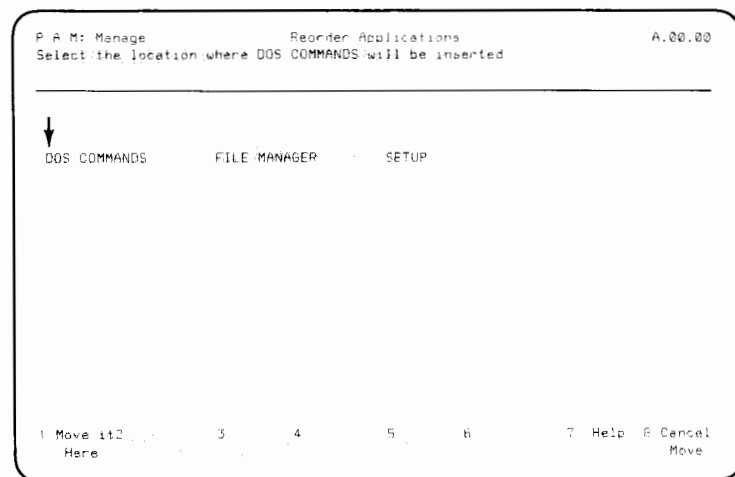


Figure 9-11. The Move Application Function Labels

If You Made a Mistake

Press **F8** **Cancel Move** if you change your mind about moving the selected application. Return to Step 3 to choose another application, or skip to Step 7 to **F8** **Exit Reorder**.

4. Use the cursor keys to move the pointer and the highlight to the application name that occupies the position where you want the selected application to appear.
5. Press **F11** **Move It Here**. The display will be reordered, and the pointer and highlight will be on the moved application in its new position.
You are again prompted to select an application to be moved.
6. Repeat steps 3, 4 and 5 until you have finished reordering applications.
7. Press **F8** **Exit Reorder** when you have finished reordering the applications on your PAM Main Menu. The Manage Applications display returns to the screen.
8. Press **F8** **Exit Manage** to return to the PAM Main Menu.

Now your PAM Main Menu is tailored just for your use. As your needs change, you can easily change the display again.

Starting an Application Automatically.

The **Autostart** function allows you to select an application to be started automatically by PAM when you start your system or perform a hard reset. This is extremely useful if you use one application more often than the others.

To set an application to Autostart:

1. Start at the PAM Main Menu. Press **F5** **Manage Applic**. Then press **F6** **Autostart**. You will see the Autostart Application display:

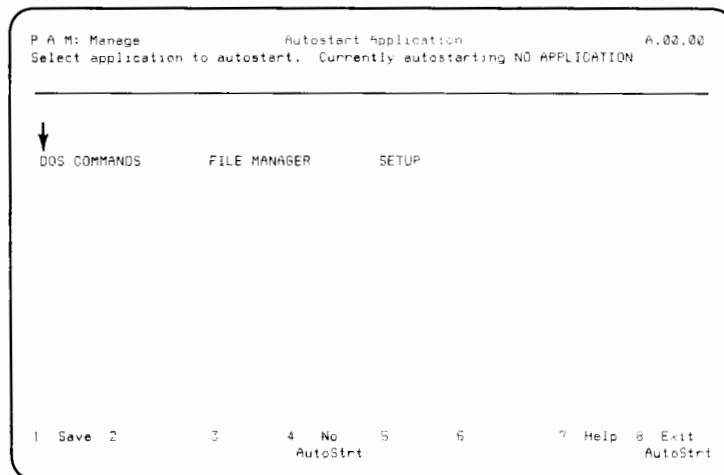


Figure 9-12. The Autostart Display

The applications listed on this display are the same as those added to the PAM Main Menu. On the top line, you are instructed to:

Select application to autostart. Currently autostarting NO APPLICATION.

If an application has been selected to Autostart, the last part of this message will name the application instead of saying "NO APPLICATION."

2. Use the cursor keys to move the pointer and highlight to the application you want to have start automatically when you start your operating system.
3. Press **F1** **Save** to have the selected application start automatically. The name of the application will now appear on the message line, for example:

```
Select application to autostart.
Currently autostarting DOS COMMANDS.
```

If You Change Your Mind

Use the cursor keys to move the pointer and highlight to a different application name and press **F1** **Save**.

or

Press **F4** **No Autostrt** to instruct PAM not to have any application start automatically.

4. Press **F8** **Exit Autostrt** when you have selected the application to autostart, or when you have selected no autostart. You will return to the Manage Applications display.
5. Press **F8** **Exit Manage** to return to the PAM Main Menu.

In the future, when you load your operating system, you will not see the PAM Main Menu. Instead, PAM will attempt to start the specified application each time you start your operating system. If the disc is in the drive, the



Auto Started application's menu will appear. To Return to PAM, simply press **F8** **Exit**, or if you are MS-DOS, type EXIT.

If Something Went Wrong

The disc with the application must be in one of the drives. If it is not, PAM will prompt you with the following message:

```
Insert <application name> disc in drive  
<d>: and press Continue, or press Cancel.
```

Insert the disc in the specified drive and press **F11** (**Continue**) or Enter to Continue, or press **F8** to Cancel Autostart at this time. The Operating System will be loaded and you will see the PAM Main Menu.

This concludes the discussion of the functions you can perform from the PAM Main Menu. Now you are ready to learn the functions you can perform from the Executable Files Menu. Before you proceed, however, don't forget to make a back up copy of DOS 3.1 operating system disc so you will have a copy of modified information about your PAM Main Menu.

Show .EXE .COM .BAT Files

Files with extensions of .EXE, .COM, and .BAT are executable files. They contain instructions that the computer can read and perform.

Executable Files include application files, such as VisiCalc or WordStar; language programs such as BASIC or Pascal code; and MS-DOS utilities such as SORT and EDLIN. On MS-DOS systems like Vectra, all executable file names end in .EXE, .COM, and .BAT. Examples are:

```
COMMAND.COM  
SORT.EXE  
AUTOEXEC.BAT
```

Remember, to run an executable file, the discs with the executable file must be available in one of your drives. From the PAM Main Menu, press **F6** **Show .EXE .COM .BAT** now. If you have the DOS 3.1 work disc and the Supplemental work disc in your drives, your display will look similar to this:

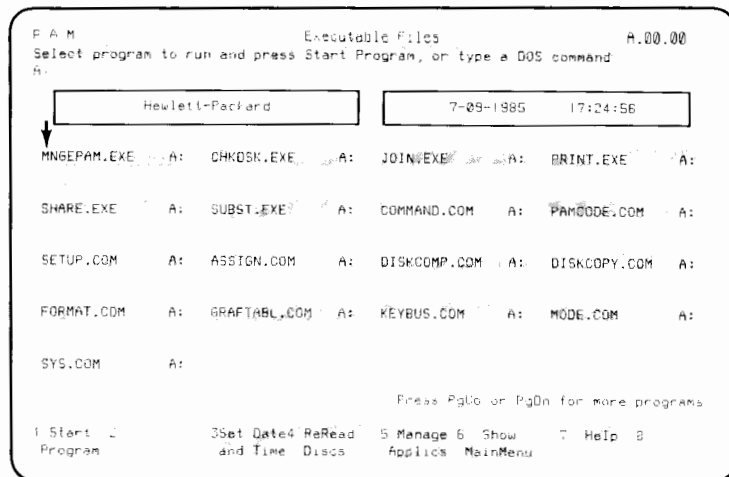


Figure 9-13. The PAM Menu Displaying Executable Files

The names you see now are names of executable files that are in the current directories of all the discs in your system. Files on the disc in drive A are shown first, followed by the files on the disc in drive B, and so on.

Three of the function labels on this display are new:

- **Start Program** now appears in the label corresponding to **(f)**, where **Start Applic** appeared before.
- **Reread Discs** now appears in the label corresponding to **(4)**, which was formerly blank, and
- **Show MainMenu** now appears in the label corresponding to **(6)**, where **Show.EXE.COM.BAT** appeared before.

In addition, the **Help** information (**(7)**) is changed to reflect these new functions.

Inventorying New Discs

The **Reread Discs** function (**F4**) takes an inventory of the executable files on the discs in your drives. This label is displayed only when Executable Files are displayed. You use it when you put a new disc in a flexible drive.

For example, if you are looking for a particular program file that is not in the current list of Executable Files, you can remove the disc from a flexible disc drive and insert a new one, then press **F4** **Reread Discs** to see the names of executable files on the new disc.

Note



If you want to see a list of all the files (not just the executable files) on a disc in one of your drives, you can type the MS-DOS DIR (Show Directory) command from either of the PAM menus. The DIR command is described in the chapter titled *Essential MS-DOS Commands* in this manual.

To Reread discs:

1. Start from the Executable Files Menu. Place the new disc in a flexible drive. Wait until the amber activity light stops flashing; this indicates that the disc is ready for the next step.
2. Press **F4** **Reread Discs**.
You will notice a pause as the discs are being read. The current display will go blank, and the new display of executable files will replace it. Files on the disc in drive A are shown first, followed by the files on the disc in drive B, and so on.

If Something Went Wrong

If no applications appear, you may have performed Step 2 before the amber activity light stopped flashing. If so, press **[F4]** **Reread Discs** again.

If the specific executable file that you want does not appear:

- You may have inserted the wrong disc in the drive. If you inserted the wrong disc, start with Step 1 again.
 - The executable file you are looking for may be in a directory other than the current directory on one of your drives. You can change directories, and view the contents of other directories using the File Manager Application, described in the chapter titled *Using the File Manager Application*. You can also use the CHDIR command described in the chapter titled *Essential MS-DOS Commands*.
-

Running an Executable File from PAM

Start Program allows you to run an executable file from the PAM Executable Files Menu by highlighting its name and pressing **[F1]** **Start Program**.

1. You must start from the menu labeled "Executable Files". If you are on the menu labeled "Main Menu," you should press the label that says **Show .EXE .COM .BAT** (**[F6]**) now.

If you do not see the name of the executable file you want to run, refer to the previous section titled *Inventing New Discs* for instructions to insert a new disc and display its contents.

2. Use the cursor keys to move the arrow and highlight to the label for the program you want to run.
3. Press **F1**, the function key that corresponds to **Start Program**. You will see the following display:

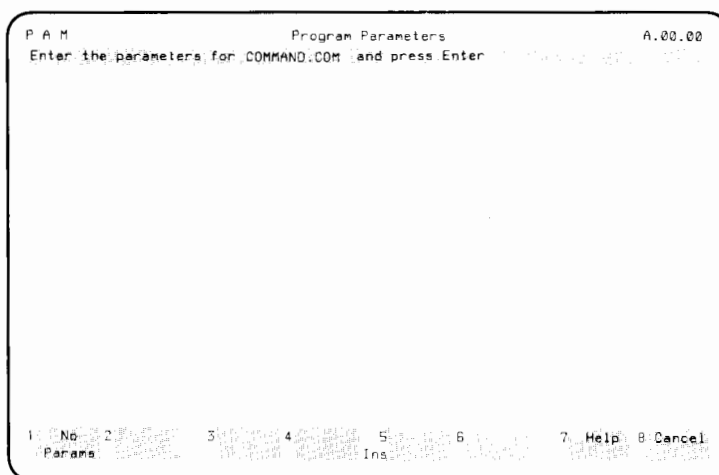


Figure 9-14. The Program Parameters Display

The message at the top of the screen asks you to type parameters for the executable file you have selected. Parameters are specific instructions you type as part of the command to run an application or program that add information or set limits when the command is executed. You will always be prompted for parameters, though you will not always need to enter them.

Caution



Some executable programs destroy or write over data. Never run an executable program unless you understand what it does and know what parameters must be used.

While entering parameters, you can use the **Ins** (Insert Mode), **DEL**, or **←** keys to edit the line until it is correct. When you are satisfied that the information is correct, go to Step 4.

4. Press **F8** **Cancel** to cancel **Start Program** if you decide not to run the selected file and wish to return to the Executable Files Menu.
5. Press **F1** **No Params** if you want to run the program without parameters.
6. Press **Enter** if the parameters you typed are correct and you want to run the selected executable file.

Example: Run COMMAND.COM From the Executable Files Menu

You can try **Start Program** now by following these steps:

1. Make certain the DOS 3.1 work disc is in one of your drives, and that the file name COMMAND.COM is displayed on your menu. If you do not see the COMMAND.COM label, press **F4** **Reread Discs**. Then, move the pointer and highlight to the **COMMAND.COM** label.
2. Press **F1** **Start Program**. You will see the the Program Parameters Display, shown in Figure 9-16 above.

3. Press `No Params` to run COMMAND.COM without parameters. You will see the following display:

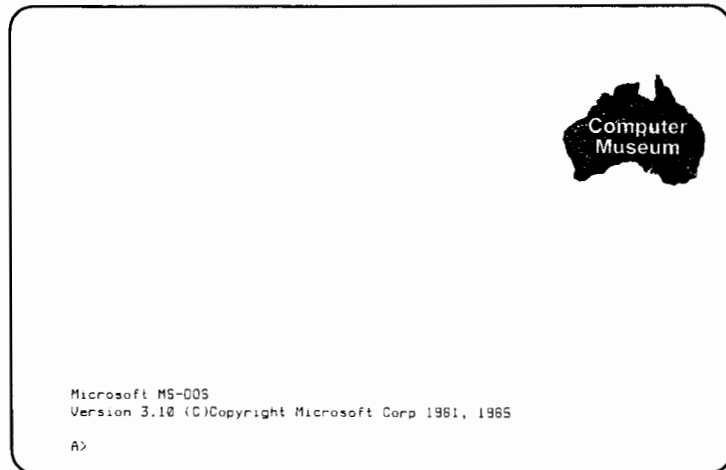


Figure 9-15. The Display for MS-DOS 3.1 COMMAND.COM

You can now type MS-DOS Commands.

4. Type the word EXIT and press . You are prompted to
Press any key to continue.
5. Press again. The PAM Executable Files Menu returns to the screen.

Returning to the PAM Main Menu

When you press **[F6] Show MainMenu** you will see the PAM Main Menu again. Press **[F6]** now to return to the PAM Main Menu that displays the list of Added application names.

Typing an MS-DOS Command from a PAM Menu

The third line of the PAM Menu is reserved for giving instructions to the computer. This is very useful to run a program that is not added to the PAM Main Menu, or to use the DIR command to look at a directory listing. If you plan to enter only one or two commands while running applications or programs from a PAM Menu, this is a handy shortcut.

All the information you need to type and execute MS-DOS command from PAM is in the chapter titled *How to Type MS-DOS Commands From PAM*. Details of the operation of twelve essential MS-DOS Commands are in the chapter titled *Essential MS-DOS Commands*.

Summary

In this chapter, you learned the basic functions you can perform from the PAM Menu.

You learned how to add and delete application names from the PAM Main Menu, and how to tailor this menu for your own needs. You also learned how to run an executable file from the Executable Files Menu, and how to move between the two PAM menus easily. Finally, you learned how to start applications and executable files from their respective PAM menus.

If you haven't already read the chapter on Files, Directories, and Pathnames, we suggest you do this now. You will find this information valuable while using File Manager, and while typing MS-DOS commands. When you start using your applications to create data files, you will want to use the MS-DOS file management features to organize your information.

10

Using the File Manager Application

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In this chapter you will learn how to use Vectra's File Manager Application. The File Manager helps you work with your files and directories by displaying options and functions on the screen and letting you make choices by pressing a function key, instead of typing commands.

File Manager lets you perform these MS-DOS file management functions without using MS-DOS commands:

File Manager Function	MS-DOS Command
See a list of Files and Directories on a disc	DIR (Show Directory)
Choose another directory	CHDIR (Change Directory)
Copy a file	COPY
Delete a file or directory	DEL (Delete) or ERASE
Make a directory	MKDIR (Make Directory)
Rename a file	RENAME

A word to the wise: you will find working with File Manager easier if you have read the chapter titled *Files, Directories, and Pathnames*.

Note

If you want to add to or change the information in a file, you should use the application that was used to create it originally.

Starting File Manager

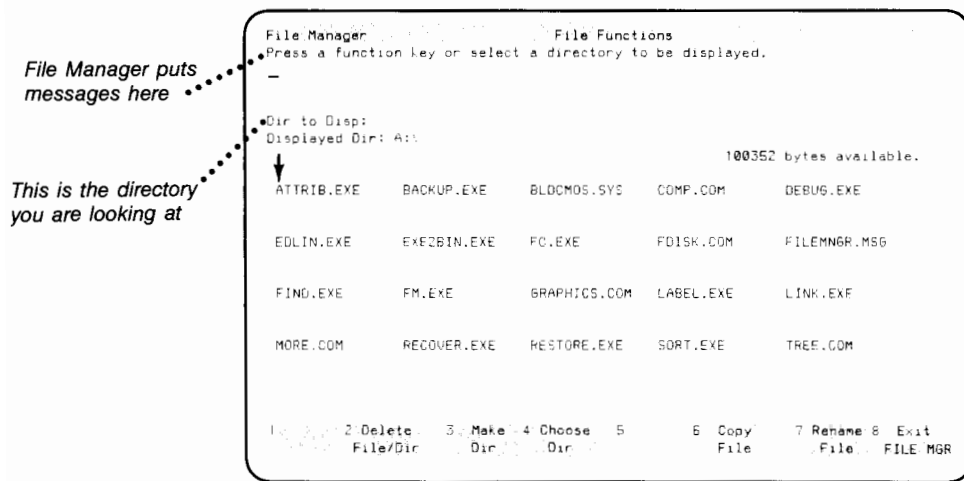
File Manager is available from either the PAM Main Menu or the Executable Files Menu.

Use the following steps to start File Manager from the PAM Main Menu:

1. Start from the PAM Main Menu. The File Manager Application must be in the active drive.
2. Move the pointer and highlight to the **File Manager** label.

3. Press **F1** **Start Applic.**

After a few seconds, the File Manager File Functions display appears:



10

Figure 10-1. The File Functions Display

Use the following steps to start File Manager from the Executable Files Menu:

1. Start from the Executable Files Menu. The File Manager Application must be in one of your drives. If you are currently on the PAM Main Menu, press **F6** **Show .EXE.COM.BAT**.
2. Move the pointer and highlight to the **FM.EXE** label.

If Something Went Wrong

If you do not see a label that reads **FM.EXE** check to be sure you are on the Executable Files Menu. If you are not on the Executable Files Menu, press **F6**

Show .EXE.COM.BAT.

If the **FM.EXE** label still is not displayed, find the Supplemental disc, insert it in any drive, and press **F4** **Reread Discs**. Then perform Step 2.

3. Press **F11** **Start Program**. After a few seconds, the File Manager File Functions Display, shown in Figure 10-1, appears.

Leaving File Manager

To return to the PAM menu from which you began:

1. If you are not on the File Functions display, press **F8** **Exit <function>**.
2. If you are on the File Functions display, press **F8** **Exit FILE MGR**.

Looking at the File Functions Display

When you first start File Manager, the Root directory of the active drive is always displayed first. The top line of the File Functions display is highlighted and reserved for displaying messages.

On the next line, File Manager tells you that you can:

Press a function key or select a directory to be displayed.

Line 6, **Dir to Disp:** (Directory to Display) If you select a directory to be displayed, the disc drive and pathname of that directory are shown here momentarily.

Line 7, **Displayed Dir:** (Displayed Directory) This line shows the current disc and directory pathname. When you are performing a File Manager function, this is the pathname that is used unless you specifically enter a different one.

For example:

Displayed Dir: A: means you are seeing the contents of the Root directory on the disc in drive A.

Displayed Dir: B:\JOE means you are seeing the contents of the directory JOE on the disc in drive B.

Line 8, **bytes available:** This entry tells you the amount of disc space available for new files.

In the middle of the display you see the names of files and directories in the Displayed directory. They are listed in alphabetical order. Directory names are highlighted and listed first, followed by file names. Up to 25 entries are listed on the display. If you have more than 25 entries, press **Pg Dn** / **Pg Up** to see the next/previous display.

This is the information you see for a Displayed directory:

Parent Directory

A parent directory is any directory that has one or more subdirectories. If the current directory that you're working with is not the Root directory, the first entry in the middle of the display is **<parent dir>**. It is in high intensity type and indicates that the Displayed directory has a parent directory.

Subdirectories

If the Displayed directory has any subdirectories, they are listed next in alphabetical order. Subdirectories are also in high intensity type so that you can tell a subdirectory from a filename. Files in these subdirectories are not listed on the display. To see the names of the files in a subdirectory, you must display the subdirectory by moving the pointer to the subdirectory name and pressing **F10** to select it.

Files

After the subdirectories, the files in the Displayed directory are listed in alphabetical order. Filenames are displayed in normal intensity type. If you try to select a file on the File Functions display by moving the pointer to the filename and pressing **F10** to select it, File Manager will send you the message:

```
A directory file was not chosen. No action taken.
```

You must first activate a File Manager function (such as Copy or Rename) and then, from the display for that function, select the file you want to work with.

Note



File Manager lets you copy, rename, or delete your files. You can also make directories, and choose a directory that contains a file you want to use with another File Manager task. To add to or change the information in a file, you should use the application that was used to create it originally.

Along the bottom of the File Functions display are the function labels for the File Manager tasks. You activate the label that corresponds to the task you want to perform by pressing the corresponding function key on the keyboard. (Refer to the chapter titled *Using the Keyboard, HPTouch and HP Mouse information on how to use the Mouse or HP Touch.*)

Making a New Directory

You can make directories at any time, and you can reorganize your old files into new directories as the number of files that you have grows. Once you create a directory, you can put new files into it. You can also copy existing files from other directories into your new directory.

To copy existing files into your new directory, you can copy the files, preceding the filename with the path to your new directory.

When you copy a file, you make an identical copy; one is in the old directory and one is in the new directory. When you make a copy of a file and include the path to the new directory, you can keep the same file name for the copy. To copy files, you can use the **Copy File** function in File Manager.

If you want more information about directories, subdirectories, and files, see the chapter entitled *Understanding Files, Directories, and Pathnames.*

To make a new directory:

1. With the File Functions display visible, press `[F3]`
`Make Dir`.

The Make Directory display will appear.

The contents of your current directory are displayed in the middle of the display.

File Manager tells you:

Type the new directory name and press
''Enter''.

2. If you want the new directory to be a subdirectory of the current directory (Displayed Dir), just type the subdirectory name and press `[Enter]`.

