Chapter 5

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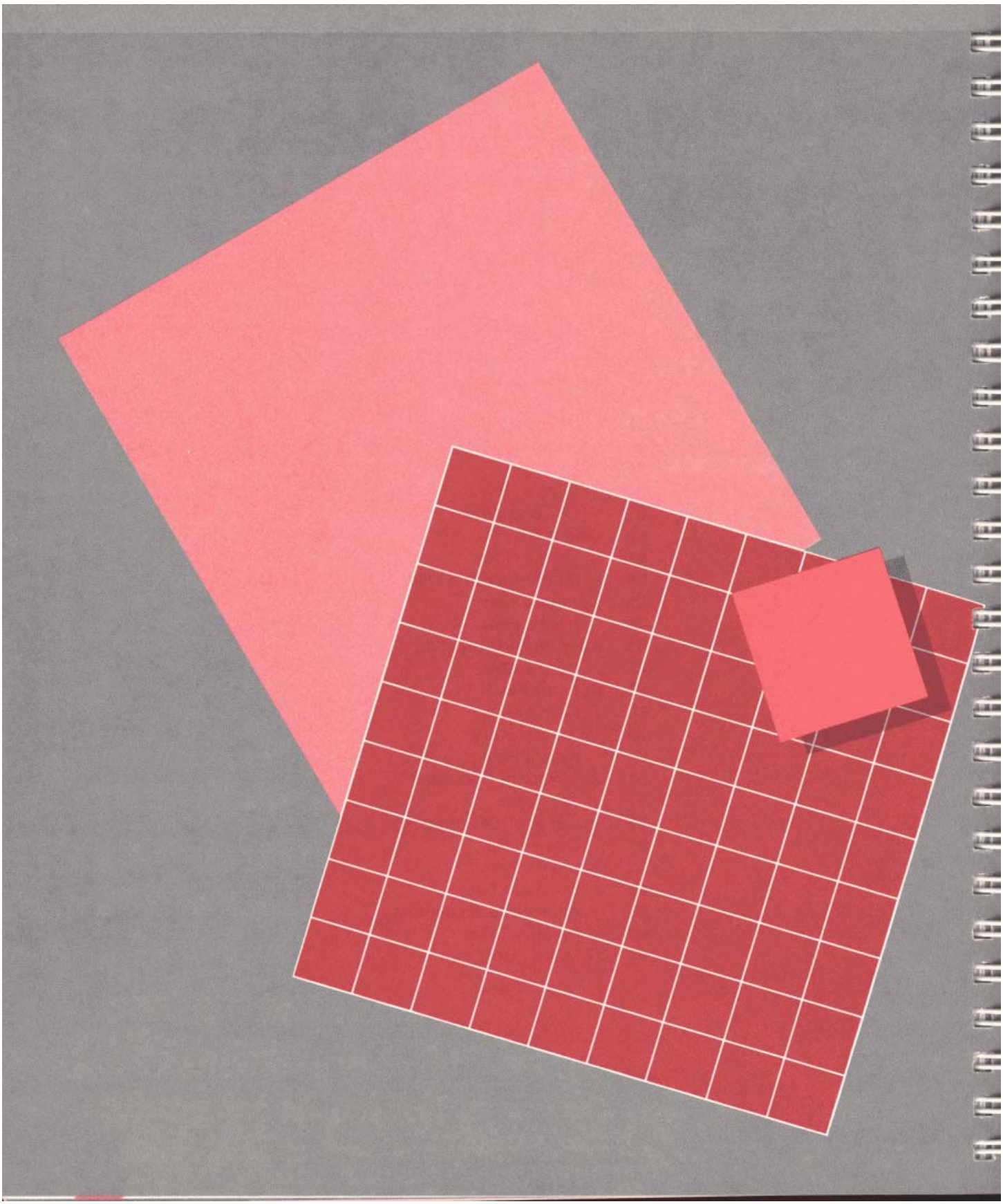


Using the File Commands

File Commands

File commands are those that affect individual files. You can use file commands to list, copy, rename, delete, or otherwise alter one file (or files) on a volume without disturbing the rest. This chapter explains how to use each of the file commands in the ProDOS Filer.

See Chapter 4 for an explanation of the terminology associated with the file commands.

