

User's Guide Hard Disk System

digital

Third Edition

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Changes To This Edition

This edition of the *Professional 300 Series User's Guide* describes Version 2.0 of the P/OS Hard Disk operating system.

If you are new to the Professional, read this book thoroughly.

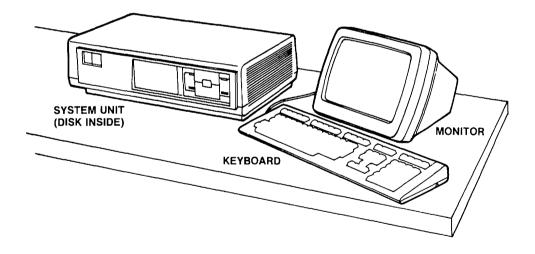
If you are an experienced Professional user, you need only read the sections of this book which have changed from Version 1.7. Specifically, you should look at Chapter 8 to read about the new features of Print Services (especially "Set Printer Characteristics"), and read Appendix C to learn how to use your Professional with PRO/DECnet.

Appendix D describes the login/logout application which DIGITAL is providing with Version 2.0 of P/OS.

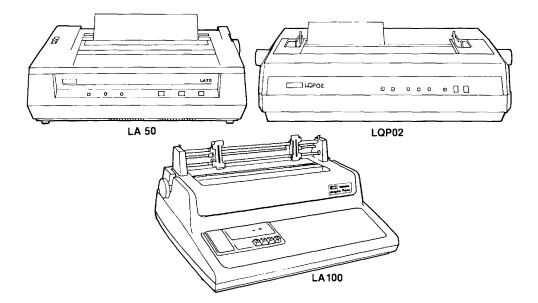
Version 2.0 of PROSE allows editing of files on remote nodes if you have PRO/ DECnet.

Preface

This book explains how to use a Professional 350 with a hard ("Winchester") *disk*. This basic personal computer system consists of a *system unit*, a *monitor*, and a *keyboard*:



You can also buy, as an option, one of the following printers:



Before you read this book, you should *install* your Professional 350 *hardware* as described in the *Installation Instructions*.

Use this book as you learn to use your Professional. You do not need to know anything about computers to read the book. Once you have learned to use your Professional, you can use the book as a reference, along with the Reference Card.

Certain terms in this book are highlighted in italics at their first use and are also included in the Glossary at the end of the book.

OTHER BOOKS IN THE PROFESSIONAL 300 SERIES

Installation Instructions (AZ-N626B-TH)—Tells you how to set up your Professional 350 hardware. Special installation instructions come with additional hardware:

Extended Bit Map Module (EJ-25028 83) Floating Point Adapter (EJ-25027 83) Floor Stand (EJ-23508 82) Hard Disk (EJ-25026 83) Memory Module (EJ-25029 83)

Owner's Manual (AZ-N597C-TH)—A reference book for Professional 350 hardware. It tells you what to do if you have problems with the hardware.

For Beginners: Hard Disk System (AA-N604C-TH)—If you are new to computing, use this book to learn, step by step, how to do useful work on the Professional. Before you can use For Beginners, P/OS and PROSE should be installed on your disk, as described in Chapters 2 and 3 of the User's Guide.

PRO/BASIC Language Manual (AA-N601C-TH)—A reference guide to the *PRO/BASIC* language, an *application* you can buy for your Professional which you can use to write your own programs.

PRO/Communications Manual: Hard Disk System (AA-AH55A-TH)—Tells you how to use *PRO/Communications*, an application you can buy for your Professional which enables you to use your Professional in conjunction with other computers.

Reference Card for Hard Disk System (AV-P389D-TH)—This pocket reference card includes summary descriptions of the Professional function keys and some of the P/OS menus.

Beginner's Guide to Repair (EY-1277E-PO)—An illustrated book that can help you learn to service your Professional.

Command Language User's Guide (AA-Z252B-TH)—A guide to the Digital Command Language (DCL), which is included on a diskette with your P/OS software.

EDT Quick Reference Guide (AA-M477A-TK)—A guide to the EDT editor, which is included on a diskette with your P/OS software.

Of the books listed, only the *PRO/BASIC Language Manual* requires knowledge of computers or programming. If you want to learn more about how computers work or how to write programs, there are many introductory books available.

PROFESSIONAL SYSTEM OVERVIEW

The *Professional System Overview*, which comes on two *diskettes* (order numbers BL-N596C-BH and BL-N634C-BH) in your Media and Documentation box, is another way to learn about the Professional. This course presents information about the Professional on the screen. You type in responses as you read through the information. You can learn the basics about using your Professional before you begin using your other applications. The topics covered include:

- \Box Introduction
- □ Computer Basics
- $\hfill\square$ File Services
- \square PROSE
- Disk/Diskette Services
- \Box Introduction to BASIC
- $\hfill\square$ Introduction to Communications

To use the *Professional System Overview*, you must install it on your disk after you install P/OS as described in Chapter 2. Chapter 3 explains how to install and use the *Professional System Overview*.

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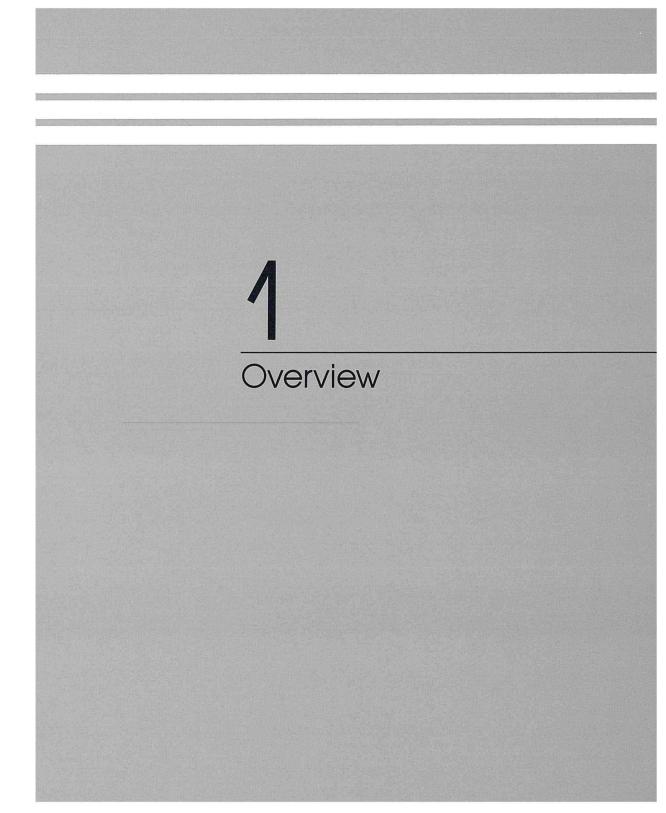
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Chapter 1

Overview

Word processing, accounting, scheduling, equipment monitoring, and programming languages are a few examples of *applications* you might use on your Professional. You use the Professional's operating system *software*, P/OS, to manage these applications.

You control P/OS by using menus, function keys, and forms.

- □ Menus are lists from which you choose the service or functions you want. You do not need to memorize any commands to use menus.
- □ Function keys are keys on your keyboard that have labels indicating what they do. As you read this guide, you will learn to use the function keys.
- □ Forms are requests for information. When a form appears on the screen, you type in the requested information. P/OS uses forms for functions that require information you provide. Sometimes, instead of a form that fills the entire screen, you will see a one-line request (called a *prompt*) for information.

If you are ever unsure about how to use the Professional, press the HELP key on the top row of your keyboard. A message relevant to the work you are doing will appear on your screen. You can see other information about your Professional on a *Message/Status* display. For example, the Message/Status display shows what diskettes you are currently using. In addition, the Professional frequently displays information about your current work on a message line at the bottom of your screen. For example, if you make a mistake, a message may appear telling you what to do.

Other features of P/OS are:

- □ File, disk, and diskette services. These services, which you can choose from the Main Menu, allow you to look at, control, protect, and organize the information you keep on your Professional. Chapters 6 and 7 describe these services in detail.
- Print services. If you've bought a printer, you can print text and, if the printer allows, graphics. You can even print text while doing other work on your Professional. Chapters 8 and 9 describe print services in detail.

Applications that you can use with the Professional are available from DIGITAL and other companies. Applications come on diskettes (sometimes called floppy disks or floppies), which are magnetic storage devices. Using P/OS services, you copy applications to your hard disk for ready use. This is called installing applications. You can also use P/OS services to remove applications.

Six applications come with your Professional 350:

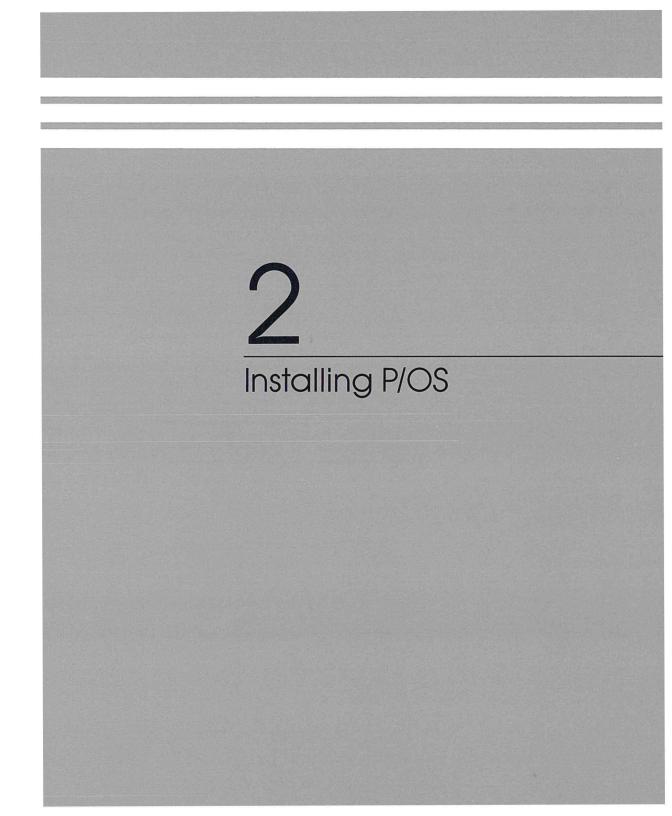
- □ A text *editor*, called PROSE, that allows you to create and manipulate text that you store on your Professional. For example, you can create memos, reports, lists of data, and even *programs* using PROSE. You can then change the text by deleting words and sections, moving sections from one place to another, reformatting margins, and so on. You can also print out copies of your "prose" if you have a printer. Chapter 10 explains how to use PROSE.
- □ Professional System Overview. Chapter 3 tells you how to use this application to learn about your Professional.
- □ Digital Command Language (DCL). This application comes on the diskette labeled P/OS HARD DISK V2.0 COMMAND LANGUAGE, and is provided for people who have had previous experience with DIGITAL computers. To install DCL, use the procedure described for "Install application" in Chapter 7, choosing "Command Language" from the Application Installation Menu.
- □ EDT. This is the DIGITAL standard editor, and is contained on the same diskette as the PROSE text editor. To install EDT, use the procedure described for "Install application" in Chapter 7, choosing "EDT" from the Application Installation Menu. The EDT Quick Reference Guide is included with your P/OS documentation.

- □ *PRO/DECnet Accounts Manager*. This application enables you to set up accounts for up to 32 users of a DECnet network to which you are attached. Appendix C explains how to use this application.
- □ Login/Logout. This application, explained in Appendix D, enables you to limit access to your Professional. Only users who know your password will be able to log in to your Professional when you install this application.

Other applications are available through computer stores and DIGITAL sales offices. These applications include:

- □ PRO/BASIC, a programming language that lets you create and use your own Professional programs.
- □ PRO/Communications, which allows you to use your Professional as a terminal to another computer and also to transfer information between your Professional and another computer.

The next chapter explains how to install P/OS so that you can begin using diskbased P/OS services.



The figures below show the correct way to handle a diskette.

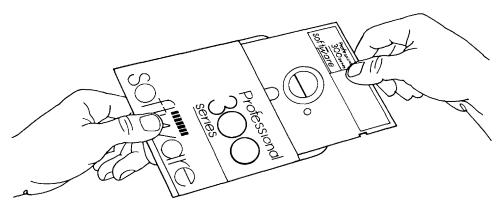


Figure 2-1 Removing a Diskette from Its Envelope

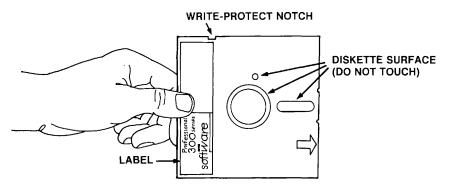


Figure 2-2 Holding a Diskette

Take the following precautions when using your diskettes:

- □ Store diskettes in their envelopes in horizontal stacks of ten or less. To store vertically, use a diskette storage box.
- □ Write on the diskette label before you place the label on the diskette, using a felt-tip pen. Use labels made for diskettes; other kinds might shed paper or glue, which could damage the diskette.

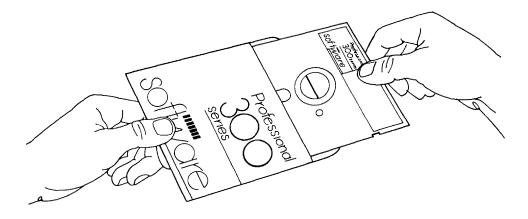
- □ Keep diskettes away from sunlight and heat. If a diskette has been exposed to extreme heat or cold, let it return to room temperature before using it. Keep matches and cigarettes away from diskettes.
- \Box Do not bend or clean a diskette or touch its exposed surfaces.
- \Box Do not use paper clips on diskettes.
- □ Keep diskettes away from magnets or tools that may have become magnetized.
- \Box Do not place heavy objects on diskettes.
- □ Keep diskettes away from dirt and liquids.

INSERTING A DISKETTE IN A DISKETTE DRIVE

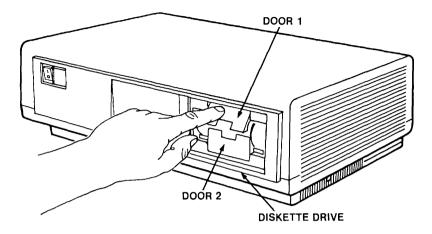
On the right side of the front of your system unit is the dual diskette drive. The drive can hold two diskettes. When a diskette is in the drive and the system unit is turned on, the drive makes the diskette spin inside its cover. The Professional can then read the information that is on the diskette.

To insert a diskette into a diskette drive slot:

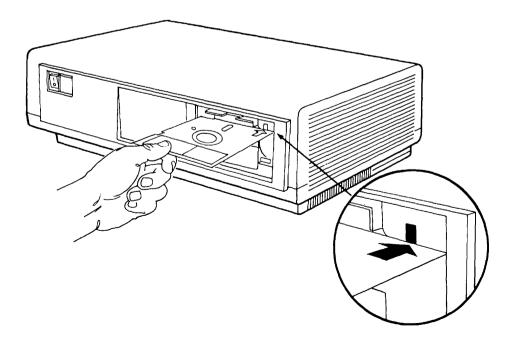
1. Take the diskette out of its paper envelope.



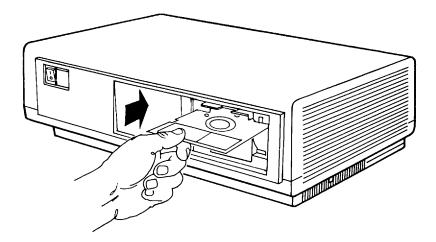
2. Push the diskette drive door until it springs open. The illustration shows how to open the door labeled 1.



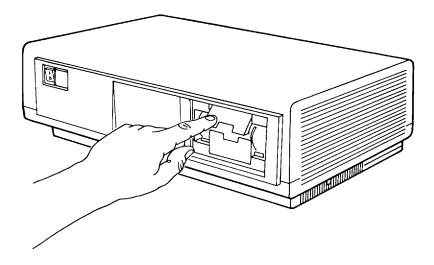
3. Match the orange arrow on the diskette with the orange stripe on the side of the diskette slot in the drive. (A diskette goes into slot 2 "upside-down" compared to the way it goes into slot 1.)



4. Gently insert the diskette all the way into the drive slot. Do not force it into the drive.

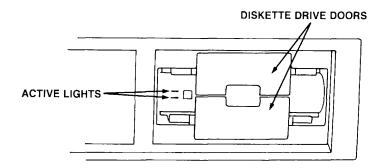


5. Press the diskette drive door closed. (Make sure the diskette is completely in before you close the door.)



(If you put a diskette in with the wrong side up and then switch on the power, you may see a display like that in Figure 2-4. In this case, remove the diskette, and put it back in the right way.)

CAUTION: Do not open a diskette drive door or remove a diskette while the Professional is performing a function. Wait until the Professional is finished doing whatever you have requested it to do. When the diskette drive is in use, the appropriate "active light" (shown below) is on (red). Do not remove a diskette when this light is on.



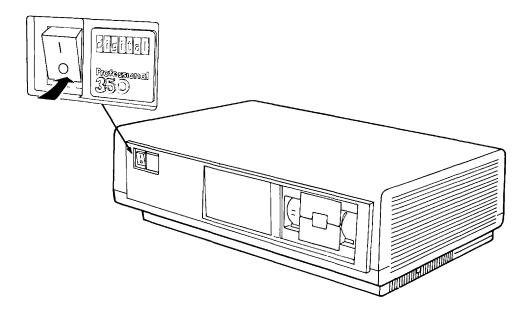
In some cases a message appears on the screen informing you that a function is completed or that you can remove the diskette.

NOTE: Not all diskettes can be used on the Professional. Check with your Professional dealer for information about buying diskettes for the Professional. If you attempt to use a different kind of diskette, depending on the type of diskette, either a message informs you that the Professional cannot use the diskette or nothing happens at all.

When you install P/OS, the information on the P/OS diskettes is copied onto the disk in the system unit of the Professional. You may need to write down some information during the installation. The installation procedure takes from thirty minutes to an hour. You should stay near your Professional during the installation, but you will not have to watch the screen continuously. You may want to take advantage of the time to read through more of the User's Guide.

To install P/OS, follow this procedure:

1. Press the power switch on the system unit to "0" (off).



2. Insert the diskette labeled PRO SYSTEM DSKT V2.0, volume label PROSYSTEMV2, into diskette drive slot 1 (the top slot in the previous picture). Press the diskette drive door closed. (See the previous section for details on inserting diskettes.) Leave this diskette in the drive until the entire installation procedure is completed.

WARNING: Do not operate your Professional with the system unit cover removed.

3. Insert the diskette labeled PRO SETUP DSKT V2.0, volume label PROSETUPV2, into diskette drive slot 2 (the bottom slot in the previous picture). This diskette contains information about the keyboard and the monitor.

4. Press the power switch to "1" (on). The system unit runs a self test that takes about 30 seconds. (This happens each time you turn on the system unit.) Depending on how fast the picture tube in your *monitor* warms up, you may see a test pattern briefly on the screen. Then the DIGITAL logo appears:

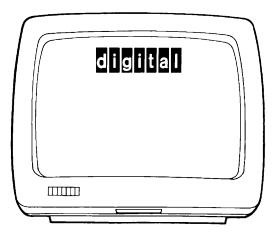
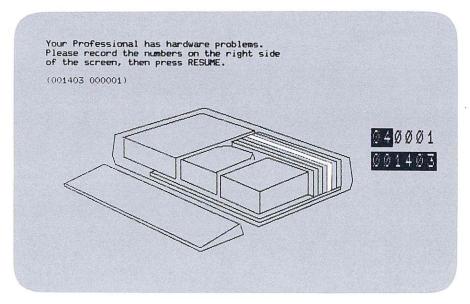


Figure 2-3 Professional 350 Screen Before Installing P/OS

IF PROBLEM

If the self test detects problems, a diagram of the Professional 350 components appears:



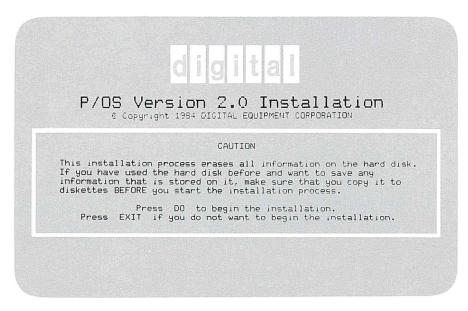


The part of your Professional that has a problem is highlighted in the picture. Write down the numbers you see on the screen and refer to your *Owner's Manual* for help. If you see a message saying that a problem has occurred that will prevent P/OS installation, remove the diskettes and seek help. If you see a message saying that an error has occurred that may interfere with the operation of P/OS after installation, either press the DO key at the top of the keyboard to continue installing P/OS (and fix the problem later) or remove your diskettes and seek help.

If this display ever appears after you've installed your P/OS software, write down the numbers that appear on your screen. These numbers will help your DIGITAL service person to determine the source of your problem.

If nothing happens when you turn the power on, refer to the *Owner's Manual* for help.

5. After the DIGITAL logo, the following display appears on your screen:





6. Press the DO key at the top of the keyboard to continue the installation procedure. (Press the EXIT key instead of DO to prevent the installation.)

IF DISK PREVIOUSLY USED

If P/OS has been previously used on your disk, the following message appears:

Warning

Information has been found on your disk.

If you are sure you want to erase the information, press DO.

If you do not want to begin the installation, press EXIT and take out the installation diskettes.

If you are reinstalling P/OS, you have to reinstall your applications and any personal files you had on the disk by using your backup diskettes, because the install procedure erases any information previously on the disk. At this point, press DO to continue the installation procedure or EXIT to prevent the installation.

7. Wait for the date and time form to appear:

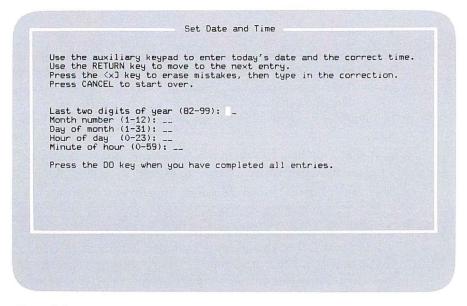


Figure 2-6 Date and Time Form

The blinking rectangle on the screen is called the *cursor*. The cursor is the "active position" on the screen. When applicable, the cursor marks the spot where the next character you type will appear.

8. Fill in the form as instructed by typing the appropriate numbers from the *auxiliary keypad* at the far right on the keyboard. Press **RETURN** to move from one entry to another. Be sure to enter 24-hour time. For example, if the time is 3:30 p.m., type 15 for the hour.

If you make a mistake and have not yet pressed RETURN, press \checkmark to erase the mistake and then retype. If you want to change an entry after you have already pressed RETURN, press CANCEL and start again. If you type an impossible number (such as 13 for the month), the keyboard will beep. Enter a correct number.

9. When you have entered the date and time, press DO to continue (or EXIT to stop without installing P/OS).

Chapter 2

Installing P/OS

Read this chapter when you have assembled the Professional 350 hardware, including the disk option, as described in the *Installation Instructions*. This chapter describes:

- \Box Handling diskettes
- \Box Inserting a diskette into a *diskette drive*
- □ Installing P/OS on the disk

You will find the P/OS diskettes in the small box that comes with this book in the Media and Documentation box. The diskettes are labeled PRO SYSTEM, PRO SETUP, PRO DISPATCH, PRO LIBRARY, and PRO UTILITIES. With the diskettes is a label strip that you should insert at the top of your keyboard. After installing P/OS, put your P/OS diskettes back in their box or in some other container made for storing diskettes. You may need to use these diskettes as *backups* if the copy on the disk becomes unusable or if you need to reinstall P/OS.

HANDLING DISKETTES

Diskettes are magnetic disks that store information the way an audio cassette tape stores sound. Each diskette is encased in a nonremoveable, protective plastic cover. When not in use, a diskette is stored in a paper envelope. 10. Wait for P/OS to format and *initialize* the disk. This procedure, which takes about ten minutes, sets up the disk so that P/OS can put information on it. Throughout the rest of the installation procedure, messages on your screen let you know what is going on or what to do next.

IF PROBLEM

If P/OS has a problem installing at any time during the rest of the installation procedure, a series of numbers appears on the screen. *Write these numbers down*. These numbers are an error message. They indicate that there is a problem, and that P/OS cannot be installed until the problem is corrected. After you write the numbers down:

- a. Remove all diskettes from the drives and repeat the entire installation procedure, beginning at step 1.
- b. If you still get an error message, consult your Professional dealer or service representative.
- 11. When the formatting and initialization completes, a message asks you to press DO to change your keyboard setting or RESUME to continue without changing your keyboard setting. There are 15 possible keyboards, illustrated in Appendix B. A message on your screen tells you what your current keyboard setting is. If you have a different keyboard, you need to change your keyboard setting, so press DO. Otherwise, press RESUME to go on to step 12.

IF YOU NEED TO CHANGE KEYBOARD SETTING

If you press DO, a menu of available keyboards appears. The order of the list depends on the country in which you purchased your P/OS. The names of the keyboards are listed in the language of each country. The following table shows the menu names with the corresponding keyboard names:

Keyboard Menu Name	Keyboard Name	
België (Vlaams)	Belgium (Flemish)	
Canada (Français)	Canada (French)	
Danmark	Denmark	
Deutschland/Österreich	Germany/Austria	
España	Spain	
France/Belgique	France/Belgium	
Italia	Italy	
Nederland	Holland	
Norge	Norway	
Schweiz	Switzerland (German)	
Suisse	Switzerland (French)	
Suomi	Finland	
Sverige	Sweden	
United Kingdom	U.K.	
United States/Canada	U.S./Canada	

Table 2-1			
Keyboard and	l Keyboard	Menu	Names

Press the \downarrow and \uparrow keys until the arrow on the screen points to your keyboard. If your keyboard name does not appear, press NEXT SCREEN.