If you want the new directory to be a subdirectory of a different directory, type the complete pathname of that directory followed by its name. Press `[Enter]`.

When you press `[Enter]`, the functions labels at the bottom of your display change and you see the following message:

Press F1 (Start Make Dir) if selection
is correct.

```

File Manager Make Directory
Type in the new directory name and press "Enter".

Dir to Make:

Displayed Dir: A:\
100352 bytes available.
↓
ATTRIB.EXE  BACKUP.EXE  BLDOSMOS.SYS  COMP.COM  DEBUG.EXE
EOLIN.EXE  EXE2BIN.EXE  FC.EXE  FDISK.COM  FILEMNGR.MSG
FIND.EXE  FM.EXE  GRAPHICS.COM  LABEL.EXE  LINK.EXE
MORE.COM  RECOVER.EXE  RESTORE.EXE  SORT.EXE  TREE.COM

1 Start 2 3 4 Choose 5 6 Start 7 8 Exit
Make Dir Dir Over Make Dir

```

10

Figure 10-2. The File Manager Make Directory Display

3. Check the name you plan to give to the new directory. Make sure the pathname will put the directory where you want it to be.

If you change your mind, press **F6** **Start Over**.

Note



You can use the **←** (Backspace) key to erase characters one at a time, then type the correct information.

4. When you are satisfied with the name you have chosen, press **F1** **Start make Dir**. File Manager tells you:

Making the directory.

If the new directory is a subdirectory of your Displayed directory, its name will appear on the display.

To see the new directory when it is not a subdirectory of the Displayed directory, you must press **[F8]** **Exit Make Dir** and return to the File Functions display. (Use the procedures in the next section, *Changing the Displayed Directory*, to see this directory.)

Examples:

Assume that the current directory (Displayed Dir) is A:½ (this is the Root directory of the disc in drive A). If you type **DAVE**, you are creating the directory **A:\DAVE** in the Root directory on disc A.

If you type **B: DAVE** and press **[Enter]**, File Manager displays the pathname for the current directory on the disc in drive B (you see this pathname next to **Dir to Make:**). If the Root directory is the current directory on that disc, then **B:\DAVE** is the new directory.

If you want a new directory, **DAVE**, to be a subdirectory of **BUDGETS** (in the Root Directory of the disc in drive A), you must type **\BUDGETS\DAVE**. You must type the full path of the new directory because, if you do not, it is placed in the Root directory, since that is the current directory.

Changing the Displayed Directory

You can select a new Displayed directory directly from the File Functions display. If the directory you want to display is:

- named on the display, use **[Tab]** or the cursor keys to move the pointer to it, and press **[F10]** on the function keypad on your left to select and display it.

- a subdirectory of the Displayed directory, move the pointer to the label of that subdirectory to select and display it.
- the parent of the Displayed directory, move the pointer to the label <parent dir> and press **[F10]** to select and display it.
- in the Root directory of another disc, type the drive identifier where the disc is located followed by a backslash (for example, **B:**). Press **[Enter]** to display it.
- not shown on the display, enter its specification. Type its drive identifier (if it is on a different disc). Type its pathname if it is not in the current directory (usually the Root directory) of the other disc and press **[Enter]** to display it.

File Manager briefly writes the name you specify on the line **Dir to Disp:** and then shows you the directory you specified. For example, if the Displayed Dir: is **B:\JOE\MEMOS** and you highlight the label <parent dir> and press **[F10]**. File Manager will show you the contents of **B:\JOE**, the parent directory of the subdirectory MEMOS.



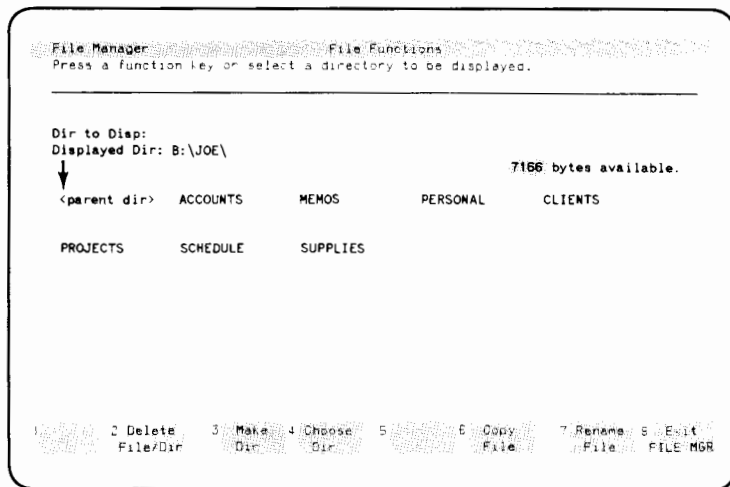
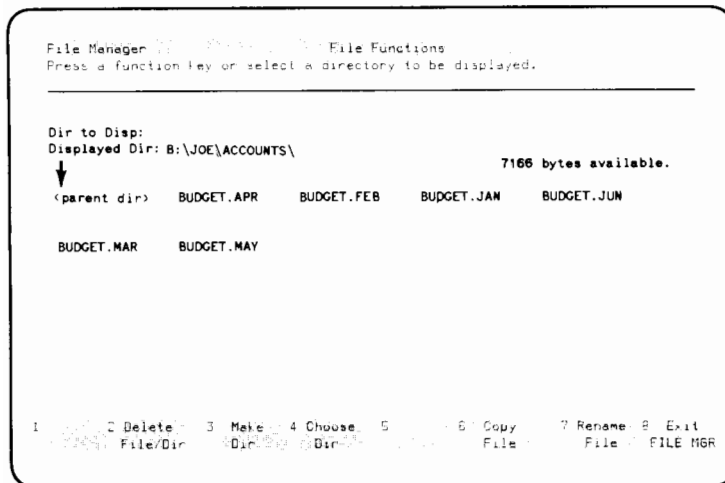


Figure 10-3. Displaying a Parent Directory

You now move the pointer to the subdirectory ACCOUNTS. File Manager will show you the files in the subdirectory B:\JOE\ACCOUNTS\.



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Figure 10-4. Choosing a Subdirectory

Remember that File Manager only shows the filenames and subdirectories of the Displayed directory. It does not show the filenames of files in the subdirectories.

If the filename you are looking for is not on the display, it might be in one of the subdirectories. Choose the subdirectory to display the files in that subdirectory.

If you are in a subdirectory, the filename you are looking for might be in a different subdirectory. First choose the parent directory and then choose a different subdirectory to view its contents.

Choosing a Directory

Now you have seen how to change the Displayed directory from the File Functions display. But suppose you are using one of File Manager's functions and find that you want to work with a directory other than the one that is on your display. The **Choose Directory** function is available on the main display of all other File Manager tasks as well as on the File Functions display.

When you use Choose Directory to change the Displayed directory, you get two special options:

- | | |
|---------------------|---|
| Expanded Dir | Gives you more information about each file and subdirectory in the directory |
| Wildcard | Allows you to select specific files and directories. For example, you can use the wildcard B*.HP to display the names of files and directories that begin with B and have the extension HP . |

These special features are explained later in this section.

To choose a directory:

1. Press **Choose Dir**.

The Choose Directory display appears. The current directory, or the Displayed directory, is shown on line 7 as **Displayed Dir:**. File Manager asks you to

Select or type the directory name to display.

2. If the directory you want is named on the display, move the pointer to its label and press **F10** (on the function keypad on your left). It will be highlighted and displayed.

If the directory you want is not named on the display, type the drive and pathname of the directory that you want and press **Enter**.

For example, this display shows the directory **B:\JOE**.

10

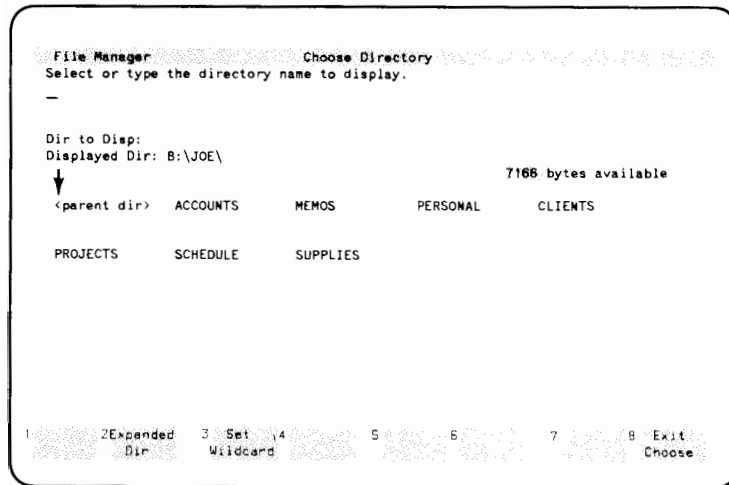


Figure 10-5. Choosing a Directory

If you want File Manager to show the directory
A:\LINDA\MEMOS\ instead, you would type the drive
and pathname and press **Enter**.

*To choose a different
directory, type the drive
and pathname.*

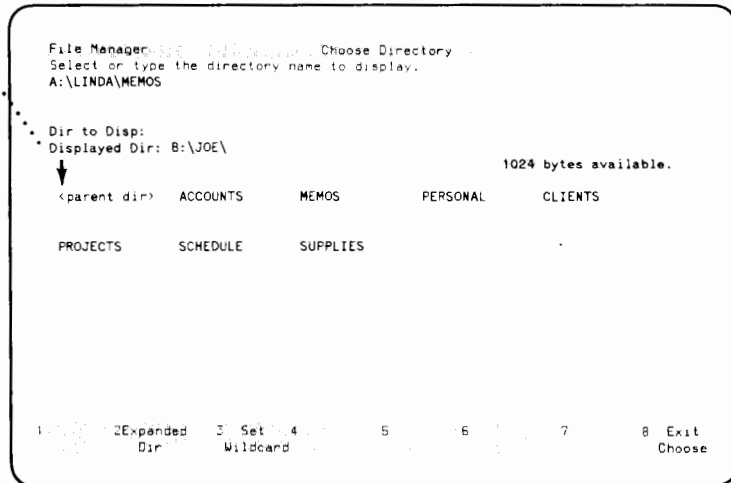


Figure 10-6. Choosing a Different Directory

File Manager briefly shows the directory name at `Dir to Disp:` while sorting the contents of the directory. Then the directory that you asked for appears on the display. The name after `Displayed Dir:` changes to the name of the new directory.

10

*This is the directory
you chose...*

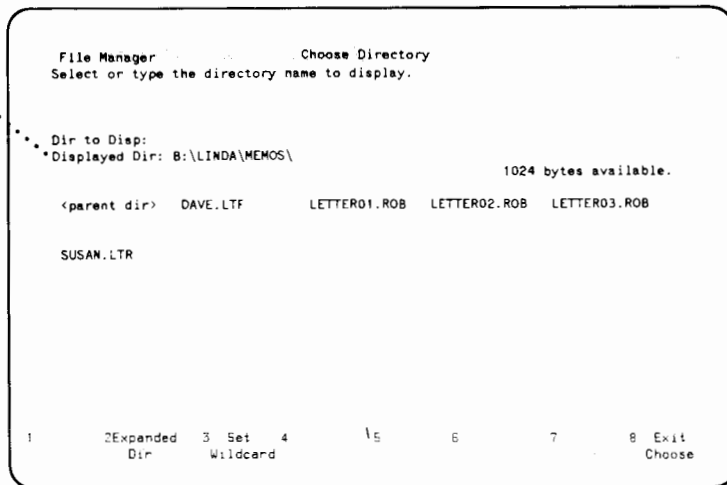


Figure 10-7. Viewing the Chosen Directory

3. If this is not the directory that you want, repeat Step 2.

If this is the directory that you want, press **F8** **Exit Choose**. File Manager takes you back to whichever File Manager display you were on when you selected `Choose Dir`.

The Expanded Directory

An expanded version of the directory shows you the following information about each of the subdirectories and files in the directory:

For the parent directory (if there is one)

- the words <parent dir> in high intensity type.

For each subdirectory (if there are any)

- the name of the subdirectory in high intensity type.
- the word <DIR> to indicate you are looking at a directory (rather than a file)
- the date and time when the subdirectory was created

For each file

- the filename and extension
- its size in bytes
- the date and time when the file was last changed

Here is the expanded directory of our example B:\JOE\.

The screenshot shows a File Manager window titled "Choose Directory" with the following text:

```
File Manager Choose Directory
Select or type the directory name to display.
Dir to Disp:
Displayed Dir: B:\JOE\
.1024 bytes available.
<parent dir>
ACCOUNTS <DIR> 11-03-84 5:18p
MEMOS <DIR> 11-03-84 5:18p
PERSONAL <DIR> 11-03-84 5:19p
CLIENTS 31792 6-18-84 5:00p
Press Next/Prev to see more files.
Expanded Dir * Wildcard 5 6 7 8 Exit Choose
```

Annotations with dotted lines point to specific elements:

- "A subdirectory." points to the ACCOUNTS entry.
- "The date the subdirectory was created." points to the date 11-03-84 for the MEMOS entry.
- "A file." points to the CLIENTS entry.
- "The size of the file in bytes." points to the value 31792 for the CLIENTS entry.
- "The time the subdirectory was created." points to the time 5:18p for the MEMOS entry.
- "The date and time the file was created or last changed." points to the date and time 6-18-84 5:00p for the CLIENTS entry.

Figure 10-8. Viewing an Expanded Directory

If you exit Choose Directory with an expanded directory on your display, the same expanded directory as your Displayed directory will be on the display in whatever File Manager function you choose next. To get the expanded directory:

1. With the Choose Directory display visible, press **[F2]** **Expanded Dir**. An asterisk will appear in the function label to remind you that it is on. You will see the first 5 entries in your directory, if there are that many.
2. Press **[Pg Dn]** to see more entries if there are any. Press **[Pg Up]** to see the previous entries.

Turn off the expanded directory:

1. You must be on the Choose Directory display to turn expanded directory off.

Press Expanded Dir . The asterisk will disappear—indicating that Expanded Directory is off. The directory will be displayed again in non-expanded form.

The Wildcard Option

When you ask File Manager to find a specific file or subdirectory, it matches the characters you specify with all the names in the directory and only picks out the ones that match exactly character by character. If you ask for the file: BOB.JAN

File Manager will not get any of these files:

BOB BOB1.LET
BOB1.JAN SUSAN.JAN

If you want to see more than one particular file or subdirectory, but not everything in a directory, you can use special symbols, called “wildcards,” to replace the characters that File Manager is matching when it looks at a file or subdirectory name. There are two wild card characters: * (asterisk), and ? (question mark).

Wildcards are especially useful in looking for groups of files. If you think about how wildcards work when you name your files, you can give them names that are easy to retrieve with wildcards. For example, if you use the extension .LET for all of your letters, you can use the * to ask for all your letters in a given directory by specifying *.LET as the wildcard.

If you file all your letters, bills, and memos for January with the extension .JAN, you can ask for them with the wildcard *.JAN.

If you name all the chapters in a report CHAPTER1, CHAPTER2, etc., you can ask to list them all with the wildcard CHAPTER** or even CHAP**.

* stands for any combination of characters.
You can use one asterisk in the filename and one in the extension.
You can name specific characters before the asterisk but not after it. (They will be ignored.)

** is equivalent to "all" files.

? stands for any one character.
You can use one ? for each place in the filename and one for each place in the extension.
If you don't specify any characters after the ?, your wildcard will include files (or extensions) with a character in that position and with nothing in that position. For example: entering BOB?.LET will give you BOB.LET. and BOB1.LET. Entering SUSAN.? will give you the file SUSAN that has no extension or that has a one-character extension. (It would give you SUSAN.2 if there were such a file in the directory.)

?????????.??? is equivalent to ** .



You can use both * and ? in the same wildcard.

Examples: Let's assume we have a directory with these files in it:

BOB	SUSAN
BOB123.LET	SUSAN, JAN
BOB1.LET	SUSAN.123
BOB2.LET	SUSAN.FEB
BOBBY.JAN	#
BOB.FEB	SUSAN.JUN
BOB.JAN	SUSAN.LET
BOB.JUN	#
BOB.LET	#

If you specify: **File Manager will find these files from our sample directory:**

Susan.*	all the SUSAN files
Susan.?	only the SUSAN file with no extension If there were a SUSAN file with a one character extension, the wildcard would find that file.
BOB*.LET	all the letters to BOB

BOB*J*	BOB.JUN, BOBBY.JAN, BOB.JAN If there were a BOBOLINK.JM, it would get that file, too.
BOB?.LET	BOB1.LET, BOB2.LET, BOB.LET but not BOB123.LET
????*	the files BOB.FEB, BOB.JAN, BOB.LET, BOB1.LET, BOB2.LET because they are the only files with four or fewer characters in the filename
??	none There are no files with one-character names and one- (or no-) character extensions in our sample directory.
**	all the files
S*K*J.*	all the SUSAN files File Manager ignores all the specified characters after the first asterisk in the filename and after the first asterisk in the extension.
S?K*J.*	none None of the files in our sample directory has K as the third character. File Manager does not ignore the specified characters after the question mark.

To display a directory using wildcards:

1. With the Choose Directory display visible, press **F3** **Set Wildcard**. File Manager tells you:

Modify the wildcard string and press
''Enter''.

The current wildcard will appear highlighted on line 3. The first time that you use File Manager, the wildcard will be set to `**`. After you have used the wildcard option, you will see the last wildcard you set.

2. Change the wildcard string, `**`, to the string you want to use.

Use **←** (Backspace) to erase one or all of the characters in the wildcard, then type your new wildcard. Remember that `?` means to "accept any character in that position" and `*` means to "accept any sequence of characters from here on".

3. Press **Enter**.

You see your wildcard string on line 8 next to the word `wildcard:`. You also see all of the files and subdirectories in the Displayed directory that match the wildcard string you specified.

4. To display your directory using another wildcard, start with Step 1 again.

5. If you're finished setting the wildcard string and displaying directories with it, press **F8** **Exit Choose**.

File Manager returns you to the display you were on when you selected `Choose Dir`. Only the files and subdirectories found in the wildcard search will be shown on the display.

Your wildcard remains active even if you choose a different directory to display. It will be active until you change it. Even a new file or directory will only be shown if it meets the criteria of your wildcard.

For example, if you create a new directory with Make Directory while you have an active wildcard other than `**`, your new directory name will not appear on the display unless it matches your wildcard criteria. The operation happened—the directory was created. You just don't see the name on your display.

Similarly, if you rename a file without taking it out of the Displayed directory and the new file's name does not meet your wildcard criteria, the new name will not appear on the display. Again, the operation happened—the file was renamed. The name just does not appear on the display because it does not match the wildcard. To see that the renamed file really is in the Displayed directory, press `F4` `Choose Dir` to return to the Choose Directory display and remove the wildcard.

To remove a wildcard:

1. With the Choose Directory display visible, press `F3` `Set Wildcard`.

The active wildcard will appear on line 3.

2. Press `←` (Backspace) to erase the active wildcard.
3. Press `Enter`.

The default wildcard `**` will become the active wildcard and you will see all the files in that directory.

If you are looking for a filename and you think it is in the Displayed directory but it does not appear on the display, check to see that you are displaying the full directory. You may have set a wildcard, and you may only be looking at the files that match the wildcard.

Copying a File

Copying in File Manager lets you make duplicates of your files—one at a time.

For example, you might want to copy a file from one flexible disc to another. It is good practice to make duplicate copies of your files in case your master discs are damaged or lost.

You can also rename a file as you copy it so you can have two copies of the same file on the same disc. Then if you update one and save the revision, you still have an unchanged original.

If you and a colleague are working with the same report file, you can both obtain a copy of the file in your own directory by copying the file with a new pathname.

Copying in File Manager is like the MS-DOS COPY command in that you can copy just one file at a time. It differs from the MS-DOS BACKUP or DISKCOPY commands which let you back up or copy many files at a time.

You can not copy a directory even though it is named on the display. If you try to copy a directory, File Manager tells you

```
The file name is a device, directory, or
volume id. No action taken.
```

To copy a file:

1. With the File Functions display visible, press **F6** **Copy File**.

The Copy display will appear.

File Manager tells you:

Select or type the file name to copy.

10

Type the name of the file you want to copy

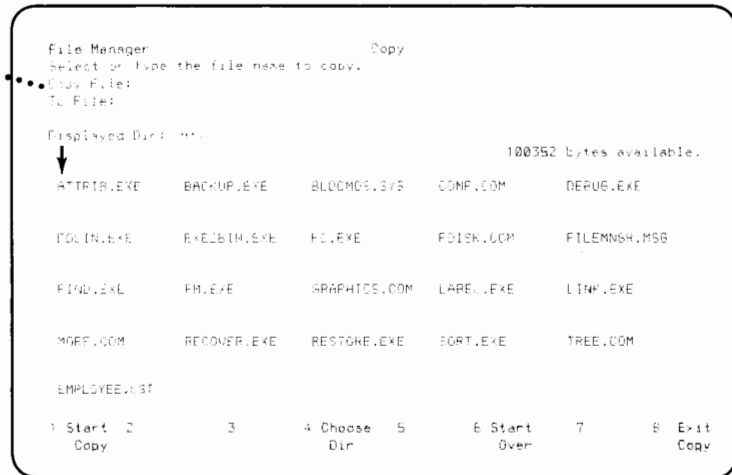


Figure 10-9. The File Manager Copy Display

2. Select the file you want to copy.

If the file you want to copy is in the Displayed directory, move the pointer to the filename and press **F10** on the keypad on your left to select it, or type the name and press **Enter**.

If you have more filenames in the Displayed directory than can fit on one display, press **Pg Dn** to see the

next screenful of filenames. Press `[Pg Up]` to return to the previous screenful.

If the file you want to copy is not in the Displayed directory, you can either:

- Type the complete file specification, including drive (if different from the Displayed directory) and press `[Enter]`,

or

- Change the “Displayed Directory” to the one that contains the file you want to copy. To change the Displayed directory, see the section entitled Choosing a Directory in this chapter.

File Manager fills in the complete file specification after `Copy File:` and tells you to:

`Select or type the file name to copy to.`

3. Specify the filename of the copied file by doing either of these:

- If you want the copy to have a different name but be in the same directory, type a filename (including an extension if you wish) that is unique in that directory.
- If you want the copy to be on a different disc or directory, you can use the same filename (unless it is already being used for another file there). If you want to use the same filename, just type the drive identifier and pathname of the directory that you want to copy to.