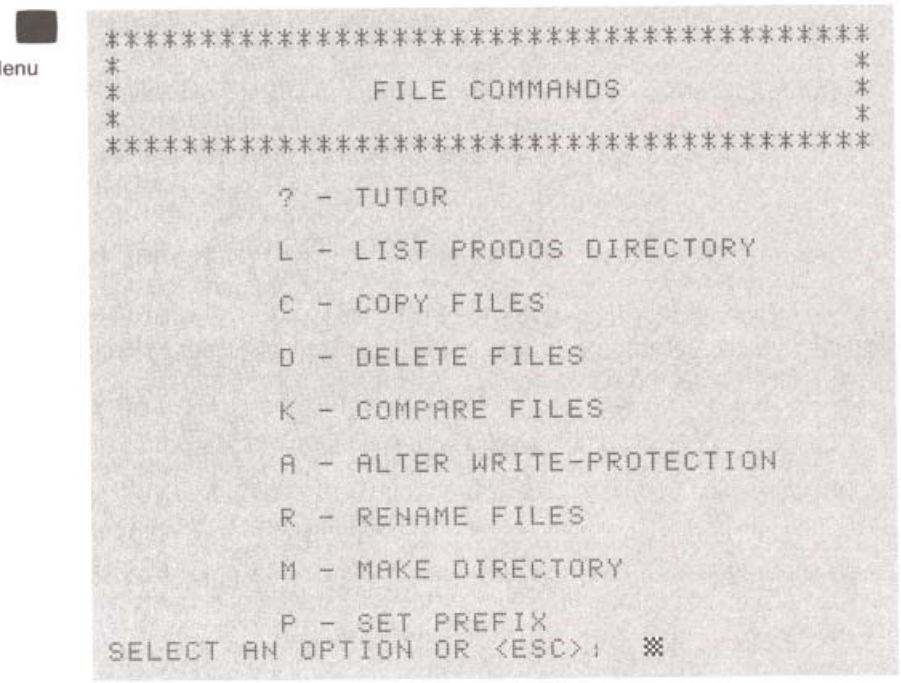


Figure 5-1. The File Commands Menu

Here's a list of the commands (or options) on the File Commands Menu, shown in Figure 5-1, and a short description of what they're for:

Command	What It Does
List ProDOS Directory	Gives you a list of all the files in the directory you name, tells you each file's type, its write-protect status, how many **blocks** the file takes up on the volume, modification date, and a summary of how many blocks in the volume directory are free and how many are used.
Copy Files	Lets you create an exact duplicate of the file or files you name.
Delete Files	Lets you remove an outdated file or files from a volume without affecting the rest of the files on the volume.
Compare Files	Gives you a byte-by-byte comparison of any two files you name.
Alter Write-Protection	Lets you lock or unlock a file or files.
Rename Files	Lets you rename a file or files without altering the file's contents.
Make Directory	Lets you create subdirectories.
Set Prefix	Lets you designate a partial pathname as a prefix so that you don't have to type the entire pathname every time you want access to a file.

A **block** is a unit of information 512 bytes long.

Pathnames Review: You'll be using pathnames to indicate which file you want to delete, copy, or rename. So if you're not sure what a pathname is, take a minute to review before you press on.

As the name implies, a pathname is the route ProDOS takes to get to a file. If your file is nested in a directory, within a directory, within a directory, just start from the most general directory and work your way in to until you end with the name of the file.

If all your files are lumped under the volume directory and you don't use subdirectories, your pathnames will have only two components: the volume name and the filename.

If you need a more thorough review, go back and reread Chapter 4. If you understand pathnames, go ahead and look at each file command in more detail.

Set Prefix

Setting a prefix means storing part of a pathname. Once you've stored your partial pathname, you never need to type that part of the name again. It remains the same until you change it or turn off the computer.

The current prefix is shown at the top of every File Command display. When you turn on your computer, the prefix is automatically set to the name of the startup disk—in this case, \USERS.DISK\.

Whether the prefix is added to what you supply depends on whether the first character you type is a slash. When the first character is not a slash, the Filer employs the prefix as the first part of the pathname. When the first character is a slash, the Filer ignores the prefix, and you must type a complete pathname.

Here are some simple rules to follow:

- When you want to use the set prefix, just type the remainder of the pathname. Do not start with a slash.
- When you don't want to use the set prefix, type the complete pathname, starting with a slash.
- Use the Set Prefix command to change the prefix.

Important! If you change the prefix while using the Filer, you should send the prefix back to the name of your startup disk before leaving the Filer for another part of the *ProDOS User's Disk*.

Put the *User's Disk* (or your startup disk) in drive 1 and then select the Set Prefix option on the File Commands Menu.

Here's How

1. Get to the Filer Menu.
2. Press [F] (for FILE COMMANDS) from the Menu.
3. Press [P] (for SET PREFIX) from the File Commands Menu. You'll see the display shown in Figure 5-2.