When the arrow points to the keyboard name you want, press DO.

- 12. Wait about 5 to 10 minutes while P/OS copies the information from the PROSETUPV2 diskette to the disk.
- 13. When the diskette is copied, a message tells you to remove the PROSETUPV2 diskette from slot 2 and which P/OS diskette to insert next. (Make sure you leave the PROSYSTEMV2 diskette in slot 1 the entire time.) When you have inserted the new diskette, close the diskette slot door and press RESUME to continue.

If you do not insert the diskette correctly, the message telling you which diskette to insert reappears, and you can try again.

- 14. Wait about 5 to 10 minutes while P/OS copies the information from the next P/OS diskette to the disk.
- 15. When the diskette is copied, a message tells you to remove that diskette and insert the next diskette. When you have inserted the next diskette, press RESUME.

- 16. Continue copying P/OS diskettes until a message tells you the installation is complete.
- 17. Remove and store the P/OS diskettes. These are your backup diskettes. If anything should happen to the P/OS on the disk, you will need to use these diskettes again.
- 18. Turn the power switch off and then back on. The Professional runs the self test. Then the Main Menu appears, and you can use P/OS. Chapter 3 describes the Main Menu. If there are problems, messages indicate what to do.

3 Getting Started Using Your Professional

Chapter 3

Getting Started Using Your Professional

Read this chapter the first time you use P/OS on your Professional. Follow the steps described here as your first Professional session. This chapter describes:

- The Main Menu
- \Box Choosing from a menu
- □ Recovering from mistakes
- \Box Installing applications
- □ Using the Professional System Overview
- \Box Ending a session

THE MAIN MENU

The Main Menu is the top-level selection list. Once P/OS is installed, the Main Menu appears on your screen after you turn the power on. From the Main Menu, you choose the service or application you want. Services and applications can have submenus. In general, when looking at a submenu, press MAIN SCREEN to display the Main Menu. With some applications, pressing MAIN SCREEN may display the top-level application menu. In this case, press MAIN SCREEN again to display the Main Menu.

CHAPTER 3 | GETTING STARTED USING YOUR PROFESSIONAL

When you first install P/OS, the Main Menu looks like this:

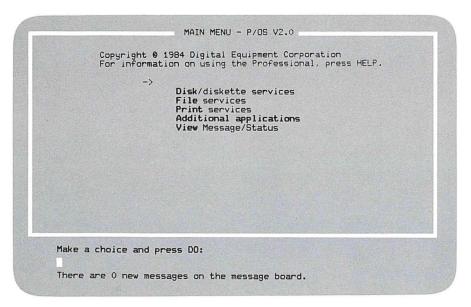


Figure 3-1 Example of Main Menu

The center of the screen shows the list of choices. Right above the list is the *pointer*.

A prompt near the bottom of the screen asks you to make a choice and press DO. The blinking cursor under the prompt marks the spot where the next character you type will appear. A line at the bottom of the Main Menu tells you how many messages you have on your Message/Status display (explained in Chapter 4).

This guide describes all the services listed on the Main Menu as well as PROSE.

CHOOSING FROM A MENU

Choose an item from a menu in one of the following ways:

 Move the pointer to your choice in the menu list by pressing the **1** or ↓ keys (called up and down arrow keys).

Press the DO key. An arrow appears next to the pointer to show you which item you've chosen.

OR

2. Type (in upper- or lowercase) the highlighted (boldface) letters of the item you want to choose. These highlighted characters are called keywords. You only need to type enough letters of the keyword to make a unique choice among the keywords in the menu. If you type more than the keyword, your terminal beeps just to let you know that you do not need to type in any more.

Press the DO key. An arrow appears next to the pointer to show you which item you've chosen.

Experience will show that sometimes one way of choosing is faster, sometimes the other. The menu disappears after you make your choice. If there is a submenu, it appears; if there is no submenu, the application, service, or function you have chosen begins.

Some menus allow you to make, when appropriate, more than one choice; these menus do not have keywords. Messages on the lower right screen indicate how many choices you have and how many you have already made. To select from this type of menu, use one of the following methods:

1. Use the up and down arrow keys to move the pointer to your first choice. Press SELECT. An arrow appears to the left of the pointer to show you that the item has been selected. Move the pointer to the second choice, if a second choice is allowed. Press SELECT. Another arrow appears to the left of the pointer. When all the items you want are marked with arrows, press DO. If you are making only one choice, you do not have to press SELECT; just press DO.

OR

2. Type (in upper- or lowercase) enough letter(s) of the item you want to choose to make a unique selection. (For example, to indicate that your choice is INVENTORY rather than INTEREST, type the letters INV.) If the unique selection of characters consists of more than one word, type one space between words, no matter how many spaces appear between the words in the menu. Press SELECT. An arrow appears to the left of the pointer to show you that the item has been selected. Continue selecting, if allowed, until all choices have been selected. Press DO.

When there are more than twelve items in a menu list, the word "(more)" appears at the bottom of the menu list. If you then press NEXT SCREEN to see more items, the word "(more)" appears at the top of the menu list. Press PREV SCREEN to display the previous items. If you are already looking at the first twelve items, pressing PREV SCREEN causes the keyboard to beep.

You select from the Set-up menus, which you use to set special keyboard and monitor characteristics, a little differently than from all the other menus. Chapter 4 describes in detail how to use these menus.

RECOVERING FROM MISTAKES

While using the menus, you can correct a mistake—such as choosing an unwanted function—only if you haven't pressed the DO key. You can recover from a mistake by canceling your selection or by changing something you have typed.

To cancel all you have done on a menu or form, press the CANCEL key. This erases anything you typed and lets you start again. To cancel a selection made using the SELECT key, press SELECT a second time while the pointer is at the item to be canceled.

INSTALLING APPLICATIONS

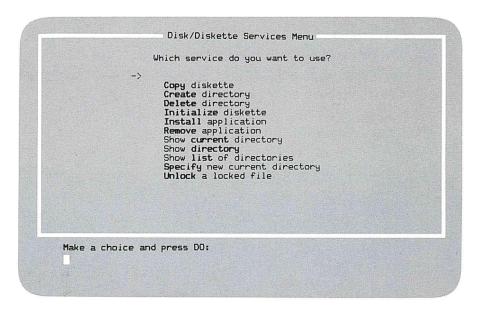
Before you can use your applications, you have to install them on your Professional. This section explains the installation procedure for an application contained on a single diskette, using PROSE as an example. Chapter 7 contains additional information about installing applications.

To install an application,

- 1. If you have not already done so, turn the power on by pressing the power switch to "1."
- 2. Wait for the Main Menu to appear.
- 3. Insert your application diskette into a diskette drive slot. (Chapter 2 explains how to insert diskettes.)
- 4. Type the letter D or press the ↓ key to move the pointer to "Disk/ diskette services":

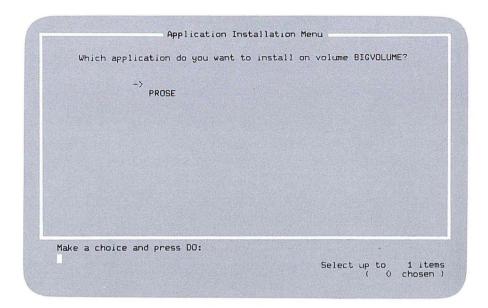
(Copyright 0 for informat	1984 Digital Equipment Cor ion on using the Professio	poration nal, press HELP.
	->	Disk/diskette services File services Print services Additional application View Message/Status	
Make a	choice and	press DO:	

5. Press the DO key. The Disk/Diskette Services Menu appears:



6. Type INS (for Install) or press the ↓ key to move the pointer to "Install application."

7. Press DO. The Application Installation Menu appears. For example:



This menu lists the name(s) of the application(s) on any inserted diskettes. BIGVOLUME is the name P/OS uses for the disk.

- 8. Move the pointer to the name of the application you want to install.
- 9. Press DO. The Application Group Menu appears. This menu lists the names of the menus on which you can install applications:

Tra wh	nich group do you want to install the application?	
TH W	Hen group of god want to install the application	
->		
	Main Menu Applications A Group	
	B Group	
	C Group D Group	
	E Group F Group	
	G Group	
	H Group I Group	
	J Group K Group	
	K VI COP	
		and a
lake a choic	e and press DU:	

- 10. Press the down arrow key or type the menu name to move the pointer to the menu (group) where you want to install the application. (You can put up to five applications on the Main Menu and up to 12 applications on each Additional Applications group menu. See Chapter 7, Install Application, for more details on group menus.) For this example, choose the Main Menu by typing the letter M or by pressing ↓ to move the pointer to "Main Menu Applications."
- 11. Press DO. The Application/Group Name Change Form appears, telling you the name of the application and its group. If you chose "Main Menu Applications," the group name is blank, because you cannot change that name.
- 12. If you want to change the application name or the group name, delete it with the \checkmark key, and type in the new name (40 characters or less, including spaces). Use RETURN to move from one entry to the other. You can change Additional Application group names but not the name of the Main Menu, which was chosen in this example.

- 13. When you have the names you want, press DO. P/OS begins installing your application. This takes from two to ten minutes for an application contained on a single diskette.
- 14. When the installation is completed, the Disk/Diskette Services Menu reappears. If you want to install another application, start again from step 6. Otherwise, press MAIN SCREEN to display the Main Menu. If you followed this example, you will see PROSE at the top of the Main Menu list. You can now use PROSE by selecting it from the Main Menu. Chapter 10 explains how to use this text editor.
- 15. When you have installed your applications, remove and store the diskette(s). **DO NOT throw the application diskette away or use them for some other purpose.** They are your backups in case the copies on your disk are lost or destroyed.

When installing applications, leave room on the disk for your work. It is recommended that you read Chapters 4 and 5 before you install a lot of applications.

You can remove an application at any time. Read the section on Remove Application in Chapter 7 for instructions.

USING THE PROFESSIONAL SYSTEM OVERVIEW

The *Professional System Overview* is a course you can take that gives you information on the screen about the Professional (see Preface). You type in responses as you read through the information. If you want to use the *Professional System Overview*:

- 1. Install the *Professional System Overview* from the diskette labeled PRO INSTRUCTION V2.0 following the procedure described in the previous section.
- 2. Insert the diskette labeled PRO SYSTEM OVERVIEW V2.0 into diskette drive slot 1.
- 3. Select "Computer-Based Instruction" (or whatever you named the application) from the Main Menu or appropriate Additional Applications menu.
- 4. Displays on your screen will then tell you what to do.

ENDING A SESSION

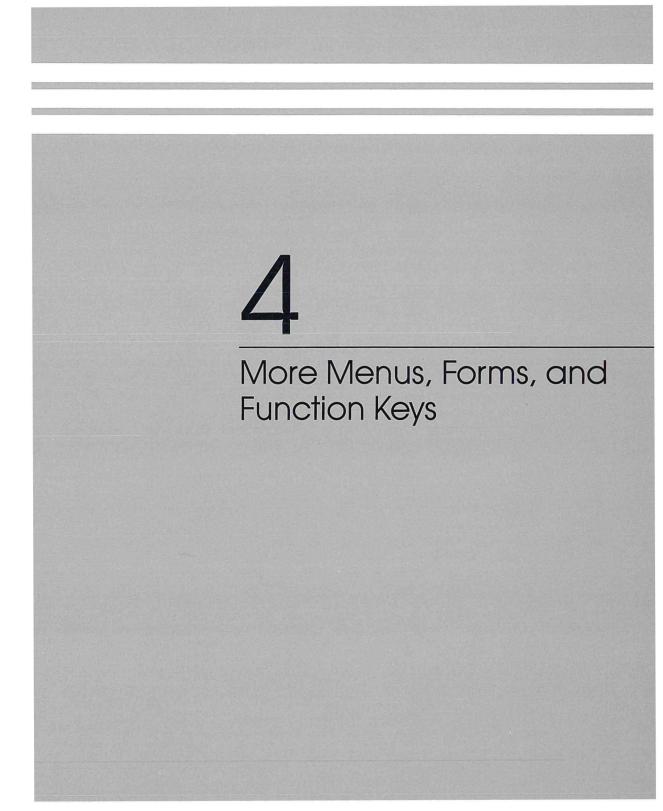
To prolong the life of the disk and monitor, turn the power switch to "0" (the off position) when you are not using the Professional, unless you plan to use it again within an hour.

Whenever you finish a work session with your Professional, **make sure the Main Menu is displayed.** If you leave the power on, after 30 minutes of inactivity, the screen display will disappear. Press the SHIFT key to redisplay the Main Menu when you are ready for the next session.

CAUTION: It is important to leave your session with the Main Menu displayed. If you leave a session with an application in progress, pressing some of the keyboard keys or turning the power off could destroy your current work.

When you finish the last session of the day:

- 1. Make sure you have backed up any files you created or changed. Chapter 5 explains more about this. If you are following the steps in this chapter for your first session, you do not yet have any files requiring backup.
- 2. Display the Main Menu.
- 3. Make sure that no work, such as printing, is in progress.
- 4. Press the power switch to "0" (off).
- 5. Remove and store the diskettes you have been using.
- 6. Lock up diskettes containing confidential information.



Chapter 4

More Menus, Forms, and Function Keys

This chapter describes:

- □ Menu organization
- Getting information on your screen
 Message line(s) and beep
 HELP
 Message/Status display
- \Box Using the following function keys:
 - Hold Screen Print Screen Interrupt Set-up Addtnl Options Compose Character
- \Box More on using service and application menus

You control your Professional by using function keys and by choosing functions and services from menus and forms. Since many keys operate differently for different situations, each section in this guide explains the functions of any special keys.

MENU ORGANIZATION

The menus are organized in a hierarchy with the Main Menu at the top and submenus and forms below:

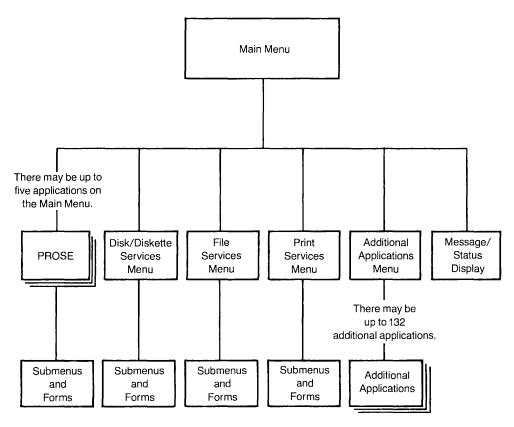


Figure 4-1 Menu Organization

The Main Menu lists services and applications. Services, such as file services or print services, are groups of related functions. Most of the submenus list specific functions such as delete a file or print a file. Here is an example of a Main Menu after some applications have been installed:

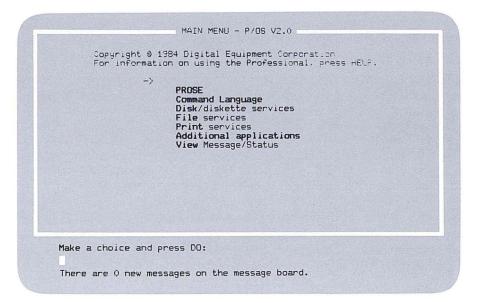


Figure 4-2 Example of Main Menu with Some Applications

GETTING INFORMATION ON THE SCREEN

Three features provide information on the screen about what you and the Professional are doing:

- □ The Message Line(s) and/or Beep
- □ The HELP Key
- □ The Message/Status Display

The Message Line(s) and/or Beep

If you make a mistake while using the menus or any of the P/OS services, a short message may appear on one or two lines at the bottom of the screen. The message identifies a problem. Sometimes, instead of seeing a message, you may hear the keyboard bell, which has a beeping sound. For example, if you press an inappropriate function key, the keyboard may beep. Other times, a mistake may result in a beep and a message. Other messages may appear to let you know that a function is completed, that the computer is working, and so on. For example,

Your file has been copied.

Some messages take up the entire screen. If you see a number with an error message, write down the number and the message; you may have to consult your Professional dealer or service representative for help.

Getting Help

When you are not sure what to do, press HELP. Information, if available, will appear to aid you. Press RESUME to return to your original work.

The type of help you get depends on what you are doing at the time. If you are looking at a menu, the help you get depends on the menu and on where the pointer is on the menu. If you press HELP while using PROSE, you will either see the PROSE HELP Menu or information about what you are doing.

By pressing HELP twice while the Main Menu is displayed, you can display a HELP menu from which you can get general information about using P/OS:

HELP MENU HELP is available on the topics listed below. To find out about other ways of getting HELP, choose "Overview of HELP." If you want to go back to the Main Menu, press RESUME. Additional applications Additional options Disk services File services Function keys Install application Message/status display Multi-choice menus Overview of HELP Print services Remove application SET-UP Make a choice and press DO:

Figure 4-3 P/OS HELP Menu You cannot access HELP for a particular application unless you are using that application. Some applications may not have HELP information.

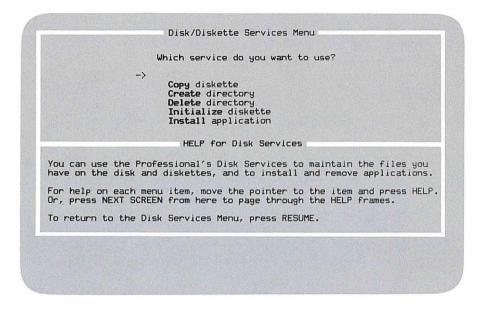
HELP information appears either on a portion of your screen or on the entire screen. You can use NEXT SCREEN or PREV SCREEN to move forward and backward through multiple screens of HELP information, if multiple screens of HELP are available on that topic.

The following is an example of displaying HELP:

1. The screen displays a menu or your current activity:

Which service do you want to use?	
-> Copy diskette Create directory Delete directory Initialize diskette Install application Remove application Show current directory Show directory Show list of directories Specify new current directory Unlock a locked file	
noice and press DO: ion has been installed.	

2. Press HELP. HELP information takes the place of what was on the lower half of the screen:



3. When you press **RESUME**, the HELP frame disappears and the activity you were doing continues.

Message/Status Display

The Message/Status display, available from the Main Menu, shows useful Professional information and messages. The following figure shows a Message/ Status display:

Current directory	is USERFILES o	n volume BIGVOL	UME.
Disk/diskette	Volume	Blocks Free	Blocks Used
BIGDISK DISKETTE1 DISKETTE2	BIGVOLUME SLIDESHOW -empty-	4119 73	5608 727
	ME	SSAGES	
	messages.		

Figure 4-4 Example of Message/Status Display

The top part of the display gives status information, such as the current time and date, the names of your currently inserted diskettes, and the amount of free space on the disk and currently inserted diskettes. (Chapter 5 explains more about this status information.)

The bottom part of the display shows one-line messages sent by print services or an application. If there are more messages than will fit in one display, press NEXT SCREEN to see more of them. Pressing NEXT SCREEN erases any currently-displayed messages. Press EXIT to return to the Main Menu.

MORE FUNCTION KEYS

As you use your Professional more, you may need to use the following function keys:

Hold Screen	Set-up
Print Screen	Addtnl Options
Interrupt	Compose Character

The HOLD SCREEN Key

Press HOLD SCREEN to keep a screen display from changing so that you can read what is on it. Press HOLD SCREEN again to release the hold. While the HOLD SCREEN key is in operation, the Hold Screen light at the top of the keyboard is on.

The PRINT SCREEN Key

Press PRINT SCREEN to print a copy of whatever is on your screen. You must have a printer connected to your system unit. After using PRINT SCREEN, reset the paper in your printer so that the print head is at the first line of a page. Use the form feed control on your printer to do this. The LA100 must be set offline before form-feeding; set the printer on-line again before you begin printing. The PRINT SCREEN key only works with the LA50 and LA100 printers.

The INTERRUPT Key

Press INTERRUPT and then DO to immediately stop whatever you are doing. If you type any key other than DO, the interrupt does not occur, and you can continue your activity. For some applications, pressing INTERRUPT DO has no effect.

CAUTION: Pressing INTERRUPT DO can destroy your current work.

The SET-UP Key

Use the SET-UP key:

□ To display Set-up menus in order to set certain Professional characteristics, for example, the way the cursor looks, the number of characters displayed on a screen line, or the time on the Professional's clock.

□ To "unlock" the keyboard. If you notice that nothing happens when you type on the keyboard, check to see if the Wait light at the top of the keyboard is on (red). If the Wait light stays on for more than a couple of minutes, you may need to unlock the keyboard by pressing the SET-UP key once. An application may intentionally lock the keyboard for brief periods, therefore you should wait. Pressing SET-UP while an application is in progress may also affect the application.

You access the Set-up menus by pressing the SET-UP key when the Main Menu is displayed. There are two Set-up menus, A and B. Figure 4-5 shows Set-up Menu A; Figure 4-6, Set-up Menu B. The current settings are highlighted in boldface. In this example, the current settings are the *default* settings in effect when you first turn the power on after installing P/OS. A default setting remains set until you change it using a Set-up Menu.

-> Autorepeat on	Keyclick on	Scroll jump
Autorepeat off	Keyclick off	Scroll smooth
Bell on Bell off	Lock caps Lock shift	Set TABs
Change directory	Monitor monochrome	Video normal
Change keyboard	Monitor color	Video reverse
Office mode	Columns 80	Set-up reset
DP mode	Columns 132	Set-up save

Figure 4-5 Set-up Menu A

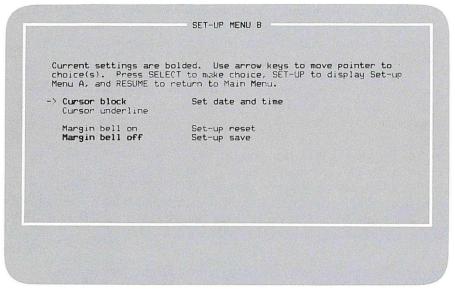


Figure 4-6 Set-up Menu B

To select from a Set-up Menu, press the \downarrow , \uparrow , \rightarrow , or \leftarrow keys to move the pointer. Press SELECT each time the pointer is at an item you want to select. Then choose "Set-up save" to save all your choices as defaults.

If you do not select "Set-up save," the characteristics you select last only until you turn the power off or change them again using the Set-up menus. These are called *current* settings. You can change your current settings without changing your default settings. You can then return to your default settings without powering off by selecting "Set-up reset."

While looking at a Set-up Menu, press SET-UP to display the other Set-up Menu, and press RESUME to go back to the Main Menu. Press EXIT instead of DO to return from a Set-up submenu to the appropriate Set-up menu without doing anything.

Set-up changes take effect when you return to the Main Menu, **except** keyboard language, keyboard mode, directory, and time, which take effect immediately.

Some applications may "override" or temporarily not use certain defaults that you set. For example, PROSE uses 80 columns and autorepeat, no matter what your current Set-up settings are. When you exit PROSE, you go back to your settings.

The Set-up functions follow:

Autorepeat (on, off)

The initial default setting is on. When autorepeat is on, holding down any of the character keys, arrow keys, or auxiliary keypad keys on the keyboard causes the character to repeat. For example, holding down the underscore (_) causes a repeated underscore, such as "_____."

When autorepeat is off, the only way to repeat a character is to repeatedly press the key.

Bell (on, off)

There is a "bell" inside the keyboard that makes a sound—like a beep—if, for example, you type something that your application recognizes as a mistake. The initial default setting is on. It is recommended that you keep the bell on, since some errors are signaled only by a beep and no message.

Change directory

Your current *directory* is a particular group of files that you create or access. Chapter 5 discusses directories, files, and how to change directories.

When you select "Change directory" from Set-up Menu A, a list appears of all directories on the disk and on any currently inserted diskettes. Use the pointer to select the directory you want for your current directory. Press DO. The directory you selected becomes your current directory, and Set-up Menu A then reappears. If you then select "Set-up save," the directory you selected becomes your default directory as well.

Change keyboard

Keyboards vary according to the country where you bought your Professional. The 15 types of Professional keyboards are shown in Appendix B.

When you select "Change keyboard" from Set-up Menu A, a list of available keyboards appears. The order of keyboard names depends on the country where you bought your P/OS. The names are:

United States/Canada België (Vlaams) Canada (Français) Danmark Deutschland/Österreich España France/Belgique Italia Nederland Norge Schweiz Suisse Suomi Sverige United Kingdom

Table 2-1 in Chapter 2 lists the English keyboard names that match the keyboard Menu names. Choose the country whose language you want for your keyboard. Normally, you should choose the setting that matches your keyboard. However, you can choose a different setting, in which case the screen will display the characters for the keyboard you selected, even though your actual keyboard is different.

When you change your keyboard setting, the keyboard mode changes to the default for the new keyboard (see Office mode/DP mode).

Columns (80, 132)

The screen is organized for displaying text in lines and columns. There are always 24 horizontal lines and either 80 or 132 vertical columns for displaying text. The initial default is 80 columns. Using Set-up Menu A, you can change to 132 columns; the characters are smaller than with 80 columns. 132 columns is best for displaying wide tables.

Cursor (block, underline)

The initial default cursor is a small rectangle (block). You can use Set-up Menu B to change the shape of the cursor to an underscore (underline).

Keyclick (off, on)

With the initial default setting, the keyboard keys click (squeak) when you press them. If you do not want this click, set keyclick to off.

Lock (caps, shift)

The LOCK key on the keyboard works in conjunction with two options on Set-up Menu A: shift-lock and caps-lock. The initial default is caps-lock.

With caps-lock, if you press the LOCK key:

- $\hfill\square$ The Lock light at the top of the keyboard goes on. (The LOCK key itself does not stay down.)
- □ The keyboard generates an uppercase alphabetic character whenever you press a key with a single letter on it. For example, pressing B displays B rather than b.
- □ The keyboard generates the "lower" character on keys with more than one character on the key legend. For example, pressing [. To display {, press SHIFT and].
- \Box To go back to using lowercase, press LOCK. The Lock light will go off.