4. Press **Enter**.

File Manager shows the complete file specification after **To File**. (If you are copying using the same filename, you will only see the drive and pathname, not the filename.)

For example, if you want to copy the file **EMPLOYEE.LST** that is in your Displayed directory **A:** (the Root directory of A) and you want to put the copy in the Root directory of B, you would move the pointer to the label **EMPLOYEE.LST** on this display, and then type **B:**. The copy's full file specification will be **B:\EMPLOYEE.LST**.

10

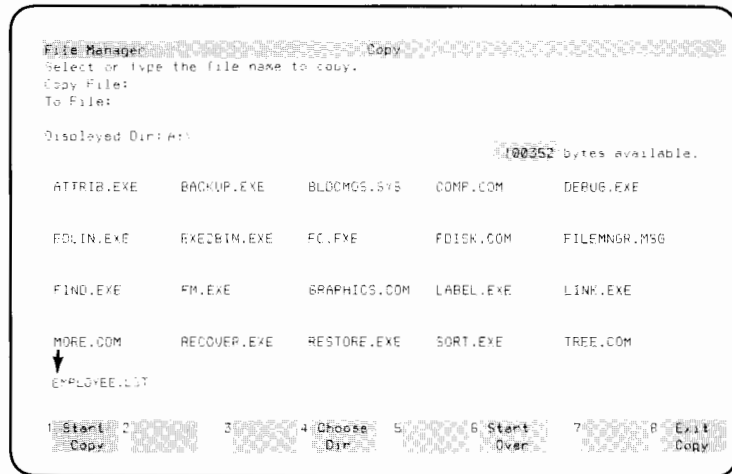


Figure 10-10. Specifying the File to Copy

File Manager now tells you

Press **Start Copy** if selection is correct.

5. If you want to copy the file to another disc, you must put the new disc in the disc drive now. (In our example, the new disc would go into drive B.) Be sure to leave the disc, which holds the file which you want to copy, in its drive.

Note



You can not use the File Manager Copy function to copy a file to another disc if you have a system with just one flexible drive. You must use the MS-DOS COPY command, described in the chapter titled *Essential MS-DOS Commands*.

If you are using a new disc, be sure that it is formatted (see the section on the FORMAT command in the chapter on *Essential MS-DOS Commands*.)

6. Check both filenames to make certain they are correct:
 - IS the Copy File name the correct spelling of your file's name?
 - Is the To File: the name you want?
 - Does the name of the new file include the correct drive and pathname?
 - Are you sure you haven't reversed what you want in Copy File: and To File:?
 - If you are copying to the same directory on the same disc, are you sure you have different names?
 - Are you sure you have not used a name already in use—unless you do want to write over the old file with that name?
7. If you made a mistake, press F6 **Start Over** and go back to Step 2.

8. If you are ready to copy, press **F1** **Start Copy**.

If the "From" file and the "To" file have the same name, File Manager prompts:

The operation requires two unique file names

Press **Enter** and return to Step 3.

If you try to copy a file specifying a file name that already exists, File Manager prompts:

To delete '<filename>' and continue, press **F1** (Start Copy) again.

This means that if, for example, you copy a file TEST1 to an existing file TEST2, you will lose the information in TEST2 since File Manager will overwrite it. If you want to overwrite your file, press **F1** **Start Copy**. If you do not want to overwrite your file, press **F6** **Start Over** and return to Step 3.

Next, you see the following message until the copy is complete:

Copying the selected file

9. If you want to cancel the copy function, press **F8** **Stop Copy**.

You see the message:

Operation cancelled. No action taken.

When you stop the copy function, your original file remains intact. You can select other files to copy or you can press **F8** **Exit Copy** to leave the Copy function.

10

If there is a problem:

If File Manager cannot copy your file, you may see one of these messages:

- Message: The file to copy cannot be found. No action taken.
- Solution: Check the name next to **Copy File**: Is the letter correct for the disc that the file is on? Is the file in the directory specified? Is the file name (and extension) spelled correctly? If you find that you made a mistake, press **F6** **Start Over** and repeat from Step 2.
- Message: Unable to access selected disc. Check drive id and disc.
- Problem 1: There was no disc in the drive you named.
- Solution 1: Put a disc in the drive.
- Problem 2: You named a drive that is not configured.
- Solution 2: Check to be sure you typed a drive identifier for a configured drive.
- Message: Disc error.
- Problem: You told File Manager to copy to a disc that was not in the drive when you pressed **F11** **Start Copy**.
- Solution: You must put the disc in BEFORE you tell File Manager to **Start Copy**.

10. When the file has been copied, the first Copy display reappears. You can select another file to copy if you wish.
11. When you have finished copying, press **F8** **Exit Copy**. The File Functions display reappears. You can choose another File Manager task or you can leave File Manager.

10

Deleting a File or Directory

If you no longer need a file or a directory, you can delete (erase) it, and free space on your disc.

Be sure that you are finished with the file or directory. Once it is deleted, you cannot get it back. As a precaution, you might want to read the contents of the file before you delete it to be sure it is a file you don't need anymore. You could also print the file before you delete it. To print a file, use the application that was used to create the file originally, or the MS-DOS PRINT command, described in the *Vectra DOS User's Reference Manual*. To display the contents of the file on the screen, use the MS-DOS TYPE command, documented in the chapter on *Essential MS-DOS Commands*.

You cannot delete directories containing files or other sub-directories. (This is to keep you from accidentally erasing them.) Nor can you delete the current Displayed directory.

To delete a file or directory:

1. With the File Functions display visible, press **F12** **Delete File/Dir.**

The Delete display will appear.

Your current directory is displayed on the display.

File Manager tells you:

Select or type the file or directory name
to delete.

2. Select the file or directory to delete.

If the file or subdirectory you want to delete is named on the display, move the pointer to the name and press **F10** on the keypad on your left to select it, or type the name (and extension if it has one).

If you have more filenames in the Displayed directory than can fit on one display, press **Pg Dn** to see the next screenful of names. Press **Pg Up** to return to the previous screenful.

If the file or directory you want to delete is not part of the Displayed directory, you can either:

- Type the complete file or directory specification and press **Enter** or
- Change the Displayed directory to the one that contains the file or subdirectory you want to delete.

To change the Displayed directory, see the section entitled Choosing a Directory in this chapter.

File Manager completes the file or directory specification after Delete File: and tells you:

Press Start Delete if selection is
correct.

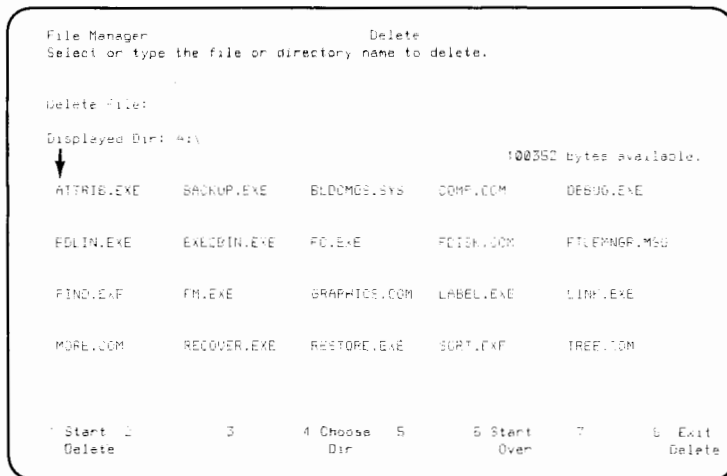


Figure 10-11. The File Manager Delete Display

3. Check the filename or directory name to be sure it is the one you want to delete. Remember that a deleted file is erased forever. If you change your mind before you start the delete operation, you can use (Backspace) to erase portions of the name, or press **Start Over** to erase the entire name. Next, type the correct filename or directory, then press .
4. Press **Start Delete**. File Manager deletes the file or directory you have chosen. The current directory is displayed again. If you deleted a file or subdirectory in the current directory, its name will disappear. You can delete another file or directory or you can leave the Delete function and return to the File Functions display by pressing **Exit Delete**.

Renaming a File

Sometimes you may want to give a file a new name. Suppose, for example, that yesterday you created a letter file named JONES. Today, you realize that you'll be sending several letters to Mr. Jones. To help you organize your correspondence with Mr. Jones, you might go back and rename JONES to JONES.1. Your second letter to Mr. Jones would be JONES.2.

Or suppose you are writing a book and you name the chapters, CHAP1, CHAP2, etc. If, as you are writing it, you decide to reorganize it, you can rename your files to match the book's new table of contents.

You can also use Rename to move files into a directory you have just made.

To rename a file:

1. From the File Functions display, press **[F6]**

Rename File.

The Rename display appears.

The files and subdirectories in your Displayed directory are shown on the display.

File Manager tells you:

Select or type the file name to rename.

2. Select the file to rename.
If the file you want to rename is in the Displayed directory, move the pointer to the filename and press **[F10]** on the keypad at your left to select it, or type the name and press **[Enter]**. If you make a mistake, you can press **[←]** (Backspace) to erase errors one at a time.

If you have more filenames in the Displayed directory than can fit on one display, press **Pg Dn** to see the next screenful of filenames. Press **Pg Up** to return to the previous screenful.

If the file you want to rename is not in the Displayed directory, you can either

- Type the complete file specification and press **Enter**, or
- Change the Displayed directory to the one that contains the file you want to rename.

To change the Displayed directory, see the section entitled *Choosing a Directory in this chapter*.

File Manager fills in the file specification next to Rename File: and tells you

Select or type the file name to rename to.

3. Select a valid filename to rename your file (For details on how to name a file, see Naming a File in the chapter entitled Understanding Files, Directories, and Pathnames.)

If you are renaming the file into the same directory, be sure to use a name that's not being used in that directory.

If you are renaming the file into a different directory, you must specify the complete pathname up to the filename. If you do not specify the filename, File Manager assumes you want to keep the same filename. (In this case, you aren't actually renaming the file, you are putting it in a different directory. You are renaming the path to the file.)

You can only rename a file on the same disc. You can not "move" a file to another disc by using the same name and specifying another drive letter.

File Manager completes the file specification for your renamed file and displays it next to To File: and tells you

Press Start Rename if selection is correct.

4. Check both the existing and the new filenames. If you want to change either name, press **F6** **Start Over** and start again at Step 2. If you want to end the Rename function, press **F8** **Exit Rename**.
5. If you are satisfied with your selections, press **F1** **Start Rename**. If the renamed file is in the Displayed directory, you will see its label appear with the new name.

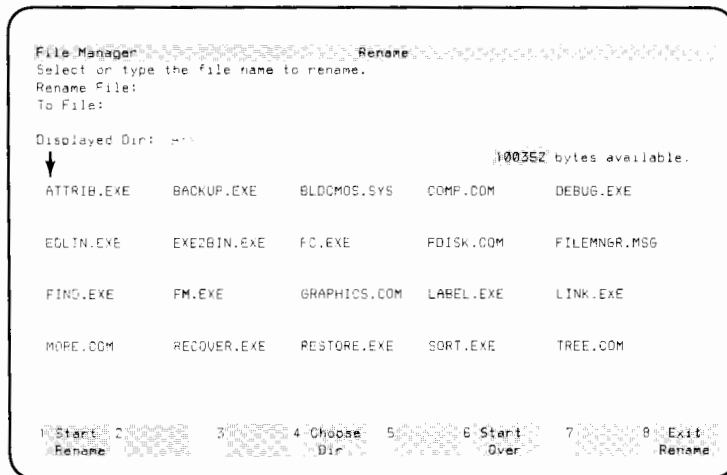


Figure 10-12. Renaming a File

You can now rename another file or **Exit Rename** press **F8**.

6. When you are finished renaming files, press **F8** **Exit Rename**. The File Functions display will appear. You can select another File Manager task or you can go back to PAM

To return to PAM, press **F8** **Exit FILE MGR**.

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When You Finish Using File Manager

To return to the PAM menu from which you started:

- If you are not on the File Functions display, press **F8** **Exit <function>**.
- If you are on the File Functions display, press **F8** **Exit FILE MGR**.

Summary

In this chapter you learned to perform several file management functions using Vectra's File Manager application. File Manager lets you Copy, Delete, and Rename files, Make and Choose directories, and view the names of files and directories on your discs.

Each of these File Manager functions has a corresponding MS-DOS command which is described in the chapter on *Essential MS-DOS Commands*. When you have learned to use these commands, you will have a choice of two powerful tools to use to perform these file management functions.



Section IV. Using MS-DOS Commands From PAM

11

Typing MS-DOS Commands from EAM

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Typing MS-DOS Commands from PAM

Information in this chapter assumes you have never used MS-DOS Commands to give instructions to a computer. If you have used MS-DOS commands before, you may prefer to use the *Vectra DOS User's Reference*, which also came with your Vectra system.

Before you can begin using MS-DOS commands, there are some things you must know about them. For example, MS-DOS communicates with your computer through a command interpreter. The command interpreter only understands specific words and instructions. The precise way in which an MS-DOS command must be typed is called the **Command Syntax**, and we tell you all about it.

In addition, you will learn about the two types of MS-DOS commands, **Internal** and **External**, what they are and how to recognize them. Finally, you will learn what happens when you type a command and press , and how to recover if you make a mistake. We begin with the MS-DOS Command Syntax.

MS-DOS Command Syntax

Any MS-DOS command you type must be understood by the MS-DOS command interpreter before it can be executed. For this reason, you must use very exact language when you type commands. The precise way in which an MS-DOS command must be typed is called the **Command Syntax**.

The command syntax includes an MS-DOS command and may also include **parameters**. Some parameters are required, and some are optional. Parameters are always important, even the optional ones, because they add information or set limits when a command is being executed.

In some cases, the command will be preceded by a **pathname** so that the command interpreter will know the path (drive and directory) where the command code is located. This is much like telling PAM where to find an application when you Add its name to the PAM Main Menu.

The total command, then, is made up of these three parts, though you may not be required to type Pathname or Parameters:

- Pathname
- Command
- Parameters

Now let us deal with each part of the command separately.

The Pathname

When you precede a command with the designator for the drive and directory, you are telling MS-DOS where the command code will be found. You can omit the Pathname information if this code is available in the current directory on the active drive.

The Command

The Command is the one- to eight-letter MS-DOS command, such as COPY, or FORMAT. This part is, of course, always required.

When typing the command, you can use any combination of upper- and lower-case letters, but you cannot make any mistakes ! If you try to execute a command that has typographical errors, MS-DOS will respond with this message:

```
Bad Command or File name
Press any key to continue
```

and wait for you to press a key, such as `Enter`. Then, you have to start over. We will tell you how to edit commands before you execute them so you can avoid this.

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The Parameters

Parameters, as we have said, provide additional information or set limits on a command while it is being executed. In some cases, parameters can be thought of as instructions. For example, such a parameter might specify either the source or the destination of information to be read, moved, or copied.

Using the DIR (Show Directory) command as an example, if the DIR command is executed without an instruction, the names of the files and directories in the current directory on the active disc drive are displayed. If you type

```
DIR A :
```

however, the command with the instruction displays the contents of the current directory in drive A, regardless of which drive is the active drive.

Other parameters can be thought of as options, because they supply optional information. Options are often used to format the output from a command. Using the DIR command as an example again, the following command will cause file names in your directory listing to be formatted in five columns instead of one:



DIR /W

Notice that the entire option consists of two characters, "/W". Several MS-DOS optional parameters are preceded by the front-slash (/) character.

This is by no means an exhaustive discussion of parameters. Parameters have other uses too, and you will learn more about them as you use MS-DOS commands.

To summarize, an MS-DOS command consists of a Pathname, the Command, and the Parameters. The Pathname and the Parameters are not always needed, however.

Syntax Notation

To eliminate any confusion you might have about when to use and when not to use pathnames and parameters, MS-DOS syntax descriptions always include certain symbols to let you know which parts are required and which parts are optional.

The following symbols are used when describing command syntax in this section:

- | | |
|------|---|
| CAPS | Words in capital letters are commands, options, or portions of statements that must be entered exactly as shown. |
| < > | Words enclosed by angle brackets represent data you must enter. When the angle brackets enclose lower-case text (for example <filename>) you must supply the entry defined by the text. |
| [] | Words enclosed in square brackets are optional. For example, [<filename>] means that the filename, which you must supply, is optional in the command. |

- / A front slash precedes certain optional parameters.
- . . . An ellipsis indicates that the entry that precedes it may be repeated as many times as needed or desired.

All other punctuation, such as commas, colons, back-slash marks (\), and equal signs, must be entered exactly as shown.

In every command description, values that you must supply are explained in full. If you have never used MS-DOS commands before, this explanation may seem confusing now, but will become clearer as you read the command descriptions and use the commands.

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Types of MS-DOS Commands

MS-DOS has two types of commands, called Internal commands and External commands.

Internal Commands

Internal commands are the most commonly used commands. They are called “internal” commands because they reside within the larger, executable file called COMMAND.COM.

Internal commands are not executable files, so you cannot see their names listed on the Executable Files menu. Nor can you see their individual names when you type the DIR command to read the directory of file names on your discs.

In the next chapter on *Essential MS-DOS Commands*, you will learn to use the following internal commands:

- CHDIR (Change Directory)
- COPY
- DEL (Delete)
- DIR (Show Directory)
- RENAME
- TYPE

External Commands

External commands reside on discs as executable program files. The disc with the the external command file must be in one of your drives for the command to be executed from a PAM menu. Most of the external commands are on the Supplemental Disc. The names of these commands appear on the Executable Files Display and they are in the directory listing when you type the DIR command.

External commands have the three-letter extensions of .EXE, .COM, or .BAT.

In the next chapter on *Essential MS-DOS Commands*, you will learn to use the following external commands:

- BACKUP
- CHKDSK
- FORMAT
- RESTORE

Notice that when you type an external command, you do not need to type the period and three-letter extension.

Your Internal Discs and Disc Drives

The Kinds of Discs You Use

You need to understand what kinds of discs and disc drives you must deal with in order to use your Vectra effectively. Read this section carefully.

When you use your Vectra system, you use or create four kinds of discs:

- Master discs
- Work discs
- Data discs
- Backup discs

You learned about Master Discs and Work Discs in an earlier chapter titled *Preparing Your Discs for Use*.

- **Master Discs** are discs that contain original copies of software, such as your DOS 3.1 and Supplemental discs, or application software discs such as Executive Spreadsheet or AdvanceWrite. These discs are created by vendors and should be used **ONLY** to make work copies, then stored in a safe place. You should never use a Master disc for any purpose other than making a work disc.
- **Work Discs** are copies of your master discs that you use in your daily operations.
- **Data Discs** are discs that contain data that you or your applications create. Sometimes data is kept on your application work discs and sometimes on a separate disc called a data disc.

- **Backup** Discs are discs that you create for the purpose of safely keeping copies of valuable data you have created as “insurance” against losing data in case of a power failure or other unforeseen mishaps.

Understanding Your Disc Drive Configuration

Your Vectra system can be set up and configured with several kinds of internal disc drives. The most common disc drive options include two kinds of flexible disc drives, and two hard disc drives.

Table 11-1 lists the possible configuration combinations for internal drives:

Table 11-1. HP Vectra Internal Disc Drive Configurations

Drive A	Drive B	Drive C	Drive D
<-----Flexible----->		<-----Hard----->	
360KB	-	20MB 20MB*	- 20MB*
360KB	360KB	20MB 20MB	- 20MB
1.2MB	-	20MB 20MB	- 20MB
1.2MB	1.2MB	20MB 20MB	- 20MB
1.2MB	360KB	20MB 20MB	- 20MB
360KB	-	-	-
360KB	360KB	-	-
1.2MB	-	-	-
1.2MB	1.2MB	-	-
1.2MB	360KB	-	-

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The "C" designator is always reserved for the first hard disc. A second hard disc or a third flexible disc would always be drive D. If you have a fifth drive, it will, of course, be drive E, and so on.

** Notice that if you have a 40 Mbyte hard disc, it will be formatted as two 20 Mbyte discs.*



The 360Kb flexible disc drive and the 1.2Mb flexible disc drive are technologically different and are not completely compatible. The discs you purchase and use with these drives cannot be used interchangeably between the two drives.

The drives themselves look quite similar, but the 360Kb drive has an asterisk (*) embossed on its lower right side beneath the drive activity light. The drive in the top-most position is always referred to as drive A:.

HP strongly recommends that you use 360Kb discs in your 360Kb drive, and 1.2Mb discs in your 1.2Mb drive. We further recommend that you use HP discs. HP's 360Kb and 1.2Mb discs are differentiated for you by their product labels.

Caution

Discs for the 360KByte drive and the 1.2 MByte drive are NOT interchangeable. See Table 11-2 below to see the relationship between these two drives.

Table 11-2. The Relationship Between the 360Kbyte and 1.2 Mbyte Drives.

Disc Media	Used With An HP 45811A 360Kb Drive	Used With An HP 45812A 1.2Mb Drive
Double-sided Double-density (360KB)	Read/Write	Read Only*
High-Capacity (1.2MB)	-----	Read/Write

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Notice that you can **read** a 360Kb disc in a 1.2Mb drive, but you cannot use a 1.2 Mb disc in a 360 Kb drive for any purpose. It is best to use your discs in the drives designed for them.

**You cannot format the disc or record information onto it.*

Note



If you have single-sided discs: You can *read* single-sided discs in double-sided and high capacity (1.2Mb) disc drives. However, these discs cause excessive wear on your drives. If you have these discs, copy them to double-sided or high capacity discs as soon as possible and use the double-sided or high capacity discs instead of the single-sided ones.

If you have both the 360Kbyte and 1.2 Mbyte flexible drives on your system, you may need to perform many operations described in this chapter as if you had just one drive. The same is true if you have just one flexible drive, with or without a hard disc, on your system.

Executing MS-DOS Commands Using One Flexible Disc Drive

If you are using one flexible drive while executing an MS-DOS command, you will need to adjust your thinking a bit. Instead of thinking of physical drives A: and B:, you must conceptualize these drives as **discs** A: and B:. Then take this conceptualization one step further and think of disc A: as the Source disc and disc B: as the Target disc.

MS-DOS automatically determines when a single drive operation is requested, and prompts you to insert the A: disc when it needs it, and to insert the B: disc when it is required. Depending upon the command you are executing, you may swap the discs back and forth several times. The main thing to remember is that you can use any MS-DOS command using either one or two flexible drives.