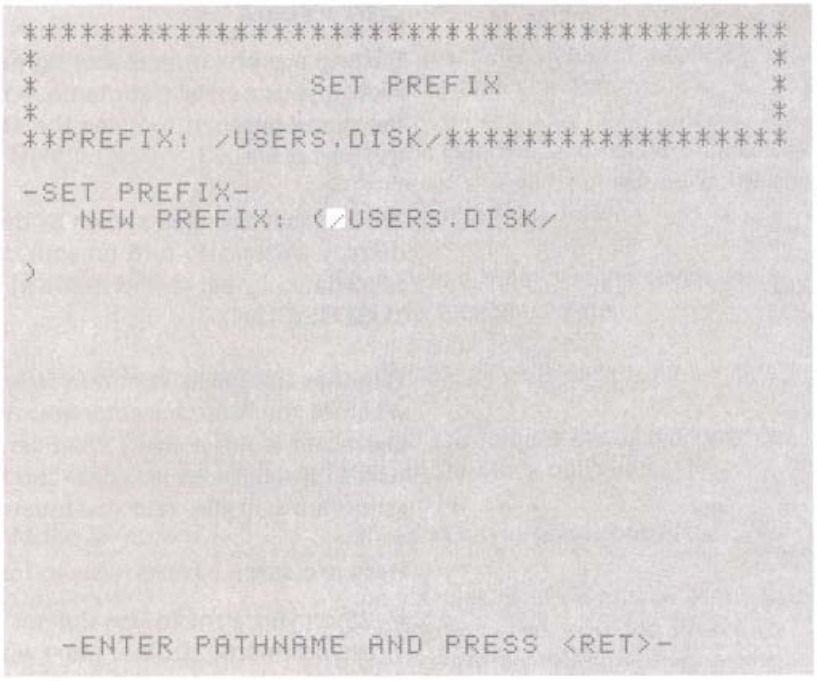


Figure 5-2. Set Prefix Display

4. Now you can type a new prefix, or edit the default prefix, which is shown on the display next to NEW PREFIX:.

To enter an entirely new prefix, type a slash, the volume directory name, and any number of other directory names, each separated by a slash. When you're finished entering your prefix, press [RETURN]. (If you forget to include the trailing slash, ProDOS will supply it for you.)

If you choose to edit the existing prefix, you have five options:

- You can accept the default unchanged. Press (RETURN).
- You can do away with the prefix altogether. Type a slash and then press (RETURN). This is called a **null prefix**.
- You can add directories to the current prefix. Press (→) to move the cursor to the end of the prefix, then type the directories, and press (RETURN) to indicate that you've finished setting the prefix.
- You can change one or two characters in the current prefix. Move the cursor to the character(s) you want to change, type in the changes, advance the cursor to the end of the name by pressing (→), then press (RETURN).
- You can cancel your new prefix midstream. Press (ESC). The old default will be restored with the cursor on the first character.

Note: Even if you don't use subdirectories to organize your files, you'll save time by setting your volume name as the prefix. That way when you're asked to supply a pathname, all you'll have to type is the filename.

If something goes wrong while you're setting your prefix, you'll see an error message. If you're not sure what the message means or what to do about it, consult Appendix A.

List ProDOS Directory

If you want to find out what's in a book, you turn to the Table of Contents. If you want to find out what's on a disk, you turn to the directory.

The List ProDOS Directory command not only gives you a list of the files in a given directory, it also tells you

- the directory name
- the type of file (binary, text, etc. See Table 5-1)
- the size of each file (in 512-byte blocks)
- write-protect status (files that are **locked** or **protected** are preceded by an asterisk)
- modification date
- number of blocks that are available and the number of blocks that are used on the disk.

A **locked** file is one that cannot be changed or deleted. It is also said to be **protected**.

Here's How

1. Get to the Filer Menu.
2. Press (F) (for FILE COMMANDS) from the Filer Menu.
3. Press (L) (for LIST PRODOS DIRECTORY) from the File Commands Menu. You'll see the display shown in Figure 5-3.

Figure 5-3. List ProDOS Directory Display

ProFile Note: If you're listing the directory of a ProFile disk, skip to step 5.

4. Put the volume containing the directory you want to list in any available drive. If you have a one-drive system, take out the *User's Disk* and replace it with the volume whose directory you want to list.
5. Type the pathname of the directory you want to list (or partial pathname if the appropriate prefix is set) and press RETURN. If the prefix is set to the directory you want to list, just type = and press RETURN.

You'll see a display similar to Figure 5-4. Information about all the files one level below the directory you specified is given.