With shift-lock, if you press the LOCK key:

- $\hfill\square$ The Lock light at the top of the keyboard goes on. (The LOCK key itself does not stay down.)
- □ Whenever you type a key, the keyboard generates either an uppercase character or the top character on the key. For example, pressing i displays {. Pressing B displays B rather than b.
- □ To go back to using lowercase, press SHIFT. The Lock light will go off.

Margin bell (on, off)

The initial default setting for the margin bell is "off." If you change it to "on," the keyboard bell beeps when the cursor moves to or tabs beyond the eighth column from the right edge of the screen display.

Monitor (monochrome, color)

The initial default monitor type is monochrome. Monochrome means the screen displays one color, for example, white. If you bought the Extended Bit Map module with a color monitor, choose the color setting on Set-up Menu A so that P/OS can properly handle information going to the monitor. With a monochrome monitor and the Extended Bit Map module, use the monochrome setting.

Office mode/DP mode

"Office mode/DP mode" affects keys that can display two different characters depending on the mode you set. DP (data processing) mode applies to any key that shows two separate characters **next** to each other. The character to the **right** can be displayed if DP mode is enabled; the character to the left is the office mode character. Appendix B shows the keys and keyboards that allow the two modes. The U.S./Canada keyboard has no DP mode keys. For other keyboards, the initial default is office mode.

Scroll (jump, smooth)

Scrolling is the upward or downward movement of lines on the screen to make room for new lines at the bottom or top of the screen. The initial default on your Professional is jump-scroll.

With jump-scroll, new lines appear on the screen rapidly. Although lines appear more quickly this way, it may take longer to focus your eyes on the words you are looking for. With smooth-scroll, new lines appear on the screen one after the other; the screen is easier to read.

The Set-up "Scroll" function applies only to the scrolling of the entire screen display. Applications may override your default setting when scrolling only a part of the screen display.

Set date and time

Use "Set date and time" if the date or time displayed on your Message/Status display is not correct. For example,

- □ If you move the Professional to a time zone requiring a date and/or time change.
- □ If the battery that runs the time and date clock has lost its charge. This situation would occur if the power to the Professional was left off for a long period of time. (The Professional keeps track of the date and time even when the power is off.)

When you select "Set date and time," a form appears requesting the new date and time. Follow the directions on the form. When entering the hour, use 24-hour time. For example, if it is 3:45 p.m., type 15 for the hour.

When you press DO, the Professional time and date clock is reset to the date and time you entered.

Set tabs

With the initial default setting, there is a tab stop at every 8 columns, starting at column 9. For example, if the cursor is in a column from 1 to 8, when you press the TAB key, the cursor jumps to column 9. You can change these tab stops by using Set-up Menu A. When you select "Set tabs," a ruler appears on your screen. Using the \rightarrow and \leftarrow keys, move the tab selector (V) across the ruler to where you want a tab; then press SELECT. A "T" appears to show where the tab stop is. To clear a tab stop, move the V to the stop you want to clear and press SELECT. When you have selected all the desired tab stops, press DO. Set-up Menu A reappears, and you can continue making your Set-up selections.

To reset all tab stops to the default settings, press CANCEL before pressing DO.

Tab settings affect only the screen display. They do not necessarily affect printer output.

Set-up (save, reset)

By selecting "Set-up save," you save as defaults Set-up menu items highlighted on the screen at the time. If you turn the power off, the next time you power on, these defaults will be in effect. By selecting "Set-up reset," you reset Set-up values to the previously saved values (the same as when you turn the power off and back on).

Video (normal, reverse)

The initial default screen display, called normal video, is light characters on a dark background. If you prefer dark characters on a light background, select reverse video.

The ADDTNL OPTIONS Key

Some menus, forms, and displays provide additional options. These are options you can choose along with your menu choice. Additional options are usually functions that may not be used often. A note on a menu indicates if that menu has additional options. For example,

MEMO1 Document 1 1 18-NDV-1982 Yes TAXES BASIC program 1 17-NOV-1982 No POEM Document 2 4 18-NOV-1982 Yes CHECKS BASIC program 1 17-NOV-1982 Yes LTRHEAD Document 1 2 17-NOV-1982 Yes SHANGES Document 1 3 17-NOV-1982 Yes	and the second second
Additional Options available	e

Figure 4-7 Example of a Display with Additional Options

If you want an additional option, press ADDTNL OPTIONS before doing anything else on the menu or form. Pressing ADDTNL OPTIONS erases anything you may have typed so far. Select an additional option in the same way you select from any other singlechoice menu. When you have made your choice, press DO. Press EXIT instead of DO if you want to return to the previous display without making a choice.

The following figure shows an example of an additional options menu:

Additional Options Menu Which options do you want to choose? If you do not want to choose an option, press EXIT. Print directory Store directory as a file Make a choice and press DO:

Figure 4-8 Example of an Additional Options Menu

Pressing the ADDTNL OPTIONS key has different results in different applications. Refer to the documentation on each application for details.

The COMPOSE CHARACTER Key

By using the COMPOSE CHARACTER key combined with certain other keys, you can create special characters that are not on your keyboard. This is useful if you are working in an international situation. For example, you can type a letter in French on a Professional with a U.S./Canada keyboard, even though some of the French characters are not on the U.S./Canada keys.

To "compose" a character, press COMPOSE CHARACTER. Then type the two characters that together form the character you want. The cursor will not move after you type the first of the two characters. For example, to compose an acute e (é):

- 1. Press COMPOSE CHARACTER.
- 2. Type the letter e.
- 3. Type an apostrophe ('). Your screen displays é.

If you make a mistake using the COMPOSE CHARACTER key, the keyboard beeps, if the keyboard bell is set to on. In this case, start again. If you press COMPOSE CHARACTER accidentally, press $\langle X \rangle$, and continue what you were doing.

Appendix A lists the compose sequences you can use and describes the possible errors in detail and how to recover from them.

You can print the composed characters using print services.

While composing a character, the Compose light at the top of the keyboard is on.

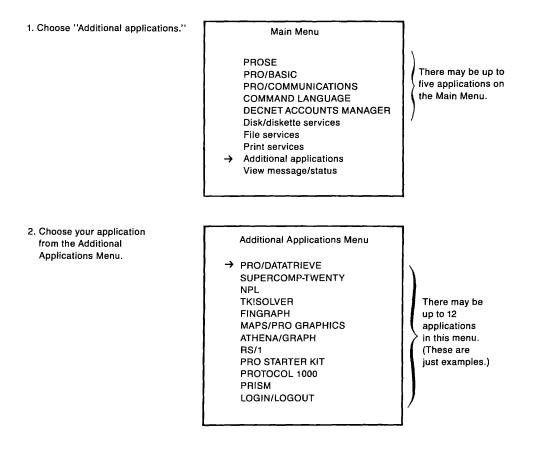
Some keyboards also allow you to compose certain characters without first pressing the COMPOSE CHARACTER key. These "two-stroke" compose sequences are discussed in Appendix B. (The U.S./Canada keyboard has no two-stroke compose sequences.)

Another alternative for typing documents in languages other than the one for your keyboard is to use the Set-up "Change keyboard" function. This function causes P/OS to work as if your keyboard were that of the language you want. It is best in this case to purchase a different keyboard for each language you want and to plug each one in when you need it. However, you can look at the diagram of a keyboard while typing and, with practice, produce the same effect.

CHOOSING APPLICATIONS FROM MENUS

You can select up to five applications directly from the Main Menu. You select any other applications from the Additional Applications Menu. You select an application from the Additional Applications Menu in one of two ways:

1. If there are 12 or fewer additional applications, all installed on the "A Group" menu, you choose an additional application directly from the Additional Applications Menu. (Chapter 7 explains in detail how to install applications on the group menus.) Figure 4-9 shows how to choose from the Additional Applications Menu when all the additional applications are installed on the "A Group" menu:



3. Your selected application begins.

- 2. If the applications are installed on more than one group menu, you first select the group from the Additional Applications Menu, and then the application from that group. Only the application groups with installed applications are displayed on this menu. Figure 4-10 shows this procedure.
- SELECT 'Additional Applications.''

Main Menu

	PROSE
	PRO/BASIC
	PRO/COMMUNICATIONS
	COMMAND LANGUAGE
	DECNET ACCOUNTS MANAGER
	Disk/diskette services
	File services
	Print services
->	Additional applications
	View message/status
	-

Select your choice of group.

Additional Applications Menu

→ Graphics PRO/DECnet Languages Games There may be up to 11 groups in this menu. (These are just examples.)

3. Select your choice of application.

Graphics

→ FINGRAPH MAPS/PRO GRAPHICS ATHENA/GRAPH There may be up to 12 applications in this menu. (These are just examples.)

4. Your selected application begins.

Figure 4-10

Selecting an Application Using the Additional Applications Group Menu

From the Additional Applications Group Menu, press MAIN SCREEN to return to the Main Menu. If the application you selected does not work, consult your application sales agreement, Professional dealer, or service representative.

SERVICES AND APPLICATIONS MENUS AND FORMS

The number of disk-based P/OS applications available to you depends on what is installed on your Professional. There are sometimes additional lower-level menus or forms listing more functions related to a service or application. You display these by choosing a service or function from a menu.

You perform some functions, such as "Copy file(s)" or "Install application," by using a series of menus and forms. During the process, if you don't want to continue, you have opportunities to press the EXIT key to cancel what you have done and return to a previous menu or form, as long as you have not pressed the final DO that makes the function happen. Other times, for example with "Display file," pressing EXIT returns you to a previous menu or form without canceling any work. In this book, the descriptions of each function tell you specifically when you can use the EXIT key. Some applications, for example, PROSE, use the EXIT key for other purposes as well.

Some applications may display menus in an abbreviated display, leaving the rest of the screen to display your current work. PROSE can display a one-line prompt for a menu item, so that you can look at your text while you make your menu choice. Refer to the descriptions of each application for information about specific menus.

Some applications do not have menus. For example, when you choose BASIC, the READY prompt appears at the top of the screen and you then use the standard BASIC commands.

5

Introduction to the P/OS Files System

Chapter 5

Introduction to the P/OS Files System

This chapter describes concepts you need to understand before you start using your Professional extensively.

GENERAL DESCRIPTION OF FILES

This section contains general information about files on the Professional.

What Is a File?

A file is a collection of related information stored on a disk or diskette. A file can be:

- □ A program such as a P/OS service or application program or a BASIC program that you write. (A program can include more than one file, and a file can be included in more than one program.)
- □ A collection of data that a program uses—employee data for a payroll application, check numbers and amounts for a BASIC checkbook program, or part numbers for an inventory application.
- \Box A memo, report, or other text that you create and edit with PROSE.
- □ A form you fill out when using an application. For example, an order processing application might have order forms, invoicing forms, back order forms, and so on. Each set of forms is a file. Each application defines its own set(s) of forms. (The data that you enter into the forms is stored in some other file or files.)

Creating Files

You create files by using the following kinds of services or applications:

- \Box PROSE (Chapter 10)
- □ File services (Chapter 6)
- □ PRO/BASIC (Refer to the *PRO/BASIC Language Manual*.)
- □ Communications (Refer to the *PRO/Communications Manual*.)
- \Box Other applications

All files have names. Whenever you create a file, you give it a name, so that P/OS can keep track of it for you. This *file name* must be one to nine characters long (letters A-Z and/or numbers 0-9 only).

File Storage: Volumes

Files take up space on your Professional. P/OS stores a file by placing magnetic signals on the disk or on a diskette in somewhat the same way as sounds are put on a cassette tape. The Professional reads the signals and translates them to characters you can understand.

P/OS calls the disk and each diskette a *volume*. Each diskette has a volume name, assigned by those who first place files on that diskette (for example, the people who made the applications or you). The volume name for the disk is already assigned by P/OS as BIGVOLUME.

Before you create a file, decide what volume you want P/OS to store it on. Experience will teach you how much space you need for a file and how to organize your files. Later in this chapter, there is a more detailed discussion of file size.

When you first use a diskette, it must be initialized and, at the same time, given a volume name. Initializing is a process by which P/OS makes the diskette ready for you to use. Sometimes P/OS can initialize a diskette automatically, but in many cases you need to initialize your diskette using the "Initialize diskette" on the Disk/Diskette Services Menu. Initialize your personal diskettes as soon as you know what kind of files you want to put on them.

The diskette volume name must be one to twelve characters. Each volume should have a different name.

Note that there are several names that are reserved for P/OS and P/OS applications. Do NOT use the following names for your personal diskettes:

BIGDISK	SY
BIGVOLUME	SYSDISK
DISKETTE1	TI
DISKETTE2	ТТ
DW1	TT1
DZ1	TT2
DZ2	USERDISK
LB	ХК
LP	ХТ

If you insert two diskettes with the same volume name at the same time, P/OS will not be able to access the second one.

The following table illustrates volumes. The names in lowercase are just examples: you name your own diskettes.

Volumes	Name
disk	BIGVOLUME
diskette a	myvolume
diskette b	reports
diskette n	memos

Table 5-1 Example of Volume Names

Application diskettes are named by those who created the application.

In addition to volume names, the disk and diskettes are named by the hardware drive (device) that contains them. These device names are:

Table 5-2 Device Names	
Device Name	Refers to
BIGDISK	The disk in the system unit
DISKETTE1	The diskette slot labeled 1
DISKETTE2	The diskette slot labeled 2

Your Message/Status display, for instance, refers to the disk and diskettes by device name.

File Grouping: Directories

P/OS files are grouped in sets, called *directories*. To give you a more graphic idea of files, volumes, and directories, the following figure compares computer files with those in a file cabinet:

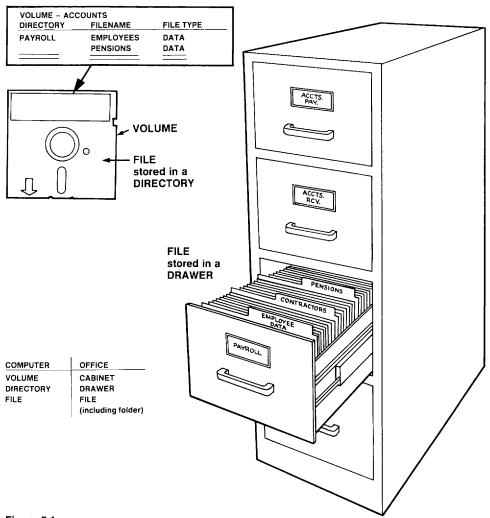


Figure 5-1 Comparing Computer Files to Files in a File Cabinet

The disk initially has the following directories:

USERFILES	This is the directory initially set up as your <i>default directory</i> . When you first install P/OS, this directory is empty. If you create files using PROSE, PRO/BASIC, or any service, the files are stored in this directory unless you create more directories.
EXAMPLE	This is a directory to use when reading <i>For Beginners</i> .
ZZxxxxxx	A number of directories contain P/OS "system" and application files. Most of these directories begin with the letters ZZ. There are also three other P/OS system directories: 000000, 001001, and 001002. Applications are stored in directories beginning with the letters ZZAP. You should not create or change files in any of these directories. If you do, you could destroy P/OS or your applications.

You can create other directories on your disk by using "Create directory" on the Disk/Diskette Services Menu. You can also delete USERFILES and EXAMPLE if you wish, but you should not delete "ZZ" directories, except by removing applications or reinstalling P/OS.

Before you begin using your Professional extensively, think about the types of files you will create, and set up directories for groups of related files. For example, if you plan to do payroll periodically, keep all your payroll files in a directory called PAYROLL. If you plan to write memos, keep them in a directory called MEMOS. It is a good idea to keep the number of files in each directory to less than 50 and to keep files you create using different applications in different directories.

Directory names have one to nine characters (letters A-Z and/or numbers 0-9 only). Each directory on a volume must have a unique name. If you give a directory a name that begins with the letters ZZ or that is a six to nine digit number where none of the digits is greater than seven, P/OS considers it to be a system directory. For example, directories named ZZZ, ZZOD, 012345, 7654321 are considered system directories. Directories named ZODIAC, PIZZA, 1984, 147910 are considered user directories. You should not create system directories under normal circumstances.

Your disk, located inside your Professional system unit, contains files that you can access without inserting a diskette. P/OS and all P/OS applications that you want to use must be installed on the disk. During the installation procedure, P/OS creates disk directories for P/OS and P/OS application files. Create your own directories on the disk for personal files you expect to use regularly or put them in USERFILES. These files might include documents you refer to often, recent memos, PRO/BASIC data files and programs, and so forth. Since space on the disk is limited, the disk will eventually fill up. Then you can copy the less-used files to directories on separate diskettes.

When you buy a diskette for your own personal files, you initialize it before you use it, following "Initialize diskette" described in Chapter 7. Doing this creates an empty directory called USERFILES and a volume name that you choose. As with the disk, you can either put your files in the USERFILES directory or create your own directories.

Do not delete the USERFILES directory on any diskette that you plan to use with PROSE or PRO/BASIC.

You should keep several extra personal diskettes on hand, putting only files that are related on each one. For example, you might have a diskette for data for a program you have written. You might even want to put the program on this diskette if there is room. Another diskette might contain memos relating to a particular department or person. And so on. Only you can determine how best to organize your work.

Diskettes you buy with programs or applications on them also have directories that were created by the people who prepared the diskettes. These diskettes have already been initialized. If you initialize them again, the programs or applications will be erased.

The following table shows the relationship of directories to volumes. The names in lower case are just examples: you name these yourself.

	disk	diskette a	diskette b	diskette n
Volume	BIGVOLUME	inventory	reports	checks
Directories	USERFILES decmemos janmemos febmemos andy robin payroll misc	store1 store2 warehouse	fy1981 fy1982 fy1983	checks' USERFILES

Table 5-3 Example of Directories on Volumes

¹You can use the same name for directory and volume if you want. Don't, however, use the same name for two volumes or for two directories in a volume.

If you are sharing your Professional with others, each user can set up separate directories. Since all users of your Professional can access all files on the disk, keep private files on diskettes.

File Types

Besides grouping files in directories, P/OS also identifies files by the following types:

BASIC program Data Document Text Other

Files have types based on their use. The PRO/BASIC application runs BASIC program files. Data files contain data for your programs. You create document files with the editor, PROSE. BASIC program, data, document, and text files are all types you can create, edit, delete, and so on.

"Other" refers to any file type other than BASIC program, data, text or document. These types all have the format XXX, where XXX can be one to three numbers (0-9) and/or letters (A-Z).

Sometimes a service or application assumes a default file type. For example, PROSE identifies your files as "Document" unless you specifically change the type. If you create a BASIC program using PROSE, you have to explicitly change the file type to be BASIC program either when you exit the editor or by using the "Rename file/change file type" on the File Services Menu.

P/OS uses files with types such as .SYS (system), .TSK (program), and .FLB (forms). Many of these files are installed on your disk during the P/OS installation procedure. Others are installed with applications. You should not create or change these kinds of files, but you can see them listed in directories. You install system files when you install P/OS. Programs are files consisting of instructions to the Professional. Forms files contain groups of forms to be used for an application or service. Applications consist mostly of program, forms, and data files. You can install and remove application files, but you should not change them.

If you have the PRO/Communications installed, you can transfer files from other computers to your Professional and vice versa. These files may have different types from those described here. Files from PDP-11 or VAX computers will have types of the format .XXX (other). Transferred files may not look the same on one computer as on another. For information about transferred files, refer to the *PRO/Communications Manual*.

File Size

Files vary in size and are measured in blocks. A *block* is the amount of space needed to store 512 characters—more specifically, 512 bytes. A *byte* is a storage space big enough for one character. For example, if you write a 600-character memo, each of those characters is stored in a byte. Additional bytes are needed to indicate blank spaces, paragraph breaks, and other information P/OS keeps on that file. The total space used for your memo might be about 660 or more bytes—or somewhat over one block. P/OS does not use fractions of blocks, so the file size for your 600-character memo is actually two blocks. For every file, then, extra, unused space can be assigned to the file. This extra space averages a half block per file.

A diskette has room for about 800 blocks, but some of that space is used up at initialization for P/OS information. About 750 blocks are left for your use. A diskette file can take up as much space as there is available on its diskette—or up to about 750 blocks. If you run out of space for a file on a diskette, you can copy the file to the disk and make it larger there.

A file created on the disk can take up as much space as there is available on the disk. The following table shows the approximate number of blocks available for your use and for P/OS use on the 5-megabyte and 10-megabyte hard disks¹ available for the Professional and on each diskette.

Volume Sizes in Blocks	10 MB Disk	5 MB Disk	Diskette
Used by P/OS	4,000	4,000	50-200
Free for your files and applications	16,000	6,000	600-750
TOTAL BLOCKS	20,000	10,000	800

Table 5-4 Disk and Diskette Sizes

¹Disk sizes are also described in *megabytes (MB)*. A megabyte is roughly a million bytes (actually 1024 squared). Therefore, the hard disk is a 5-megabyte or 10-megabyte disk.

Diskette sizes are also described in kilobytes (KB). A kilobyte is roughly a thousand bytes (actually 1024) or two blocks. A Professional diskette holds 400 kilobytes.

It is important to be aware of the amount of free space you have on your disk and on any diskettes you are actively using. While you are editing a file, PROSE keeps two copies of it on the disk, so check your Message/Status display periodically to make sure there is lots of free space on the disk. When free space is low, it helps to section very large documents into several small files.

Set up your Professional to fit your needs best: if you plan to create a lot of files that you want to remain on the disk, then plan ahead to allow room there for your files.

File Versions

When you edit a file with the editor or change a BASIC program or any other file, the previous version of that file is saved. By default, your directories show only the latest version of each file. Using ADDTNL OPTIONS, however, you can see a directory showing all the versions of the files in it. You can change a file many times—thousands of times, if you want to. Your previous versions are saved unless you specifically delete them. "Clean up old file versions," available from the File Services Menu, is useful for deleting all but the latest version of a file.

It is important to frequently delete old versions of files, especially large files (10 or more blocks). Otherwise, you may run low on free space. At the end of each session, go through your directories, deleting the files or versions of files you no longer need.

WORKING WITH DIRECTORIES

For many P/OS functions, you have to select files from a directory. This section explains:

- \Box How to choose a file from a directory
- □ How to change directories so that you can choose a file from a different directory
- □ How to display detailed directory information

Choosing a File from a Directory

All your files are listed in directories. When you need to select a file, a menu of the most recent versions of the files in your current directory appears on the screen. The following is an example of a file selection menu:

File Selection Menu

Which file(s) do you want to copy? Current directory is CLEAVER on Volume MAYFIELD Name Type Version -> JUNE Document 1 WARD Document 1 ELDRIDGE Document 1

Additional Options available

Select up to 3 items (0 chosen)

Figure 5-2 Example of a File Selection Menu Once you display your selection menu, you can select a file in one of the following ways:

1. Using the 1 and the ↓ keys, move the pointer to the name of the file you want. Press DO. If you are allowed to choose more than one file, a message on the screen will tell you. In this case, press SELECT after each choice and DO when all selections have been made. You can cancel a selection before pressing DO by pressing SELECT again while the pointer is at the item to be canceled.

OR

 Type (in upper- or lowercase), starting at the beginning, enough character(s) of your choice to make a unique selection. For example, to indicate your choice is ZULU rather than ZUNI, type ZUL. Whatever the amount of space between two words, type one space between them. For example, to indicate that your choice is MEMO1 Document 2 rather than MEMO1 Document 3, type MEMO1 DOCUMENT 2.

OR

3. If you are used to using PDP-11 RSX-11M/M-PLUS or VAX/VMS systems, you may want to type out the extended file name (RMS file specification format). In this case, press the ADDTNL OPTIONS key. Choose "Use extended file name." A prompt then requests the file specification. The format is as follows:

device:<directory>filename.type;version

The device name can be one of the following:

BIGDISK BIGVOLUME DISKETTE1 DISKETTE2 the volume name of a currently inserted diskette

You can use square brackets ([]) instead of angle brackets (< >) and a period (.) instead of a semi-colon (;). (Refer to documentation describing VAX/VMS or RSX-11M systems for more information on the RMS file specification format.) With this method of specifying a file, the operation on the file takes place as soon as you press DO. The syntax of the file specification will not be checked before the operation on the file takes place.

You can also use the "Use extended file name" additional option with some PRO/DECnet operations. These are explained in Appendix C.

Wildcards

Wildcards are a useful tool you can use when choosing a number of files for a multi-file service. You can select a group of files that have some element(s) in common by typing in a single file specification that includes one or more wildcards. You can choose, for example, all files with the same filename or type. You can also use wildcards in conjunction with some PRO/DECnet operations. These are explained in Appendix C.

The wildcard character is an asterisk (*). You can use this character in the place of one or more parts of a file specification.

To understand the use of wildcards, you must first become familiar with the RMS file specification format, which is the way you refer to your files when you choose "Use extended file name" from an additional options menu. A few minutes taken to learn this now will save you a considerable amount of time in the future. The format is as follows:

```
device: < directory > filename.type;version
```

For example, if you used the PROSE text editor to create a document file that you named "JUNE," its RMS file specification would be, by default:

```
BIGDISK: < USERFILES > JUNE.DOC;1
```

BIGDISK means that the file is on the hard disk inside your Professional. USERFILES is the name of the directory containing the file. JUNE is the name that you've given the file. DOC means that the file type is DOCUMENT. The number '1' means that this is the first version of the file.

If you again edit this file, saving the new version, it will be:

BIGDISK: < USERFILES > JUNE.DOC;2

If you copy this file to the directory "CLEAVER" on a diskette you've named "MAYFIELD," the copy will be:

MAYFIELD: < CLEAVER > JUNE.DOC;1

If this is the first version of JUNE.DOC in the new directory, then its version number will be '1', even though an identical file in the original directory has version number '2'.