The key to single drive operations is MS-DOS's ability to use the system's internal memory as a "holding tank" for data while the physical discs are being exchanged. This is the procedure MS-DOS uses for all single drive operations. If the amount of data on the disc exceeds the system's internal memory capacity, MS-DOS transfers the data in "chunks". It asks you to swap the discs two or more times as it copies the data from one disc to the other.

Now, you are ready to begin.

Typing MS-DOS Commands from PAM

Typing and executing an MS-DOS command from a PAM Menu is simple. The main thing you must remember is that if you are typing an external command, your external command file must be available on a disc in one of your drives.

When you are on the PAM Main Menu or the Executable Files Menu, any characters you type from the keyboard, with the exception of cursor control and function keys, are interpreted by PAM as a command line to be executed by the MS-DOS Command Processor.

If you look on the third line of either of the PAM menus, you will see a capital letter followed by the "greater than" character (>). This letter tells you which drive is the **active drive**, and this prompt, C> for example, is called the **MS-DOS command prompt**. If the active drive is the hard disc (usually called C), you will see the following PAM Main Menu.

11

MS-DOS
command
prompt

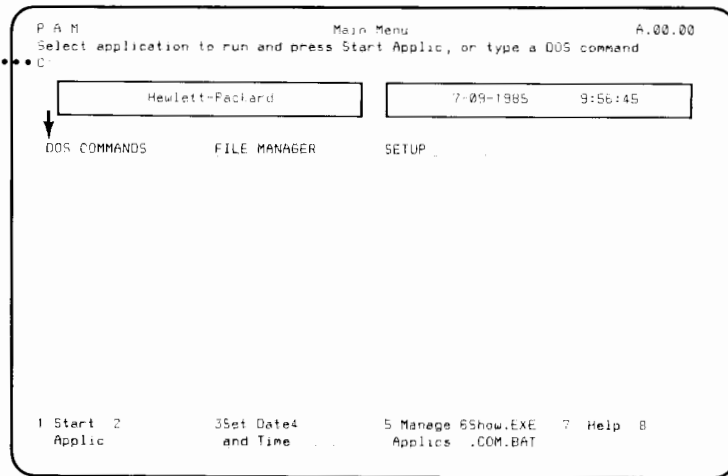





Figure 11-1. The PAM Main Menu


Note

Throughout the remainder of this chapter, and in the next chapter, we will be using some terms and concepts that are unique to MS-DOS. If you need to refresh your memory on the meanings of any such terms, refer to the Glossary in the back of this manual.

As you type each character in the MS-DOS command line, it will be displayed following the command prompt. If you make a mistake, simply use  (backspace) to erase it and retype the command line until it is correct. When you have typed the complete command line, press , and the command will be executed by the MS-DOS command processor.

**When You Press
the Enter Key**

MS-DOS commands are executed immediately after you press  unless MS-DOS does not recognize the command syntax or cannot find information it needs to execute your command.

MS-DOS does not care what you have asked the computer to do; only if it can understand the syntax you have entered. For this reason, it is imperative that you enter your command correctly. If you are not accustomed to typing MS-DOS commands, we strongly recommend that you pause to read your command before you press . Here's an example to demonstrate why:

Assume that you have just finished the steps to Prepare Your Discs For Use described earlier in this manual. Assume further that these steps included formatting your hard disc, and copying the operating system files, and that the hard disc is your active drive. The active drive, you may recall, is the drive where all commands are executed unless you use an **instruction** to specify another drive.

Now you want to format some flexible discs. You place a disc in a flexible drive and type `FORMAT` on line three of the PAM display. Before you press `[Enter]`, stop to check your command.

The `FORMAT` command without an instruction (such as a drive designator) will format the disc in the active drive. If you do this, you will erase the operating system files and undo all the work you have just completed.

The format command with a drive designator as an instruction, for example `FORMAT A:`, will format the disc in the flexible drive A so that it can be used to store files you create.

Remember, this is just an example we used to illustrate that MS-DOS commands are both powerful and potentially destructive. Until you are accustomed to using them, it is best to proceed slowly!

Example: Typing the DIR Command

In this section, you can practice typing an MS-DOS command. The example you will use is the `DIR` (Show Directory) command, which can be entered both without parameters and with parameters. Try these examples.

To type the DIR command without parameters:

1. Start at either of the PAM Menus. It does not matter if Added Applications or Executable Programs are displayed.

2. Type the letters `DIR` on your keyboard. **Do not** press `Enter`. You can use either upper- or lower-case letters, or any combination. Notice that when you typed the first letter, the second line of your display and the function labels changed. You now see the following display:

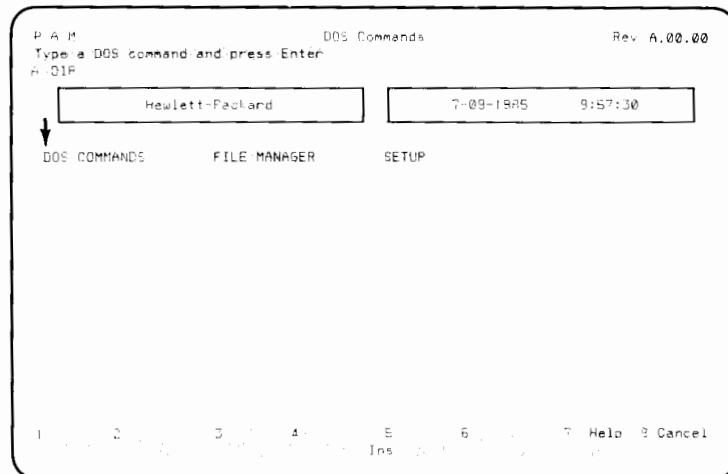





Figure 11-2. The DIR Command Typed on Line Three


If you Made a Mistake


If you made a mistake, you can edit the command by using the  (Backspace) key to delete the incorrect characters and typing correct characters. Be sure that only the letters in your command are still on the line. If you press  before you have corrected the command, the PAM screen will go blank, and you will see the following messages:


Bad command or file name

Press any key to continue

Press  or any alphanumeric key to return to the PAM Menu, and type your command again.

If you have questions, you can press  for help.

If you change your mind, you can press  to cancel.

3. Press . The display will be blank for a moment, then your command will be executed. Your display will then look similar to this:




```

Volume in drive A is SYSTEM
Directory of A:\

COMMAND  COM      20677   5-15-85  12:00a
PAMCODE  COM      2005    6-19-85  4:44p
PAM      DIR      17678   5-27-85  12:09a
ROMBIOS  SYS      55536   6-28-85  11:44a
PAM      KSS      8836    6-25-85  6:13p
.
.
.
CHKDSK   EXE      9296    5-15-85  12:00a
DISKCOMP COM      4250    5-24-85  1:15a
DISKCOPY COM      4806    4-09-85  4:26p
FORMAT   COM     11553   6-19-85  10:12a
GRAFTABL COM      1263    3-14-85  3:40p
JOIN     EXE      8956    5-15-85  12:00a
KEYBUS  COM      3232    6-03-85  9:50a
MODE     COM      5230    4-19-85  12:36p
PRINT   EXE      7832    5-30-85  11:14a
SHARE   EXE      7856    5-15-85  12:00a
SUBST   EXE      9910    5-15-85  12:00a
SYS      COM      4650    6-19-85  10:16a
25 Files(s)  41964 bytes free

```

Figure 11-3. Directory Listing for the DOS 3.1 Disc.

4. Press or any alphanumeric key on the keyboard in response to the instruction to

Press any key to continue...

You will return to the PAM Menu from which you began.

To type the DIR command with parameters:

1. Start at either of the PAM Menus. It does not matter if Added Applications or Executable Programs are displayed.
2. Type the letters

DIR <d>: /W

on line 3 of your PAM menu. (Replace <d> with the letter for the drive to be displayed.) **Do not** press . You can use either upper- or lower-case letters, or any combination. Notice that when you typed the

first letter of your command, the second line of your display changed. Refer to Figure 11-4 for an illustration of the new display.

If you Made a Mistake

If you made a mistake, you can edit the command by backspacing over the incorrect characters and typing correct characters. Be sure that only the letters in your command are still on the line. If you press before you have corrected the command, the PAM screen will go blank, and you will see the following messages:

```
Bad command or file name
Press any key to continue
```

Press or any alphanumeric key to return to the PAM Main Menu, and type your command again. If you have questions, you can press for help.

If you change your mind, you can press to cancel.

3. Press . The display will be blank for a moment, then your command will be executed. Your display will then look similar to this:

```
Volume in drive A is SYSTEM
Directory of A:\

COMMAND  COMPAMCODE  COMFAM      0:\ROMBIOS  C:\SPAM     MSG
MNGEPAM  EXEMANAGE   OVRMANAGE   MSGCONF IG  SYSSETUP   COM
ANSI     SYSVDISK    SYSASSIGN   COMCHKDSK   EXEDISKCOMP COM
DISKCOPY COMDFORMAT  COMGRAFTABL COMJOIN     EXEKEYBUS  COM
MODE     COMPRINT   EXESHARE    EXESUBST    EXESYS     COM

25 File(s)      41984 bytes free
```

Figure 11-4. Directory Listing Using the Wide Option.

4. Press or any alphanumeric key on the keyboard in response to the instruction to Press any key to continue... . You will return to the PAM Menu from which you began.

Summary

In this chapter, you learned that commands are made up of an optional Pathname, a Command, and Parameters. You also learned about the notation used to describe MS-DOS command syntax that helps you to know which parts of a command are required and which are optional.

We discussed the two types of MS-DOS commands, internal and external, and how to type an MS-DOS command on the third line of the PAM Main Menu or the Executable Files Menu.

You now have sufficient information to use the essential MS-DOS commands described in the next chapter. Each command is described in step-by-step fashion with cautions to prevent you from making errors, and with some useful examples. In addition, the most common errors and their resulting error messages are described.

It is quite possible that you won't need to know any more about MS-DOS commands than is described in this manual. If you do want to know more, you can use the *Vectra DOS User's Reference Manual* that also comes with your Vectra System.

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Essential MS-DOS Commands

This chapter describes ten MS-DOS commands that are essential to using your Viceroy MS-DOS system. You will find this information easier to understand and use if you have read two earlier chapters titled *Files, Directories, and pathnames*, and *How to Type MS-DOS Commands from PAM*. Many of the concepts and terms used in this chapter are defined and described in those earlier chapters.

This chapter explains how to use MS-DOS commands to:

- prepare your discs for use.
- request information about the contents of your discs.
- change directories.
- copy, backup, and restore files.
- view the contents of your files.
- rename and remove files from your discs.

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The MS-DOS commands you will use to perform the tasks listed above are:

FORMAT	to prepare a disc to store files
DIR	to view a list of the files on a disc
CHKDSK	provides information about the contents of your discs.
CHDIR	to change from the current directory to another directory
COPY	to copy one or several files
BACKUP	to make archive copies of data
RESTORE	to restore information from a Backup disc so that it can be used
RENAME	to give a file a new name
DEL or ERASE	to remove a file from your disc
TYPE	to print the contents of a disc file on the monitor screen

Preparing Discs for Use: The FORMAT Command

All discs must be formatted before they can be used. This is true whether they are flexible or hard discs. You can think of formatting as something like surveying. Just as a surveyor divides a large unmapped area of land into smaller, identifiable parcels, so the formatting process does with discs. You must format discs that will be used as work discs and discs that will be used as data discs. You use the FORMAT command to format discs.

Discs that will be used as start-up discs must contain the hidden operating system files, which can be put onto the disc when you format it.

The FORMAT Command

The FORMAT command places **tracks** and **sectors** on a disc so that MS-DOS can find where to read and write data on the disc. All discs must be formatted before they can be used.

Discs should only be formatted in the same kinds of drives in which they will be used.

A partial syntax for the FORMAT command is:

```
[<d>:][<path>]FORMAT[<d>:][/S][/P][/V]
```

where:

d: and **path** are the path to the location of the FORMAT.COM file,

d: is the name of the disc drive to be formatted,

/P means to place the operating system and PAM files on the disc,



`/S` means to place the operating system on the disc without PAM, and

`/V` means to give the disc a volume name.

Caution



The formatting process destroys any information currently on the disc being formatted. Make sure that the disc does not contain any files before you format it.

The `/S` (System) Option

The `/S` option of the `FORMAT` command places the operating system files on your disc. Any disc that contains the operating system can be used as a start-up disc. The operating system files that are transferred to the newly formatted disc are `MS-DOS.SYS` and `IO.SYS`, and `COMMAND.COM`. `MS-DOS.SYS` and `IO.SYS` are “hidden” files; they are not displayed by the `DIR` command. `COMMAND.COM` is the MS-DOS command processor.

Although you will have more available space on your discs if you don’t use the system option, it is not recommended that you omit it unless you are formatting discs for backing up your hard disc. If you don’t specify the `/S` option, the disc can’t be converted into a start-up disc in the future without reformatting it, thus losing all of the data and programs stored on it.

The `/P` (PAM) Option

The `/P` option does the same thing as the `/S` option except that it also transfers the PAM files to the newly formatted disc. You can use the `/P` option whenever you want to use PAM on the disc you are formatting.

If you specify neither the `/S` option nor the `/P` option when you format a disc, you cannot convert the disc to a start-up disc without reformatting it.

The /V (Volume) Option

The /V (Volume) option enables you to give a disc a name. When you include this option in your FORMAT command, the program prompts you for the name you want to give your disc.

It is strongly recommended that you give your discs names because, in time, you will have many of them. The disc name will be displayed every time you display the directory with the DIR command.

Formatting a Flexible Disc

Flexible discs only need to be formatted once, but you will typically use many flexible discs with your system. Therefore, you should become familiar with this task.

The instructions that follow use the /S option, which places only the operating system and not the PAM files on the disc. If you wish to place the PAM files on the disc use the /S and /P options. If you wish to include a volume name on the disc, add the /V option to the command. FORMAT will prompt you for the volume name.

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Note



Remember that you can only write to flexible discs in the same kind of drive in which they will be used.

1. Insert a copy of the MS-DOS Work Disc in Drive A:.
This disc must contain the file FORMAT.COM.
2. If you have a two-drive system, insert a blank flexible disc in Drive B:.

If you have a single drive system, keep the blank disc ready until you are prompted to insert it into Drive A:.

3. If you have a two-drive system, type the command:
`FORMAT B: /S`
If you have a single-drive system, type the command:
`FORMAT /S`
4. Press `[Enter]`.
For a two-drive system, MS-DOS displays the following message:
`Insert new diskette for drive B:
and strike Enter when ready`
For a single-drive system, MS-DOS displays this message:
`Insert new diskette for drive A:
and strike Enter when ready`
5. If you have a two-drive system, you can go on to the next step because you have already inserted the new diskette in drive B:.
If you have a single-drive system, remove the disc from drive A: and replace it with the disc to be formatted.
6. Press `[Enter]`.
MS-DOS displays the message:
`Formatting...`
The disc activity light comes on and the format process begins.

When the disc is formatted, MS-DOS displays a message similar to the following:

```
Formatting...Format complete
System transferred
Format another (Y/N)?
```

7. Type "N" then press if you don't want to format another disc,
8. Type "Y" followed by if you do, and repeat Steps 4 through 8.

When you have completed these steps, you will have one or more formatted discs that can be used to make work discs. It is recommended that you format several discs so that you always have a ready supply available.

You can now copy application programs onto your formatted discs, use them to store data you create while using an application, or you can use them to back up files using the BACKUP command.

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Formatting the Internal Hard Disc

To format an internal hard disc, you use two programs. These programs are FDISK and FORMAT. Barring any catastrophic occurrences, you will format your internal hard disc(s) only once. The steps involved are described in the chapter titled *Preparing Your Discs for Use* earlier in this manual. If you have not formatted your internal hard disc, please refer to that chapter for instructions. If you have an external hard disc, you must refer to the manual that came with the accessory card for that drive.



Looking at Your Discs: The DIR and CHKDSK Commands

As your discs fill up you need to know the names of the files on your discs and the amount of available space on your discs. The DIR and CHKDSK commands enable you to get the information you need.

The DIR (Directory) Command

The DIR command (an internal command) tells you which files reside in a given directory. It also provides information about the size and time and date of creation of individual files. This is one of the most commonly used MS-DOS commands.

A partial syntax for the DIR command is:

```
DIR [<d>:][<path>][<filename>[.<ext>]][/P]/W}
```

where:

d: and **path** specify the path to the directory to be displayed,

filename and **.ext** specify the name of a file or files to be displayed,

/P means to pause when the screen is full, and

/W means to display the information in a wide format.

In its basic form DIR lists the contents of the current directory. If drive C: is the active drive, the command is typed as shown.

```
C>DIR
```

```
Volume in drive C has no label
```

```
Directory of C:
```

```
COMMAND  COM   17664  3-08-83  12:00p
ANSI      SYS   1664  3-08-83  12:00p
FORMAT    COM   6016  3-08-83  12:00p
CHKDSK    COM   6400  3-08-83  12:00p
SYS        COM   1408  3-08-83  12:00p
DISKCOPY  COM   2444  3-08-83  12:00p
DISKCOMP  COM   2074  3-08-83  12:00p
WORDPRO   <DIR>   4-16-85  9:36a
 8 File(s)  6299648 bytes free
```

Let's review the display to see what's in it. First, you see the active drive and its label (if it has one). Next is the drive designator and pathname of the directory. These two items constitute the heading.

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The list of the files in the directory follows the heading. The entry for each file gives its name, extension, size in bytes, and date and time of creation. Note that WORDPRO is a directory.

The final line gives the number of files in the directory and the amount of space left on the disc. This information is particularly important when it comes to flexible discs. Flexible discs have a nasty tendency to fill up quickly and run out of room when you least expect it. The DIR command gives you a tool to keep an eye on the situation, and prevent "disc overflow".

As you might have noticed, once there are more than about 20 files in a directory, the display scrolls as the files are displayed. Your Viceroy computer system is considerably quicker than your eye, and you'll find it impossible to read the display. The Pause and Wide options alleviate this problem.

If you want to see the contents of the current directory on a disc other than the active drive, you have to specify the drive in the command. For example, if the active drive is drive C: you want to see the contents of drive B:'s current directory, type:

```
DIR B:
```

The /P (Pause) Option

DIR has two options that make the directory listing easier to read. The first is the Pause option. It instructs DIR to stop at the bottom of each screen to allow you sufficient time to read the list of files. DIR prompts you to press any key once you're done examining that page of files. It displays the next page and pauses, and continues this process until all of the files in the directory have been displayed. The Pause option is invoked by adding "/P" to the end of your DIR command line. The following example shows this option in action.

```
A>DIR/P
```

```
Volume in drive A has no  
label Directory of A:\
```

COMMAND	COM	22042	8-14-84	8:00a
ANSI	SYS	1641	8-14-84	8:00a
SORT	EXE	1632	8-14-84	8:00a
SHARE	EXE	8544	8-14-84	8:00a
FIND	EXE	6363	8-14-84	8:00a
ATTRIB	EXE	15123	8-14-84	8:00a
MORE	COM	320	8-14-84	8:00a
ASSIGN	COM	988	8-14-84	8:00a
PRINT	COM	7811	8-14-84	8:00a
SYS	COM	3629	8-14-84	8:00a
CHKDSK	COM	9275	8-14-84	8:00a
FORMAT	COM	9015	8-14-84	8:00a
VDISK	SYS	3080	8-14-84	8:00a
BASIC	COM	17024	8-14-84	8:00a
BASICA	COM	26880	8-14-84	8:00a
FDISK	COM	8076	8-14-84	8:00a
COMP	COM	3471	8-14-84	8:00a
TREE	COM	2473	8-14-84	8:00a
BACKUP	COM	5440	8-14-84	8:00a
RESTORE	COM	5413	8-14-84	8:00a
LABEL	COM	1260	8-14-84	8:00a
DISKCOPY	COM	4165	8-14-84	8:00a
DISKCOMP	COM	3752	8-14-84	8:00a

Strike a key when ready...

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When you strike any key, the next part of the listing is displayed.

The /W (Wide) Option

The second option can also be used to make large directories easier to read. It is the /W option, and it instructs DIR to show the files in the wide format. The wide format lists the filenames in five columns on the screen. To accomplish this, the file's size, and date and time of creation are not displayed. If you need this information, you should use the /P option to display your directories. The wide format is selected by typing /W at the end of your command line. A sample directory display using the /W is shown below.

```
A>DIR/W
```

```
Volume in drive A has no label
```

```
Directory of A:\
```

```
COMMAND  COMANSI    SYSSORT    EXESHARE    EXEFIND    EXE
ATTRIB    EXEMORE    COMASSIGN  COMPRINT    COMSYS     COM
CHKDSK    COMFORMAT  COMVDISK   SYSBASIC    COMBASICA  COM
FDISK     COMCOMP    COMTREE    COMBACKUP   COMRESTORE COM
LABEL     COMDISKCOPY COMDISKCOMP COMKEYBSP   COMKEYBIT  COM
KEYBGR    COMKEYBUK  COMKEYBFR  COMMODE     COMSELECT  COM
GRAPHICS  COMRECOVER COMEDLIN   COMGRAFTABL COM
34 File(s) 103424 bytes free
```

Displaying the Contents of a Subdirectory

In the previous examples, you didn't leave the current directory. DIR has the ability to display the contents of other directories without leaving the current directory. This is accomplished by using a valid pathname in the command. The command line:

```
DIR A:\WORDPRO
```

instructs MS-DOS to list all of the files in the subdirectory WORDPRO on disc A:.

Displaying a Specific File Name

You can display the names of specific files with the DIR command. This greatly increases the value of DIR. Lets take a look at a couple of uses of this capability.

Suppose you want to find out if a certain file (LOST.DAT) is in a directory, and you don't really want to look through all of the directory entries to find out if its there.

Do this:

```
A>DIR LOST.DAT
```

If MS-DOS finds LOST.DAT, it displays its name, size, and date and time of creation. If it cannot find LOST.DAT, it displays:

```
Volume in drive C has no label  
Directory of C:\  
  
File Not Found
```

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Using Wildcards to Display a Group of File Names

Let's take things one step further. You are in your word-processing subdirectory, and you want a list of all text files (with the extension .TXT). The command line:

```
DIR *.TXT
```

produces a standard directory listing, but only the files with the extension .TXT are listed.

The CHKDSK Command

The CHKDSK (Check Disc) command provides you with information about a specified disc.