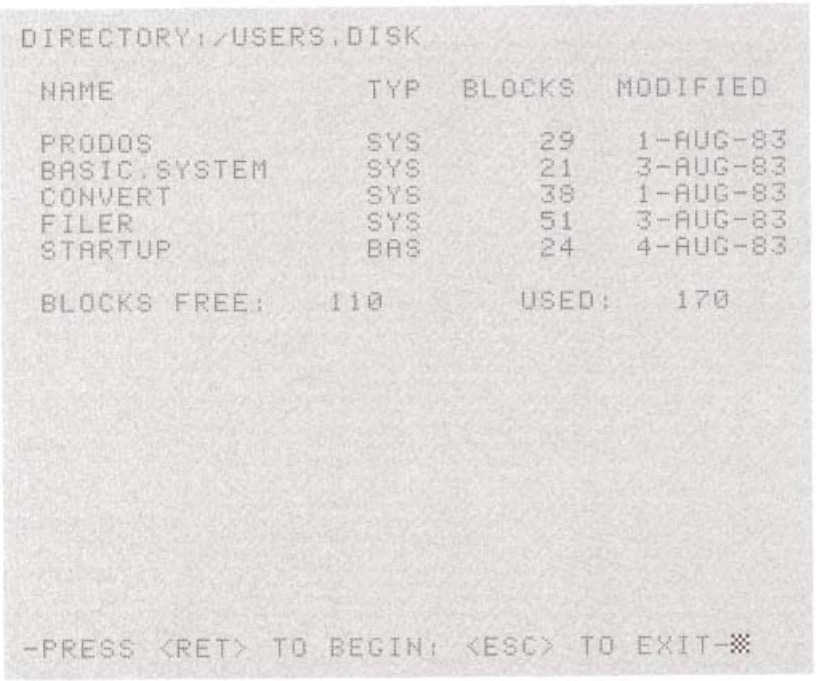


Figure 5-4. Directory of *ProDOS User's Disk*. Since the prefix was set to /USERS.DISK/, the equal sign wildcard was typed to produce this directory.

Note: You can produce a printed copy of directory information by changing the output device from the video monitor to your printer. The procedure is described in Chapter 6, "Configuration Defaults." Even if you change the output device to your printer, you'll still get the listing on your monitor.

If you type ?, you'll see only the number of blocks free and the number of blocks used on the disk.

If you don't see a listing of the files in the directory you specified, you probably got an error message. If you're not sure what the message means or what to do about it, consult Appendix A.

Table 5-1. File Types

Abbreviation	File Types
$00	Typeless File
BAD	Bad Block File
PCD	Pascal Code
PTX	Pascal Text
PDA	Pascal Data
TXT	ASCII Text
BIN	Binary
FNT	Font File
FOT	Graphics Screen File
BA3	Business BASIC Program File
DA3	Business BASIC Data File
WPF	Word Processor File
SOS	SOS (Apple III) System File
RPD	RPS Data File
RPI	RPS Index File
DIR	Directory
$12-$BF	SOS Reserved
CMD	ProDOS Added Command File
$F1-$F8	ProDOS User Defined File 0-9
$F9	ProDOS Reserved
INT	Integer BASIC Program
IVR	Integer BASIC Variables
BAS	Applesoft Program
VAR	Applesoft Variable
REL	Relocatable Code
SYS	ProDOS System File
C0-EF	ProDOS Reserved

Copy Files

This command lets you copy a file from one directory to another on the same volume or from one volume to another.

Here's How

1. Get to the Filer Menu.
2. Press [F] (for FILE COMMANDS) from the Filer Menu.
3. Press [C] (for COPY FILES) from the File Commands Menu. You should see the display shown in Figure 5-5.

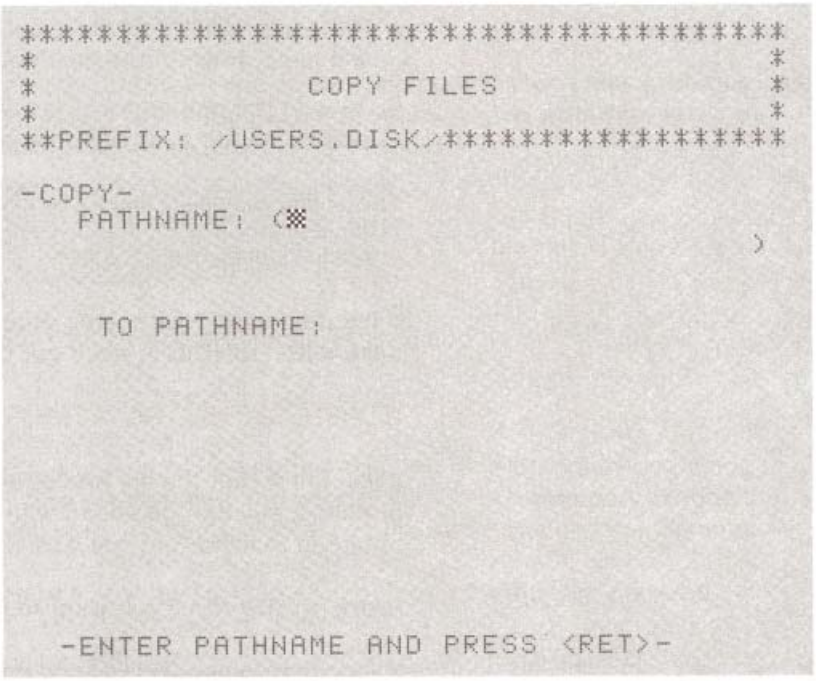


Figure 5-5. Copy Files Display

ProFile Note: You can copy a file from a flexible disk to a ProFile disk, or from a ProFile disk to a flexible disk. Just make sure the disk you want to copy is in one of the available drives. You don't have to worry about the ProFile disk, it's always in place.