Now suppose you want to do something with both versions of JUNE.DOC in directory USERFILES. From the file selection menu you would press ADDTNL OPTIONS, choose "Use extended file name," and type:

```
BIGDISK: < USERFILES > JUNE.DOC;*
```

The asterisk in place of the version number indicates that all version numbers are to be chosen. If your current directory happens to be USERFILES on volume BIGDISK, you would only have to type:

JUNE.DOC;*

Similarly, if you wanted to select every file with the type .DOC, you could type:

.DOC;

And if you wanted to select every file in your current directory, you could type:

* * *

The device name, directory name, and volume number are optional. If not specified, P/OS uses as defaults the latest version of the file in the current directory.

You cannot use a wildcard in place of the device name. The device name can be one of the following:

BIGDISK BIGVOLUME DISKETTE1 DISKETTE2 the volume name of a currently inserted diskette (in this example: MAYFIELD)

You can use square brackets ([]) instead of angle brackets (< >) and a period (.) instead of a semi-colon (;).

You can also use wildcards when you want to specify all files with some characters in common in one of the elements of the file specification, for example:

J*.DOC;*

would specify all files of type .DOC in the current directory which have names beginning with the letter 'J.' If you had a document file for each month of the year, this specification would have indicated that you wanted to work on these files:

JANUARY.DOC;1 JULY.DOC;1 JUNE.DOC;1

The file type must be three letters (A-Z) and/or numbers (0-9). Some file types commonly used with P/OS are .BAS (BASIC program), .DAT (data), .DOC (document), and .TXT (text).

The following file services allow the use of wildcards: Back up disk file(s), Change file(s) protection, Clean up old file versions, Copy file(s), Delete file(s), and Restore disk file(s).

Additional Options

Pressing ADDTNL OPTIONS while a file selection menu is displayed erases any information you may have typed in so far and lists the following options:

Choose a different directory/volume Display next group of files Use extended file name Show all versions Show only latest versions

"Choose a different directory/volume" displays a menu of user directories on your disk and currently inserted diskettes (Figure 5-3). Choose the directory you want and press DO. (You cannot choose an empty directory.) To choose a system directory, press ADDTNL OPTIONS while displaying this menu.

"Display next group of files" is only applicable when you see the message "To see more groups of files, press ADDTNL OPTIONS." This means that there are more than a certain maximum number of files in your menu list. (For P/OS services, the maximum number that will fit in one group is 60; some applications may have a maximum that is lower than 60.) To display more of the first 60 file names, press NEXT SCREEN. Then choose "Display next group of files" to see the next group of names.

"Use extended file name" results in a prompt for the RMS file specification described in the third method of selecting files.

"Show all versions" displays a file selection menu with all versions of all files in the current directory.

"Show only latest versions" displays a file selection menu with only the most recent versions of the files in the current directory.

If you make a mistake while selecting files, a message appears to help you.

If there are more than 12 file names in a directory list, the word "(more)" appears at the end of the file list. Press NEXT SCREEN to see more files. Once you have pressed NEXT SCREEN, you can press PREV SCREEN to look at previous files in the list.

Changing Directories

You can access a file from a directory other than your current directory. You can also change your current directory or both current and default directories.

1. To access a file from a directory that is not your current directory, you must be using a service or application that is in the process of displaying a file selection menu. As described in the previous section, you press ADDTNL OPTIONS to temporarily change your directory so that you can select a file from another directory. (This will not change your current directory.) When you press ADDTNL OPTIONS, the following menu appears:

Choose a different directory/volume Display next group of files Use extended file name Show all versions Show only latest versions

Select the first item. Your directories on volumes currently on your Professional will be listed. For example:

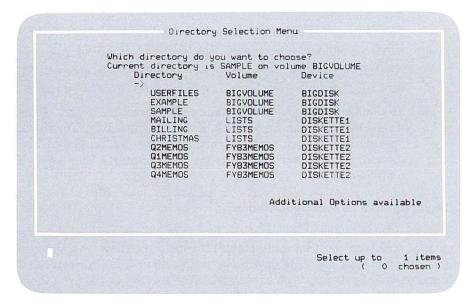


Figure 5-3 Example of a Directory Selection Menu

Select the directory you want to display by moving the pointer to it, and pressing DO. (Press EXIT instead of DO to return to the previous menu without doing anything.) By pressing ADDTNL OPTIONS, you can select the following additional options:

Choose a system directory Display next group of directories "Choose a system directory" displays directories of P/OS and application files.

CAUTION: DO NOT alter files in system directories. This option is for maintenance purposes only.

"Display next group of directories" displays more of a directory selection menu that contains the names of more than a certain number of directories. When using P/OS services, the number is 60. Choose this option only if pressing NEXT SCREEN does not display more directories.

When you have finished with whatever function you were performing (for example, deleting a file), P/OS returns you to your current directory.

2. To change your current directory (valid until you turn the power off or until changed again), choose "Specify new current directory" from the File Services Menu or the Disk/Diskette Services Menu. A directory selection menu appears. Select the directory you want.

Another way to change your current directory is to select "Change directory" from Set-up Menu A without selecting "Set-up save."

3. To change both your current and default directory, select "Change directory" from Set-up Menu A. Select the directory. Then select "Set-up save." Each time you turn the power on, the Set-up default directory is your current directory. See Chapter 4, The Set-up Key, for more details.

Displaying More Directory Information

You can display information about the files in any directory by using the "Show current directory" or "Show directory." If you do not know what directory a file is in, you can first list your directories with "Show list of directories." These functions merely display; you cannot select a directory or file from them. Chapter 6 (Show Current Directory and Show List of Directories) shows examples of a directory and a directory list.

PROTECTING FILES

This section describes ways of maintaining the integrity of files:

- □ Backing up files
- \Box Preventing accidental file deletion
- \Box Using *write-protect tabs* on diskettes
- □ Unlocking locked files
- \Box Watching the active light

Backing Up Your Files

To back up a file is to make an extra copy on a diskette that is then stored away. To back up a disk file, use the "Back up disk file(s)" on the File Services Menu. To back up a diskette file, use "Copy file(s)"; to back up all files on a diskette, use "Copy diskette."

Backup is important for the following reasons:

- □ You can accidentally delete files or parts of files. For example, you can sometimes damage files by pulling diskettes out at the wrong time, by choosing the wrong function, or by turning off the power at the wrong time.
- \Box A power failure or accidentally pulling out the power plug can damage your files.
- □ Diskettes wear out. An average diskette can, if used continuously for 8 hours a day, 5 days a week, run for about 5 months before developing problems caused by wear. (That is, a diskette can run quite safely for about 830 hours if it is performing reads and writes 30% of the time.) If you use a diskette longer than this time, it begins to develop "bad blocks," or regions that cannot be used to store information. Bad blocks cause errors in reading and writing information. (If you reinitialize these diskettes, P/OS will check for bad blocks, and will not store any information in those blocks. This is a way of extending the life of a diskette. However, the reinitializing procedure erases all files on the diskette; moreover, when there are many bad blocks, P/OS will take longer to read and write information.)
- □ Diskettes can become damaged. A damaged diskette can lose some or all of its information.

□ The disk, although highly reliable, can be damaged also. If this should happen, you can replace the disk; however, if your files are not backed up, they will be lost.

The P/OS diskettes you bought with your Professional are your backup for the P/OS system files. Each time you buy an application, save the diskette it came on as your backup.

Whenever you create or edit a file on your disk, back it up by choosing "Back up disk file(s)" from the File Services Menu. Keep your backup copies on a separate labeled set of diskettes. Write on the labels before you stick the labels on the diskette covers. Since you generally need only the most recent copies of a file as backup, you can rotate your backup diskettes, reinitializing old sets of backup diskettes (containing obsolete files) for new backups.

If you try to back up a disk file to a backup diskette without enough room for the file, a message tells you what to do. You back up a very large disk file to a series of backup diskettes.

If you discover that a file has been damaged, insert its most recent backup diskette and restore the file by choosing "Restore disk file(s)" from the File Services Menu. You can only restore disk files that have been backed up. If the damage was done before the most recent backup was made, you may find that you have to go back a version or two to get a good backup copy.

Preventing Accidental File Deletion

You can protect your data, document, and BASIC program files from being accidentally deleted by using "Change file(s) *protection*," explained in detail in Chapter 6. When you protect a file against deletion, no one can delete that file without first changing its protection.

File protection is especially useful for data files that you do not want disturbed. File protection is only to safeguard you against accidental deletions. Anyone with access to your system can change the protection of any file. Anyone with a Professional can insert your diskettes into any other Professional and access your personal files.

To protect your files completely, you need to prevent other people from accessing your system and lock up your diskettes.

WRITE-PROTECT TAB

Using Write-Protect Tabs on Diskettes

Special adhesive tabs called write-protect tabs are available for diskettes. If you stick these tabs on the write-protect notch on a diskette (see Figure 5-4), the Professional hardware will not allow you to create, change, or delete any file on that diskette. These tabs are removable.

Do not use write-protect tabs on PRO SYSTEM DSKT V2.0, volume label PROSYSTEMV2, or PRO SYSTEM OVERVIEW V2.0. These diskettes, which are provided with your Professional, will not work if they are write-protected.

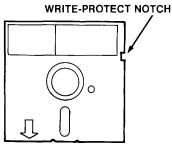




Figure 5-4 Write-Protect Tab on Diskette

Unlocking Locked Files

A locked file is one that you cannot access because P/OS has taken it out of your control. Files can become locked if an application or program you are running stops suddenly, leaving any files it was using "open." For example, files can become locked:

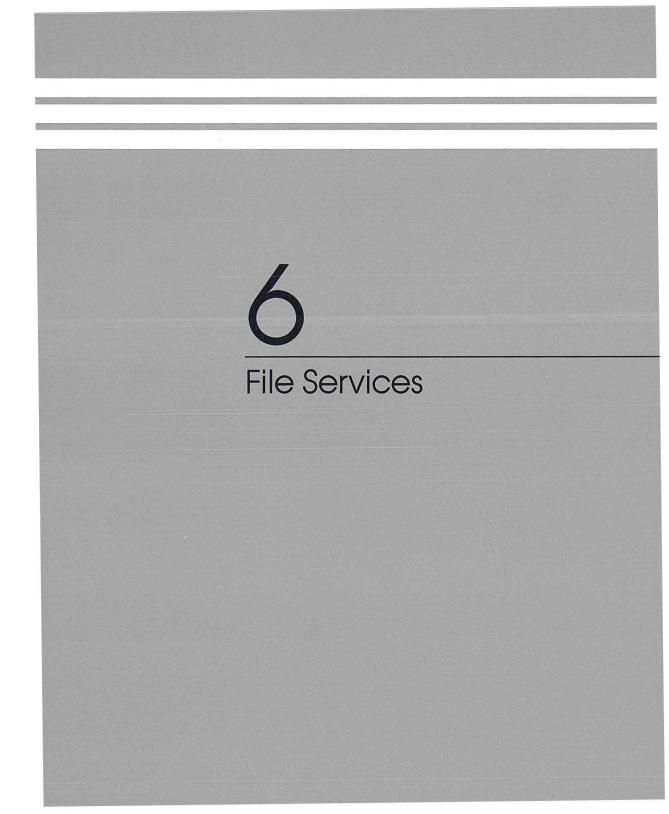
WRITE-PROTECTED

- □ If you press INTERRUPT and then DO while an application is operating.
- \Box If an application terminates abnormally.

(In normal operation, the application or program "closes" files and then stores them.) Suspect a locked file if, when you try to use a file, a message appears, indicating that the file is locked or unavailable. To verify whether the file is locked, choose "Show current directory" from the File or Disk/Diskette Services Menus. Any locked files will be noted there. To unlock a locked file, choose "Unlock a locked file" from the Disk/Diskette Services Menu. Sometimes, even after a file is unlocked, it is unusable. In this case, you have to use your backup files.

The Active Light

When P/OS is accessing a diskette, a small light goes on next to the diskette drive slot containing the diskette. Do not remove the diskette while this light is on; wait until the function in process has completed. When you are backing up or restoring files to more than one diskette, wait until a message tells you to remove a diskette.



Chapter 6

File Services

The File Services Menu lists the following:

Back up disk file(s) Change file(s) protection Clean up old file versions Copy file(s) Delete file(s) Display file Rename file/Change file type Restore disk file 'Show current directory 'Show list of directories 'Specify new current directory

'Also available from the Disk/Diskette Services Menu

BACK UP DISK FILE(S)

Use "Back up disk file(s)" to copy disk files onto diskettes in case the originals on the disk are accidentally destroyed. Back up your files as you change them, unless you have no interest in saving them. If you have not backed up a disk file, you cannot restore it.

To Back Up One Disk File:

- 1. Get a blank (new or newly initialized) diskette or a diskette that already has other backup files on it. If you are backing up a file over 624 blocks long, you need more than one diskette. Each diskette holds from 624 to 780 blocks of the file. (Since some diskettes may have "bad blocks," or space that is unusable, the amount of available space can vary.)
- 2. Insert your backup diskette into a diskette drive slot. If you are backing up a long file to a series of diskettes, insert a blank diskette, which will become the first backup diskette for the file.
- 3. Choose "Back up disk file(s)" from the File Services Menu. A menu with two options appears.
- 4. Choose "Back up selected file(s)." A menu showing the latest versions of the files in your current directory appears.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed in so far and displays a menu of the following additional options:

> Choose a different directory/volume Display next group of files Use extended file name Show all versions Show only latest versions

"Choose a different directory/volume" displays your directory selection menu. Choose the directory you want. When you press DO, a file selection menu appears, listing the files in the selected directory.

"Display next group of files" displays more of a file selection menu that contains the names of more than 60 files. This option is only applicable if the message "To see more groups of files, press ADDTNL OPTIONS" is displayed. Choose this option if pressing NEXT SCREEN does not display more of the files in the list.

"Use extended file name" results in a prompt for the RMS file specification.

"Show all versions" displays a file selection menu with all versions of all files in the current directory.

"Show only latest versions" displays a file selection menu with only the most recent versions of the files in the current directory.

- 5. Choose the file you want to back up. Press DO.
- 6. A menu appears listing the diskette device names. Choose DISKETTE1 if your backup diskette is in slot 1. Choose DISKETTE2 if your backup diskette is in slot 2. Press DO.
- 7. A menu appears asking you whether or not you want to initialize the volume.¹ The initialization procedure takes up to two minutes and erases any information already on the diskette. When you have selected your answer to the question, press DO. If you chose not to initialize the volume, go on to step 8. If you want to initialize the volume:
 - a. A form appears asking for the volume name you want the newly initialized volume to have. Type in a name of up to 12 letters (A-Z) and/or numbers (0-9).
 - b. Press DO.
 - c. If there are any files already on the diskette, a warning message appears. If you still want to initialize, press DO for the initialization to take place. If you decide not to initialize, press CANCEL, replace the diskette with another one, then press RESUME; or press EXIT to return to the File Services Menu without backing up the file.

¹Note that the initialization for backup is not exactly the same as that performed with "Initialize diskette" on the Disk/Diskette Services Menu. If you are using a newly initialized diskette, you will need to initialize it again at this point for backup files.

- 8. P/OS now checks to see if the file will fit on the diskette you have chosen.
 - a. If the file fits, the backup takes place. Depending on the size of the file, the back up procedure can take from a few seconds to about five minutes.
 - b. If the file does not fit, but will fit on another diskette that has more empty space, a message appears telling you to either initialize your diskette or insert a different diskette. You can, if you want, insert a new diskette at this point. When you are ready to continue, press RESUME. Then the Device Selection Menu reappears as in step 6. When you press DO, the Initialize Diskette Menu appears as in step 7. Messages tell you what to do.
 - c. If the file will not fit on one diskette at all, a message appears telling you how many blocks long the file is and approximately how many diskettes you need to copy it. Make sure you have the necessary number of diskettes. You cannot back up to a diskette that has another backup file already on it (unless you first reinitialize and thus erase that diskette).

When you are ready to perform the backup, press RESUME. (Otherwise, press EXIT to return to the File Services Menu without doing anything or MAIN SCREEN to return to the Main Menu.) Messages will tell you what to do. DO NOT remove your first backup diskette until the backup is completed. When a message tells you to insert the second backup diskette, put it in the other diskette slot, close the slot door, and press RESUME. Wait for another message. If a third backup diskette is required, remove the second backup diskette when the appropriate message appears, insert the third diskette, and press RESUME. Continue in this fashion until the backup is completed.

9. When the backup is completed, remove, label, and store the backup diskette(s). Be sure to write on the labels before sticking them on the diskette covers. If part of a file is on the diskette, indicate on the label which part. This is important: if you have to restore the file, you must start with the first part and proceed sequentially to the last part. Keep your backup diskettes in a separate location from your other diskettes.

To restore a damaged disk file, use "Restore disk file(s)."

To Back Up More Than One Disk File:

- 1. Get a blank (new or newly initialized) diskette. If you are backing up files which total over 624 blocks in length, you need more than one diskette. Each diskette holds from 624 to 780 blocks of data. (Since some diskettes may have "bad blocks," or space that is unusable, the amount of available space can vary.)
- 2. Insert your backup diskette into a diskette drive slot. If you will be backing up to a series of diskettes, insert a blank diskette, which will become the first backup diskette for the files.
- 3. Choose "Back up disk file(s)" from the File Services Menu. A menu with two options appears.
- 4. Choose "Back up selected file(s)." A menu showing the latest versions of the files in your current directory appears.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed in so far and displays a menu of the following additional options:

> Choose a different directory/volume Display next group of files Use extended file name Show all versions Show only latest versions

"Choose a different directory/volume" displays your directory selection menu. Choose the directory you want. When you press DO, a file selection menu appears, listing the files in the selected directory.

"Display next group of files" displays more of a file selection menu that contains the names of more than 60 files. This option is only applicable if the message "To see more groups of files, press ADDTNL OPTIONS" is displayed. Choose this option if pressing NEXT SCREEN does not display more of the files in the list.

"Use extended file name" results in a prompt for the RMS file specification. Wildcards can be used with this option; see Chapter 5 for information on their use. "Show all versions" displays a file selection menu with all versions of all files in the current directory.

"Show only latest versions" displays a file selection menu with only the most recent versions of the files in the current directory.

- 5. Choose the files you want to back up. Press DO.
- 6. A menu appears listing the diskette device names. Choose DISKETTE1 if your backup diskette is in slot 1. Choose DISKETTE2 if your backup diskette is in slot 2. Press DO.
- 7. A menu appears asking you whether or not you want to initialize the volume. The initialization procedure takes up to two minutes and erases any information already on the diskette. Answer "yes," then press DO.
- 8. A form appears asking for the volume name you want the newly initialized volume to have. Type in a name of up to 12 letters (A-Z) and/or numbers (0-9).
- 9. Press DO.
- 10. If there are any files already on the diskette, a warning message appears. If you still want to initialize, press DO for the initialization to take place. If you decide not to initialize, press CANCEL, replace the diskette with another one, then press RESUME; or press EXIT to return to the File Services Menu without backing up the files.
- 11. P/OS now backs up your files to the inserted diskette.
 - a. If the files fit on the inserted diskette, the backup takes place. Depending on the size of the files, the backup procedure can take from a few seconds to about five minutes per file.
 - b. If some, but not all of the selected files will fit on the inserted diskette, P/OS backs up as many of the files as will fit on the inserted diskette. A message will appear telling you which files were backed up to the inserted diskette, and will tell you to insert another backup diskette when necessary.

c. In the case of individual files which will not fit on one diskette at all, a message appears telling you the size of the file(s) and approximately how many diskettes you need. Make sure you have the necessary number of diskettes. You cannot back up a file of this size to a diskette that has another backup file already on it (unless you first reinitialize and thus erase that diskette).

When you are ready to perform the backup, press RESUME. (Otherwise, press EXIT to return to the File Services Menu without doing anything or MAIN SCREEN to return to the Main Menu.) Messages will tell you what to do. DO NOT remove your first backup diskette until the backup is completed. When a message tells you to insert the second backup diskette, put it in the other diskette slot, close the slot door, and press RESUME. Wait for another message. If a third backup diskette is required, remove the second backup diskette when the appropriate message appears, insert the third diskette, and press RESUME. Continue in this fashion until the backup is completed.

12. When the backup is completed, remove, label, and store the backup diskette(s). Be sure to write on the labels before sticking them on the diskette covers. If part of a file is on the diskette, indicate on the label which part. This is important: if you have to restore the file, you must start with the first part and proceed sequentially to the last part. Keep your backup diskettes in a separate location from your other diskettes.

To restore a damaged disk file, use "Restore disk file(s)."

To Back Up an Entire Directory:

- 1. Get a blank (new or newly initialized) diskette. If you are backing up files which total over 624 blocks in length, you need more than one diskette. Each diskette holds from 624 to 780 blocks of data. (Since some diskettes may have "bad blocks," or space that is unusable, the amount of available space can vary.)
- 2. Insert your backup diskette into a diskette drive slot. If you will be backing up to a series of diskettes, insert a blank diskette, which will become the first backup diskette for the file(s).
- 3. Choose "Back up disk file(s)" from the File Services Menu. A menu with two options appears.
- 4. Choose "Back up selected directory." A directory selection menu appears on your screen.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed in so far and displays a menu of the following additional options:

> Choose system directory Display next group of directories

"Choose system directory" displays a menu of P/OS system and application directories. Choose the directory you want.

"Display next group of directories" displays more of a menu that contains more than 60 directory names. Use this option if pressing NEXT SCREEN does not display more names in the list.

- 5. Choose the directory you want to back up. Press DO.
- 6. A menu appears listing the diskette device names. Choose DISKETTE1 if your backup diskette is in slot 1. Choose DISKETTE2 if your backup diskette is in slot 2. Press DO.
- 7. A menu appears asking you whether or not you want to initialize the volume. The initialization procedure takes up to two minutes and erases any information already on the diskette. Answer "yes," then press DO.
- 8. A form appears asking for the volume name you want the newly initialized volume to have. Type in a name of up to 12 letters (A-Z) and/or numbers (0-9).
- 9. Press DO.
- 10. If there are any files already on the diskette, a warning message appears. If you still want to initialize, press DO for the initialization to take place. If you decide not to initialize, press CANCEL, replace the diskette with another one, then press RESUME; or press EXIT to return to the File Services Menu without backing up the files.

- 11. P/OS now checks to see if the files in the selected directory will fit on the diskette you have chosen.
 - a. If the files in the selected directory fit, the backup takes place.
 - b. If some, but not all of the files in your selected directory will fit on the inserted diskette, P/OS backs up as many of the files as will fit on the inserted diskette. A message will appear telling you which files were backed up to the inserted diskette, and will tell you to insert another backup diskette when necessary.
 - c. In the case of individual files which will not fit on one diskette at all, a message appears telling you the size of the file(s) and approximately how many diskettes you need. Make sure you have the necessary number of diskettes. You cannot back up a file of this size to a diskette that has another backup file already on it (unless you first reinitialize and thus erase that diskette).

When you are ready to perform the backup, press RESUME. (Otherwise, press EXIT to return to the File Services Menu without doing anything or MAIN SCREEN to return to the Main Menu.) Messages will tell you what to do. DO NOT remove your first backup diskette until the backup is completed. When a message tells you to insert the second backup diskette, put it in the other diskette slot, close the slot door, and press RESUME. Wait for another message. If a third backup diskette is required, remove the second backup diskette when the appropriate message appears, insert the third diskette, and press RESUME. Continue in this fashion until the backup is completed.

12. When the backup is completed, remove, label, and store the backup diskette(s). Be sure to write on the labels before sticking them on the diskette covers. If part of a file is on the diskette, indicate on the label which part. This is important: if you have to restore the file, you must start with the first part and proceed sequentially to the last part. Keep your backup diskettes in a separate location from your other diskettes.

To restore a damaged disk file, use "Restore disk file(s)."

CHANGE FILE(S) PROTECTION

Use "Change file(s) protection" to prevent files from being accidentally deleted or to cancel protection for your files. You should protect any file containing vital data. P/OS system files are already protected, but a newly created file is always unprotected.

Files on diskettes with write-protect tabs are also protected from change and deletion by the Professional hardware.

When you choose "Change file(s) protection," a file selection menu with the latest versions of the files in your current directory appears on the screen.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed in so far and displays a menu of the following additional options:

> Choose a different directory/volume Display next group of files Use extended file name Show all versions Show only latest versions

"Choose a different directory/volume" displays your directory selection menu. Choose the directory you want. When you press DO, a file selection menu appears, listing the files in the selected directory.

"Display next group of files" displays more of a file selection menu that contains the names of more than 60 files. This option is only applicable if the message "To see more groups of files, press ADDTNL OPTIONS" is displayed. Choose this option if pressing NEXT SCREEN does not display more of the files in the list.

"Use extended file name" results in a prompt for the RMS file specification. Wildcards can be used with this option; see Chapter 5 for information on their use.

"Show all versions" displays a file selection menu with all versions of all files in the current directory. "Show only latest versions" displays a file selection menu with only the most recent versions of the files in the current directory.

Choose the file(s) you want to protect. Chapter 3 explains how to choose from a multiple-choice menu. Press **DO**. The Change Protection Menu appears on the screen, offering the following options:

No protection Protection against delete

Choose the option you want. When you press DO, the option you chose goes into effect. (Pressing EXIT instead of DO returns you to the File Services Menu without changing the protection.) If you select "Show current directory" from the File Services Menu or the Disk/Diskette Services Menu, you will see the protection of the file(s) listed as "yes" or "no" under the heading "May be deleted."