A partial syntax for the CHKDSK command is:

```
[<d>:][<path>]CHKDSK[<d>:]
```

where:

d: and **path** specify the location of the file CHKDSK.COM and,

d: is the drive that contains the disc to be checked.

If drive A: is the active drive and the file CHKDSK is in that drive, then CHKDSK command in its basic form produces the report that follows.

Let's take a look at this very useful report. The first line tells the total number of bytes on the disc.

The second line tells how many bytes are being used by the hidden files and how many hidden files there are.

The third line tells how many bytes are being used by ordinary files (PAM, application, program, and data files) and how many of those kinds of files are on the disc.

The fourth line is often the line of greatest interest. It tells how many bytes are available on the disc. By looking at this line, you can judge whether or not you should create a new file on the disc or if it would be wiser to put it on another disc, whether you should move some files to another disc, or if you should delete a few files.

The last two lines give you information about Vectra's internal (RAM) memory. It tells how much of it is being used by your current program and how much of it is not being used.

If you want to find out about a disc in a drive other than the active drive, type its drive name after the command. For example, if the active drive is drive A: and you want to find out about the disc in drive B:, type:

CHKDSK B:



Changing Directories: The CHDIR Command

The CHDIR (Change Directory) command makes a different directory the current directory on a disc in a disc drive. When you first start your system, the current directory for discs in all drives is the Root directory. Every time you access a disc in a drive the current directory is the Root directory unless you have changed it with the CHDIR command.

The syntax for the CHDIR command is:

```
CHDIR [<d>:][<path>]
```

where:

d: is the drive whose current directory you want to change, and

path specifies the path to the desired directory.

When you want to change directories, you can type CD instead of CHDIR. The abbreviation works exactly like the full command.

Imagine that your active disc has the directory structure shown in Figure 12-1:

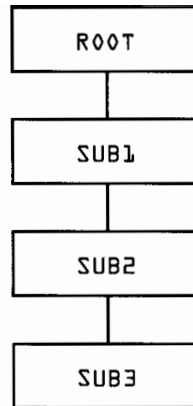


Figure 12-1. A Directory Heirarchy

To use CHDIR to change the current directory on the active drive from the Root directory to SUB2, you would type the following command line:

```
CHDIR \sub1\sub2
```

When you are ready to return to the Root directory, type this command line:

```
CHDIR \
```

The “\” designates the root directory.

Notice that when you change to a new directory, you must type the complete route to that directory, as in the first example. When you return to a directory higher in the directory heirarchy, you simply type the designation for that directory.

You can also change the directory that **will become the current directory** when the active drive is changed. Assume

that the directories shown in Figure 12-1 reside on drive A:, and that A: is the active drive. The directory on drive C: that will become the current directory if C: is made the active drive is the Root. To change the current directory on Drive C: to SUB4, type:

```
CHDIR C:\SUB4
```

When you next gain access to the disc in drive C:, the current directory will be SUB4.

Copying Files: The COPY Command

Copying files is a task that you will perform frequently. You will copy files from master discs onto work discs or your hard disc. You will copy files to new locations when they get too large for their present locations. You will also copy files when you want to create new discs for new purposes, or to make backup copies of files or subdirectories. Finally, you will copy files from flexible discs when they become damaged or unreliable.

Copying Individual Files

Once you have formatted your disc, you can put files on it. The COPY command is ideally suited to move your files and programs from disc to disc. COPY is an internal MS-DOS command, so it's always at your beck and call. You can copy a file from any disc to any other disc on your system.

A partial syntax for the COPY command is:

```
COPY [<d>:][<path>]<filename>[.<ext>][<d>:]  
[<path>][<filename>[.<ext>]]
```

where:

- d:** and **path** specify location of the file to be copied,
- filename.ext** is the name of the file to be copied, **d:** and **path** is the location of the copied file, and

filename.ext is the name to be assigned to the new file. When this option is omitted, the new file is given the same name as the old file.

The options for the COPY command consists of two parts, the location and name of file (or files if you use wildcards) you want copied, and the location and name of the file (or files if you use wildcards) you want them copied to. As with all other MS-DOS commands, COPY works equally well in both single and dual drive systems.

Copying a File onto Another Disc

Let's look at an example. You want to copy your word processing program (WORDPRO.COM) from a Master disc onto your newly formatted work disc. The following steps will accomplish this.

1. Insert a copy of the word processing disc in Drive A:.
2. Insert a newly formatted disc in Drive B:.. If you have a single drive system, keep this disc ready until you are prompted to insert it into Drive A:.
3. Type the command line:

```
COPY A:WORDPRO.COM B:
```

4. Press .

If you have a single drive system you see the prompt:

```
Insert diskette for Drive B: and strike  
any key when ready
```

5. Remove the disc from drive A: and insert the newly formatted disc in A: (disc B:). Press any key.

MS-DOS copies the file and display the message:

```
1 File(s) copied
```

to let you know it's finished.

As you can see from the example above, you can leave out the new file name if you want the new file to have the same name.

Copying a File onto the Same Disc

You can also make a duplicate copy of a file on to the same disc using the COPY command. Let us say that you used your word processing program to create a weekly report called REPORT1.MAY. Now, you want to update this information in a new report and still retain both copies. Simply copy the report using this format:

```
COPY REPORT1.MAY REPORT2.MAY
```

Now, you can use your application to make changes to REPORT2 and still have copies of both reports.

Using Wildcards to Copy Several Files

If you want to copy several files, you can use wildcards with COPY to transfer groups of files from one disc to another disc. By inserting one or more wildcard characters into the filename, you can refer to a group of files instead of an individual one. Using the "global wildcard" (*), you

can use COPY to transfer all of the files from one disc to another. Let's look at a few COPY command lines to illustrate the use of wildcards.

COPY *.TXT C: Copies all text files with an extension of .TXT to the current directory on drive C:.

COPY INV??.DAT A: Copies all files whose filenames begin with INV and whose extensions are DAT to the current directory on drive A:.

COPY ** B: Copies all files to current directory on drive B:

In the last example, you should be aware that only files in the current directory is copied—not the entire disc. The files in any subdirectory in the current directory are not copied. You have to use a separate COPY command to copy the subdirectory files.

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Moving a File to Another Directory

Finally, COPY can be used to “move” a file to another directory by specifying the new directory in the command. For example, to move the two report files from the Root directory into a new directory called REPORTS, you can type:

```
COPY REPORT?.* \REPORTS
```

you now have two sets of REPORT files, one in the Root directory and one in the new directory called REPORTS.

Backing Up and Restoring Files: The BACKUP and RESTORE Commands

Computers are subject to unforeseen events. A power failure, for example, could cause you to lose any data you have created but not saved. Unforeseen disc errors, though unusual, can destroy hours—if not days—of hard work.

People make errors, too—typing DEL(delete) when you mean to type DIR can mean the loss of a valuable data file. Although these things occur infrequently, they do occur, and usually when you are in a rush to meet an important deadline!

Your insurance policy against such unpleasant events is to make daily (or more frequent if necessary) back up copies of your files onto flexible discs and store them safely away from your computer work area.

Depending on the importance of your data, you may want to make backup copies of your discs twice a day, daily, or once a week. Most commonly, people back up their discs daily.

Note



The following discussion assumes you are backing up a hard disc to flexible discs. However, the same procedure can be used to back up a flexible disc.

The BACKUP Command

The BACKUP command copies the contents of the hard disc to a series of flexible discs. The number of flexible discs you need depends on the size and contents of your hard disc, and whether you are using 360Kb or 1.2Mb flexible discs. You cannot work with the files that have been copied with the BACKUP command because they are stored in a special format. If you ever have to put these files back onto the hard disc, the RESTORE command returns them to the disc in their original usable form.

The following table should help you determine the number of flexible discs necessary to backup the contents of a full hard disc. These numbers are upper limits; if your hard disc is only half full, you'll only need half the number of flexible discs shown in the table.

Table 12-1. The Maximum Number of Flexible Discs Needed to Back Up an Internal Hard Disc.

	20 MByte Drive	40 MByte Drive
Backup to 360 KByte	50	100
Backup to 1.2 MByte	1350	

The flexible backup discs should be formatted (without the /P or /S options) before you use them. Next, you should number them because you must keep track of the order in which you use the flexible discs as you back up the hard disc. After you have formatted and numbered the flexible discs, you can use the BACKUP command to back up the hard disc.

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A partial syntax for the BACKUP command is:

```
[<d>:][<path>]BACKUP<d>:<d:>[/S]
```

where:

d: and **path** specify the location of the file BACKUP.COM,

d: is the disc to be backed up,

d: is the drive to contain the backed-up files

/S backs up all the subdirectory files on the disc.



In the instructions that follow, you can substitute "B:" for "A:" if you intend to use your drive B: for the backup files. If you would like more information about BACKUP, please refer to the *Viceroy DOS User's Reference*.

Follow these steps to back up the hard disc:

1. Insert a copy of the MS-DOS Supplemental disc in Drive A:.

2. Type the command line:

```
BACKUP C: A: /S
```

MS-DOS displays the following message:

```
Insert source disk if appropriate  
Strike any key when ready
```

3. Press any key.

4. MS-DOS displays the following message:

```
Insert backup diskette 01 in drive A:
```

```
Warning, Files in the target drive  
A:\ root directory will be erased  
Strike any key when ready
```

5. Insert disc #01 in Drive A: and press any key.

MS-DOS displays the following message:

```
*** Backing up file to drive A: ***
    Diskette Number:01
\HPBIO.COM \HPDOS.COM \COMMAND.COM
.
.
.
\DISKCOPY.COM

Insert backup diskette 02 in drive A:

Warning, Files in the target drive
A:\ root directory will be erased
Strike any key when ready
```

The names of the files are displayed as they are being copied. Continue to insert new discs until the entire contents of the hard disc are copied to the flexible discs. Make sure the number you wrote on the flexible disc corresponds to the number in the prompt.

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Caution



Once you start the backup process, you must continue until all of the files are copied. If you abort the process before completion, you may not be able to successfully restore the hard disk! If the process is interrupted, you must begin again from the beginning.

Once you have backed up the contents of the disc onto your flexible discs, store them away in a safe place. You never know when you'll need them.

The RESTORE Command

In the unlikely event that you need to restore the contents of your disc from the flexible disc backups, use the RESTORE command. The RESTORE command copies files from a disc created with the BACKUP command to a flexible or hard disc.

A partial syntax for the RESTORE command is:

```
[<d>:][<path>]RESTORE <d>:[<d>][<path>][/S]
```

where:

d: and **path** specify the location of the file RESTORE.COM,

d: specifies the drive that contains the files to be restored,

d: is the disc onto which the files are to be restored,

path specifies the subdirectory into which the files are to be restored,

/S restores all files in all subdirectories.

The following steps restore all data to your disc. As with the BACKUP command, you can substitute B: for A: if you are restoring from drive B:

1. Insert a copy of the MS-DOS Supplemental disc in Drive A:.
2. Type the command line:

```
RESTORE A: C:*. * /S
```

You will see this message:

```
Insert restore target  
diskette if appropriate  
Strike any key when ready
```

3. Press .

MS-DOS displays the following message:

```
Insert backup diskette 01 in Drive A:  
Strike any key when ready
```

4. Remove the copy of the MS-DOS Supplemental disc and insert the backup flexible disc # 01. Press any key.

MS-DOS displays the following message:

```
*** Files were backed up 04/30/1985 ***
*** Restoring files from Drive A: ***
    Diskette 01
\HPBIO.COM \HPDOS.COM \COMMAND.COM
.
.
.
\DISKCOPY.COM
Insert backup diskette 01 in Drive A:
Strike any key when ready
```

As with the BACKUP command, you will need to insert discs when requested to until all of the backup flexible discs have been copied back to the disc.

12

Renaming Your Files: The RENAME Command

From time to time you will find it necessary to rename one or more of your files. You can accomplish this task with the RENAME command.

The syntax for the RENAME command is:

```
RENAME [<d>:][<path>]<filename>[.<ext>]
[<path>]<filename>[.<ext>]
```

where:

d and **path** specify the location of the file to be renamed,

filename.ext is the name of the file to be renamed,

path specifies the location of the renamed file, and

filename.ext is the new name of the file.

Renaming a File

Let's take a typical use of RENAME. You want to change the file MEMO.TXT to MEMO#001.TXT. The following command line accomplishes this task for you:

```
RENAME MEMO.TXT MEMO#001.TXT
```

RENAME checks to see if the new file name is already being used by another file. If this is the case, it does not change the file's name and displays this error message:

```
Duplicate filename or File not found
```

RENAME can be quite handy for fine-tuning your file naming system. It allows you to rename files as their character changes, and to compensate for ill-chosen names.

Removing Files From Your Discs: The DEL (Delete) or ERASE Command

A key aspect in managing the files on your disc is removing files that are no longer needed. For example, while you are writing a lengthy proposal for your department, you might want to keep various draft copies for reference. However, once the finished proposal has been submitted, they aren't needed anymore; all they're doing is taking up valuable space on your disc. MS-DOS has provided a simple way to get rid of unwanted files. The DEL (Delete) and ERASE commands perform exactly the same tasks.

The syntaxes for the DEL and ERASE commands are:

```
DEL [ <d>:][ <path> ]<filename> [. <ext> ]
```

```
ERASE[ <d>:][ <path> ]<filename> [. <ext> ]
```

where:

d: and **path** is the location of the file to be deleted, and

filename.ext is the name of the file to be deleted.

To remove the file DRAFT#1.TXT from the current directory, you type either of the following command lines:

```
ERASE DRAFT#1.TXT
```

```
DEL DRAFT#1.TXT
```

You can use wildcards with DEL and ERASE. Use them with care, however, because once a file has been deleted, you can never get it back.

Many word processing programs create a back-up copy (usually with the extension .BAK) every time you edit a file. Since these files are on the same disc as the original, they aren't much good from the data security point of view. After a while, you could have a large portion of your disc taken up with these files. To get rid of them, you simply type one of the following command lines:

```
ERASE *.BAK
```

```
DEL *.BAK
```



Displaying the Contents of Files: The TYPE Command

The TYPE command is useful for examining the contents of a data file. TYPE displays the contents of a file on the screen. This is often the quickest way to determine the contents of a file if you've forgotten what's in it.

The syntax for the TYPE command is:

```
TYPE [<d>:][<path>]<filename>[.<ext>]
```

where:

d: and **path** specify the location of file whose contents are to be displayed on the screen, and

filename.ext is the name of the file whose contents are to be displayed.

This command line displays the file SCHEDULE.TXT in the current directory:

```
TYPE SCHEDULE.TXT
```

You must keep a few things in mind when you are using TYPE. It displays the information on the screen exactly as it appears in the file. In many cases, a program contains embedded control and other characters in the file. Files that contain non-ASCII characters tend to be difficult (if not impossible) to read. Program files, for example, have no ASCII characters, and using TYPE with them produces some unreadable displays.

Summary

This chapter has introduced you to some commonly used MS-DOS commands. Some of the command functions are duplicated by PAM and some you can only accomplish through MS-DOS. Many of the commands in this chapter were presented only in part; they have more uses than were discussed here. For complete information about all the MS-DOS commands and their complete syntaxes, read the *Vetra DOS User's Reference*.

Error Messages

Error Messages
Device Errors
Important notices to Users of the Verba PC

A

Error Messages

This appendix lists the error messages that you will see from time to time when using your Vectra. All of the PAM and FILE MANAGER messages are listed. Only those MS-DOS messages relating to the commands discussed in this book are listed. If you want more detailed information on an MS-DOS message, or if you encounter a message that is not listed here, check the *Vectra DOS User's Reference*.

The error messages in this appendix are listed in alphabetical order. Each one has a **Cause:** and a **Remedy:** that tell you the nature of the error and what you can do about it. The **Cause:** also lists the system program (**MS-DOS, FORMAT, FILE MANAGER, etc.**) that displayed the message.

Message: A directory file must be empty before it can be deleted. No action taken.

Cause: You tried to delete a directory that contains directories or files. To delete a parent directory, you must first delete all of the files in its directories, delete the directories, and then delete the parent directory. (**FILE MANAGER**)

Remedy: Delete the files in the directory first, then delete the directory.

A

Message: A directory file was not chosen. No action taken.

Cause: You did not select a directory to be used in a File Manager operation, or the directory you selected does not exist. (FILE MANAGER)

Remedy: If the directory name is on the screen, select it using the cursor keys then pressing **F10**. If the directory name is not on the screen, type it then press **Enter**.

Message: A directory is not selected.

Cause: You selected **Start Make Dir** without typing a directory name. (FILE MANAGER)

Remedy: Type the name for the directory that you want to create, then press **Enter**.

Message: A file cannot be renamed to another disc. No action taken.

Cause: You tried to rename a file to another disc. You can only rename files to the same disc on which they already exist. (FILE MANAGER)

Remedy: Rename the file to the same disc on which it already exists. If you want to move the file to another disc, use the File Manager's copy function to copy the file to another disc, then delete the file on the original disc.

Message: A file or directory is not selected.

Cause: You didn't specify a file or directory before you pressed **Start Delete** . (**FILE MANAGER**)

Remedy: Select or type the directory and/or filename, then press **Start Delete** .

Message: A write-protected disc or a read-only file cannot be changed. No action taken.

Cause: You tried to change data on a write-protected disc or delete a read-only file. (**FILE MANAGER**)

Remedy: If the disc is write-protected, either remove the write-protect tab or copy the file to an unprotected disc. If the file is a read-only file, a programmer must change its status.

Message: Access to directory interrupted.



A

Cause: File Manager had a problem finding information in a directory. (**FILE MANAGER**)

Remedy: Make sure the disc(s) containing the file is in a drive(s). Make sure the cable(s) from the drive(s) to the Vectra is secured. Try again.

Message: Access to file interrupted.

Cause: File Manager can no longer use the file. (**FILE MANAGER**)

Remedy: Make sure the disc(s) containing the file is in a drive(s). Make sure the cable(s) from the drive to the Vectra is secured. Try again.

Message: Access to input file interrupted.

Cause: File Manager had a problem finding information in an input file. (**FILE MANAGER**)

Remedy: Make sure the disc(s) containing the file is in a drive(s). Make sure the cable(s) from the drive(s) to the Vectra is secured. Try again.

Message: Access to output file interrupted.

Cause: File Manager had a problem writing information to an output file. (**FILE MANAGER**)

Remedy: Make sure the disc(s) containing the file is in a drive(s). Make sure the cable(s) from the drive(s) to the Vectra is secured. Try again.

Message: Access to temporary file interrupted.

Cause: File Manager had a problem finding information in a temporary file. (**FILE MANAGER**)

Remedy: Make sure the disc(s) containing the file is in a drive(s). Make sure the cable(s) from the drive(s) to the Vectra is secured. Try again.

Message: Ambiguous name, read-only disc, or full directory on disc. No action taken.

Cause: You typed a file or pathname that the program could not identify or that already exists; the program could not write to the specified disc; or the disc's directory is full and nothing can be added to it. (**FILE MANAGER**)

Remedy: Type the pathname correctly. Make certain the disc is not a read-only disc (such as a master disc) or is not write-protected. If the root directory is full, delete some files or specify a new directory. Try again.

Message: Bad call format error reading (writing) <device>
Abort, Retry, Ignore?

Cause: A request header of incorrect length was passed to a device driver. (**MS-DOS**)

Remedy: Choose **Abort**. If you are using a purchased program, contact your dealer. Otherwise, refer to the *Vectra DOS User's Reference* for additional information about this message.

Message: Bad command error reading (writing) <device>
Abort, Retry, Ignore?

Cause: A device driver issued an invalid command to the indicated device driver. (**MS-DOS**)

Remedy: Review your device interface specification and MS-DOS driver implementation to make sure that everything that you're trying to do is supported. Next check your application for errors. See the section *Device Errors* in this appendix for information on the **Abort, Retry, Ignore?** prompt.

A

Message: Bad command or filename

Cause: You entered an invalid MS-DOS command.
(MS-DOS)

Remedy: Check the spelling of the command and re-enter it. If you entered the command correctly, ensure that the active drive contains the external command or batch file you are trying to run.

Message: Bad or missing Command Interpreter

Cause: This message is displayed when MS-DOS can't find COMMAND.COM in the root directory of the DOS 3.1 disc, or if an error was encountered as the file was being loaded. (MS-DOS)

Remedy: Copy the file containing the command processor into the root directory of the boot disc or check the spelling of the filename in the CONFIG.SYS file.

Message: Bad or missing <filename>

Cause: This message only appears at startup and indicates one of the following: (MS-DOS)

- a. A driver in a **DEVICE= <filename>** parameter in the CONFIG.SYS file was not found.
- b. A break address was out of bounds for your memory size.

c. An error occurred while the driver was being loaded.
That driver was not installed by MS-DOS.

Remedy: Correct any errors in the spelling of the device driver name.

Items **b** and **c** above indicate problems with the device driver program. Contact your dealer or HP service representative.

Message: Bad unit error reading (writing) <device>
Abort, Retry, Ignore?

Cause: An invalid sub-unit number was passed to a device driver. (MS-DOS)

Remedy: If you are using a purchased program, contact the dealer that you purchased the device driver from. See the section *Device Errors* in this appendix for information on the **Abort, Retry, Ignore?** prompt.

Message: Cannot close file.

Cause: File Manager tried to close a file and could not. You probably removed the disc or turned off the disc drive. (FILE MANAGER)

Remedy: Reinsert the disc or turn on the disc drive. Try again.

Message: Cannot delete the displayed directory.

Cause: You tried to delete the currently-displayed directory. (FILE MANAGER)

A

Remedy: Use File Manager's **Choose Dir** to select a different current directory, then retry the delete. Make sure that the directory you're deleting is empty (has no files or subdirectories).

Message: Cannot do binary reads from a device

Cause: You used the **/B** parameter with a device name while trying to copy from the device. The copy cannot be performed in binary mode because **COPY** must be able to detect end-of-file from the device. (**COPY**)

Remedy: Restart **COPY** and omit the **/B** parameter or use the **/A** parameter after the device name.

Message: Cannot open input file.

Cause: File Manager tried to open an input file but could not. (**FILE MANAGER**)

Remedy: Make sure the disc containing the file is in the drive. Make sure the cable from the drive to the Vectra is secured. Check the file's pathname to be sure you used a valid disc letter, directory name(s) and filename. All parts of the pathname should be separated by backslashes (for example, <drive>\dir\dir\...\file.ext).

Message: Cannot open output file.