If you're copying a file from a ProFile disk to a flexible disk, keep in mind that the flexible disk can't accommodate files greater than 280 blocks.

Skip to step 5.

4. Put the volume containing the file you want to copy in any available drive. Put the formatted volume you want to copy the file onto in any other available drive.

If you have a one-drive system, take out the *User's Disk* and replace it with the volume containing the file you want to copy. If you're copying onto a second volume, watch for prompts on the screen telling you when to replace your **source** volume with the **destination** volume.

The **source** volume is the original. The **destination** volume is the copy.

If you have two drives, put the volume you want to copy a file from into drive 1 and the volume you want to copy to in drive 2.

5. Type in the pathname of the source file (or the partial pathname if the appropriate prefix is set), and press (RETURN). The cursor will jump down to the next pair of parentheses.
6. Type in the pathname of the destination file (or the partial pathname if the appropriate prefix is set), and press (RETURN).

Note: You can't copy files into a new subdirectory without first creating that directory. You do that by using the Make Directory command explained later in this chapter.

If the destination pathname duplicates a name already in the destination directory, you'll get this message:

```
DELETE EXISTING FILE? (Y/N)
```

If you knew that the file was already present in the destination directory, you can go ahead with the copy by pressing (RETURN), but keep in mind that you'll be replacing the existing file.

Press (N) (for *No*) if you want to leave the existing file intact.

If you want to cancel the copy operation altogether, press (ESC).

If all goes well, you'll see this message:

```
COPY COMPLETE
```

Copying With a Wildcard

Let's say you're writing a novel and you have a volume directory that looks like this:

```
/NOVEL/
    CHAP1A
    CHAP1B
    CHAP1C
    CHAP1D
    CHAP2A
    CHAP2B
    CHAP3A
    CHAP4A
```

You decide you'd like to copy all the Chapter 1 files into their own directory called FIRST.CHAP, which you've already created by using the Make Directory command.

So you type

```
/NOVEL/CHAP1=
```

for your source pathname (step 5) and

```
/NOVEL/FIRST.CHAP/CHAP1=
```

for your destination pathname (step 6). All the files beginning CHAP1 are copied into your /FIRST.CHAP directory. Notice that you used the same wildcard in the same place in the filename.

Here's how the two directories look after the copy operation:

```
/NOVEL/                 FIRST.CHAP/
    CHAP1A                  CHAP1A
    CHAP1B                  CHAP1B
    CHAP1C                  CHAP1C
    CHAP1D                  CHAP1D
    CHAP2A
    CHAP2B
    CHAP3A
    CHAP4A
```

If you type

```
/NOVEL/FIRST.CHAP/CHAP1?
```

as your source pathname (step 5) and

```
/NOVEL/FIRST.CHAP/CHAP1?
```

you have a chance to evaluate each file before copying it into the FIRST.CHAP directory. You see the name of the first file that fits the CHAP1 pattern, with the cursor positioned to the right of the filename, like this:

If you press (Y) (for *yes*), the file is copied. If you press (N) (for *no*), the file is not copied. Either way, ProDOS goes on to the next file that fits the pattern until you've evaluated them all.

Chapter 4 presents a more thorough explanation of wildcards.

Once you have copied all the files into the new subdirectory, you could use a wildcard with the Delete Files command to delete the extra files.

If you press (ESC) at any time during this process, the copy operation is canceled, and the cursor returns to the top of the Copy Files display.

If something goes wrong during the copy files operation, you'll get an error message. If you're not sure what the message means or what to do about it, consult Appendix A.

Delete Files

This command lets you get rid of outdated files. It's like spring cleaning, only ProDOS does all the work.

Here's How

1. Get to the Filer Menu.
2. Press (F) (for FILE COMMANDS) from the Filer Menu.
3. Press (D) (for DELETE FILES) from the File Commands Menu. You should see the display shown in Figure 5-6.