When changing the protection for more than one file, all files selected will end up with the same protection. Therefore, if a protected file is selected along with several unprotected ones and "Protection against delete" is chosen from the Change Protection Menu, the protection on that file will be unchanged.

CLEAN UP OLD FILE VERSIONS

Use "Clean up old file versions" to delete unwanted versions of a file. You can delete all but the most recent version of a file, or all versions older than a specified version. Before using "Clean up old file versions," be certain that you do not want to save any of the old versions of a file. Once a file is deleted with "Clean up old file versions," it is lost permanently (unless it has been backed up).

You should clean up your directories frequently to avoid running out of disk space.

When you choose "Clean up old file versions," the following menu appears:

Clean Up Volume, Directory or File For which files do you want to delete old versions? All files in current directory All files in another directory All files in all user directories on a volume Specific file(s) in current directory Select the category of files that you want to clean up and press DO.

Figure 6-1 Clean Up Old File Versions Menu

If you choose "All files in current directory," only the latest version of each file will be saved.

If you choose "All files in another directory," a directory selection menu will appear. Choose the directory for which you want to clean up old file versions.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed in so far and displays a menu of the following additional options:

> Choose system directory Display next group of directories

"Choose system directory" displays a menu of P/OS system and application directories. Choose the directory you want.

CAUTION: Do not delete files in system and application directories. Doing so may destroy P/OS or P/OS applications. This option is available for maintenance purposes only.

"Display next group of directories" displays more of a menu that contains more than 60 directory names. Use this option if pressing NEXT SCREEN does not display more names in the list.

If you choose "All files in all user directories on a volume," all files but the latest versions of each file will be deleted on the specified volume.

If you choose "Specific file(s) in current directory," a file selection menu will appear; by default, the latest version of each file will be listed. Choose the file(s) for which you want to clean up the old versions. Using ADDTNL OPTIONS, you can choose a version other than the latest version of a file, and delete all versions older than it.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed in so far and displays a menu of the following additional options:

> Choose a different directory/volume Display next group of files Use extended file name Show all versions Show only latest versions

"Choose a different directory/volume" displays your directory selection menu. Choose the directory you want. When you press DO, a file selection menu appears, listing the files in the selected directory.

"Display next group of files" displays more of a file selection menu that contains the names of more than 60 files. This option is only applicable if the message "To see more groups of files, press ADDTNL OPTIONS" is displayed. Choose the option when pressing NEXT SCREEN does not display more of the files in the list.

"Use extended file name" results in a prompt for the RMS file specification. You can, if you want, use wildcards with this option. Chapter 5 explains their use.

"Show all versions" displays a file selection menu with all versions of all files in the current directory.

"Show only latest versions" displays a file selection menu with only the most recent versions of the files in the current directory.

When the cleanup is finished, a message will tell you how many files were deleted.

COPY FILE(S)

Use "Copy file(s)" to duplicate files. The copies can be in a different volume or directory, or in the same directory with a different version number. You can also use "Copy file(s)" in conjunction with PRO/DECnet. This is explained in Appendix C. You might use "Copy file(s)" to:

- \Box Back up a diskette file.
- □ Make a copy on a diskette of a memo or a BASIC program for another person in your department.
- \Box Make a copy of a memo so that you can then use the editor to change the copied memo for a different addressee.
- □ Create a second copy of a form letter or memo head in order to preserve the original while "filling in the blanks" on the duplicate.

When you choose "Copy file(s)," a file selection menu of the files in your current directory appears on the screen.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed in so far and displays a menu of the following additional options:

> Choose a different directory/volume Display next group of files Use extended file name Show all versions Show only latest versions

"Choose a different directory/volume" displays your directory selection menu. Choose the directory you want. When you press DO, a file selection menu appears, listing the files in the selected directory.

"Display next group of files" displays more of a file selection menu that contains the names of more than 60 files. This option is only applicable if the message "To see more groups of files, press ADDTNL OPTIONS" is displayed. Choose this option when pressing NEXT SCREEN does not display more of the files in the list. "Use extended file name" results in a prompt for the RMS file specification. You can use wildcards with this option. Chapter 5 explains their use.

"Show all versions" displays a file selection menu with all versions of all files in the current directory.

"Show only latest versions" displays a file selection menu with only the most recent versions of the files in the current directory.

Select the file(s) you want to copy and press DO. (Or, press EXIT to return to the File Services Menu without doing anything.)

A list of the directories on currently inserted volumes appears. Choose the directory to which you want to copy the selected file(s).

Press DO and the file(s) is copied. (Pressing EXIT instead of DO returns you to the File Services Menu without copying the remaining selected file(s).) The original file(s) remains as it was before the copy occurred. If there is not enough room to copy your file(s), a message to that effect appears on your screen.

Use "Rename file/change file type" to change the type or name of your newly copied file(s).

DELETE FILE(S)

Use "Delete file(s)" to permanently erase files. Since you may have more than one version of each file, each listed separately in your directory, you can choose which version(s) to delete. Look through your directories frequently, deleting files you no longer want and old versions of files; doing this gives you the maximum amount of free space for your current work. If you want to delete all versions of a file except for the latest, use "Clean up old file versions," which is also available from the File Services Menu. You can also use "Delete file(s)" in conjunction with PRO/DECnet. This is explained in Appendix C.

"Delete file(s)" does not work on files protected against deletion or on writeprotected diskettes.

When you choose "Delete file(s)," a file selection menu of the files in your current directory appears on the screen.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed in so far and displays a menu of the following additional options:

> Choose a different directory/volume Display next group of files Use extended file name Show all versions Show only latest versions

"Choose a different directory/volume" displays your directory selection menu. Choose the directory you want. When you press DO, a file selection menu appears, listing the files in the selected directory.

"Display next group of files" displays more of a file selection menu that contains the names of more than 60 files. This option is only applicable if the message "To see more groups of files, press ADDTNL OPTIONS" is displayed. Choose this option when pressing NEXT SCREEN does not display more of the files in the list.

"Use extended file name" results in a prompt for the RMS file specification. If you do not specify the version number, P/OS will delete the version with the highest version number. "Show all versions" displays a file selection menu with all versions of all files in the current directory.

"Show only latest versions" displays a file selection menu with only the most recent versions of the files in the current directory.

Choose the file(s) you want to delete. Press DO. The delete occurs. (Press EXIT instead of DO to return to the File Services Menu without deleting the selected file(s).)

DISPLAY FILE

Use "Display file" to display on your screen the contents of a file. You may want to do this, for example, to verify that this is the file you want to delete or copy. You can also use "Display file" in conjunction with PRO/DECnet. This is explained in Appendix C.

When you choose "Display file," a file selection menu of the files in your current directory appears.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed in so far and displays a menu of the following additional options:

> Choose a different directory/volume Display next group of files Use extended file name Show all versions Show only latest versions

"Choose a different directory/volume" displays your directory selection menu. Choose the directory you want. When you press DO, a file selection menu appears, listing the files in the selected directory.

"Display next group of files" displays more of a file selection menu that contains the names of more than 60 files. This option is only applicable if the message "To see more groups of files, press ADDTNL OPTIONS" is displayed. Choose this option when pressing NEXT SCREEN does not display more of the files in the list.

"Use extended file name" results in a prompt for the RMS file specification.

"Show all versions" displays a file selection menu with all versions of all files in the current directory.

"Show only latest versions" displays a file selection menu with only the most recent versions of the files in the current directory. Choose the file you want to display. When you press DO, the first screen of your file appears. At this point, you can press EXIT to return to the File Services Menu. To see more of your file, press NEXT SCREEN. The file scrolls up the screen to the end.

To hold the screen display still in order to look at the file more carefully, press HOLD SCREEN. To release the hold, press HOLD SCREEN again.

To display the File Services Menu after the file has been displayed, press EXIT.

Do not try to display system and application files. If you do, strange characters may appear on your screen; press INTERRUPT DO to exit immediately.

RENAME FILE/CHANGE FILE TYPE

Use "Rename file/Change file type" to change the name and/or type of a file. For example, you may want to change the name or type of a file transferred from another computer. Or you may have to rename a particular version of a file if you have two different files with the same name. You can also change the directory of the file, but not the volume.

When you choose "Rename file/Change file type," a file selection menu of the files in your current directory appears on the screen.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed in so far and displays a menu of the following additional options:

> Choose a different directory/volume Display next group of files Use extended file name Show all versions Show only latest versions

"Choose a different directory/volume" displays your directory selection menu. Choose the directory you want. When you press DO, a file selection menu appears, listing the files in the selected directory.

"Display next group of files" displays more of a file section menu that contains the names of more than 60 files. This option is only applicable if the message "To see more groups of files, press ADDTNL OPTIONS" is displayed. Choose this option when pressing NEXT SCREEN does not display more of the files in the list.

"Use extended file name" results in a prompt for the RMS file specification.

"Show all versions" displays a file selection menu with all versions of all files in the current directory.

"Show only latest versions" displays a file selection menu with only the most recent versions of the files in the current directory. Choose the file you want to rename and press DO. The Name a File Form appears on your screen, showing the current volume, directory, and file type as well as a prompt for the new name. If you want to rename the file, type in the new file name.

Current directory is QZMEMOS on Volume FYB3MEMOS File name: File type: Document	
File type: Document	
Additional Options avai	lable

Figure 6-2 Example of Name a File Form

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed on the Name a File Form and displays the following additional options:

> Choose a different directory/volume Specify or change file type Use extended file name

"Choose a different directory/volume" displays a directory selection menu of the directories on your disk and currently inserted diskettes. The directory you choose **must be on the same volume as the file you have selected.** Press DO. The Name a File Form reappears with the directory you chose on it. "Specify or change file type" displays the file type menu. For example,

	File Type Menu	
Which file type If the file type	do you want? you want is not one of the choices, choose "Other".	
	-> BASIC program Data Document Text Other	
Make a choice :	nd press DD:	

Figure 6-3 Example of File Type Menu

Make your selection. If you select "Other," a form appears for you to enter in the type you want. Enter a type consisting of one to three letters and numbers, for example, MAC. When you press DO, the Name a File Form reappears with the type you chose on it. Retype the file name at this point.

"Use extended file name" results in a prompt for the RMS file $_{\rm g}$ specification.

When you have finished selecting or entering the new name and/or type, press DO for the change to take effect. (Press EXIT instead of DO to return to the File Services Menu without changing the name or type of the file.)

RESTORE DISK FILE(S)

Use "Restore disk file(s)":

- □ If you accidentally delete a disk file that you have previously backed up.
- □ If you destroy all or part of a previously backed up disk file by pressing INTERRUPT DO.
- □ If all or part of a previously backed up disk file is destroyed due to a power out or some other accident.
- If your disk is damaged for some reason, and you cannot use the files on it. Disks are delicate and can be damaged by a fall or a hard push. In this case, you may have to replace the disk first.

"Restore disk file(s)" copies files backed up to one or more diskettes onto the disk. If the backup file(s) are on more than one diskette, be sure to insert the first backup diskette first.

To restore file(s):

- 1. Insert the diskette containing the backup file(s) or the first part of the backup file(s) into a diskette drive slot.
- 2. Choose "Restore disk file(s)" from the File Services Menu. Your backup diskette directory appears on the screen.
- 3. Choose the file(s) you want to restore. When you press DO, a message tells you the name of the directory the file(s) will be restored to and the names of the volume(s) you need to restore from.
- 4. Press **RESUME** to begin the restore. (Press **EXIT** instead of **RESUME** to return to the File Services Menu without restoring the file.)

If the file is contained on more than one volume, messages tell you:

- \Box How many volumes (diskettes) you need and their names.
- $\hfill\square$ When to remove a volume or insert a new volume.
- \Box If you have inserted the wrong volume.
- 5. Wait for the File Services Menu to appear with a message saying the file has been restored.
- 6. Remove and store the backup diskette(s).

SHOW CURRENT DIRECTORY

Use "Show current directory" to display your current directory on your screen. You can also display a directory other than the current one without changing the current directory by using "Show directory."

Additional Options

Pressing ADDTNL OPTIONS erases anything you may have typed so far and displays a menu of the following additional options:

> Choose a system directory Display next group of directories

"Choose a system directory" displays a menu of P/OS system and application directories.

"Display next group of directories" displays more of a menu that contains more than 60 directory names. Use this option if pressing NEXT SCREEN does not display more names in the list. The following figure shows an example of such a directory.

File Name	File Type		Version Number	File Size		May be Deleted	File Locked
COMPOSE	BASIC	program	1	1	22-AUG-1983	No	- 1 - 1 - 1 - 1
FIX	BASIC	program	1 1	3	22-AUG-1983 22-AUG-1983		
VERBS	Data			14	22-AUG-1983	No	
FIX1	BASIC	program	1 1	1		Yes	
WORDS	Data		1	16		No	
VERBS1 ROSCO	BASIC	program	1 1	5 1	22-AUG-1983 22-AUG-1983		
YARD	BASTC	program		11	22-AUG-1983		
ARCH	BASIC	program	i	11 5 1	22-AUG-1983		
VERBS	BASIC	program	1	1	22-AUG-1983		
CATAPULT		program	1	1	22-AUG-1983		
VOCAB		program		3	22-AUG-1983		
BIRDS	Data		1		22-AUG-1983 ditional Optim		hle
				HO	dicional open		DIE

Figure 6-4 Example of a Directory

Each directory contains the following information:

Volume-the name of the disk or diskette containing the directory

Directory—the name of the directory

File name-the names of the files in the directory

File type—the types of the files in the directory

Version number-the version numbers of the files in the directory

File size-the file sizes in blocks

Date modified—the dates the files were created or most recently changed

May be deleted—whether or not protection has been set for the files

Locked—indicates if the file is locked

In directories, files are ordered somewhat by order of creation. Because of the way the file system works, files do not necessarily keep that order as old files are deleted and new ones created.

If the file names in a directory cannot all fit on one screen, a message tells you to press NEXT SCREEN to see more files. When you press NEXT SCREEN, the list will scroll through to the end. Press HOLD SCREEN to hold the display still so you can read what is on it. Press HOLD SCREEN again to release the hold.

Additional Options

By pressing ADDTNL OPTIONS while looking at your directory, you can select one of the following additional options:

Print directory Store directory as a file

"Print directory" prints out your directory on your printer. If the printer is already in use, a message to that effect appears on your screen and you can wait until later.

"Store directory as a file" creates in your current directory a file you name that contains the directory you have selected. This option is useful if your printer is busy and you want to print the file later. Later on, you should delete this file so as not to clutter up your disk with unnecessary files.

Press EXIT to return to the File Services Menu.

SHOW DIRECTORY

Use "Show directory" to display a directory on your screen. When you choose "Show directory," a directory selection menu appears from which you select the directory you want to display. "Show current directory" in this chapter gives an example of such a display. You can also use "Show directory" in conjunction with PRO/DECnet. This is explained in Appendix C.

Additional Options

Pressing ADDTNL OPTIONS erases anything you may have typed so far and displays a menu of the following additional options:

> Choose a system directory Display next group of directories

"Choose a system directory" displays a menu of P/OS system and application directories.

"Display next group of directories" displays more of a menu that contains more than 60 directory names. Use this option if pressing NEXT SCREEN does not display more names in the list.

Choose the directory you want to display and press DO.

Additional Options

By pressing ADDTNL OPTIONS while looking at your directory, you can select one of the following additional options:

Print directory Store directory as a file

"Print directory" prints out your directory on your printer. If the printer is already in use, a message to that effect appears on your screen and you can wait until later.

"Store directory as a file" creates in your current directory a file you name that contains the directory you have selected. This option is useful if your printer is busy and you want to print the file later. Later on, you should delete this file so as not to clutter up your disk with unnecessary files. Press NEXT SCREEN to display more files in the directory and EXIT to return to the File Services Menu.

SHOW LIST OF DIRECTORIES

Use "Show list of directories" to display the directory, volume, and device names of all the directories on your disk and on any currently inserted diskettes.

The following is an example of a directories list:

USERFILES SAMPLE PAUL HOFFY DAVE BRUCE BRUCE MIKE CHRIS	RIGVDLUME BIGVDLUME DEVO DEVO DEVO DEVO DEVO DEVO	BICDISK BIGDISK DISKETTE1 DISKETTE1 DISKETTE1 DISKETTE1 DISKETTE1 DISKETTE1	
			Additional Options available

Figure 6-5 Example of a List of Directories

Additional Options

By pressing ADDTNL OPTIONS, you can select one of the following additional options:

Print directories list Show system directories also Show system directories only Store directories list as a file

"Print directories list" prints the list if the printer is available.

"Show system directories also" displays the P/OS system and application directories along with your other directories.

"Show system directories only" displays only the P/OS system and application directories.

"Store directories list as a file" stores the list you displayed as a file that you name.

Press NEXT SCREEN to see more directories in a list and EXIT to return to the File Services Menu.

SPECIFY NEW CURRENT DIRECTORY

Use "Specify new current directory" to change your current directory.

When you choose "Specify new current directory," a menu of your directories appears on the screen.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed so far and displays a menu of the following additional options:

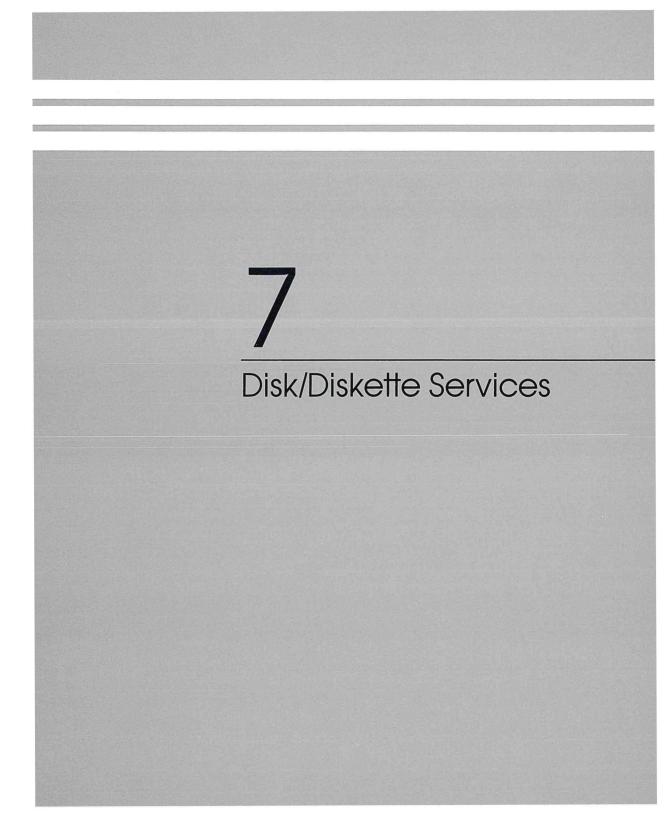
> Choose system directory Display next group of directories

"Choose system directory" displays a menu of P/OS system and application directories. Choose the directory you want.

CAUTION: Do not alter files in system and application directories. Doing so may destroy P/OS or P/OS applications. This option is available for maintenance purposes only.

"Display next group of directories" displays more of a menu that contains more than 60 directory names. Use this option if pressing NEXT SCREEN does not display more names in the list.

When you have selected the directory you want for your current directory, press DO. This change remains in effect until you turn the power off, use the "Change directory" function on Set-up Menu A, or specify new current directory again. (Press EXIT instead of DO to return to the File Services Menu without changing your current directory.)



Chapter 7

Disk/Diskette Services

The Disk/Diskette Services Menu lists the following:

Copy diskette Create directory Delete directory Initialize diskette Install application Remove application 'Show current directory 'Show directory 'Show list of directories 'Specify new current directory Unlock a locked file

'Also available from the File Services Menu

COPY DISKETTE

"Copy diskette" allows you to copy the entire contents of one diskette on to another diskette. Use this procedure to make backup copies of your important diskettes.

To use "Copy diskette":

- 1. Using the arrow keys, move the pointer on the Disk/Diskette Services Menu until it points to "Copy diskette."
- 2. Press DO.
- 3. Insert a blank diskette (or one that you are willing to erase) in diskette drive 2. This will be your destination diskette.
- 4. Press RESUME. If the diskette you have inserted has been used before, a message on the screen will tell you that information has been found on the diskette. If you do not want to erase this diskette, press CANCEL (you can then remove the inserted diskette and start again with a different destination diskette). Or, press EXIT to leave "Copy diskette" and return to the Disk/Diskette Services Menu. If you are willing to lose the information on the diskette and want to go ahead with the copy, press DO.
- 5. A form appears requesting a name for the destination diskette. Type in a name of one to twelve letters (A-Z) and/or numbers (0-9).
- 6. Press DO.
- 7. When the display on the screen tells you to, insert the diskette to be copied (source diskette) in diskette drive 1. Press RESUME.
- 8. A display on your screen will show you the names of your source and destination diskettes. Press DO to proceed; or, press CANCEL if you have inserted the wrong source diskette and want to insert another. You can press EXIT if you have changed your mind and want to return to the Disk/Diskette Services Menu without copying the diskette.
- 9. A message will appear on your screen when the copy begins. You are now returned to the Disk/Diskette Services Menu, and can begin doing other work on your Professional. The Message/Status display will tell you that the copy was completed or will explain if there was a problem. Remove both diskettes and store them carefully.

CREATE DIRECTORY

Use "Create directory" to add a directory on the disk or on a diskette. It is a good idea to organize your files so that different categories of files are in different directories and to keep less than 50 files in each directory. Organize your work in a way that works best for you.

When you choose "Create directory," a form appears requesting the directory name.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed so far and displays a menu with the following additional option:

Create a directory on a different volume

"Create a directory on a different volume" displays a menu of currently accessible volumes. Choose the volume you want and press DO. A form appears requesting the directory name.

Type in the name of the directory you want on the directory name form in one to nine letters (A-Z) and/or numbers (0-9). Press DO; the directory is created, and the Disk/Diskette Services Menu reappears. (If you decide not to create a directory, press EXIT instead of DO to display the Disk/Diskette Services Menu.)

If there is already a directory with the name you chose on the volume, a message to that effect appears at the bottom of the screen. In this case, use \triangleleft or CANCEL to delete your entry, and type in a different name.

DELETE DIRECTORY

Use "Delete directory" to delete an entire directory. Before using "Delete directory," delete (or copy and then delete) any files still in the directory. "Delete directory" only works on empty directories.

When you choose "Delete directory" and press DO, a menu appears showing your directories on the disk and currently inserted diskettes.

Additional Options

Pressing ADDTNL OPTIONS erases anything you may have typed so far and displays a menu of the following additional options:

> Choose a system directory Display next group of directories

"Choose a system directory" displays a menu of P/OS system and application directories.

CAUTION: Deleting system directories can destroy your P/OS system. This option is here for maintenance purposes only.

"Display next group of directories" displays more of a menu that contains more than 60 directory names. Use this option if pressing NEXT SCREEN does not display more names in the list.

Choose the directory to be deleted and press DO. The delete occurs if the directory is empty, and the Disk/Diskette Services Menu reappears. (Press EXIT instead of DO to display the Disk/Diskette Services Menu without deleting the directory.)

INITIALIZE DISKETTE

Use "Initialize diskette" to prepare and name a new diskette or to erase and rename a used diskette. "Initialize diskette" erases any information on the diskette and creates an empty directory named USERFILES. Do not use "Initialize diskette" on a used diskette without first copying files you want to keep to the disk or to another diskette. The initialization procedure includes a check for bad blocks. If found, those blocks will not be used by P/OS for storing information. (See Chapter 5, Backing Up Your Files, for more information about bad blocks.)

When you choose "Initialize diskette":

- 1. A menu appears, listing the diskette drive device names, DISKETTE1 and DISKETTE2. Choose the device containing the diskette you want to initialize and name.
- 2. Press DO. (Press EXIT instead of DO to stop the initialization procedure.)
- 3. A form appears, requesting a name for the volume. Type in a name of one to twelve letters (A-Z) and/or numbers (0-9).
- 4. Press DO. If there is any information on the diskette, a message appears, telling you to press CANCEL to try another diskette, EXIT to return to the Disk/Diskette Services Menu without changing anything, or DO to continue. When you press DO, P/OS initializes and checks the diskette.
- 5. When the initialization procedure is completed, the Disk/Diskette Services Menu reappears.
- 6. Now you can remove the initialized diskette if you want. Do not remove the diskette before the end of the procedure.

If you have two volumes with the same name, you cannot use them both at the same time. If you want to change a volume name, copy all the files from one of the volumes to another volume with a different name, since it is not possible to change volume names without reinitializing the diskette.

INSTALL APPLICATION

Use "Install application" to place each new application onto your disk. Since this is one of the first things you have to do when you get your Professional, the general install application procedure is described in Chapter 3. Details about the Additional Application Group Menu are described in this section.

To install one or more applications on your Professional:

- 1. Insert one or two application diskettes into one or two diskette drive slots. If you are installing an application contained on more than one diskette, insert the first application diskette in a diskette drive slot and leave the other slot empty.
- 2. Choose "Install application" from the Disk/Diskette Services Menu.
- 3. Press DO.
- 4. Choose the application you want to install from the Application Installation Menu.
- 5. Press DO. (Or, press EXIT instead of DO to return to the Disk/Diskette Services Menu without installing an application.)
- 6. Choose the menu on which you wish to install the application from the Application Group Menu.

There are five positions for applications on the Main Menu, and 132 possible positions for applications on the Additional Applications Menus. Install the five applications that you think you will be using the most on the Main Menu.

Place the rest of your applications under Additional Applications. Initially, there are eleven items on the Additional Applications Menu, listed alphabetically as "A Group" through "K Group."

If you have seventeen or fewer applications, you should put the names of these on the Main Menu (up to 5 applications) and the Additional Applications "A Group" Menu (up to 12 applications). To do this, choose either "Main Menu" or "A Group," then go to step 7.