Cause: File Manager tried to open an output file but could not. (**FILE MANAGER**)

Remedy: Make sure the disc containing the file is in the drive. Make sure the cable from the drive to the Vectra is secured. Check the file's pathname to be sure you used a

valid disc letter, directory name(s) and filename. All parts of the pathname should be separated by backslashes (for example, <drive>:\dir\dir\...\file.ext).

Message: Cannot open temporary file.

Cause: File Manager tried to write to a temporary file named \$\$\$\$\$\$.\$\$\$ on your destination disc, but could not. This happened either because there is not enough room for the file on the disc or root directory or because there are too many files open. (FILE MANAGER)

Remedy: Check the status of your disc by using CHKDSK. If the root directory or disc is full, delete some of your files and retry the operation.

Message: Cannot open "To" file (illegal filename).
Created temporary file \$\$\$\$\$\$.\$\$\$.

Cause: You tried to copy a file but gave an invalid name for the new file. File Manager copied the file to a temporary file. (FILE MANAGER)

Remedy: Use File Manager to rename the temporary file, which is always put in the root directory of the destination drive. Be sure to rename this file because File Manager will overwrite it during some of its operations.

Message: Content of destination lost before copy

Cause: You specified a source file for COPY which is also a destination file; it was overwritten prior to the completion of the copy (for example, copy a + b b). (COPY)

A



Remedy: Restore the file to your disc using your backup copy. Try COPY again, being careful not to name the file as both a source and a destination file.

Message: Copy not completed

Cause: DISKCOPY cannot copy the entire disc. This error may be due to a defect on either the source or destination disc. (DISKCOPY)

Remedy: If the error is on the destination disc, use a new disc which has no defects. If the error is on the source disc, use COPY to copy the files to another disc.

Message: Data error reading (writing) <device>
Abort, Retry, Ignore?

Cause: MS-DOS was unable to read from or write to the disc correctly. This message usually means the disc has a defective spot. (MS-DOS)

Remedy: Choose **Retry** several times. If you still have this error, choose **Abort**. See the section *Device Errors* in this appendix for information on the **Abort, Retry, Ignore?** prompt.

Message: Did not find any files that match the wildcard.

Cause: Your displayed directory contains no files with the wildcard string you specified. (FILE MANAGER)

Remedy: Change the wildcard or display a different directory.

Message: Disc error. Information file is probably corrupted. Insert a new system disc.

Cause: PAM cannot access its information file properly on your system disc. This is caused either by a defective system disc or disc drive. (PAM)

Remedy: Press **Continue** . If the error recurs, insert another system disc into your drive and press **Continue**. If this doesn't work, restart your computer from another disc drive. If you continue to see the message, contact your dealer or HP service representative.

Message: Disc Error running <applic>.

Cause: A disc error occurred while PAM was running your application. (PAM)

Remedy: Press **Continue** then start the application again. If the error recurs, your application disc may be defective. Obtain another working copy of it and try again. If this doesn't work, you have a disc hardware malfunction and you should call your dealer or HP service representative.

Message: Disc full. Information was not saved.

Cause: You selected **Save** while adding or modifying PAM applications or setting an application to Autostart, and there is not enough room on the disc for the save. (PAM)

Remedy: Press **Continue** . Make space on the disc by deleting superfluous files then try the save operation again.

A

Message: Disc read error. Be sure system disc is in the boot drive.

Cause: PAM cannot read its information file on your system disc properly. This is caused either by a defective system disc or disc drive. (PAM)

Remedy: Press **Continue** [F8]. If the error recurs, insert another system disc into your drive and press **Continue**. If this does not work, restart your computer using another drive. If you continue to see the message, contact your dealer or HP service representative.

Message: Disc write error. Information file may be corrupted.

Cause: PAM cannot write to its information file on your system disc. You removed the system disc from its drive or your system disc or disc drive is defective. (PAM)

Remedy: Return to the PAM Main Menu immediately. If you see the message `Disc error. Information file is probably corrupt...`, restart your computer using another system disc.

If the error occurs again, restart your computer using another disc drive. If this doesn't work, contact your dealer of HP service representative.

Message: Disc write protected. Information was not saved.

Cause: You pressed **Save** while adding or modifying PAM applications or setting an application to Autostart, and the disc to be used for the save is write-protected. (PAM)

Remedy: Press **Continue** [F8]. Use your DOS 3.1 work disc. If it is write protected, Remove the write-protect tab from the disc and reinsert it into the drive. Try the save operation again.

Message: Disk error.

Cause: The disc may be defective, formatted incorrectly or be the wrong type for your drive; or your disc drive may be faulty. **(FILE MANAGER)**

Remedy: Reformat the disc (if you don't mind losing the information on it) or use a different disc. If the problem persists, have your disc drive serviced.

Message: Disk error on directory file.

Cause: File Manager encountered a disc error while using a directory. **(FILE MANAGER)**

Remedy: Make sure the disc containing the directory is compatible with your drive, is inserted properly and that the drive is on. Also make sure the cable connecting the disc drive to the Vectra is secured.

If the error occurs again, the disc may be faulty. Use the MS-DOS RECOVER command to recover as much information from the disc as possible. Store this information on another disc.

A



Message: Disk error on input file.

Cause: File Manager encountered a disc error while using an input file. (**FILE MANAGER**)

Remedy: Make sure the disc containing the file is compatible with your disc drive, is inserted properly, and that the drive is turned on. Also make sure the cable connecting the disc drive to the Vectra is secured.

If the error occurs again, the disc may be faulty. Use the MS-DOS RECOVER command to recover as much information from the disc as possible. Store this information on another disc.

Message: Disk error on output file.

Cause: File Manager encountered a disc error while using an output file. (**FILE MANAGER**)

Remedy: Make sure the disc containing the file is compatible with the disc drive, is inserted properly, and that the drive is on. Also make sure the cable connecting the disc drive to the Vectra is secured.

If the error occurs again, the disc may be faulty. Use the MS-DOS RECOVER command to recover as much information from the disc as possible. Store this information on another disc.

Message: Disk error on temporary file.

Cause: File Manager encountered a disc error while using a temporary file. (**FILE MANAGER**)

Remedy: Make sure the disc containing the file is compatible with the disc drive, is inserted properly and that the drive is on. Also make sure the cable connecting the disc drive to the back of the display unit is secured.

If the error occurs again, the disc may be faulty. Use the MS-DOS RECOVER command to recover as much information from the disc as possible. Store this information on another disc.

Message: Disk error reading (writing) drive <x>
Abort, Retry, Ignore?

Cause: MS-DOS is unable to read from or write to the specified device (usually a disc drive). (**MS-DOS**)

Remedy: Make sure that the disc is inserted properly in the disc drive and choose **Retry**. If you still have problems and are writing to the disc, insert a different disc and try again. See the section *Device Errors* in this appendix for information on the **Abort, Retry, Ignore?** prompt.

Message: Disk unsuitable for system drive

Cause: FORMAT found a defective track where the MS-DOS files reside. (**FORMAT**)

Remedy: Used this disc only for data. If you want to create a disc with the system files on it, use another disc.

Message: Disks must be the same size

Cause: You are trying to use DISKCOPY to copy one type of disc to another (for example, a double-sided to a high-capacity disc). (**DISKCOPY**)

A

Remedy: Use discs of the same type or use the COPY command to copy the files instead.

Message: Divide overflow

Cause: This error message is displayed by MS-DOS if a An application tried to divide by 0, or a logic error caused an internal malfunction. (MS-DOS)

Remedy: If you purchased the program, contact your dealer. Otherwise, get programming assistance to correct the problem.

Message: Duplicate filename or file not found

Cause: You tried to RENAME a file to a filename that already exists on the disc, or the file to be renamed cannot be found on the disc in the specified drive. (RENAME)

Remedy: Repeat the RENAME using the correct filenames.

Message: Enter the parameters for <applic> and press Enter.

Cause: PAM is prompting you to type the parameters for the application that you just started. The application uses a batch file. (Batch files are described in the *Vectra DOS User's Reference*.) (PAM)

Remedy: Check your application manual and enter the parameters that it instructs you to enter.

Message: Error in .EXE file

Cause: An error was detected in the relocation information placed in the file by the LINK program. This may be due to a modification to the file. (MS-DOS)

Remedy: If you are using a purchased program, Restore the program using your Backup copy, and run it again. If you are still having trouble, contact the dealer who sold you the program.

Message: Error writing to device

Cause: You're sending too much data to the device. The device is unable to handle the volume. (MS-DOS)

Remedy: Reduce the amount of data in the file and retry the command.

Message: EXEC failure

Cause: An error was found while reading a command or the FILES command in the CONFIG.SYS file is set too low. (MS-DOS)

Remedy: Increase the value in the FILES command and restart MS-DOS.

Message: Failed to read in message file.

Cause: File Manager was unable to load its .MSG file. (FILE MANAGER)

A

Remedy: You have a disc drive problem. Contact your dealer or HP service representative.

Message: Fatal Error .

Cause: Your application used system free memory and PAM cannot continue. (**PAM**)

Remedy: Restart (reboot) your computer to use PAM again.

Message: File allocation table bad

Cause: A disk may be defective. (**MS-DOS**)

Remedy: Run CHKDSK to check the disc.

Message: File allocation table bad for drive x
Abort, Retry, Ignore?

Cause: You did not format the disc at all or you formatted it incorrectly. This message can also mean that there is another operating system on your disc. (**MS-DOS**)

Remedy: Choose **Retry**. If the error occurs again, choose **Abort** and use the CHKDSK command (see the *Vectra DOS User's Reference*) to see the status of the disc. You may need to reformat the disc.

Message: File cannot be copied onto itself

Cause: You tried to copy a file and place the copy (with the same name as the original) in the same directory and on the same disc as the original file. (**COPY**)

Remedy: Use another filename or copy the file onto another directory and/or disc.

Message: File creation error

Cause: You tried to add a new file or replace a file that already exists in the directory. If the file already exists, it is a read-only file and cannot be replaced. (MS-DOS)

Remedy: Run CHKDSK on the disk to determine the cause of the error.

Message: File not found

Cause: MS-DOS cannot find the file that you specified. (MS-DOS)

Remedy: Check to see that the pathname is accurate and that the file exists in the directory that you specified.

Message: For cannot be nested

Cause: A batch file contains nested For commands. (MS-DOS)

Remedy: If this is a purchased application, contact your dealer. Otherwise, get help from a programmer.

A

Message: Format failure

Cause: FORMAT displays this message along with an explanation when it cannot format the disk. (FORMAT)

Remedy: Discard the defective disc and use a new one.

Message: General failure error reading (writing)
<device>
Abort, Retry, Ignore?

Cause: An error of a type not described elsewhere in this appendix has occurred. (MS-DOS)

Remedy: Choose **Retry** first.

If you see the same message again, choose **Abort**. If you are using a purchased program, contact your dealer; otherwise, get assistance from a programmer.

Message: Incompatible system size

Cause: The size of the MS-DOS files on your target disc is smaller than their size on the source disc. The system files are not copied. (SYS)

Remedy: Format another disc using the /S option, then copy the files from your target disc to the newly formatted disc.

Message: Incorrect DOS version

Cause: You're trying to use an MS-DOS command or option that is not available with the MS-DOS version you are using. (MS-DOS)

Remedy: Obtain the correct version of MS-DOS or check your *Vectra DOS User's Reference* for the correct command to use.

Message: Insert System disc in <drive:> and press Continue.

Cause: PAM cannot find some of its files on the disc in the indicated drive. You either removed the DOS 3.1 disc from the indicated drive or renamed some of the PAM files on that disc. (PAM)

Remedy: Insert the correct DOS 3.1 disc into the indicated drive, then press **Continue** .

Message: Insert System disc in <drive:> or A: Press any key to continue.

Cause: Your application used a portion of memory that is also used by PAM, and that portion cannot be restored because your DOS 3.1 disc is not in its original drive. (PAM)

Remedy: Insert the DOS 3.1 disc into its original drive, then type any key on the keyboard to continue. Be sure that you have not renamed or deleted any of the .OVR or .MSG files on your DOS 3.1 disc.



Message: Insufficient disk space

Cause: There is not enough space on your disc to store your file. (**MS-DOS**)

Remedy: If you suspect that there *is* enough space on the disc, use the CHKDSK command (see the *Vectra DOS User's Reference*) to determine its status. Otherwise, use another disc and retry the command.

Message: Insufficient Memory

Cause: PAM does not have enough memory to run. (**PAM**)

Remedy: Reduce the number of device drivers and resident programs and restart your computer. If you cannot free enough space for PAM, you may need to increase your computer memory.

Message: Insufficient memory for system transfer

Cause: There is not enough memory to transfer the MS-DOS system files to your disc (you chose the */S* option of **FORMAT**). (**FORMAT**)

Remedy: Change the **BUFFERS=** parameter in the CONFIG.SYS file (see the *Vectra DOS User's Reference*) to a smaller value, and retry the command.

Message: Insufficient memory to run <xxx>.

Cause: PAM does not have enough memory to load your application. (PAM)

Remedy: Reduce the number of device drivers and resident programs and restart your computer. If you cannot free enough space for your application, you may need to increase your computer memory.

Message: Invalid characters in volume label

Cause: The volume label should contain no more than 11 letter or number characters. (MS-DOS)

Remedy:

Message: Invalid COMMAND.COM

Cause: MS-DOS tried to load COMMAND.COM from the DOS 3.1 disc and it is not on the disc or it is the wrong version (the application you were running used the COMMAND.COM area in memory). (MS-DOS)

Remedy: Insert the correct DOS 3.1 disc and press any key to continue.

Message: Invalid date or format. Enter Month-Day-Year.

Cause: You entered the date using the wrong format or the date that you entered is not within the allowable limits. The Year must be between 1980 and 2099. (PAM)

A

Remedy: Press **Continue** , then enter a valid date.

Message: Invalid device

Cause: You specified a device other than CON, NUL, AUX, or PRN. (MS-DOS)

Remedy: Enter a valid device (see the MS-DOS manual).

Message: Invalid directory

Cause: The directory that you specified either does not exist or is invalid. (MS-DOS)

Remedy: Enter a correct directory name.

Message: Invalid disk change error reading (writing)
<device>
Abort, Retry, Ignore?

Cause: You changed the disc in the specified drive when it was not allowed. (MS-DOS)

Remedy: Insert the disc back into the drive and choose **Retry**. See the section *Device Errors* in this appendix for information on the **Abort, Retry, Ignore?** prompt.

Message: Invalid drive in search path

Cause: The disc drive that you entered does not exist. (MS-DOS)

Remedy: Enter a valid disc drive letter.

Message: Invalid drive specification

Cause: You specified an invalid disc drive. (DISKCOPY, FORMAT, SYS)

Remedy: Enter a valid disc drive letter.

Message: Invalid number of parameters

Cause: You entered too few or too many parameters for a command. (MS-DOS)

Remedy: Review the command either in this manual or in your *Vectra DOS User's Reference*, then try it again.

Message: Invalid parameter

Cause: One of the switches that you entered is wrong. (FORMAT)

Remedy: Check the command syntax in *Appendix B* of this manual, and re-enter the command.

Message: Invalid Path.

Cause: The path that you entered is syntactically incorrect (for example, you entered an invalid disc drive letter or forgot the backslash after the colon). (PAM)

Remedy: Press **Continue** , then enter the path using the correct syntax.

A

Message: Invalid path, not directory or directory not empty

Cause: The directory you specified was not removed because: (MS-DOS)

- one of the directory names you entered was not a directory, or
- the directory you entered contains files and/or subdirectories (with the exception of the . and .. entries), or
- the directory is the current directory.

Remedy: Try one of the following:

- Enter a valid directory name, or
- Delete the files and/or subdirectories in the directory, or
- Change the current directory and try again.

Message: Invalid path or filename

Cause: You entered a path or filename that does not exist. (COPY)

Remedy: Use the correct name. Check for the following. Then retry the command:

- Correct the spelling of names
- Valid directory names
- Existence of file in the specified subdirectory

Message: Invalid Run Command.

Cause: You entered a run command for the **Manage Applics** function that is syntactically incorrect. For example, you did not include the proper file extension (.EXE, .COM, etc.). (PAM)

Remedy: Press **Continue** , then enter the correct run command including the file extension.

Message: Invalid time or format. Enter Hours:Minutes.

Cause: You entered an invalid time or you entered it using the wrong format. (PAM)

Remedy: Press **Continue** , then enter the correct time. Remember that the time is expressed using a 24-hour clock.

Message: Invalid working directory



Cause: Your disc is defective. (MS-DOS)

Remedy: Use another disc or obtain a copy of your backup disc and use it.

Message: Lock-Violation error reading (writing)
<device>
Abort, Retry, Ignore?

Cause: You are trying to access part of a file that is being used by another program. (MS-DOS)

Remedy: Choose **Abort** or wait a few moments and choose **Retry**. See the section *Device Errors* in this appendix for information on the **Abort, Retry, Ignore?** prompt.

Message: Memory allocation error

Cause: A program overwrote a memory area where MS-DOS keeps track of available memory. (MS-DOS)

Remedy: Restart MS-DOS. If the error persists, make a new working copy of your DOS 3.1 master disc and restart using it.

Message: Message file (FILEMNGR.MSG) does not exist on current directory.

Cause: One or more of the system .MSG files is missing from your system disc. (PAM, FILE MANAGER)

Remedy: Press **Continue** , then copy the .MSG files from the MS-DOS 3.1 or Supplemental Discs onto your system disc. Restart File Manager.

Message: No free file handles. Cannot start COMMAND.COM, exiting

Cause: There are no free file handles for MS-DOS to use. (MS-DOS)

Remedy: Restart MS-DOS. If the error persists, increase the FILES command value in the CONFIG.SYS file. (See the *Vectra DOS User's Reference*.)

Message: Non-DOS disk error reading (writing)
<device>
Abort, Retry, Ignore?

Cause: MS-DOS does not recognize the disc format because information is missing or there is another operating system on the disc. (MS-DOS)

Remedy: Make sure that you have the correct disc inserted into the drive, then choose **Retry**. If the error recurs, choose **Abort** then use CHKDSK to see if corrective action is possible. If not, you must reformat the disc in order to use it. Remember that when you format a disc all of the information on the disc is permanently erased.

Message: Non-System disk or disk error

Cause: MS-DOS is not on the disc in the boot disc drive. (MS-DOS)

Remedy: Insert your DOS 3.1 disc in your boot drive and restart your computer.

Message: No paper error writing <device>
Abort, Retry, Ignore?

Cause: Your printer or plotter is either out of paper or not turned on. (MS-DOS)

Remedy: Make sure that your printer or plotter is turned on and has paper loaded properly. Choose **Retry**. See the section *Device Errors* in this appendix for information on the **Abort, Retry, Ignore?** prompt.

A

Message: No path

Cause: You used PATH to find out what your search path is, but there is no current command search path. (MS-DOS)

Remedy: Non required.

Message: No room for system on destination disk

Cause: Your destination disc does not have enough space to store the system files. (SYS)

Remedy: Delete some files on the disc, or format a blank disc (use the FORMAT /S option) then copy the files from your destination disc to the newly formatted one.

Message: Not enough space on disk. No action taken.

Cause: There is not enough space on the destination disc to copy your file. (FILE MANAGER)

Remedy: Delete some of the files on the destination disc or insert a disc that has enough room on it to copy the file.

Message: Not ready error reading (writing) <device>
Abort, Retry, Ignore?

Cause: The specified device is not ready to accept or transmit data. (MS-DOS)

Remedy: Check the device to be sure it is properly connected and configured. Also make sure that the disc drive is turned on and the a disc is inserted into it. If the device

is a printer or plotter, check for paper, pens, print-wheels, and/or ribbon. When the device is ready, choose **Retry**. See the section *Device Errors* in this appendix for information on the **Abort, Retry, Ignore?** prompt.

Message: Operation cancelled. No action taken.

Cause: This is an informational message confirming that the File Manager operation that you were performing is cancelled (you pressed **[F8]**). (**FILE MANAGER**)

Remedy: Not applicable.

Message: Path <drive:pathname> does not exist.

Cause: You're trying to run an application (that you added previously) whose pathname does not exist on any currently inserted disc. (**PAM**)

Remedy: Press **[Continue]** **[F8]**. Insert the disc containing the application into one of your drives and try the application again. If the pathname of the added application is incorrect, use PAM's **[Manage Applics]** to correct it, then start the application again.

Message: Program too big to fit in memory

Cause: There is not enough memory to run the command or application that you specified. (**MS-DOS**)

Remedy: Reduce the number in the **BUFFERS=** parameter in your CONFIG.SYS file (see the *Vectra DOS User's Reference*), restart your computer and retry the command or application.



If this does not correct the problem, you may need to purchase more memory.

Message: Ran out of memory.

Cause: File Manager does not have enough memory to load its .MSG file. (**FILE MANAGER**)

Remedy: Reduce the number of device drivers and resident programs and restart your computer. If you cannot free enough space for File Manager, you may need to increase your computer memory.

Message: Read fault error reading <device>
Abort, Retry, Ignore?

Cause: MS-DOS is unable to read data from the specified device (usually a disc drive). (**MS-DOS**)

Remedy: Make sure that the disc is inserted properly in the disc drive and choose **Retry**. If the message is displayed again, choose **Abort** and retry the command with a different disc. See the section *Device Errors* in this appendix for information on the **Abort, Retry, Ignore?** prompt.

Message: Sector not found error reading (writing)
<device>
Abort, Retry, Ignore?

Cause: The sector containing the data could not be located on the specified disc. This usually means that the disc has a defective spot. (**MS-DOS**)

Remedy: If the defective disc has no files on it, replace it with another formatted disc and choose **Retry**. If the

defective disc has files on it, choose **Abort** then copy the files from the defective disc to a good disc, then try the operation again using the good disc.

Message: Sector size too large in file <filename>

Cause: The device driver specified in <filename> gives a larger sector size than previously defined to MS-DOS. (MS-DOS)

Remedy: Reduce the sector size in <filename> to conform to the sector size of MS-DOS. If this is a purchased program, return it to your dealer.

Message: Seek error reading (writing) <device>
Abort, Retry, Ignore?

Cause: MS-DOS could not find the proper location on your disc for reading or writing. (MS-DOS)

Remedy: Make sure the disc is properly inserted into your flexible disc drive, and choose **Retry**. If the message appears again, choose **Abort** and use another disc drive (if you have one) for the operation. Use the CHKDSK command to determine the status of the disc.