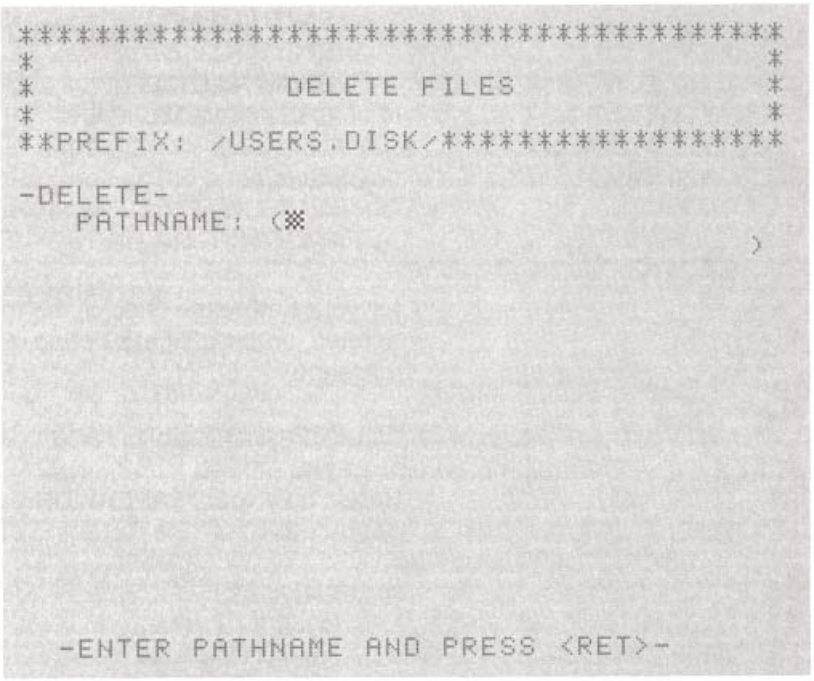


Figure 5-6. Delete Files Display

ProFile Note: If you're deleting a file from a ProFile, skip to step 5.

4. Put the volume containing the file or files you want to delete in any available drive. If you have a one-drive system, take out the *User's Disk* and replace it with the volume containing the file you want to delete.
5. Type the pathname of the file you want to delete (or the partial pathname if the appropriate prefix is set), then press (RETURN).

If all goes well, you'll see this message:

```
DELETE COMPLETE
```

Note: A directory must be empty before you can delete it. And you can never delete a volume directory—even if it's empty. The only way to get rid of the volume directory is to reformat the disk.

Deleting With a Wildcard

Let's say you want to delete all of last year's memos from your PAPERWORK volume. Your directory looks like this:

```
/PAPERWORK/
      JONES.MEMO
      JONES.CONTRACT
      SMITH.MEMO
      SMITH.REVIEW
      BROWN.LETTER
      BROWN.MEMO
```

If you type

```
/PAPERWORK/=MEMO
```

for your pathname (step 5), all the files ending in MEMO will be deleted, and you'll get a listing of all the deleted files along with the message

```
DELETE COMPLETE
```

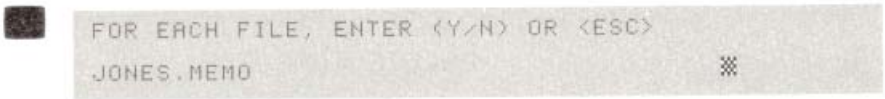
Here's how your /PAPERWORK directory looks after the delete operation:

```
/PAPERWORK/
      JONES.CONTRACT
      SMITH.REVIEW
      BROWN.LETTER
```

If you type

```
/PAPERWORK/?MEMO
```

for your pathname (step 5), you can evaluate each memo before deciding whether to delete it or not. You see the name of the first file that fits the MEMO pattern, with the cursor positioned to the right of the filename, like this:



If you press [Y] (for *yes*), the file is copied. If you press [N] (for *no*), the file is not copied. Either way, ProDOS goes on to the next file that fits the pattern until you've evaluated them all.

If you press (ESC) at any time during this evaluation process, the delete operation is canceled, and the cursor returns to the top of the Delete Files display.

Chapter 4 presents a more thorough explanation of wildcards.

If you hit a snag trying to delete files, you'll get an error message. If you're not sure what it means or what to do about it, consult Appendix A.

Compare Files

This command lets you check to see if a copied file is identical to the original. It's a good way to find out if you updated one file, but forgot to update the duplicate copy. If you find that your copy isn't the same as the original, but you're sure it's the same version, you might want to check for bad blocks.

Here's How

1. Get to the Filer Menu.
2. Press (F) (for FILE COMMANDS) from the Filer Menu.
3. Press (K) (for COMPARE FILES) from the File Commands Menu. You'll see the display shown in Figure 5-7.