If you have more than 17 applications, or if you anticipate having more than 17 applications, use the Additional Applications Menu as an application group menu. The applications themselves would then be listed on a third level of menus. In this case, decide how many groups of applications you want (you can have up to eleven) and what you want to name them. For example, you might have a group for games, a group for monthly applications, a group for end-of-year applications, and so forth. There are 12 positions for applications in each group.

- 7. Press DO. (Or, press EXIT instead of DO to return to the Disk/Diskette Services Menu without installing the application.) The Application/Group Name Change Form appears containing the name of the application and of the application group. If you installed your application on the Main Menu, the group name will be blank, since you cannot change the name of the Main Menu.
- 8. If you want to change the application name or group name, delete the name on the screen by pressing < X. Then type in the name you want (40 characters, including spaces). Use RETURN to move from one entry to the other. (Otherwise, go on to the next step.)
- 9. When the names you want appear on the form, press DO. Wait for P/OS to install your application. This takes from 2 to 10 minutes per application diskette, depending on the size of the application. If you are installing an application contained on more than one diskette, you will be prompted to remove the inserted diskette and replace it with the next diskette needed for the installation. When the installation is complete, the Disk/Diskette Services Menu appears.
- 10. To install another application, repeat the procedure from step 2. To display the Main Menu, press MAIN SCREEN.
- 11. When you have finished installing your application(s), remove and store the application diskette(s).

Remember to keep the diskettes that applications originally came on. These will be your backups in case something happens to the files on your disk. Store these diskettes in a safe place, and do not erase or reuse them.

NOTE: Before attempting to use an application, make sure that you have the required hardware (for example, a printer). P/OS will install applications for which you don't have all the hardware, but you will have trouble using them.

REMOVE APPLICATION

Use "Remove application" to erase an application from the disk. If you want to use the application again, store your original application diskette in a safe place.

"Remove application" removes the files you initially installed with the application. Data files you created using the application are not necessarily removed. To remove these files from the disk, you must search through your directories for the files, and then delete them or copy them to a diskette.

When you choose "Remove application":

1. A menu appears, listing the application groups: Main Menu, "A Group," "B Group," etc. If you have changed a group name, the menu will list the new group name. Move the pointer to the name of the group from which you want to remove the application.

To return to the Disk/Diskette Services Menu without removing an application, press EXIT.

- 2. Press DO.
- 3. A menu appears, listing the applications, if any, in the group you selected. Move the pointer to the name of the application you want to remove.

To return to the Disk/Diskette Services Menu without removing the application, press EXIT.

- 4. Press DO. P/OS removes your chosen application. This can take up to a minute or so.
- 5. The Disk/Diskette Services Menu reappears. A message will tell you if any files remain in the application directory. To remove another application, repeat the entire procedure.

SHOW CURRENT DIRECTORY

Use "Show current directory" to display your current directory on the screen. You can also display a directory other than the current directory without changing the current directory by using "Show directory." Chapter 6 (Show Current Directory) shows an example of a directory display.

Additional Options

Pressing ADDTNL OPTIONS erases anything you may have typed so far and displays a menu of the following additional options:

> Choose a system directory Display next group of directories

"Choose a system directory" displays a menu of P/OS system and application directories.

"Display next group of directories" displays more of a menu that contains more than 60 directory names. Use this option if pressing NEXT SCREEN does not display more names in the list.

Additional Options

Pressing ADDTNL OPTIONS while looking at your directory displays the following additional options:

Print directory Store directory as a file

"Print directory" prints out your directory on your printer. If the printer is already in use, a message to that effect appears on your screen, and you can wait until later.

"Store directory as a file" creates a file that you name in your current directory, containing the directory or directories you have selected. This is useful if your printer is busy and you want to print the file later.

Press NEXT SCREEN to display more files in the directory and EXIT to return to the Disk/Diskette Services Menu.

SHOW DIRECTORY

Use "Show directory" to display a directory on your screen. Chapter 6 (Show Current Directory) shows an example of a directory display. You can also use "Show directory" in conjunction with PRO/DECnet. This is explained in Appendix C.

When you choose "Show directory," a directory selection menu appears on your screen.

Additional Options

Pressing ADDTNL OPTIONS erases anything you may have typed so far and displays a menu of the following additional options:

> Choose a system directory Display next group of directories

"Choose a system directory" displays a menu of P/OS system and application directories.

"Display next group of directories" displays more of a menu that contains more than 60 directory names. Use this option if pressing NEXT SCREEN does not display more names in the list. Choose the directory you want to display and press DO.

Additional Options

By pressing ADDTNL OPTIONS while looking at your directory, you can select one of the following additional options:

Print directory Store directory as a file

"Print directory" prints out your directory on your printer. If the printer is already in use, a message to that effect appears on your screen and you can wait until later.

"Store directory as a file" creates in your current directory a file you name that contains the directory you have selected. This option is useful if your printer is busy and you want to print the file later.

Later on, you should delete this file so as not to clutter up your disk with unnecessary files.

Press NEXT SCREEN to display more files in the directory and EXIT to return to the Disk/Diskette Services Menu.

SHOW LIST OF DIRECTORIES

Use "Show list of directories" to display the directory and volume names of all the directories on your disk and on any currently inserted diskettes.

When you choose "Show list of directories," a list appears on your screen. Chapter 6 (Show List of Directories) shows an example of a list of directories.

Additional Options

Pressing ADDTNL OPTIONS while looking at your directories list displays the following additional options:

Print directories list Show system directories also Show system directories only Store directories list as a file

"Print directories list" prints the list if the printer is available.

"Show system directories also" displays the P/OS system and application directories along with your other directories.

"Show system directories only" displays the P/OS system and application directories.

"Store directories list as a file" stores the list you displayed as a file that you name.

Press NEXT SCREEN to display more directories in a list and EXIT to return to the Disk/Diskette Services Menu.

SPECIFY NEW CURRENT DIRECTORY

Use "Specify new current directory" to change your current directory.

When you choose "Specify new current directory," a menu of your directories appears on the screen.

Additional Options

Pressing ADDTNL OPTIONS erases anything you may have typed so far and displays a menu of the following additional options:

> Choose a system directory Display next group of directories

"Choose a system directory" displays a menu of P/OS system and application directories. Choose the directory you want.

CAUTION: Do not alter files in system and application directories. Doing so may destroy P/OS or P/OS applications. This option is for maintenance purposes only.

"Display next group of directories" displays more of a menu that contains more than 60 directory names. Use this option if pressing NEXT SCREEN does not display more names in the list.

When you have selected the directory you want for your current directory, press DO. This change remains in effect until you turn the power off or specify new current directory again, using either Set-up Menu A or the File Services Menu.

UNLOCK A LOCKED FILE

A file or group of files can become locked:

- \Box If you press the INTERRUPT key followed by the DO key while using an application.
- \Box If an application has a defect that causes a file to lock.
- \Box If there is a power failure while an application is in progress.

If you get a message saying that a file is locked, not available, or not usable, check the file's directory with "Show current directory." If the file is locked, use "Unlock a locked file."

When you choose "Unlock a locked file," a menu of the locked files in your current directory appears on the screen.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed in so far and displays a menu of the following additional options:

> Choose a different directory/volume Display next group of files Use extended file name

"Choose a different directory/volume" displays your directory selection menu. Choose the directory you want. When you press DO, a file selection menu appears, listing any locked files in the selected directory.

"Display next group of files" displays more of a file selection menu that contains the names of more than 60 files. This option is only applicable if the message "To see more groups of files, press ADDTNL OPTIONS" is displayed. Choose this option when pressing NEXT SCREEN does not display more of the files in the list.

"Use extended file name" results in a prompt for the RMS file specification.

Select the file to unlock and press DO. The unlocking occurs.

An unlocked file is not necessarily usable, since important information about the file may have been destroyed when the file became locked. In this case, delete the file. If you have not deleted the previous version from your disk, use that. If you have deleted the previous version and have a backup of that file, then use "Restore disk file(s)" to recover the most recent backup copy.

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8

Using a Printer with Your Professional

Chapter 8

Using a Printer with Your Professional

This chapter explains how to print files on a printer or plotter connected directly to your Professional, or to which you have access via Mini-Exchange.

USING PRINT SERVICES

P/OS print services allow you to print files (including those to which you have access via PRO/DECnet) on a variety of devices. You can print up to nine files at a time. Once printing has begun, you can use another P/OS service or application.

Before you begin printing files for the first time, use "Set printer characteristics" to set your printer type and location, as well as the proper characteristics for your printer and paper. Refer to Set Printer Characteristics in the next chapter. When using an LA50, LA100, or LQP02 printer or an LVP16 plotter, make sure the device is set to 4800 baud; with other types of printers and plotters, use "Set printer characteristics" to set the appropriate baud rate. Also, make sure the printer is turned on, that you have connected the correct cable (part number BCC05 if the device is connected directly to your Professional), and that the paper is in place with the print head positioned to the first line of a page.

Do not print system files (type .SYS), task image files (type .TSK), or forms files (type .FLB). These files contain binary format data that may cause strange numbers and characters to be printed. If you print one by accident, select "Abandon printing" from the Print Services Menu. Certain files transferred to your Professional from other computers may not be printable either.

Using Print Services with PRO/DECnet

Print services let you print files to which you have access via PRO/DECnet. This is explained in Appendix C.

Mini-Exchange

If your Professional is one of several personal computers using a Mini-Exchange to share a printer or plotter, you must first use the Set Printer Type/Location Menu to specify "Remote" as the location and to specify the Mini-Exchange port number of the printer you are using. The Set Printer Type/Location Menu is displayed when you choose "Set printer characteristics" from the Print Services Menu.

ALTERNATIVES TO PRINT SERVICES

P/OS

It's possible to print directories, lists of directories, and PROSE files without using print services. You can print a directory with the additional options available from "Show current directory" or "Show directory" on the File Services and Disk/Diskette Services Menus. You can print a list of directories by using the additional options available from "Show list of directories" on the File Services and Disk/Diskette Services Menus. You can print a PROSE file by choosing "Print file" from the PROSE Exit Menu.

The PRINT SCREEN Key

Pressing the PRINT SCREEN key prints an image of what is on your screen. Do this when no file is printing. After using PRINT SCREEN, reset the paper in your printer so that the print head is at the first line of a page. Use the form feed control on your printer to do this. The LA100 must be set off-line before form-feeding; set the printer on-line again before you begin printing. The PRINT SCREEN key works only with the LA50 and LA100 printers.

Digital Command Language (DCL)

If you are part of a PRO/DECnet network, certain DCL commands, including PRINT/REMOTE, COPY/PRINT, and CREATE/PRINT are available for your use. Refer to the *Command Language User's Guide* for information on these commands.

PRINTING PICTURE FILES

Some applications allow you to create picture files which can be printed by using "Print file(s)" from the Print Services Menu. Only dot-matrix printers (for example, LA50 and LA100) or plotters (for example, LVP16) will print these files. Picture files will have the file type .GID. Some text files, which are not of type .GID, will include or refer to .GID files. These files can usually be printed with print services.

When you print a picture file, the picture will be rotated (and its size adjusted) to best fit within your chosen margins.

ReGIS to GIDIS Converter

If you have the PRO Tool Kit, you can also get a ReGIS picture file printed. To do this, you convert the ReGIS file to a .GID file using the ReGIS to GIDIS converter (RTOG), and then use Print Services to print the .GID file. To perform a conversion, enter the PRO/Tool Kit, then type:

RUN APPL\$DIR:RTOG

Enter the name of a ReGIS file—for example: GRAPH.PIC. RTOG will create GRAPH.GID within the default directory; this file can be printed by P/OS print services.

TYPES OF PRINTERS

LA50

The LA50 is a compact dot-matrix printer that can print on paper up to 9 inches wide (with a print field 8 inches wide).

If you are using an LA50 printer, you will achieve best results by changing the graphics aspect ratio from the factory setting. This is especially important if you are printing graphic images. Circles, for instance, are printed as ovals unless you change the setting. Set switch 5 of SW1 to the closed position to change the graphics aspect ratio, as described in *Installing and Using the LA50 Printer* (part of the LA50 documentation).

The LA50 has two modes for printing text: draft quality, which prints at 100 characters per second, and letter quality, which prints at 50 characters per second.

LA100

The LA100 is a dot-matrix printer that can print on paper up to 13.2 inches wide. The LA100 has two modes for printing text: draft quality, which prints at 240 characters per second, and letter quality, which prints at 30 or 80 characters per second depending on the character ROM installed in the printer.

LQP02

The LQP02 is a full-character, daisy wheel printer that can print on paper up to 13.2 inches wide. It operates in a single letter quality mode at 32 characters per second. It has an optional cut sheet feeder and an optional tractor feed.

Other

If you have a printer that is not of a type explicitly supported by the Professional, it may still be possible to use it with your Professional. Choose "Other" from the Set Printer Type/Location Menu, then press ADDTNL OPTIONS for the Set Characteristics Menu if you want to change any of the default settings for the printer.

You should disable parity, and set eight bits per character on your printer if you choose "Other" for your printer type.

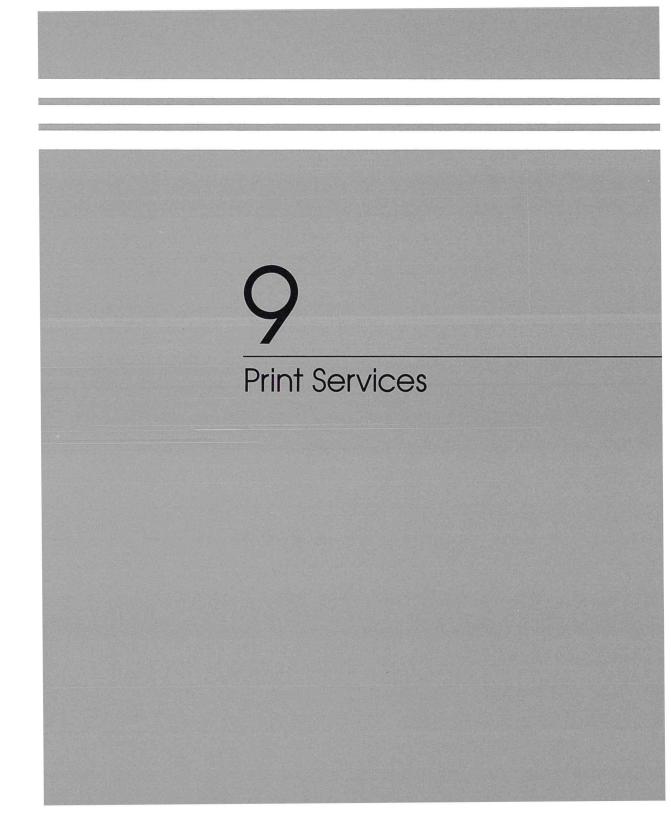
TYPES OF PLOTTERS

LVP16

The LVP16 is a 6 pen plotter useful for creating colorful charts and graphs. Files to be plotted on the LVP16 should be of file type .GID (see "Printing Picture Files" above), or should use HP-GL protocol. If you try to plot other types of files, you may get unpredictable results.

Hewlett-Packard

HP 7470 and 7475 plotters (and any others that use the HP-GL protocol) can be connected to your Professional. Choose the "LVP16" setting for these plotters.



Chapter 9

Print Services

The Print Services Menu lists the following:

Abandon printing Continue printing Pause printing Print file(s) Restart printing Set printer characteristics View status

ABANDON PRINTING

Use "Abandon printing" to stop your current print job. When you press DO, the printer will stop printing within 15-20 seconds. You can then, if you want, start another print job.

CONTINUE PRINTING

Use "Continue printing" to continue a print job you have suspended with "Pause printing," or to continue a print job that became suspended because the printer went off-line for some reason (for example, it ran out of paper). When you press DO, the print job continues.

PAUSE PRINTING

Use "Pause printing" to temporarily suspend your current print job. When you press DO, the printer will stop printing (within 15-20 seconds) until you continue, restart, or abandon the print job. The Print Services Menu remains on the screen.

"Pause printing" is useful if you want to adjust the printer, put in more paper, and so on. While the "Pause printing" function is in effect, the printer is not available for other applications and the PRINT SCREEN key does not work.

PRINT FILE(S)

Use "Print file(s)" to print up to nine files (from one directory) at a time. You can also use "Print file(s)" in conjunction with PRO/DECnet. This is explained in Appendix C. When you choose "Print file(s)," a file selection menu of the files in your current directory appears on the screen.

Additional Options

Pressing ADDTNL OPTIONS erases any information you may have typed in so far and displays a menu of the following additional options:

> Choose a different directory/volume Display next group of files Use extended file name Show all versions Show only latest versions

"Choose a different directory/volume" displays your directory selection menu. Choose the directory you want. When you press DO, a file selection menu appears, listing the files in the selected directory.

"Display next group of files" displays more of a file selection menu that contains the names of more than 60 files. This option is only applicable if the message "To see more groups of files, press ADDTNL OPTIONS" is displayed. Choose this option when pressing NEXT SCREEN does not display more of the files in the list.

"Use extended file name" results in a prompt for the RMS file specification (described in Chapter 5, Choosing a File from a Directory).

"Show all versions" displays a file selection menu with all versions of all files in the current directory.

"Show only latest versions" displays a file selection menu with only the most recent versions of the files in the current directory. Select the file(s) you want to print. If you are selecting more than one file, use the SELECT key to mark each file you want to print. (If you change your mind, press CANCEL to cancel all selections or use SELECT a second time to cancel an individual selection.)

When you press DO, the printer starts. Press EXIT instead of DO if you decide to return to the Print Services Menu without printing any files.

A message on your View Status display tells you if the printer is not ready.

RESTART PRINTING

Use "Restart printing" when a job is ruined by running out of paper, jamming, or some other problem with the printer. First, use "Pause printing" to temporarily stop printing. Next correct the printer problem. Then choose "Restart printing" and press DO. The print job restarts at the beginning of the file that was being printed at the time the printing was paused.

SET PRINTER CHARACTERISTICS

Use "Set printer characteristics" to specify your printer type and location, and to format your printed output.

If you want your LA100 or LQP02 printer to form feed between pages automatically, be sure that the page length, bottom margin, and top margin are set properly. The LA50 printer will only page automatically if you insert page breaks (form feeds) in your file (see Chapter 10, Page Break).

When you choose "Set printer characteristics," the Set Printer Type/Location Menu appears:

Set Printer Type/Location Menu Press MAIN SCREEN to return to Main Menu. Press EXIT to return to previous menu. Press ADDTNL OPTIONS to set your printer's characteristics. -> Printer Location: Local Printer Type: LA50 Additional Options available Make a choice and press DO:

Figure 9-1 Set Printer Type/Location Menu

The current settings for printer type and location are shown on this menu. If you need to change one of these, move the pointer to the desired option and press DO.

For printer location, you can choose:

Local Remote via Mini-Exchange

Choose "Local" (the default setting) if the printer you will be using is connected directly to the back of your Professional.

Choose "Remote via Mini-Exchange" if the printer you will be using is connected to your Professional through a Mini-Exchange. In this case, when the Set Printer Type/Location Menu reappears it will have a third item listed: "Port Number." This setting indicates the Mini-Exchange port to which your chosen printer is connected. You can change the port number by moving the pointer to that item and pressing DO.

Changing printer location may automatically change the printer type if the location you choose has already had a type selected for it.

For printer type, you can choose:

LA50 LA100 LQP02 LVP16 Other

Choose the printer type that you will be using. If you are using an LVP16 or compatible plotter (for example, an HP 7470 or 7475) choose "LVP16." If your printer is of a type that isn't shown, choose "Other." In any case, you should check the settings on the appropriate Set Characteristics Menu before you attempt to print files.

SET CHARACTERISTICS MENUS

To use the Set Characteristics Menu for your printer, press ADDTNL OPTIONS while the Set Printer Type/Location Menu is displayed. One of the following menus will appear:

<pre>new value and press DO again. When you have finished, press</pre>	11.00 inches 08.00 inches 00.00 inches
Make a choice and press DO:	

Figure 9-2 Set Characteristics—LQP02

ew value and press DD again. hen you have finished, press	want to change and press DO. Enter the Repeat this for each characteristic. EXIT.
Page length: Page width: Line spacing:	11.00 inches 08.00 inches 6 lines per inch 10 characters per inch DRAFT

Figure 9-3 Set Characteristics—LA50

Set Characteristics - LA100 Choose the characteristic you want to change and press DD. Enter the new value and press DD again. Repeat this for each characteristic. When you have finished, press EXIT. -> Page length:11.00 inchesPage width:13.20 inchesTop margin width:00.00 inchesBottom margin width:00.00 inchesLeft margin width:00.00 inchesLine spacing:6 lines per inchHorizontal pitch:10 characters perPrint quality:DRAFT 10 characters per inch Make a choice and press DO:

Figure 9-4 Set Characteristics—LA100

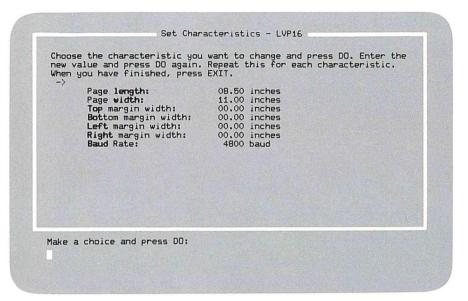


Figure 9-5 Set Characteristics—LVP16

->		gain. Repeat this for each characteristic. press EXIT.
	Baud Rate:	4800 baud

Figure 9-6 Set Characteristics—Other Current characteristics are shown on the menu. (In the figures above, the default characteristics are shown.) To change a characteristic, move the pointer to that menu choice and press DO. Press EXIT if you decide not to change the setting. To change the setting, type in the new value and press DO. The settings you choose will be saved even after you turn your Professional off; to change them, you must again use "Set printer characteristics."

You use the menu selections as follows:

Page length	Use "Page length" to indicate the length, in inches, of your pages (not the length of the text on the pages).
Page width	Use "Page width" to indicate the width, in inches, of your pages (not the width of the text on the pages).
Top margin width	Use "Top margin width" to set the amount of space, in inches, between the top of each page and the place where you want printing to begin.
Bottom margin width	Use "Bottom margin width" to set the amount of space, in inches, between the bottom of each page and the place where printing ends.
Left margin width	Use "Left margin width" to set the amount of space, in inches, between the left edge of each page and the place where printing begins.
Right margin width	Use "Right margin width" to set the amount of space, in inches, between the right edge of your pages and the last column to be printed.
Line spacing	Use "Line spacing" to set the number of lines of text per inch you want on your printed output. Six lines per inch (the default setting) corresponds to typewriter single-spacing; three lines per inch to double-spacing.
Horizontal pitch	Use "Horizontal pitch" to set the number of characters per inch to be printed. This changes character size; for example, 10 characters per inch corresponds to pica type size, and 12 characters per inch corresponds to elite type size.

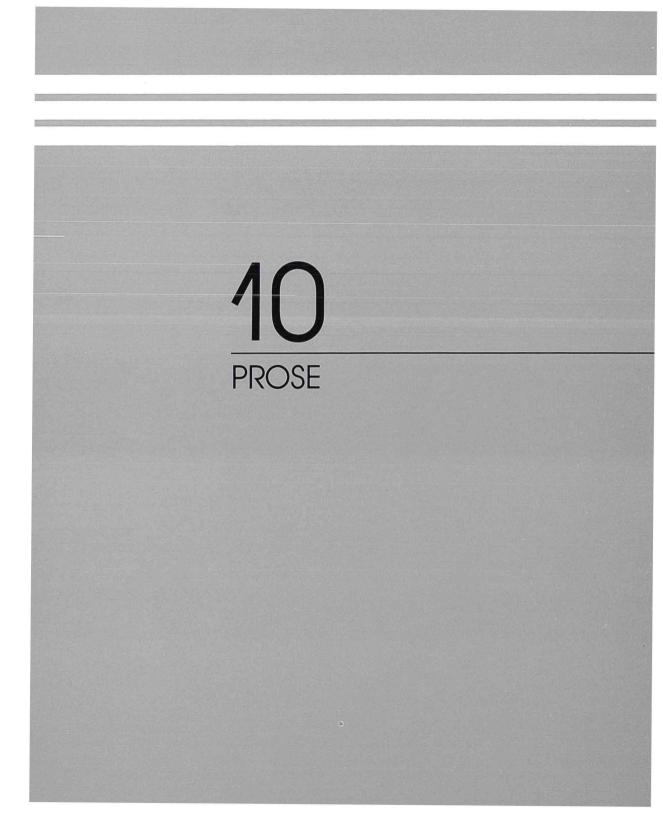
Print quality	Use "Print quality" to choose either draft quality printing or letter quality printing. Letter quality printing looks better, but draft quality can be printed more quickly.	
Proportional spacing	With "Proportional spacing" on, the space between characters is varied slightly to adjust to the different widths of the characters; this gives your output a more professional, "typeset" appearance. Make sure you have a print wheel that allows proportional spacing. The Courier 10 print wheel, supplied with the LQP02, does not allow proportional spacing. The following print wheels do allow proportional spacing:	
	WPS Boldface (LQP02-MW) WPS Title (LQP02-MX) WPS Thesis (LQP02-MY) WPS Boldface Italic (LQP02-NA)	
	Note that proportional spacing must be specified if you are using one of the above print wheels. They will not work if you turn proportional spacing off.	
Baud rate	Use "Baud rate" to set the number of bits per second to be sent to your printer from your Professional. Refer to the documentation that came with your printer or plotter to find the correct baud rate.	

It is a good idea to read the documentation that comes with the printer you have for further information.