If this is a hard disc or your only flexible disc, and the error recurs, contact your dealer or HP service representative.

Message: Sharing violation error reading (writing)
<device>
Abort, Retry, Ignore?

Cause: You are trying to access a file that is being used by another application. (MS-DOS)



Remedy: Wait a few moments and choose **Retry**. If the error occurs again, choose **Abort**. See the section *Device Errors* in this appendix for information on the **Abort, Retry, Ignore?** prompt.

Message: Since a new directory is unique, the name must be typed in.

Cause: You tried to create a new directory by selecting an existing directory name. (**FILE MANAGER**)

Remedy: Type the new directory name and press .

Message: Source and target diskettes are not the same format

Cause: The size or kind of discs that you're using are not compatible (for example, you cannot copy a double-sided disc to a high-capacity disc). (**DISKCOPY**)

Remedy: In some cases, you can reformat the target disc to the same format as the source disc. Otherwise, use the single-drive procedure for **DISKCOPY**.

Message: Syntax error

Cause: You typed an MS-DOS command incorrectly. (**MS-DOS**)

Remedy: Enter the MS-DOS command using the correct syntax.

Message: The copy failed. Check pathname. No action taken.

Cause: You tried to copy a file to its own directory.
(FILE MANAGER)

Remedy: Copy the file to another directory or disc.

Message: The directory already exists. No action taken.

Cause: You tried to create a directory that already exists.
(FILE MANAGER)

Remedy: Type a different name for the directory.

Message: The directory contains no files.

Cause: You tried to list the contents of an empty directory.
(FILE MANAGER)

Remedy: You can delete an empty directory or add files to it.

Message: The drive name plus pathname must not exceed 64 characters.

Cause: You typed a pathname that is longer than 64 characters. (FILE MANAGER)

Remedy: Choose a shorter pathname.

A

Message: The file exists. No action taken.

Cause: In naming a file or directory, you used a name that already exists. (FILE MANAGER)

Remedy: Use a unique name for the new file or directory.

Message: The file to copy cannot be found. No action taken.

Cause: The file does not exist, you typed the filename incorrectly, or you typed an incorrect pathname. (FILE MANAGER)

Remedy: Be sure the disc containing the file is in the drive and that the disc drive is on. Type the file's pathname correctly.

Message: The filename is a device, directory, or volume id. No action taken.

Cause: You did not enter a filename or it is the same as a device (such as PRN), directory, or disc name. (FILE MANAGER)

Remedy: Enter a valid filename.

Message: The files are not selected.

Cause: You started a copy or rename operation without specifying the filenames to copy or rename. (FILE MANAGER)

Remedy: Select the files you want to copy or rename either by using the arrow keys then pressing **[F10]**, or by typing the names and pressing **[Enter]**. Then, start the operation over again.

Message: The file to delete cannot be found. No action taken.

Cause: The file or directory does not exist. You either typed the filename incorrectly, or you typed an incorrect pathname. **(FILE MANAGER)**

Remedy: Be sure the disc containing the file is in the drive and that the disc drive is on. Type the file's name and path correctly.

Message: The "from" file is hidden. No action taken.

Cause: You tried to use File Manager to copy, delete, or rename a hidden file. (A hidden file exists on a disc, but you cannot access it.) **(FILE MANAGER)**

Remedy: None. You cannot access a hidden file.

Message: The operation requires two unique file names.

Cause: You tried to rename or copy a file using the same name. **(FILE MANAGER)**

Remedy: Use a different filename for the new renamed file. Use a different disc or filename for the new copy.

A

Message: The parent directory does not exist.

Cause: You typed a directory name that does not exist.
(FILE MANAGER)

Remedy: Enter the correct directory name and retry the operation.

Message: The rename failed. Check pathname. No action taken.

Cause: You either typed the file name incorrectly, or you tried to rename a file to itself. (FILE MANAGER)

Remedy: Retype the file name, or use another file name.

Message: Track 0 bad--disk unusable

Cause: FORMAT must use track 0 and it is defective. This disc cannot be used with your Vectra. (FORMAT)

Remedy: Insert another disc into the drive and try again.

Message: Unable to access selected disc. Check drive id and disk.

Cause: You typed the disc drive letter incorrectly, or the disc is not inserted into the disc drive. (FILE MANAGER)

Remedy: Make sure the disc drive is on and that the disc is in the drive. Type the drive letter followed by a colon (A: B: C: etc.)

Message: Unable to create a directory

Cause: MS-DOS cannot create the directory you specified. (MS-DOS)

Remedy: Check to be sure that the name that you used is unique (there is no existing directory with that name). Also check to be sure that there is room on the disc for the directory.

Message: Unable to find <applic> on <drive:directory>

Cause: PAM can't find the application that you specified. If you chose an application from the PAM "added" applications list, it is not in the specified subdirectory or in the root directory of any of your disc drives. (PAM)

Remedy: Insert the flexible disc that contains the application into one of your disc drives, then press **Continue** and try again.

If the correct disc is already inserted, press **Continue** . Use **Manage Applics** and **Modify Applics** in PAM to check the application name and path. Make any changes that are appropriate. Then select this application again on the PAM Main Menu.

Message: Unable to find COMMAND.COM on <drive:directory>.

Cause: You have started an application that uses a batch file and PAM cannot find the COMMAND.COM file on the disc in the indicated drive. (PAM)

Remedy: Press **Continue** , then copy COMMAND.COM onto the disc in the indicated drive. Restart the application.

A

Message: Unrecognized command in CONFIG.SYS

Cause: An invalid command was found in the configuration file CONFIG.SYS. (MS-DOS)

Remedy: Check the commands in your CONFIG.SYS file, correct any errors then restart MS-DOS. (See the *Vectra DOS User's Reference*.)

Message: WARNING, ALL DATA ON NON-REMOVABLE DISK DRIVE
<X> WILL BE LOST,
Proceed with Format (Y/N)?

Cause: FORMAT is warning you that you asked to format your fixed disc. You are given the opportunity to cancel this request since all of the data on the hard disc will be destroyed. (FORMAT)

Remedy: Type **Y** to continue formatting the hard disc. Type **N** to cancel formatting the hard disc.

Message: Write fault error writing <device>
Abort, Retry, Ignore?

Cause: MS-DOS was unable to write data to the specified device. (MS-DOS)

Remedy: Make sure that the disc is inserted into the drive properly. Choose **Retry**. If you see the same message again, choose **Abort** and try the operation again with a different disc. See the section *Device Errors* in this appendix for information on the **Abort, Retry, Ignore?** prompt.

Message: Write protect error writing <device>
Abort, Retry, Ignore?

Cause: You are trying to write data onto a write-protected disc. (MS-DOS)

Remedy: Remove the write-protect tab, reinsert the disc into the same disc drive and choose **Retry**. See the section *Device Errors* in this appendix for information on the **Abort, Retry, Ignore?** prompt.

A

Device Errors

When MS-DOS has difficulty reading from or writing to any of your peripheral devices, such as a disc drive or printer, it will display a one-line message followed by a prompt that asks you to select an alternative action. The error message and prompt have this general format:

```
<error type> error reading (writing) <device>  
Abort, Retry, Ignore?
```

The message text for a particular error situation is substituted for `<error type>`. The unit that caused the error (such as PRN or B:) is substituted for `<device>`.

You must choose one of the alternative actions by typing the first letter of that alternative. For example, to **Retry** a procedure, type **R**. If you simply press , the error message will be repeated.

Here are the meanings of the alternative actions:

- Abort** Terminate the program or application. If this is a disc drive error, you can use the CHKDSK command to try to discover what is wrong with your disc, or you can try the operation with a different disc.
- Retry** Repeat the operation. Enter **R** only after you have corrected the error. For example, in response to a **Not ready** message for disc drive B:, you would insert a disc into drive B, then type **R**.
- Ignore** You probably will use this in response to a **Write fault** or **Read Fault** error since these errors usually indicate that your disc has bad sectors. **Ignore** directs MS-DOS to proceed with the operation as if no error occurred. Since you

risk losing data as a result, be very careful about choosing this action.

A general rule of thumb is to choose **Retry** first. If that doesn't work, choose **Abort**. **Ignore** tends to cause further problems, and for that reason is not recommended.

Each device error **Remedy**: in this appendix tells you which alternative action(s) to try. If you cannot remedy the error using these instructions, consult your dealer or HP service representative.

Caution

You can, of course, get out of an error situation using the Reset procedure—press **Alt** **Ctrl** **Del** at the same time. However, you run a very high risk of losing or destroying information if you do this.

**Important Notice
to Users of the
Vectra PC**

Caution: You should not attempt to remove or change discs while you are running COMMAND.COM, or utility or application programs on your system unless you are instructed to do so by the application. Specifically, you should never remove or change discs while the amber disc activity light is lit, or while the application or utility program is processing information. If you do, you risk losing data from one or more discs.

Most applications, including COMMAND.COM, will let you know when to remove or change discs; if you should inadvertently remove a disc from its drive while a program is in process, however, HP has provided you with a safe procedure for recovering without losing data.



When a disc is removed from its drive at the wrong time, you will see an error message indicating that a

```
Disc error...
```

has occurred. Other information may follow the words "Disc error."

To recover, you can perform one of the two following steps:

1. Place the SAME disc back in the SAME drive, and follow instructions on the message line on your screen. This will allow you to continue the operation you were performing without losing any data.
2. If you are not sure which disc you removed from the drive, stop the operation by pressing the appropriate keys to return to the application's main menu, and start over.

If you place a disc other than the same, original disc in the drive, information that should be written on that disc will be written to the second disc, thus destroying information on the second disc.

In some cases, you will see a message similar to the following:

```
Disc error while <reading>/<writing> on drive  
<d:> Abort, Retry, Ignore:
```

The information in angle brackets (<>) will be replaced with the correct information for your system.

To recover, you can perform one of the following steps:

1. Put the SAME disc back in the SAME drive and type "R" for Retry. This will allow you to continue the operation you were performing without losing any data.

2. If you are not sure which disc you removed from the drive, enter "A" for Abort, then start the operation over.

Do not type "I" for Ignore; you should respond either by Retrying or by Aborting the procedure.

If you place a disc other than the same, original disc in the drive, information that should be written on that disc will be written to the second disc, thus destroying information on the second disc.

A



MS-DOS Syntax Summary

Syntax Notation
Vector MS-DOS 3.1 Commands

B

MS-DOS Syntax Summary

This appendix lists a brief definition and the syntax for all Vectra MS-DOS 3.1 commands. Commands preceded by an asterisk (*) are discussed in this manual; refer to the *Index* for the exact location. For a complete description of the functionality of every command, you can refer to the *Vectra Dos User's Reference*.

Syntax Notation

The following symbols are used when describing command syntax in this appendix:

CAPS Words in capital letters are commands or portions of statements that must be entered exactly as shown.

< > Words enclosed by angle brackets represent data you must enter. When the angle brackets enclose lowercase text (for example, <filename>), you must supply the entry defined by the text.

[] Words enclosed in square brackets are optional.

| A vertical bar between two command options means one or the other must be used. When used with an MS-DOS filter, the vertical bar indicates a pipe.

/ A front slash designates a switch.

... An ellipsis indicates that an entry may be repeated as many times as needed or desired.

B

All other punctuation, such as commas, colons, slash marks (/), and equal signs, must be entered exactly as shown.

Vectra MS-DOS

3.1 Commands

ASSIGN

The ASSIGN command substitutes one disc drive designator for another.

```
[<sdir>]ASSIGN [<x>[=]<y>[...]]
```

ATTRIB

The ATTRIB (attribute) command sets or clears the Read-Only attribute flag for one or more files.

```
[<sdir>]ATTRIB [+R|-R] [<dir>]<file name>
```

***BACKUP**

The BACKUP command makes back up copies of files onto flexible discs.

```
[<sdir>]BACKUP <d>:[<path>][<file name>] <d>:  
[ /S ][ /M ][ /A ]  
[ /D :<mm-dd-yy> ]
```

BREAK

Sets **CTRL Break** and **CTRL C** checking to include disc reads and writes.

```
BREAK [ON|OFF]
```

***CHDIR**

The CHDIR (Change Directory) command changes the current directory on the specified drive.

```
CHDIR [<d:><path>
```

***CHKDSK**

The CHKDSK (Check Disc) command tests the integrity of a disc and reports the capacity the usage of that disc and system memory.

```
[<sdir>]CHKDSK [<dir>][<file name>][/F][/V]
```

CLS

The CLS (Clear Screen) command clears the display screen.

```
CLS
```

COMMAND

COMMAND starts COMMAND.COM, the MS-DOS Command Processor.

```
COMMAND [<sdir>][/P] [/C<command string>]
```

COMP

COMP compares two files and reports differences.

```
[<sdir>]COMP [<dir>][<file name1>][<dir>]  
[<file name2>]
```

B



***COPY**

The COPY command duplicates one or more files to the same disc or directory, or to another disc or directory.

```
COPY [<dir>]<sfile>[/A][/B] [<dir>][<dfile>]
    [/A][/B][/V]
```

or

```
COPY [<dir>]<sfile1>[/A][/B]
    +[<dir>]<sfile2>[/A][/B]...
    [<dir>]<dfile>[/A][/B]
```

CTTY

CTTY allows you to substitute a character I/O device for the standard console (keyboard and screen).

```
CTTY <device name>
```

DATE

The DATE command displays or sets the current system date.

```
DATE [<mm>-<dd>-<yy>] or [<mm>/<dd>/<yy>]
```

***DEL**

The DEL (Delete) command removes one or more files from a disc. (Same as ERASE.)

```
DEL [<dir>]<file name>
```

***DIR**

The DIR (Show Directory) command displays the names of files in a directory.

```
DIR [<dir>][<file name>][/P][/W]
```

DISKCOMP

DISKCOMP makes a track-by-track comparison of two compatible flexible discs.

```
DISKCOMP [<d>:[<d>:]][/L] [/B]
```

DISKCOPY

The DISKCOPY command makes an exact copy of the contents of one flexible disc to another flexible disc.

```
[<sdir>]DISKCOPY[<sdisc>:[<d>:]][/L]
```

***ERASE**

The ERASE command removes one or more files from a disc. (Same as DEL.)

```
ERASE [<dir>]<file name>
```

EXE2BIN

The EXE2BIN (EXEcutable to BINary) command converts files from .EXE (executable) format to .COM (command) or .BIN (binary) format.

```
[<sdir>]EXE2BIN[<dir1>]<sfile>[<dir2>][<dfile>]
```

EXIT

The EXIT command exits the command processor and returns to a previous level, such as PAM, if one exists.

```
EXIT
```

B

FC

The FC (File Compare) command compares the contents of two files and generates a report:

```
[<sdir>]FC[/A][/B][/C][/L][/LB<n>][/W][/T][/W][/nnnn]  
[<dir>]<file name1>[<dir>]<file name2>
```

*FDISK

FDISK creates a variable-sized DOS partition on a hard disc.

FDISK

FIND

FIND searches for a specified text string in one or more input files.

```
[<sdir>]FIND [/V][/C][/N] <'text string'>  
[[<dir>][<file name>]...] ]
```

*FORMAT

The FORMAT command prepares a disc for use by MS-DOS.

```
[<sdir>]FORMAT [<d>:][/S][/P]  
[/V][/B][/1][/4][/B]
```

GRAFTABL

The GRAFTABL command loads the character fonts for characters to be displayed by the Multi-mode Video display adapter in the graphics mode.

```
[<sdir>]GRAFTABL
```

GRAPHICS

The GRAPHICS command outputs the contents of a graphics display to a printer.

```
[<mdir>]GRAPHICS[<printer>][/R][/B]
```

JOIN

The JOIN command allows a disc drive to be logically joined to a subdirectory on another drive.

```
[<mdir>]JOIN <d>: <mdir>  
[<mdir>]JOIN <d>: /D  
[<mdir>]JOIN
```

KEYBUS

The KEYBUS program replaces the ROM BIOS keyboard routines to provide support for NON-U.S. keyboards.

```
[<mdir>] KEYBUS
```

LABEL

The LABEL command adds, modifies, or deletes the disc drive volume label.

```
[<mdir>]LABEL [<d>:][<volume label>]
```

MODE

The MODE command controls the parameters for the multi-mode Video and Serial/Parallel adapter cards.

```
[<mdir>] MODE <display>  
MODE [<display>],<adjust>[ ,t]  
[<mdir>]MODE COM#[ : ]<baud>[ ,<parity>  
    [ ,<databit>[ ,<stopbit>[ ,p]]]  
[<mdir>]MODE LPT#[ : ] [<horz>][ , [<vert>][ ,p]]  
[<mdir>] MODE LPT#[ : ] =COM#
```

B

MKDIR

The MKDIR (Make Directory) command creates a subdirectory on a disc.

```
MKDIR [<d>:]<path>
```

MORE

MORE reads data from the standard input device and prints it to the standard output device one screen at a time.

```
[<sdir>]MORE
```

PATH

The PATH command sets an alternative directory search path.

```
PATH [[<d>:]<path>[ ; ]][<d>:][<path>];...
```

PRINT

The PRINT command prints one or more files while you continue to process other commands (background printing).

```
[<sdir>]PRINT[[<dir>][<file name>]...]
           [/D:<device>][/B:<buffsize>]
           [/U:<busyticks>][/M:<maxticks>]
           [/S:<timeslice>]
           [/Q:<queuesize>][/C][/T][/P]
```

PROMPT

The PROMPT command changes the system prompt.

```
PROMPT [<text>]
```

RECOVER

The RECOVER command recovers data files, directories, or entire discs with defective sectors.

```
[<sdir>]RECOVER [<dir>]<filename>  
[<sdir>]RECOVER <d>:
```

*RENAME

The RENAME command changes the name of a file.

```
RENAME [<dir>]<sfile><dfile>
```

RESTORE

The RESTORE command restores files to disc after they have been copied using BACKUP.

```
[<sdir>]RESTORE <d>: [<dir>]  
[<file name>] [/S]/P]
```

RMDIR

The RMDIR (Remove Directory) command deletes a subdirectory from a disc.

```
RMDIR [<d>:]<path>
```

SET

The SET command displays or sets the current MS-DOS environment.

```
SET [<label>=<parameter>]]
```

B

SHARE

The SHARE command provides support for file sharing in a networking environment.

```
[<sdir>]SHARE [/F:<filesize>][/L:<locks>]
```

SORT

The SORT command reads data from the standard input device, sorts it, and prints it to the standard output device.

```
[<sdir>]SORT[/R][/+<n>]
```

SUBST

The SUBST (Substitute) command substitutes a drive designator for a path.

```
[<sdir>]SUBST <d>: <d>:<path>
```

```
[<sdir>]SUBST <d>: /D
```

```
[<sdir>]SUBST
```

SYS

The SYS (System) command transfers the MS-DOS system files to the specified disc.

```
[<sdir>]SYS <d>: [/P]
```

TIME

The TIME command displays or sets the system time.

```
TIME [<hh:mm>[<:ss>[<.xx>]]]
```

TREE

The TREE command displays the directory paths on your disc.

```
[<mdir>]TREE [<d>:] [/F]
```

*TYPE

The TYPE command displays the contents of a file to the screen.

```
TYPE [<dir>:] <file name>
```

VER

The VER (Version) command displays the version number of your MS-DOS operating system.

```
VER
```

VERIFY

The VERIFY command sets the verify switch on or off.

```
VERIFY [ON|OFF]
```

VOL

The VOL (Volume) command displays your disc volume label.

```
VOL [<d>:]
```

B



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C

More About Flexible Discs

Discs are used for permanent storage of computer information. Information is recorded onto the magnetic surface of discs in concentric "tracks". The magnetic recording surface of a disc is bonded to a circular piece of flexible mylar. When you insert a disc into a disc drive, the disc spins making the information on it quickly accessible to the stationary "read/write" mechanism, called the head, of the disc drive.

In this appendix, you will learn:

- How to care for your flexible discs
- How to determine what kind of 5-1/4-inch flexible disc to use in your internal flexible disc drives.

If you have a hard disc, you should refer to the material that comes with the hard disc drive for information on the proper care of it.

Handling and Caring For Your Flexible Discs

When you use flexible discs, you should handle them with care to ensure the integrity of the information that is stored on them, and to ensure that you get the maximum usage out of them. Follow these rules for handling and caring for your flexible discs:

C

Things to Do	DO	Use discs in a clean environment. Avoid getting smoke, dust, eraser particles, salt air, food crumbs, hair, or other debris on your discs.
	WHY?	To prevent the debris from scratching the disc and causing information loss.
	DO	Keep discs stored upright in a cool, dry place. (The range is 10 to 40 degrees Centigrade or 50 to 104 degrees Fahrenheit and 20%-80% relative humidity.)
	WHY?	To prevent damage from heat or moisture.
	DO	Copy and backup your discs frequently. (See the chapter entitled <i>Essential MS-DOS Commands</i> .)
	WHY?	To provide duplicate copies of your discs in case the originals are accidentally destroyed. Also, discs deteriorate over time and should therefore be backed up to fresh discs after 6 to 12 months of normal use.

DO Use a felt-tip pen for labeling your discs. **DO NOT** use a pencil or ball point pen.

WHY? To avoid damage to your discs that would result in problems reading and recording information on them.

DO Keep your 5-1/4 inch discs in their protective jackets when you are not using them.

WHY? To protect them from scratches and contaminants.

C

Things to Avoid

- DO NOT** Bend your 5-1/4 inch disc.
- WHY?** To prevent damage to the disc. **DO NOT** use discs that are bent.
- DO NOT** Use paper clips or rubber bands on your discs.
- WHY?** To prevent damage to the discs or interfere with reading or writing information on them.
- DO NOT** Put discs near anything that generates a magnetic field, such as a telephone, magnetic paper clip holders, or appliances with motors. **DO NOT** put discs on top of or right next to your computer, or on top of your monitor. **DO NOT** put a telephone next to your disc drive(s).
- WHY?** To avoid accidentally erasing the magnetically stored information on your discs.
- DO NOT** Touch the recording surface of the disc.
- WHY?** To prevent scratches or wear that could shorten the life of your disc.
- DO NOT** Try to clean the disc.
- WHY?** The disc jacket contains a cleaning device. Other cleaning methods damage the disc.

Flexible Disc Life

The life of your flexible disc depends on the care that you give it and how often you use it. With normal daily use, a disc should last six months to a year.

Discs are also sensitive to the environment. Follow the instructions in the previous section entitled *Handling and Caring for Your Flexible Discs* to protect them so that they will last as long as possible.