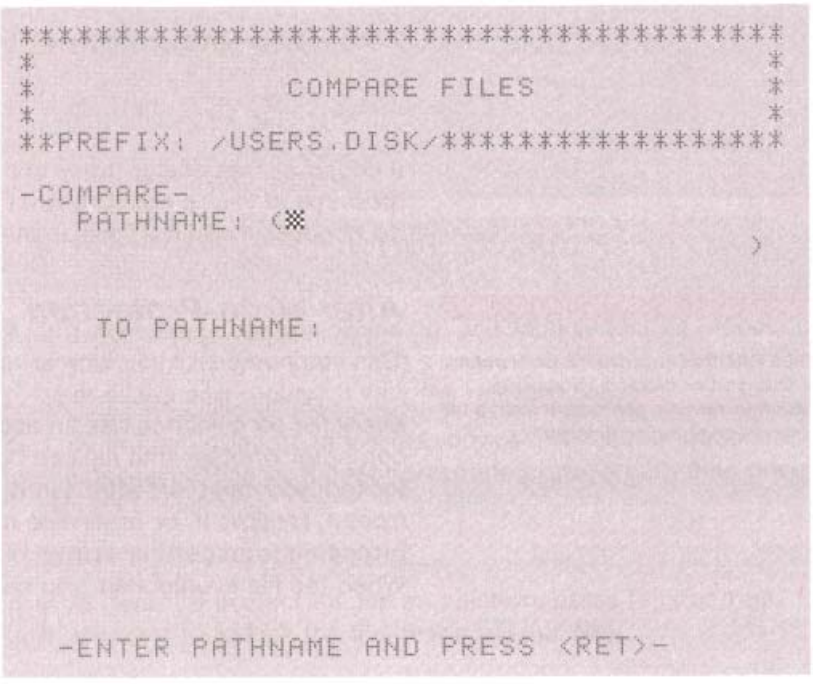


Figure 5-7. Compare Files Display

ProFile Note: If you're comparing two files on a ProFile, skip to step 5. If you're comparing a file on a ProFile to a file on a flexible disk, make sure the flexible disk is in one of your disk drives and skip to step 5.

4. Put the volume containing the files you want to compare in any available drive. If the files you want to compare are on two different volumes, replace your *User's Disk* with one of the two volumes, and put the other volume in drive 2. If you have a one-drive system and you want to compare files on two different volumes, you'll have to do some disk swapping. Don't worry, prompts on the display will tell you which volume to insert when.
5. Type in the pathname of one of the files you want to compare (or partial pathname if the appropriate prefix is set), then press (RETURN). The cursor will jump down to the next pair of parentheses.
6. Type in the pathname of the second of the files you want to compare (or partial pathname if the appropriate prefix is set), and press (RETURN).

If all goes well, and there are no mismatching bytes, you'll get this message:

```
COMPARE COMPLETE
```

If there are mismatching bytes, you'll get this message:

```
FILES DO NOT MATCH
```

If you don't see one of those two messages, you'll get an error message. If you're not sure what the message means, or what to do about it, consult Appendix A.

Alter Write-Protection

When you **lock** or protect a file it cannot be changed or deleted. When you **unlock** or remove protection from a file it can be changed or deleted.

This command lets you lock or unlock files.

Every file on a volume has an access indicator that tells the computer whether that file can be changed or not. When the file is locked, you can read what's in it, but you can't add to it, delete from it, rename it, or otherwise monkey with it. Literally, the file is protected from getting written on (or written-off, for that matter). When the file is unlocked, you can do anything you want with it.

Here's How

1. Get to the Filer Menu.
2. Press [F] (for FILE COMMANDS) from the Filer Menu.
3. Press [A] (for ALTER WRITE-PROTECTION) from the File Commands Menu. You should see the display shown in Figure 5-8.

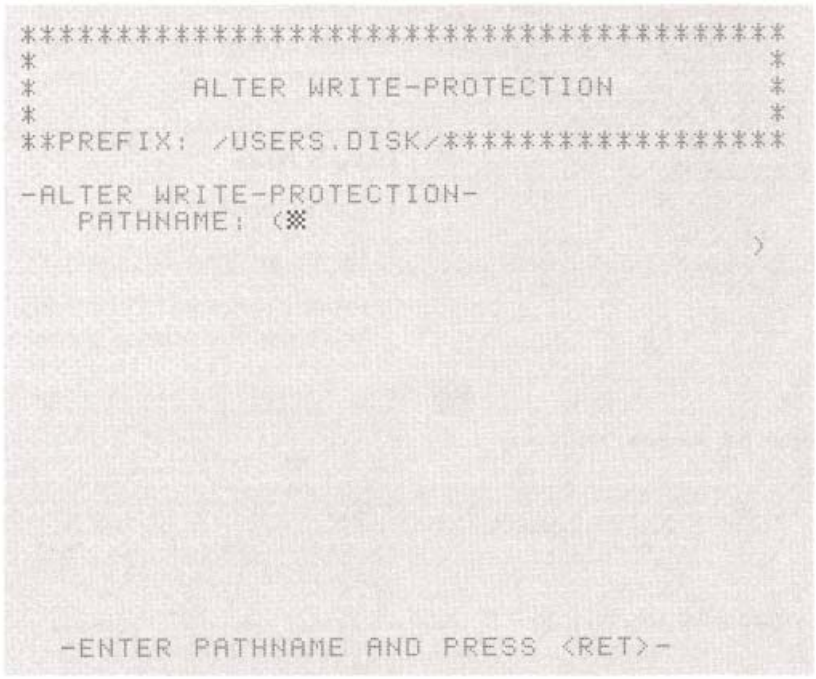


Figure 5-8. Alter Write-Protection Display

ProFile Note: If you're altering the protection status of a file on a ProFile, go on to step 5.