VIEW STATUS

When you choose "View status," one of the following messages appears at the bottom of your screen:

- \Box Printer is busy
- \Box Printer is paused
- \Box Printer is not busy
- \Box Printer is not connected
- □ Printer is not connected; print job is paused
- □ Unable to determine printer status
- \Box Mini-Exchange not connected
- □ Previous Mini-Exchange connection not broken



Chapter 10

PROSE

Using PROSE, you can prepare memos, reports, programs, and other kinds of text. You can create, edit, move, replace, and format text. You use PROSE by choosing from menus and by using some of the function keys on your keyboard.

With PROSE, the text you prepare appears on the screen in the same format it has when printed on a printer. In addition, the screen display shows where pages end for printing, if you have put in your own page breaks. This part of the screen display does not print out.

This chapter is divided into two sections:

- □ *Elementary PROSE*—All you need to know to get an editing job done.
- □ *More advanced PROSE*—Additional functions that make editing easier and allow you to change your text format.

ELEMENTARY PROSE

PROSE must be installed on your Professional 350 disk before you can use it. Chapter 3 describes this one-time procedure.

To use PROSE, first choose it from the Main Menu¹ by moving the pointer to "PROSE" with the \downarrow key. Then press DO and the PROSE Menu appears. Chapter 3 explains in detail how to select from menus.

If PROSE was installed on an additional applications menu, then choose from that. Also, since application names can be changed at install time, your PROSE may have a different name.

The main reason for removing these settings is to allow you to use PRO/Communications to transfer the file to a computer that does not use PROSE. Or, if you want to use an application that does not interpret the internal setting indications in the same way as PROSE, you would want to remove the settings.

After you answer the word wrap/margin question, a form appears requesting a file name. For example:

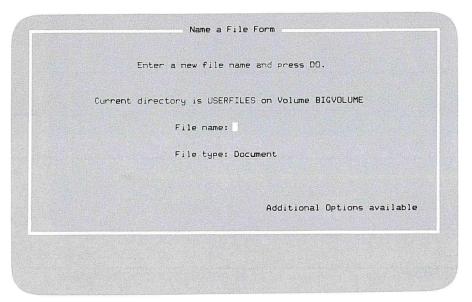


Figure 10-3 Name a File Form—Exiting PROSE

- 1. Type in the name (one to nine letters and/or numbers) you want to give this text. If this is a previously created file, the existing name appears on the form. In this case you can either leave it as is, or change it by deleting the name and typing in a new name.¹
- 2. Press DO. The file is saved with the name you chose, and the PROSE Menu reappears.

^{&#}x27;This is useful for form letters or letterheads. For example, create one file as a letterhead. Then, in another editing session, add the letter contents for the particular person you are writing to, giving the new file a different name. You still have the letterhead for future use.

The default type is document. You only need to change the type if you are creating a BASIC program or some other special kind of file. To change the file type or directory, press ADDTNL OPTIONS before typing in the file name and selecting the appropriate additional option.

If you are working on a previously created file, choosing "Save file" creates a new version of your file. P/OS saves the previous version as well. You should delete old versions you no longer need so that you have more free space. You can use "Clean up old file versions" from the File Services Menu to delete all the old versions of a file.

Print File

Choose "Print file" to print your text on the printer. (You can only print your text in this way if you have a printer connected to your system unit.) Wait until the printer is not busy to use "Print file." When printing begins, the Exit Menu reappears. At this point, your file is still available for further editing or for saving. If you want to both print and save, choose "Save file" after you choose "Print file."

"Print file" is useful for printing the current draft of a document. If you choose "Resume editing current file" after "Print file," you can look at your printout as you continue preparing your text.

If you want to print your file at a later time, use the P/OS print services. If you have communication services, you can also transfer files to another computer to print on printers attached to the other computer.

Leave Session without Saving Changes

When you choose "Leave session without saving changes," you lose the results of the work you did during that session. If this was the first session on that text, you lose everything you entered. If you were working on an existing file, you lose only the changes and additions made during that session.

This is useful:

- \Box If you are experimenting with PROSE to see how it works and do not want to save what you typed.
- \Box If you want to print a document without saving it.
- \Box If you made a lot of mistakes in your text and want to start again.

When you choose "Leave session without saving changes," the following question appears:

Do you really want to discard edits from this session? (YES or ND)

Type YES (using either upper- or lowercase) and press DO to leave this session without saving changes and return to the PROSE Menu.

Type NO and press DO (or just press DO) to return to the Exit Menu without losing your changes.

Resume Editing Current Document

Choose "Resume editing current document" to go back to your current editing session. This is useful if you change your mind about exiting, or if you are using the Exit Menu for printing what you have done so far. When you press DO, the file you were working on reappears.

MORE ADVANCED PROSE

After you have used PROSE for a while, you may want to use its full potential. For example, you may want to move text around without retyping. Or, you may want to search for a particular word without moving the cursor with the arrow keys. You may want to tell PROSE exactly where to end each printed page in your document. PROSE can do all these things.

Locating Text Segments with FIND

Use the FIND key to place the cursor on the first character of a specific text segment. The FIND key is useful when you know what text segment you want to change, but not where it is in the document. You can also look for repeated instances of the same segment.

Since PROSE moves **forward** through the text to the next instance of the text you typed, you may want to place the cursor at the beginning of the file beforehand by using the **PREV SCREEN** key.

When you press the FIND key, the following prompt appears:

Enter the text to find and press DD:

Type in the word or group of characters you want to find and press DO. If PROSE cannot find the text, the following message appears:

Unable to locate text

PROSE can only look for a text segment that occurs on one line. If, for example, the first word of a two-word segment is at the end of a line, PROSE will display the message "Unable to locate text." Press **RESUME** to continue after a message appears.

To search for the next instance of the same segment, press DO each time the "Enter the text to find ..." prompt appears. You can keep doing this until you get to the end of the file.

PROSE Additional Options Menus

In addition to the PROSE functions performed with the special function keys, there are several PROSE editing capabilities available from the three PROSE Additional Options menus. When entering or editing text with PROSE, press F12, F13, or ADDTNL OPTIONS to display the menu that lists the additional option you want to use. The menu will appear at the top or the bottom of your screen, depending on the position of the cursor at the time that you press the key for that menu. This enables you to see your work while you choose from the menu. The following table shows the three menus.

Edit	Personalize	Format
Bottom of file	Columns 80/132	Center line
Relocate text	Define a key	Fill text
Top of file	List defined keys	Margin change/word wrap
	Set tab stops	Page break
	Status line ON/OFF	

Table 10-1 PROSE Additional Options Menus

If you decide not to use any additional options, press EXIT to return to your text display.

PROSE Additional Options Edit Menu

You display this menu by pressing F12 while in PROSE. The options on the Edit Menu enable you to move the cursor and text segments from place to place in your file. The options are:

Bottom of file Relocate text Top of file

BOTTOM OF FILE

Use "Bottom of file" to move the cursor to the last line of your file.

RELOCATE TEXT

Sometimes you may want to move a text segment to another part of your file, or you may want to copy the same text to several places in your file. "Relocate text" allows you to do these things. To relocate a text segment:

1. Using the arrow, PREV SCREEN, NEXT SCREEN, or FIND keys, move the cursor to one end of the text you want to relocate. For example,

This is some text to copy. This is some more text, but I do not want to copy this.

- 2. Press REMOVE.
- 3. Using the arrow, PREV SCREEN, or NEXT SCREEN keys, move the cursor to the other end of the text you want to relocate. The text segment becomes highlighted in reverse video. For example,

This is some text to copy. This is some more text, but I do not want to copy this.

(If you change your mind, press CANCEL to cancel your selection and return to the text display.)

- 4. Press DO. The highlighted text disappears.
- 5. Using the arrow, PREV SCREEN, or NEXT SCREEN keys, move the cursor to where you want to relocate the segment. For example,

This is some more text, but I do not want to copy this.

(If you want to put the text back in the original place in addition to relocating the text, leave the cursor positioned where you removed the text.)

- 6. Press F12.
- 7. Choose "Relocate text" and press DO. PROSE moves the text to the new location. For example,

This is some more text, but I do not want to copy this. This is some text to copy.

If the text is not filled properly, use "Fill text."

8. You can relocate the text as many times as you wish (until you press the REMOVE key again) by moving the cursor to the next place where you want the text relocated, choosing "Relocate text" from the Edit Menu, and pressing DO. CHAPTER 10 | PROSE

TOP OF FILE

Use "Top of file" to move the cursor to the top line of the file you are editing.

PROSE Additional Options Personalize Menu

You display this menu by pressing F13 while in PROSE. The options on the Personalize Menu enable you to set defaults which are saved until changed again. The options are:

Columns 80/132 Define a key List defined keys Set tab stops Status line ON/OFF

COLUMNS 80/132

When you select "Columns 80/132" and press DO, the number of columns on the screen display changes. If the display was set to 80 columns, it changes to 132 columns. If the display was set to 132 columns, it changes to 80 columns.

DEFINE A KEY

With "Define a key," you can perform up to 250 keystrokes with the pressing of a single key. Eight keys (F17, F18, F19, F20, PF1, PF2, PF3, and PF4) are user-definable. The keystrokes specified can include characters, RETURN, and function keys.

To define a key,

- 1. Move the cursor to the point where you want to begin typing what you will assign to a user-definable key.
- 2. Press F13.
- 3. Using the arrow keys, move the pointer to "Define a key."
- 4. Press DO.
- 5. Type the key sequence that you want assigned to one of the definable keys. For example, if you want to define a key to type your name and address at the top of a letter, you would type:

```
Clarence Rutherford
146 Main Street
Anytown, U.S.A.
```

Use the arrow keys, not the RETURN key, to move from line to line. You can use the RETURN key in a defined sequence, but remember that it will always move the next line to the left margin, regardless of the cursor's location on the screen. Use the \checkmark key to delete any errors you may make in typing this sequence. Your Professional will beep at you if you try to enter more than 250 keystrokes into a key definition.

- 6. Press DO when you have finished typing the key sequence. Or, press EXIT if you do not want the sequence you've just typed assigned to a user-definable key. Any text you've typed will remain on the screen.
- 7. At the prompt, type in a name for the sequence. This name can be up to 60 characters long, and can include letters, numbers, spaces, and punctuation.
- 8. Press the key to which you want the sequence assigned; F17, F18, F19, F20, PF1, PF2, PF3, and PF4 are available for this purpose. A list on the screen shows which keys are already defined. You can re-define a key if you want.

Now, any time that you are in PROSE and you press the function key you've just defined, you will see your name and address.

Note that when you press a defined key it will begin typing any text at the current cursor location. If the text extends beyond the right margin, you may get unexpected results.

The best method for learning the many ways that user-definable keys can work for you is to spend some time experimenting with them. Here are some possibilities:

- $\hfill\square$ Using the REMOVE and DO keys, define a key to delete the current line.
- □ Using the INSERT HERE and RETURN keys, define a key to open up a blank line.
- □ Using the underscore and vertical line characters, define a key to draw a box. Or use slashes and backslashes to create triangles and diamonds.
- Replace one word that appears many times in a document with another word (for example, replace "January" with "February"). Once you've defined a key to do this, an otherwise tedious chore becomes a simple, fast, and precise operation. Use the FIND, REMOVE, INSERT HERE, and DO keys.
- □ Define a key to choose an additional option from the Edit, Personalize, or Format Menu. Or define a key to choose several additional options at one time.

LIST DEFINED KEYS

"List defined keys" displays a list of user-defined keys that have been created with "Define a key." Only keys that have been defined are shown on this menu.

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SET TAB STOPS

Use "Set tab stops" to establish the columns where the cursor will stop each time the TAB key is pressed. The tab stops you set in PROSE will not affect other P/OS services. With the initial default setting, there is a tab stop at every 8 columns, starting at column 9. For example, if the cursor is in a column from 1 to 8, when you press the TAB key, the cursor jumps to column 9. When you select "Set tab stops," a ruler appears on your screen. Small diamonds above the ruler show the current tab stops. Using the \leftarrow and \rightarrow keys, move the cursor across the ruler to where you want a tab; then press SELECT.

To remove a tab stop, move the cursor to the diamond which represents the tab stop you want to remove and press SELECT.

When you have selected all the desired tab stops, press DO.

Additional Options

Pressing ADDTNL OPTIONS displays a menu of the following options:

Clear all tabs Reset tab stops Tab stop every 8 columns

"Clear all tabs" removes all tab stops.

"Reset tab stops" resets the tab stops to the settings that were in effect when you chose "Set tab stops."

"Tab stop every 8 columns" sets the tab stops to every 8 columns, beginning with column 9.

STATUS LINE ON/OFF

By initial default, 22 lines of your text are displayed on the screen. Lines 23 and 24 are reserved for the status line. If you want to display 24 lines of your text and no status line:

- 1. Press F13.
- 2. Choose "Status line ON/OFF."

When you want to display the status line again, repeat this procedure.

PROSE Options Format Menu

You display this menu by pressing ADDTNL OPTIONS while in PROSE. The options on the Format Menu enable you to specify the appearance of text in your file. The options are:

Center line Fill text Margin change/word wrap Page break

CENTER LINE

To use "Center line," first move the cursor to the line you want to center. Then choose "Center line" from the Format Menu. When you press DO, PROSE centers the line within the margins set for that paragraph.

FILL TEXT

Use "Fill text" to wrap paragraphs that allow word wrap. To fill text:

1. Using the arrow, PREV SCREEN, NEXT SCREEN, or FIND keys, move the cursor to the beginning of the paragraph you want to fill. For example,

This is a sample of text to be filled. When I typed this text in, I put in a lot of spaces and carriage returns that I do not want now.

- 2. Press ADDTNL OPTIONS.
- 3. Choose "Fill text."
- 4. Press DO. The paragraph fills. For example,

This is a sample of text to be filled. When I typed this text in, I put in a lot of spaces and carriage returns that I do not want now.

Note that the cursor is at the end of the filled text.

"Fill text" will not operate on text set to "no wrap," which is the default setting. Use "Margin change/word wrap" to set word wrap on for a paragraph. To get rid of spaces in paragraphs that are not wrapped, use REMOVE.

MARGIN CHANGE/WORD WRAP

When you begin creating text with PROSE, the left margin is set to column 1 and the right margin to column 72. Word wrap is off for each paragraph you enter. These are the default settings. (A blank line—two carriage returns—marks a separation between paragraphs.)

Word wrap is a very useful PROSE feature that **automatically** drops any word extending beyond the right margin to the beginning of the next line. You do not have to press the **RETURN** key when you get to the right margin. You should leave word wrap off for entering tables, columns of text, or programs.

To change margins or the word wrap setting for a paragraph, use "Margin change/word wrap." PROSE uses the new setting(s) for the paragraph you selected and for subsequent paragraphs (moving forward through the text) until you make a change or until there is a change saved from a previous editing session.

When you exit the session, PROSE asks you whether you want to save these word wrap and margin settings. See the section in this chapter on "Save file" for more details.

To set margins or word wrap:

1. Using the arrow, PREV SCREEN, NEXT SCREEN, or FIND keys, move the cursor to the first line of the paragraph or text for which you want to change margins and/or word wrap.

If you have not yet typed in the paragraph, before changing the setting, press RETURN twice to indicate a new paragraph.

If you move the cursor to a line within a paragraph, PROSE creates the new margin setting starting where the cursor is, but does not insert a blank line.

- 2. Press ADDTNL OPTIONS.
- 3. Choose "Margin change/word wrap."
- 4. Press DO. A ruler appears in your text display. For example,

Each dot or number on the ruler represents a column. The "V" symbols mark the location of the left and right margins.

- 5. To set a new left margin, move the cursor to the column you want and press SELECT. (Press EXIT to cancel your choice and return to the text display.)
- 6. The cursor is moved to the "V" marking the location of the right margin. Move the cursor to the column you want and press SELECT. You can use SELECT to toggle back and forth between margins until you're satisfied with the settings you've made.
- 7. If you want to change the word wrap setting, press ADDTNL OPTIONS. A menu appears showing the possible word wrap settings; the current word wrap setting is indicated with a diamond. Move the pointer to the choice you want and press DO. You are returned to the margin ruler.
- 8. Press DO when you are ready to leave "Margin change/word wrap."

If you change the margins on a wrapped paragraph, PROSE rewraps the paragraph so that it fits within the new margins.

To find out the word wrap and margin settings for any paragraph, move the cursor to it and look at the status line.

For formatting numbered lists, move the left margin to the right, and then put the numbers to the left of the left margin. For example, set your left margin to column 5, then use the \leftarrow key to move the cursor to the left of this margin. Type in your list numbers at column 1. Start the text of your list at your left margin. Subsequent lines of text will align at column 5.

PAGE BREAK

A page break marks where you want your text to begin printing on the next page. With an LQP02 or LA100 printer, print services can print out a set number of lines for each page (see Set Printer Characteristics, Chapter 9). If you want to insert special page breaks using "Page break" and are using an LQP02 or LA100 printer, set your printer's top margin, bottom margin, and page length to the values you want before printing your file. If you are using an LA50 printer, you should insert page breaks for every page.

To insert a page break,

1. Using the arrow, PREV SCREEN, NEXT SCREEN, or FIND keys, move the cursor to any spot on the first line to be printed on the next page. For example,

This is some text. I have written several pages of text -- this is only part of what I have written -- and I want to insert a page break so that the printer will print my text as I request. For example, I need to use page breaks to make sure that a table gets printed all on one page.

- 2. Press ADDTNL OPTIONS.
- 3. Choose "Page break." (Press EXIT to cancel the procedure and return to the text display.)
- 4. Press DO. A double line appears, showing where the page will break. For example,

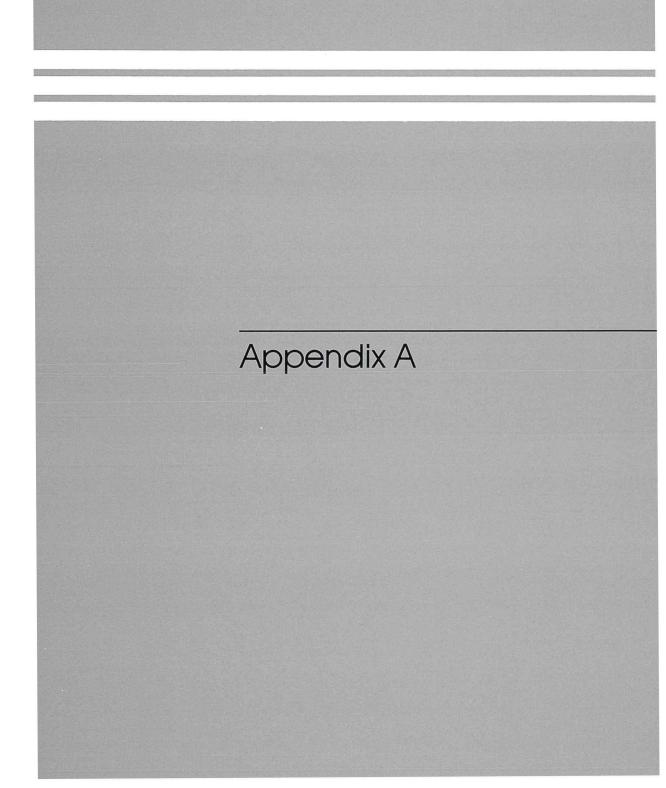
This is some text. I have written several pages of text -- this is only part of what I have written -- and I want to insert a page break so that

the printer will print my text as I request. For example, I need to use page breaks to make sure that a table gets printed all on one page.

Set page breaks in your text after all edits have been made, because a change in the text can affect your page breaks.

When printing files, P/OS causes the printer to jump (form feed) to the next page on encountering a page break. The double line that appears in your screen display is not printed on the paper copy. PROSE considers a page break the start of a new paragraph.

To delete an existing page break, move the cursor to the page break and press the < X key.



Appendix A

Compose Character Key Sequences

All the Professional keyboards allow the use of the COMPOSE CHARACTER key with the keystroke sequences shown in the following table. Column 1 represents the "composed" character. Columns 2 and 3 show the two keys that compose the character. Except for those sequences noted with an asterisk (*) in the table, you can type the two keys in either order.

To "compose" a character, press the COMPOSE CHARACTER key. This turns on the Compose light at the top of the keyboard. Next, type the two characters that together form the character you want. Neither character typed will be displayed; only the resulting composed character will appear on the screen. The Compose light will go off.

If you type the wrong character after pressing COMPOSE CHARACTER, press COMPOSE CHARACTER again to start again.

If you inadvertently press COMPOSE CHARACTER, press < X to cancel it.

If you type a sequence of characters that do not "compose," the keyboard will beep (if the bell is set to on). Then you can try again. Nothing will be displayed if you make a mistake.

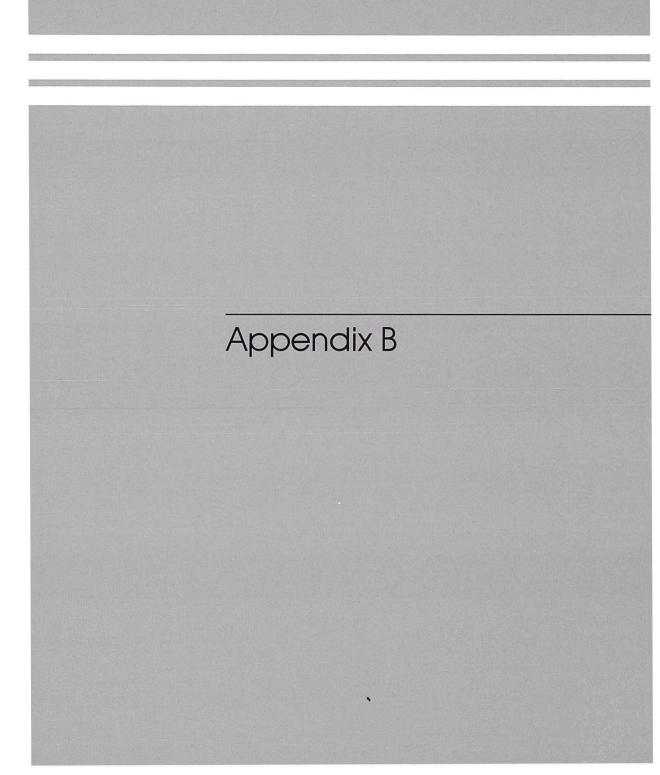
If you type a *function* key instead of a character that composes, the keyboard will beep (if the bell is set to on), the "compose" will not take place, and the function key will take effect, if operable at the time. For example, if you type **COMPOSE CHARACTER**, then A, then TAB, the cursor will tab over, but there will be no display on the screen.

Table A-1 Compose Key Sequences

1	2	3		1	2	3		1	2	3		1	2	3		1	2	3		1	2	3	
Ä	A	, iii]	@	а	a	2	ſ	1	1]	ò	0	۰ ۲]	Ú	U	Ī]	Ī	($\overline{(}$	1
ä	а	**	1	ç	с	,	1	í	i	1	1	ò	0	•	1	ú	u	1	1	{	(-	1
Á	A	1	1	ç	с	,	1	î	I	^	1	Œ	0	Е	1	û	υ	٨	1	1))	1
á	а		1	¢	c	1	2	î	i	^	ĺ	œ	0	е	1	û	u	٨		})	-	1
Â	A	۸	1	©	С	0	2	ì	I	`		õ	0	~	1	ù	υ	`		\ll	<	<	1
â	а	۸		Ë	Е	11		1	i	`		õ	0	~		ù	u	`]	\gg	>	>	
À	Α	`		ë	е	-11]	£	L	-		ø	0	1		Ÿ	Y	11]	ż	?	?]
à	а	`		É	Е	1]	Ñ	N	~		ø	o	1		ÿ	У	11		i	!	!	l
Æ	Α	E	1	é	е	1]	ñ	n	~		Ø	0	х	1	¥	Y	-	2	•	^		
æ	а	е	1	Ê	Е	^]	ö	0	11		2	o	-	2	0	^	0		Ι	^	1	
Ã	Α	٢		ê	е	۸		ö	ο	11		¶	Ρ	!		1	^	1		#	+	+	
ã	а	~		È	Е	•		ó	0	'		ş	S	0	2	2	^	2		±	+	-	
Å	Α	*		è	е	•		6	0	1		В	s	s		3	^	3		$\boldsymbol{\lambda}$	1	1]
å	а	*		ï	1	11		ô	0	^		ü	U	11		1⁄2	1	2	1	μ	/	u	12
a	а	_	2	Ϋ́	i	11		ô	0	^		ü	u	11		1⁄4	1	4	1				

¹For these sequences, the character in column 2 must be typed first, then that in column 3.

²The letters in these sequences can be either upper- or lowercase as long as both characters in the sequence have the same case.



Appendix B

Keyboards

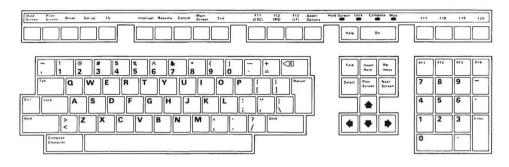
The following pages in this appendix illustrate the keys on each of the 15 Professional keyboards.

All the keyboards except the U.S./Canada keyboard have one or more keys that display different characters, depending on whether the keyboard is in office mode or data processing (DP) mode. Use the Set-up Menu to switch from one mode to the other. In the illustrations that follow, keys that differ depending on the mode are shown in red. The character(s) on the right side of the key are displayed in DP mode.

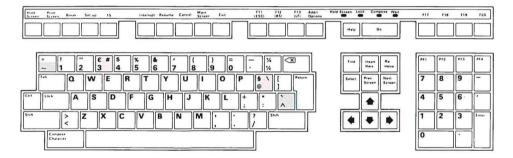
All the keyboards except the U.S./Canada keyboard allow some "two-stroke" compose sequences: you can compose a character by pressing a "dead key" and then pressing a key that, together with the dead key, displays a legitimate character. For example, to display é on a Danish keyboard, press ' followed by e. Dead keys in the following illustrations are shown in gray.