When your disc is damaged or worn out, you will see error messages on your display indicating that the Vectra cannot read or write to the disc correctly. If you see similar messages repeatedly, you can be certain that your disc is no longer usable.

Periodically (every few months), you should use head cleaner discs to clean the read/write heads in your disc drives. These discs polish and lubricate the heads, removing contamination that may cause read/write errors to occur.

Caution



It is very important to make duplicate or backup copies of your discs periodically. This is your “insurance policy” for discs that may become unusable. (See the section entitled *Backing Up and Restoring Files* in the chapter entitled *Essential MS-DOS Commands*.)

C

Flexible Disc Capacities

The flexible discs you use with Vectra are 5-1/4 inches in diameter. They are sometimes called "floppies" or "diskettes," and they bend readily. They are enclosed in protective jackets, and stored in removable envelopes.

There are two kinds of 5-1/4 inch discs: double-density and high-capacity. The double-density discs hold 360Kbytes of data, and the high-capacity discs hold 1.2Mbytes of data. The following table lists the amount of information these discs can hold (**Formatted Capacity** is expressed in "K" where one K equals 1,024 bytes).

Kind of Disc	Formatted Capacity	Typewritten Pages (approx.number)*
Double-density	360K	90
High-Capacity	1,200K	300

**This assumes 50 lines of 80 characters each.*

Note



Discs must be formatted to be used with your Vectra. You need to consider the kind of disc and disc drive that you have when you format and use your discs. For detailed information on the discs that you can use in your disc drive(s), read the next sections in this appendix. For information on how to format your discs, refer to the chapter in this manual entitled *Preparing Your Discs for Use*.

**Double-Density 5-1/4
Inch Discs**

A double-density 5-1/4 inch disc contains 80 tracks, with 8/9 sectors (partitions) per track. It holds up to 360Kbytes of information (one K equals 1024 bytes).

You can order double-density discs from your dealer or Hewlett-Packard (Part No. 92190A). Read the sections which follow in this appendix entitled *Types of 5-1/4 Inch Disc Drives* and *Using the Right Kind of 5-1/4 Inch Disc* to determine whether you can use double-density discs in your disc drive(s).

**High-Capacity 5-1/4
Inch Discs**

A high-capacity disc is used on both sides and contains 160 tracks with 15 sectors (partitions) per track. It holds up to 1.2Mbytes of information (one M equals 1,048,576 bytes).

You can order high-capacity discs from your dealer or Hewlett-Packard (Part No. 92190X). Read the sections which follow in this appendix to determine whether you can use high-capacity discs in your disc drive(s).

C

Types of 5-1/4 Inch Disc Drives

The type of 5-1/4 inch flexible disc(s) that you can use with your Vectra depends on the type of disc drive(s) that you have. Vectra has two types of 5-1/4-inch internal flexible disc drives:

■ 360KB Internal Flexible Disc Drive (HP 45811A)

This is a double-density disc drive with a maximum capacity of 360 thousand bytes.

A double-density drive is identified by an asterisk as shown below:

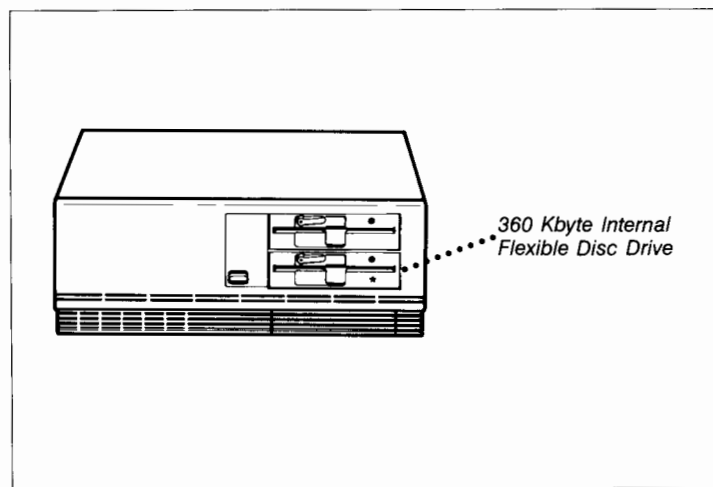


Figure C-1. The 360KB Internal Flexible Disc Drive

■ **1.2MB Internal Flexible Disc Drive (HP 45812A)**

This is a high-capacity disc drive with a maximum capacity of 1.2 million bytes. The high-capacity drive looks the same as the double-sided drive except that it does not have an asterisk on the front panel.

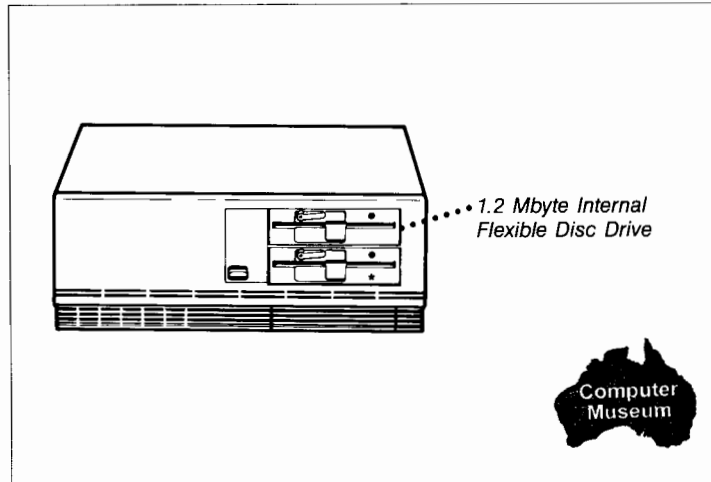


Figure C-2. The 1.2 Mbyte Internal Flexible Disc Drive

Using the Right Kind of 5-1/4 Disc

The 360Kb flexible disc drive and the 1.2Mb flexible disc drive are technologically different and are not completely compatible. The discs you purchase and use with these drives cannot be used interchangeably between the two drives.

The drives themselves look quite similar, but the 360Kb drive has an asterisk (*) embossed on its lower right side beneath the drive activity light. The drive in the top-most position is always referred to as drive A:.

C

HP strongly recommends that you use 360Kb discs in your 360Kb drive, and 1.2Mb discs in your 1.2Mb drive. We further recommend that you use HP discs. HP's 360Kb and 1.2Mb discs are differentiated for you by their product labels.

The table below shows how these discs can and cannot be interchanged between the drives.

Table C-1. The Relationship Between the 360Kbyte and 1.2 Mbyte Drives.

Disc Media	Used With An HP 45811A 360Kb Drive	Used With An HP 45812A 1.2Mb Drive
Double-sided Double-density (360KB)	Read/Write	Read Only*
High-Capacity (1.2MB)	-----	Read/Write

Notice that you can **read** a 360Kb disc in a 1.2Mb drive, but you cannot use a 1.2 Mb disc in a 360 Kb drive for any purpose. It is best to use your discs in the drives designed for them.

**You cannot format the disc or record information onto it.*

Note

If you have single-sided discs: You can *read* single-sided discs in double-density and high capacity (1.2 Mbyte) disc drives. However, these discs cause excessive wear on your drives. If you have these discs, copy them to double-density or high-capacity discs as soon as possible and use the double-density or high-capacity discs instead of the single-sided ones.

If you have both the 360 Kbyte and the 1.2 Mbyte flexible drive on your system, you may need to perform many operations described in this manual as if you had just one drive. Instructions for executing commands include single-drive procedures.

Summary

In this appendix, you learned how to care for your discs, and how to determine which flexible discs you can use in your internal flexible disc drives.

C 

D

Using Vectra Without PAM

Bypassing the CONFIG.SYS File	
Creating a New CONFIG.SYS File	

D

Using Vectra Without PAM

Each time you load your operating system, PAM automatically appears on your screen. Depending on the nature of your work, you may prefer to bypass PAM and begin work at the MS-DOS command level.

The file responsible for the automatic loading of PAM is called CONFIG.SYS. Although you should not delete this file, you can bypass it by altering its name

We suggest that you rename CONFIG.SYS to CONFIG.SAV for future reference. When the operating system searches for and does not find CONFIG.SYS, it loads the MS-DOS command processor and you begin work directly in MS-DOS.

The renaming procedure only disables the *automatic* loading PAM. You can load PAM at any time from MS-DOS by simply typing:

```
PAMCODE
```

and pressing .

Two procedures are given below. The first bypasses CONFIG.SYS entirely. The second shows you how to bypass CONFIG.SYS by renaming it, and then to create a new CONFIG.SYS file.

D

Bypassing the CONFIG.SYS File

To run Vectra without PAM, “hide” the CONFIG.SYS file by renaming it using the following steps.

1. Begin at the MS-DOS command prompt on either PAM Menu or at the MS-DOS command level. The DOS 3.1 Work disc must be in the active drive.
2. Rename the CONFIG.SYS file to CONFIG.SAV by typing:

```
REN CONFIG.SYS CONFIG.SAV
```

and pressing .
3. Restart the system by pressing , , and at the same time.
4. The MS-DOS banner appears. The system then prompts you for a new date and new time. Either enter new values or accept the current values for date and time by pressing in response to each question.

The MS-DOS command prompt appears.

The operating system will now put you in MS-DOS each time you start or restart the computer. From here you can run applications from the MS-DOS command prompt or load PAM by typing `PAMCODE` at the MS-DOS prompt. When you start PAM this way, function key is an EXIT key, just as it is for applications.

Creating a New CONFIG.SYS File

What if you need to retain use of CONFIG.SYS? Some applications use the CONFIG.SYS file. If you are an advanced user, you may wish to use this file to enter MS-DOS configuration and environment options. After all, the command in this file that automatically loads an environment shell such as PAM is one of several available configuration commands. These commands are all described in the *Vectra MS-DOS User's Reference*.

If you do not want to bypass CONFIG.SYS because you use it for other options, you can create a new CONFIG.SYS.

To bypass PAM and retain use of the CONFIG.SYS file:

1. Begin at the MS-DOS command prompt on either PAM Menu or at the MS-DOS command level. The DOS 3.1 Work disc must be in the active drive.

2. Rename the original CONFIG.SYS file by typing:

```
REN CONFIG.SYS CONFIG.SAV
```

and press .

3. Use the COPY command to create a new CONFIG.SYS file. Type:

```
COPY CON CONFIG.SYS
```

Press .

This command instructs MS-DOS to create a file named CONFIG.SYS at the console (terminal) and save it on the DOS 3.1 Work disc.

4. The system is now waiting for you to type the contents of your new file. You receive no additional prompts. Enter one configuration command per line (SHELL, BREAK, BUFFERS, etc.) and terminate each line with .

D

5. When you have typed all the commands, press **CTRL**
Z **Enter**
MS-DOS responds with
1 file(s) copied
and returns you to the MS-DOS command prompt.
6. Reset the system by pressing **Alt**, **CTRL** and **DEL**
simultaneously.

PAM will no longer automatically appear each time you start the operating system. You will now see one of the following:

- prompts for a new date and new time, followed by the MS-DOS command prompt, or
- a new shell if you used the CONFIG.SYS file to start your own environment shell.

For more detailed information on the make-up of the CONFIG.SYS file, consult the following MS-DOS manuals:

- *The Vectra MS-DOS User's Reference*
- *The Vectra MS-DOS Programmer's Reference*



Glossary

This Glossary defines terms as they are used in the discussions of the Vectra system, PAM, and essential MS-DOS commands covered in this manual.

A **Active drive**

The disc drive on which the computer looks for files. Sometimes called the current drive or default drive.

Add

In PAM, identifies an application and places its name on the PAM Main Menu so that it can be run from PAM.

Alphanumeric Keys

The keys on the keyboard that produce either letters or numbers when pressed.

Application

A computer program that performs a specific task or set of tasks for the user. Sometimes called an application program. Applications can be "added" to PAM so that they can be started (or executed) from the PAM Main Menu.

Application label

The label on the PAM Main Menu with the name of an application. You can select an application to run by moving the pointer to the label so that it becomes highlighted.

Autoexec.BAT File

An MS-DOS Batch file created by the user that is automatically executed when the operating system is first started, or restarted. This file contains MS-DOS commands that the user wants executed every time the system is started.

Auto Start

A function that starts an application immediately when you turn on your Vectra. You do not see PAM or the MS-DOS command prompt before the application begins.

Auto Start Application Menu

The PAM menu that allows the user to select an application to start automatically immediately after Vectra has been booted.

B BACKUP

The MS-DOS command that creates an archive copy of a file. Files created with BACKUP must be returned to a disc using the MS-DOS RESTORE command before they can be used again.

Board

A fiberglass board on which computer circuitry is mounted. In Vectra, the nonremovable boards are called boards while removable boards are called cards.

Boot

To start the operating system by copying the operating system files from a disc into the Vectra's internal memory.

C Cable

A connector between computers and peripheral or external devices. External discs are connected to Vectra using a cable.

Chip

A small piece of silicon embedded with thousands of electronic circuits. Chips are mounted on boards and cards. Examples of Vectra chips are RAM and ROM chips.

CHDIR

The MS-DOS command that allows you to change from one directory to another directory.

Command

A request, usually typed at the keyboard, to have a task performed.

COMMAND.COM

The MS-DOS file that contains the MS-DOS internal commands and that processes both internal and external commands. Also called the Command Processor.

Command Line

While using PAM on Vectra, refers to the third line on the PAM Main Menu or the PAM Executable Files Menu. This line is reserved for MS-DOS commands. The MS-DOS command prompt, a disc drive designator followed by a "greater-than" symbol (C> for example) appears on this line.

CONFIG.SYS File

An operating system file that contains instructions that the computer reads and executes each time the operating system is started. On Vectra, this file is used to start PAM, the Hewlett-Packard user interface program.

COPY

The MS-DOS command that creates a copy of an existing file.

COPY CON

A form of the COPY command that lets you create and save a file by "copying" it to the "console" device. You can use this command to create an AUTOEXEC.BAT file, or to create a new CONFIG.SYS file.

Command Processor

Another name for COMMAND.COM.

Current Directory

The directory in which Vectra looks for information when no other directory is specified. Sometimes referred to as the default directory.

Cursor

The block, line or arrow on the screen—usually blinking—that indicates where the next character you type will be located.

Cursor Key

A key, indicated by an arrow on the key cap, that moves the cursor or pointer on the screen up, down, left, or right.

D DEL (Delete)

The MS-DOS command that removes a file from a disc. Operates exactly the same way as the ERASE command.

DIR

The MS-DOS command that displays a list of all the files in the current directory.

Directory

A group of files on a disc.

Disc drive

A device that records information on or retrieves information from a disc.

DISKCOPY

An external MS-DOS command that creates an exact copy of one disc onto another disc.

Drive Designator

The letter name given to a disc drive. The designator can be any letter from A: through Z:. However, certain disc drive designators, usually A: through J:, are recommended. Disc drive designators are assigned to internal and external physical discs, and to RAM discs (created using VDISK).

E ERASE

The MS-DOS command that removes a file from a disc. Operates exactly the same way as the DEL command.

Executable Files

Files with extensions of .EXE, .COM, and .BAT that can be executed from PAM or the MS-DOS command prompt.

Executable Files Menu

The PAM menu that displays all the files that can be run from PAM. They have extensions of .EXE, .COM, or .BAT.

Extension

The second part of the name of an MS-DOS file. The extension may contain no more than three characters and must be separated from the filename by a period.

External Command

An MS-DOS command that resides in a file with a file type extension of .EXE or .COM, or .BAT. To execute an external command, the external command file must be on the disc in the active drive.

External Disc Drive

A disc drive that is connected to the computer by cables and is not installed inside the computer.

F **FDISK**

A program that prepares a hard disc so that more than one operating system can reside on it.

File

A collection of related information that is stored on a disc. Files typically have a name or number by which the information can be referenced and accessed.

File Name

The entire name of an MS-DOS file. A file name contains a filename and, optionally, a period and an extension.

Filename

The first part of the name of an MS-DOS file. May contain no more than eight characters.

File Manager

A Vectra application that helps you manage your files and directories. You can add, delete, copy, and rename files; create directories and subdirectories, and change directories.

Flexible Disc

A disc that can be removed from a disc drive. Vectra uses 5¼-inch flexible discs. Also known as a floppy disc or diskette.

Format

The process of placing magnetic "tracks" and "sectors" on a disc so that data can be recorded on and retrieved from a disc.

FORMAT

The MS-DOS utility that formats discs.

Function Key

A key on the Vectra keyboard that, when pressed, performs the task that it was programmed to perform. Function keys labeled **F1** . . . **F8** along the top of the keyboard are programmed to perform the tasks described in the function labels on the bottom of the display. The keys labeled **F1** . . . **F8** perform the same tasks. All function keys, including **F9** and **F10** are used by applications as well.

Function Label

A label, displayed at the bottom of the display in PAM, and in many applications used by Vectra, that defines the use of the corresponding function keys on the keyboard.

H Hard Disc

A high capacity nonremovable disc that is built into its own disc drive. Also known as a fixed disc or "Winchester".

Hardware

The physical components of your Vectra system.

**Help display**

A display that contains information to help the user use the menu from which the Help display was accessed.

Highlight

To move the pointer to a label so that it appears brighter than the surrounding labels.

I Internal Command

An MS-DOS command that resides within the COMMAND.COM file.

Internal Disc Drive

A disc drive that is installed inside the computer.

K Kb or Kbyte

A kilobyte, 1,024 bytes.

L Load

To copy information from a location, usually a disc, into the computer's memory.

M Main Menu

The PAM menu that contains the names of the applications that have been Added to PAM. An Added application can be run directly from PAM when its programs are on the disc in the appropriate drive.

Manage Applications Menu

The PAM menu that allows the user to select from five application management functions: Add, Delete, Modify, Reorder, and Auto Start.

Master disc

A disc, provided by Hewlett-Packard or another company, that contains one or more programs. These discs should not be used except to make work copies of them.

Mb or Mbyte

A megabyte, 1,048,576 bytes.

Menu

A list of choices displayed on the screen from which you can make a selection.

Monitor

The video viewing device through which the computer communicates with the user. Also called a CRT or VDT.

Mouse

A small hand-operated device that allows the user to select or activate applications or functions.

MS-DOS (Microsoft Disc Operating System)

The computer programs that control Vectra. Version 3.1 of MS-DOS is Vectra's Operating System.

MS-DOS Command Prompt

A capital letter followed by a greater than sign (>), such as A>. The command prompt indicates the active drive and appears line 3 of the PAM display, the line on which users can type MS-DOS commands.

N Numeric Keypad

The keypad on the keyboard that allows the user to enter numbers as if from a calculator.

O Operating System

The computer programs that control Vectra's operations. Vectra uses the MS-DOS 3.1 Operating System.

P **PAM (Personal Application Manager)**

The Hewlett-Packard user interface program that makes it easier to use Vectra.

Path

Specifies the drive and directory in which a file is located on a disc.

Pathname

Specifies a file name, and the drive and all directories through which you must travel to reach that file.

Parameters

Instructions and options that are added to an MS-DOS command.


Parent Directory

Any directory that has one or more subdirectories.

Peripheral

A hardware device, such as a disc drive, printer or plotter, that is external to, yet controlled by the computer.

Pointer

In PAM, a vertical arrow that points down to an application label or a function label. Can be moved by pressing  or one of the cursor keys on the keyboard; or using HP Touch or the HP Mouse.

Power Supply

A unit within the computer that changes the input AC power to DC power that can be used by the computer.

Printer

A device that produces paper output ("hard copy") from Vectra.

Program

A set of instructions that define a task to be performed by Vectra to solve a problem or achieve a desired result.

R **RAM (Random Access Memory)**

Acronym for Random Access Memory. A RAM chip contains information that is temporarily stored in the computer. Unlike ROM, information held in RAM disappears when the computer is turned off. If you have sufficient RAM in your system, you can create a "virtual disc" to make working with your applications faster.

RENAME

The MS-DOS command that gives an existing file a new name.

Reset

A process that restarts the computer without turning the power off, then back on. To reset the system, press and hold down the keys labeled [ALT], [CTRL], and [DEL] at the same time.

RESTORE

The MS-DOS command that makes a usable copy of a file that has been created with the BACKUP command.

ROM (Read Only Memory)

Acronym for Read Only Memory. A ROM chip contains information that is stored permanently in the computer. This information can only be read; it cannot be written over. Unlike RAM, information stored in ROM is not erased when the computer is turned off.

Root directory

MS-DOS's highest level directory. This directory is created when you format a disc.

S **Software**

A collective term that refers to applications and other computer programs.

Source Disc

The disc from which a file is copied.

Status Light Indicators

Three lights on the keyboard that indicate when the keyboard is operating in caps lock, numeric lock, or scroll lock mode.

Subdirectory

A directory within another directory.

Syntax

The precise way a command must be typed so that it can be recognized and executed by the Command Processor.

SYS (System)

The MS-DOS command that transfers the operating system files on a disc that has tracks reserved for them.

System

All your Vectra's hardware and software together.

System Tracks

The tracks on a disc that are reserved for the operating system. When a disc contains system tracks, it can be used to start the operating system.

T Target Disc

The disc onto which a file is copied.

Touchscreen

A Hewlett-Packard accessory, called HP Touch, that allows you to select and activate functions and applications by touching the screen.

TYPE

The MS-DOS command that displays the contents of a file on the screen.

U Utility

An MS-DOS program that performs a service for the user. These programs are activated by typing an external command (usually the program's filename) to MS-DOS.

V **VDISK (Virtual Disk)**

An MS-DOS feature that lets you create a "Virtual Disc." A Virtual Disc is a part of your computer's Random Access Memory that you can set aside and use as if it were a physical disc. Virtual discs can be accessed much faster than physical discs, and so are very useful in some applications.

W **Wildcard**

A special character, used in a file name, to refer to a group of files. MS-DOS wild cards are the ?, to represent one character, and the *, to represent many characters.

Work Disc

A copy of a master disc that the user makes for everyday work.

Write Protect Notch

A notch on the side of a flexible disc that, when covered, prevents the disc from being written on.

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HP Vectra Personal Computer Documentation Map

How To Use This Map:

The four manuals that are available with your HP Vectra Personal Computer are illustrated below. The information contained in each has been categorized into two main activities: Starting and Using.

The most commonly sought information from each manual has been grouped in alphabetical order and a line has been drawn to indicate in which book the desired information can be found.