If you make a mistake using the dead keys, your keyboard will beep (if the keyboard bell is set to on).

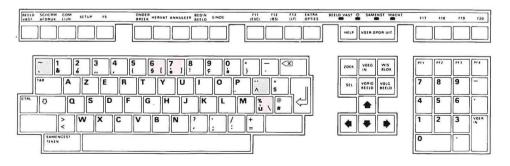
UNITED STATES/CANADA



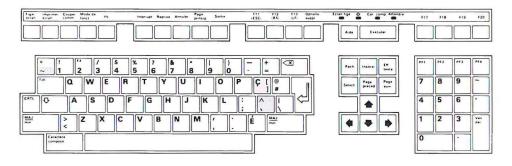
UNITED KINGDOM



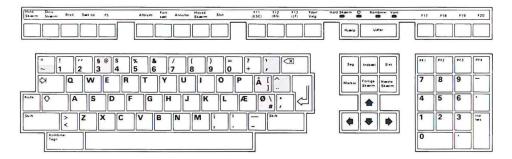
BELGIUM/FLEMISH



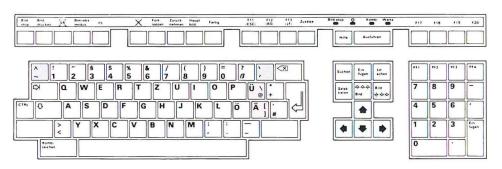
CANADA/FRENCH



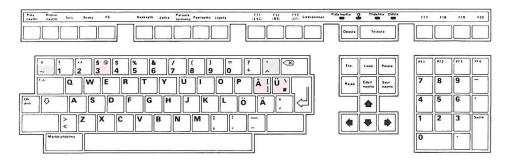
DENMARK



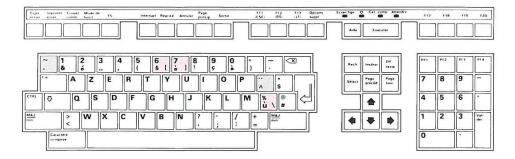
GERMANY/AUSTRIA



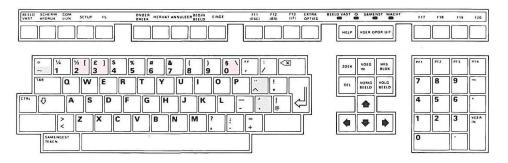
FINLAND



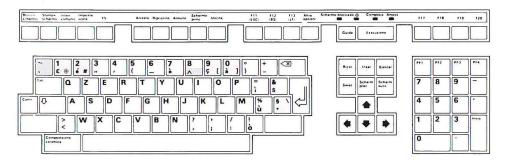
FRANCE/BELGIUM



HOLLAND



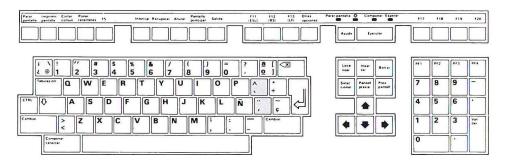
ITALY



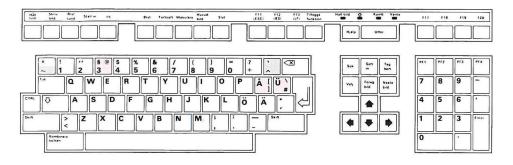
NORWAY

Note Skrev Brat Oppsen #5	Avbrat Fortsett Annuller Hoved UI	f11 F12 F13 Andre (ESC) (BS) (LF) valg	Hold skjarm O Spesial Vant	F17 F18 F19 F20
			Hjelp	
° ! " 5 @ S ~ 1 2 3 4	% & / () = 5 6 7 8 9 0] [?] . (⊠)	Finn Insam Fjarn	PE3 PE2 PF3 PF4
		À	Velg Skjørm Skjørm Tilbake frem	7 8 9 -
**** 🖓 A S D	FGHJKL	0 Æ:		4 5 6
5x.n > Z X C	V B N M ; :	S&://	47	1 2 3 Lego
Spasial lagen			(<u> </u>	0

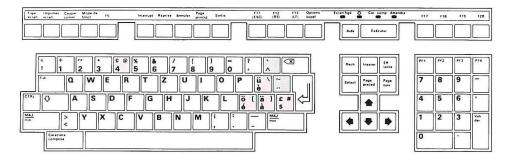
SPAIN



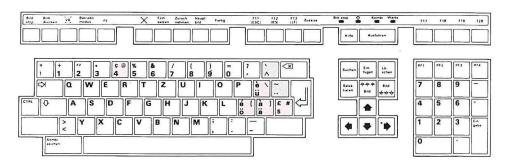
SWEDEN

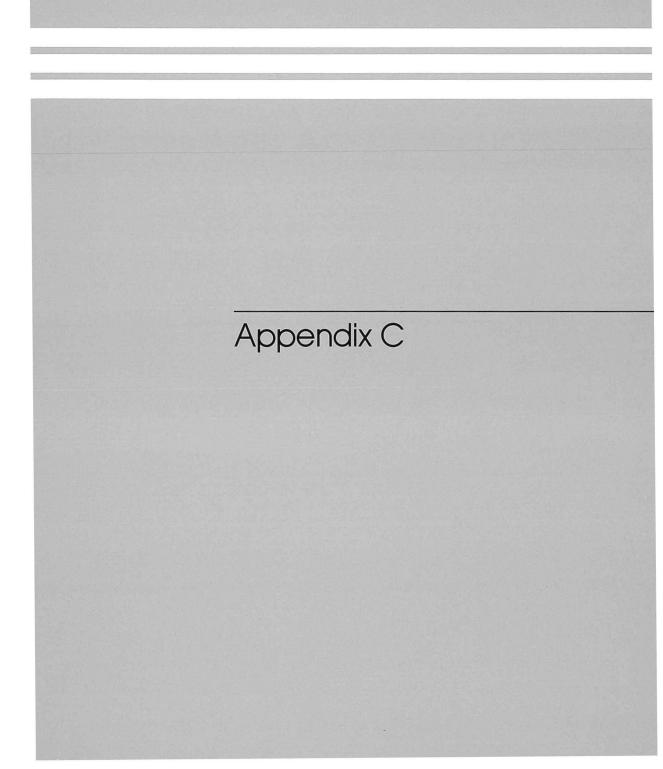


SWITZERLAND/FRENCH



SWITZERLAND/GERMAN





Appendix C

Using Your Professional with PRO/DECnet

Read this appendix if you are using PRO/DECnet to enable your Professional to communicate with other computers. You should also refer to the *PRO/DECnet* User's Guide for more information.

PRO/DECNET ACCOUNTS MANAGER

When your Professional is part of a PRO/DECnet system, people at other computers will be able to access files on your hard disk and inserted diskettes. Likewise, you will be able to take advantage of information on volumes that are not part of your Professional. Users can only use PRO/DECnet to access data stored on your Professional if you've established an account for them with the PRO/DECnet Accounts Manager. When you establish an account for a user, you establish an account name (usually the person's last name) and a password for that person to use each time he wants to access data on your Professional. You also establish the type of privilege that user will have.

If you do not want to establish separate accounts for each user who may want information from your volumes, you can merely create two accounts—one privileged and one non-privileged. You are then free to give the appropriate password to each user, depending on the privilege you wish them to have.

Your Professional must be turned on for it to be an active part of a PRO/ DECnet network.

If no accounts are defined, all users on your PRO/DECnet network have non-privileged accounts by default.

The PRO/DECnet Accounts Manager is contained on the PROSE application diskette. Install the PRO/DECnet Accounts Manager as you would any application. Chapter 7 explains this procedure. It is recommended that you establish an additional applications group for PRO/DECnet related applications.

When you choose the PRO/DECnet Accounts Manager from the menu on which it is installed, a menu appears listing the following:

Add account Display account Modify account Remove account

Add account

When you use the PRO/DECnet Accounts Manager for the first time, you will be adding accounts. You can also add new accounts later, to a maximum of 32 accounts. To do this, move the pointer to "Add account" and press DO. Enter the information requested on the Add Account Form.

- □ "Account name" identifies the account you are adding, and will usually be the user's last name. If you have two users with the same last name, you will have to distinguish their accounts in some way. A popular convention is to add the user's first initial to their last name. You can, however, choose your own method for assigning account names. You can use up to 14 characters for each name. In addition to alphanumeric characters, the following are allowed: apostrophe ('), dollar sign (\$), exclamation point (!), hyphen (-), underscore (_), and period (.).
- "First name" is provided only for your information in managing accounts. It will be shown every time you display an account. The first name can be 12 characters long.
- "Password" allows you to provide a word known only by yourself and the person to whom you are assigning it. That person must use their password every time they are accessing data on your Professional. The password is only displayed when you first assign it. After that, it never appears on the screen. Passwords can be up to 6 characters long.

□ "Privilege" specifies the kind of access an account will have to your data. If you choose "N," for "Non-privileged," that account will only be able to display, copy, and print your files as well as display your directories. If you choose "P," for "Privileged," that account will also be able to delete your files and copy files to your account.

Display account

Choose "Display account" when you want to see information about the accounts on your system. Passwords will not be displayed.

Modify account

Choose "Modify account" to change the first name, password, or privilege for an account. You cannot change the account name. (To change the account name, you must remove the old account, then add a new one with the new name.) If you do not want to change an item, press RETURN to move to the next item, leaving the first one unchanged. The password, though not displayed, can be left unchanged if you do not type in a new one.

Remove account

Choose "Remove account" to delete accounts from your system.

USING FILE AND PRINT SERVICES ACROSS PRO/DECNET

Using P/OS file and print services, you can perform actions on files to which you have access via PRO/DECnet and allow specified users to perform these actions on your files. The following file services work across PRO/DECnet:

Copy file(s) Delete file(s) Display file Show directory¹

The following print service works across PRO/DECnet:

Print file(s)

¹Also available from the Disk/Diskette Services Menu

You operate on files across PRO/DECnet in very much the same way that you operate on files stored on your own volumes. In all cases, you will be using extended file names (RMS file specification format) to indicate the files with which you want to work, so if you are not familiar with this format you should review Chapter 5 in this book before attempting to use P/OS services across PRO/DECnet. The sections "Choosing a File from a Directory" and "Wild-cards" will be especially useful.

When operating on files across PRO/DECnet, you need to specify the *node* on which the files reside. A node is a computer that is part of a network. If you are part of a PRO/DECnet network, your Professional is a node on that network (the name of your node is displayed on your message/status display). You must be connected to a node via PRO/DECnet before you can use information stored on its volumes. You can use the RMS file specification to indicate the node you want by making the node name the first element of the extended file name, and separating that from the device name by two colons. Therefore, the extended file name format you will use with PRO/DECnet is:

```
node::device: < directory > filename.type;version
```

The punctuation marks and brackets are required to separate the fields of the file specification.

If a file is located on a node that requires security information (such as another Professional), you have to add an *access string* (user identification and password) to access the file. The format is:

```
node" userid password" :: device: < directory > filename.type; version
```

Node is the name of a remote node which participates in the operation; userid and password (user identification and password, separated by a space), provide security information for access to the remote node.

On a Professional, the security information is the account name and password assigned with the P/OS Accounts Manager application. On a VMS or RSX node, the security information is the login userid and password.

Since PRO/DECnet allows your Professional to exchange information with many different types of computers and operating systems, the file specification that you enter for a PRO/DECnet operation will vary depending on the operating system with which you are communicating. Refer to the other operating system's documentation, or ask your network coordinator if you have a question about the required file specification format. Chapter 2 of the *Command Language User's Guide* gives examples of file specifications for different operating systems.

Copying, Deleting, Displaying, and Printing File(s)

To copy, delete, display, or print a file(s) from a remote node, choose "Copy file(s)," "Delete file(s)," or "Display file(s)" from the File Services Menu or "Print file(s)" from the Print Services Menu. When the file selection menu is displayed, press ADDTNL OPTIONS, then choose "Use extended file name." Enter the extended file name as described above (including node and—if required—access string), then press DO.

Due to limited space on the Extended File Name Form, you may need to define an alias for the node name and access string. This will reduce the number of characters you must enter on the Extended File Name Form. Refer to the *PRO/ DECnet User's Guide* for information on defining an alias.

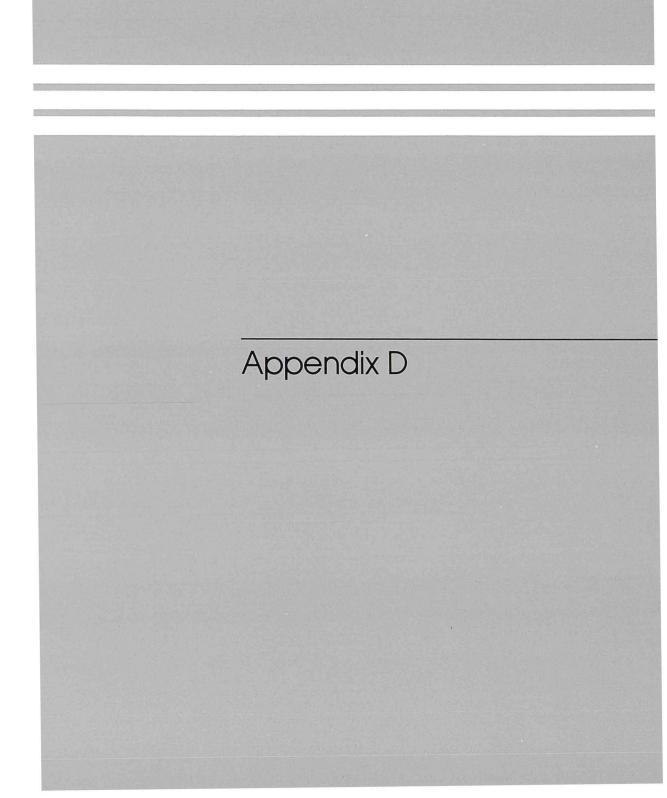
Before you can reach a node for a remote operation, the node must have a defined node address. Node addresses are assigned by the network coordinator, and are described in Appendix A of the *PRO/DECnet User's Guide*.

If you are copying a file(s) to a remote node (from your own node or another remote node), use "Copy File(s)" to choose the file(s) you want to copy, then press ADDTNL OPTIONS when the Directory Selection Menu is displayed. Choose "Extended file name for specifying remote directory," then enter the extended file name for the directory to which you are copying the file(s). If you are copying only one file, you can enter a new filename at this point, thereby changing the name of the copied file. Do not enter a new filename, type, or version number if you do not want to change the name of the file(s) you are copying.

Showing a Directory

To show a directory on a remote node, choose "Show directory" from the File Services Menu or the Disk/Diskette Services Menu. When the directory selection menu is displayed, press ADDTNL OPTIONS, then choose "Specify remote directory." Enter the extended file name (including node and—if required access string) for the directory you want to see. If you do not enter a filename, type, or version number, then the display will show all files in the specified directory. You can, however, indicate more precisely the files you want to see in the directory display by including the filename, type, and/or version number (wildcards are acceptable) as part of the extended file name.

.



Appendix D

The Login/Logout Application

You can use the Login/Logout application to prevent unauthorized people from using your Professional. If you decide to use this application, a login form will be displayed every time your Professional is turned on. Before the Main Menu will appear, a user must enter a valid username and password on this form.

To again display the login form, turn off the Professional or choose "Login/ Logout" from the appropriate menu. The login form will be displayed when the computer is again turned on; or, if you chose "Login/Logout" from a menu, the login form will be displayed until a valid username and password are entered.

The Login/Logout application is on the same diskette as PROSE and the PRO/ DECnet Accounts Manager. Install it using "Install application" from the Disk/ Diskette Services Menu. You must also install the PRO/DECnet Accounts Manager (even if you are not using PRO/DECnet) to use the Login/Logout application. You assign usernames and passwords with the PRO/DECnet Accounts Manager (described in Appendix C). If you will be the only user on your system, assign only one account. Anyone to whom you've assigned an account with the PRO/DECnet Accounts Manager can log in to your system.

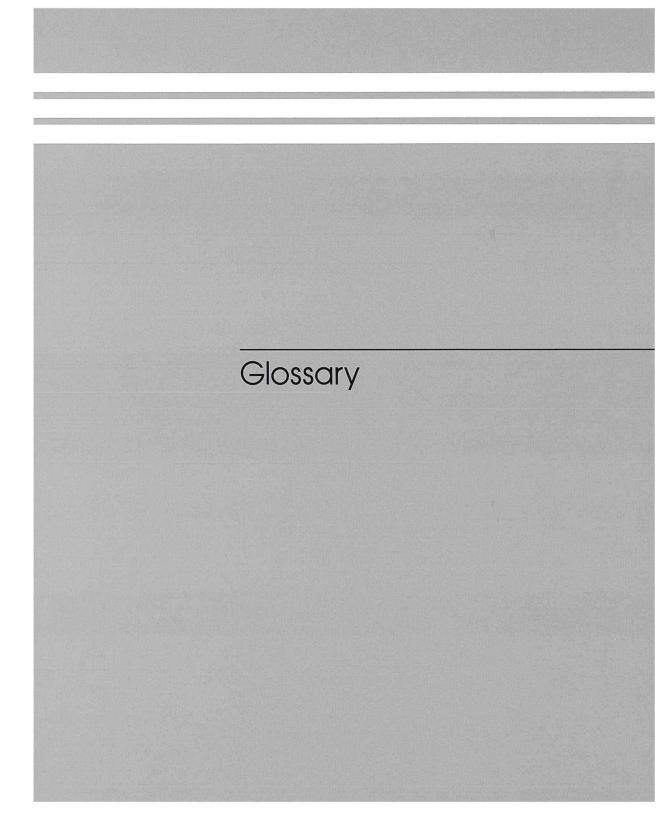
Additional Options

Pressing the ADDTNL OPTIONS key while the login form is displayed allows you to choose one of the following additional options:

Save an account on a diskette Use a diskette to log in

"Save an account on a diskette" lets you store a username and a password on a diskette that you can use if you forget your password. Be sure to store the diskette in a safe place, because anyone can log in to your system with this diskette. You must already have created accounts with the PRO/ DECnet Accounts Manager to use this option.

"Use a diskette to log in" lets you use a diskette that you've created with "Save an account on a diskette" to log in to your Professional.



Glossary

access string

Information that you supply in an extended file name for a network operation. The access string indicates the kind of privilege you have for the account with which you are working.

application (or application program)

A computer program that meets some specific user need. For example, an application program can control an inventory or monitor a manufacturing process. Applications for the Professional are available from DIGITAL and other companies.

auxiliary keypad

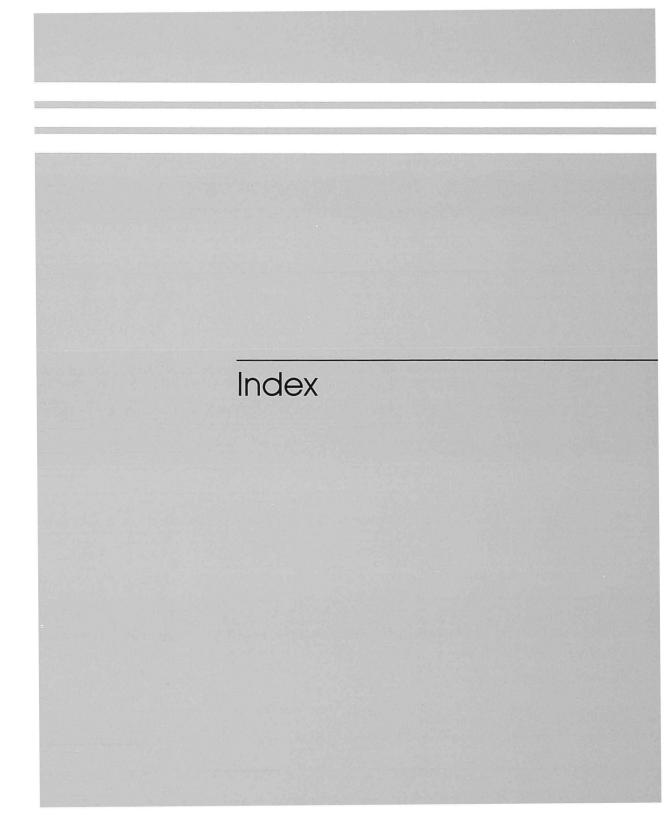
The set of keys on the far right of the Professional keyboard. When you install P/OS, you use this keypad to type in the time and date. Some applications interpret these keys as special function keys; with other applications these keys do nothing. Application documentation tells you how the keys on this keypad function with specific applications.

back up

To copy one or more files on a diskette for safekeeping, in case the original volume (disk or diskette) gets damaged or lost. It is good practice to back up all new or newly revised files.

BASIC

Beginner's All-purpose Symbolic Instruction Code: a widely used, simple programming language capable of handling industry and business applications. PRO/BASIC is a form of this language.



file

A collection of information treated as a unit. A file may contain a memo, a program, or other information. Its fundamental purpose is analogous to that of a conventional office file.

A file is the means by which information is stored on disk or diskette so it is efficiently usable by both P/OS and a user. A file occupies one or more blocks on a volume and has a file name.

form

A request for information that is displayed on the Professional screen when P/OS requires information that you provide.

function key

A type of key on the Professional keyboard that, when pressed, instructs P/OS or a P/OS application to do something specific. The HELP, DO, INTERRUPT, HOLD SCREEN, PRINT SCREEN, and arrow keys perform the same function all the time. Other function keys, such as PREV SCREEN, RESUME, CANCEL, EXIT, F5, F17, and so on, have functions that depend on the application currently in use.

hardware

The physical equipment that makes up a computer system.

host (or host computer)

A computer whose resources can be shared by several individual users at other computers that are connected to the host by communications lines and hardware. With PRO/Communications, a Professional user can connect to a host computer. Once connected, the user can transfer files to and from the host and use the Professional as if it were a terminal attached to the host.

initialize

To set up (format) a volume so that P/OS can store and retrieve files on that volume. When initializing a volume, P/OS erases any information already on the volume. In addition, the initialization process creates a name (supplied by the person who initializes) for the volume and an empty directory called USERFILES.

install

(1) To copy the P/OS software from the P/OS system diskette(s) onto the disk.

(2) To copy a P/OS application from an application diskette onto the disk, integrating that application into the menu system.

keyboard

The component that enables you to communicate with the Professional. It contains the main keyboard (similar to a typewriter keyboard), a row of function keys at the top, the editing keypad, and the auxiliary keypad.

kilobyte (KB)

Roughly a thousand bytes (actually 1024 or two blocks). A Professional diskette holds 400 kilobytes of information.

megabyte (MB)

Approximately a million bytes (actually 1024 squared). The Professional disk holds 5 megabytes of information.

menu

A list of available P/OS services or functions appearing on the Professional screen. You tell P/OS what to do by making a selection from a menu.

Message/Status display

A screen display that shows status information about P/OS and one-line messages from applications to the user.

Mini-Exchange

A device which allows personal computers to share resources. The Mini-Exchange has eight ports; each one can be connected to a personal computer or printer. It is also possible to connect one of the ports to a modem (a device which enables data transmission via telephone lines).

monitor

The part of the Professional that contains the video display screen.

node

A computer with the hardware and software necessary to send data and receive data from other computers. An entity on the network.

overtype mode

The way PROSE handles what you type in a file unless you use the INSERT HERE key. In overtype mode, PROSE deletes existing text if you type over it.

password

A secret word (or character string) that you assign to each user for whom you are allowing access to your files via DECnet. Users must enter their passwords each time they desire access to your files. The DECnet Accounts Manager application is used to assign passwords.

P/OS

The Professional's operating system. The operating system manages the computer.

PRO/BASIC

The BASIC programming language designed specifically for the Professional.

PRO/Communications

A P/OS application that enables you to use your Professional to communicate with DIGITAL PDP-11 and VAX host computers. With the PRO/ Communications, you can transfer files to and from the host and use your Professional as if it were a terminal on the host computer. See also **host**.

PRO/DECnet

See **DECnet**.

program

A sequence of instructions used by a computer to perform specific operations. A programmer writes a program in PRO/BASIC or some other programming language by first creating a program source file at the keyboard.

prompt

A request displayed on the screen for you to type in certain information. On menus, a prompt appears on a line below the menu list.

PROSE

The editor supplied with P/OS. See editor.

protection

The preventing of accidental deletion of your Professional 350 files. You can protect files with "Change file(s) protection" with write-protect tabs on your diskettes, with "Back up disk file(s)" and "Copy file(s)," and by keeping diskettes and the Professional 350 in a safe place.

RMS

Record Management Services. A DIGITAL file system used on many DIGITAL computers, including VAX, PDP-11, and the Professional.

scrolling

The movement of lines of text up or down the monitor screen.

software

The collection of programs and information associated with a computer. Software is to a computer as your thoughts are to your body: software is intangible (consisting of electrical signals when in operation), but it makes the computer work.

System Maintenance Diskettes

Diskettes provided with the Professional that diagnose hardware problems. The Owner's Manual describes these diskettes.

system unit

The part of your Professional that contains the diskette drive, disk, option modules, power supply, and the computer itself. The system unit is the main component of the Professional.

volume

A generic name for a magnetic, file-storage medium, such as a disk or diskette.

wildcard

A character used in a file specification to indicate that all files with a certain element in common are being specified. The wildcard character is an asterisk.

word processing

The manipulation of words and text with a computer.

word wrap

With PROSE, the automatic dropping to the next line of any word you type in that extends past the right margin of your text. You can set word wrap off or on.

write-protect tab

An adhesive tab that, when applied to the write-protect notch on a diskette, prevents you from changing or deleting any file on that diskette. It is necessary to remove the tab to create, change, or delete any files on the diskette.

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