4. Put the volume containing the file you want to lock or unlock in any available drive. If you have a one-drive system, take out the *User's Disk* and replace it with the relevant volume.
5. Type in the pathname of the file you want to lock or unlock (or the partial pathname if the appropriate prefix is set), then press [RETURN]. You'll see

   LOCK FILES? (Y/N)

6. If you want to protect the file in question, press [Y] (for *Yes*). If you want to unlock the file, press [N] (for *No*).

If all goes well, you'll get this message: LOCK (OR) UNLOCK COMPLETE. If you hit a snag, you'll get an error message. If you're not sure what it means or what to do about it, consult Appendix A.

You can use wildcards to alter write protection. The procedure is the same as that for deleting files using a wildcard. See "Deleting With a Wildcard."

Rename Files

This command lets you rename a file without changing its contents.

Here's How

1. Get to the Filer Menu.
2. Press (F) (for FILE COMMANDS) from the Filer Menu.
3. Press (R) (for RENAME FILES) from the File Commands Menu. You'll see the display shown in Figure 5-9.

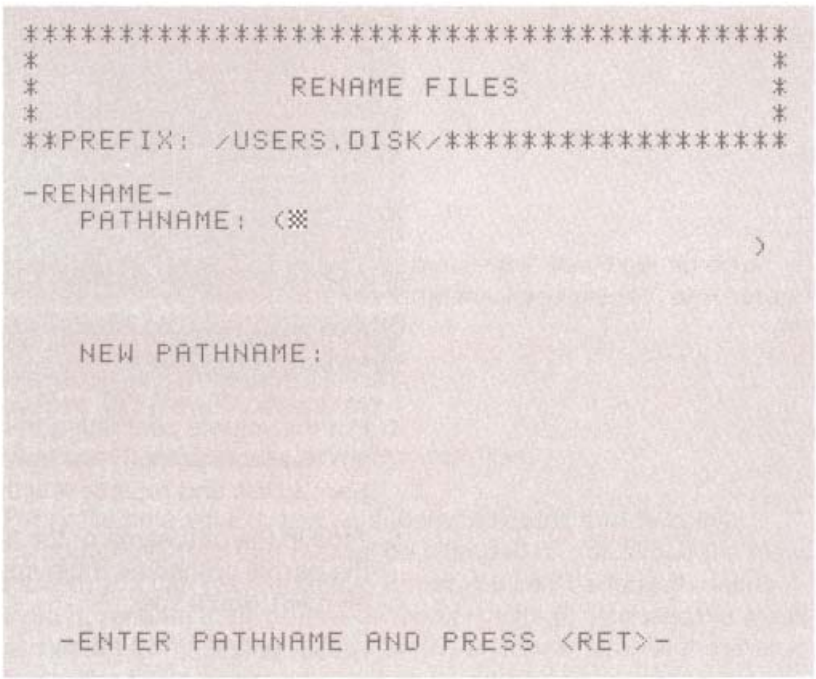


Figure 5-9. Rename Files Display

ProFile Note: If you're renaming a file on a ProFile, go on to step 5.

4. Put the volume containing the file you want to rename in any available drive. If you have a one-drive system, take out the *User's Disk* and replace it with the relevant volume.
5. Type the pathname of the file that you want to rename (or the partial pathname if the appropriate prefix is set), and press RETURN. The cursor will jump down to the next pair of parentheses.
6. Type the new pathname you've chosen for your file, and press RETURN. (You only need to type the filename. It's assumed that you are renaming it to the same directory because you can't rename a file from one directory to another.)

If all goes well, you'll get this message:

```
RENAME COMPLETE
```

If you chose a name that's already in the directory, you'll get this message:

```
DUPLICATE FILENAME
```

and you'll have to start over.

If you have problems renaming your files, you'll get an error message. If you're not sure what the message means, or what to do about it, consult Appendix A.

You can use wildcards to rename files. The procedure is the same as that for copying files. See "Copying With a Wildcard."

Make Directory

When you first format a disk, two things happen: the disk's recording surface is divided into blocks and sectors where information can be stored, and the disk gets a volume directory.

Subdirectories, on the other hand, are not created as part of the formatting process. You have to create them with the Make Directory command before you can save files into them.

Here's How

1. Get to the Filer Menu.
2. Press (F) (for FILE COMMANDS) from the Filer Menu.
3. Press (M) (for MAKE DIRECTORY) from the File Commands Menu. You'll see the display shown in Figure 5-10.

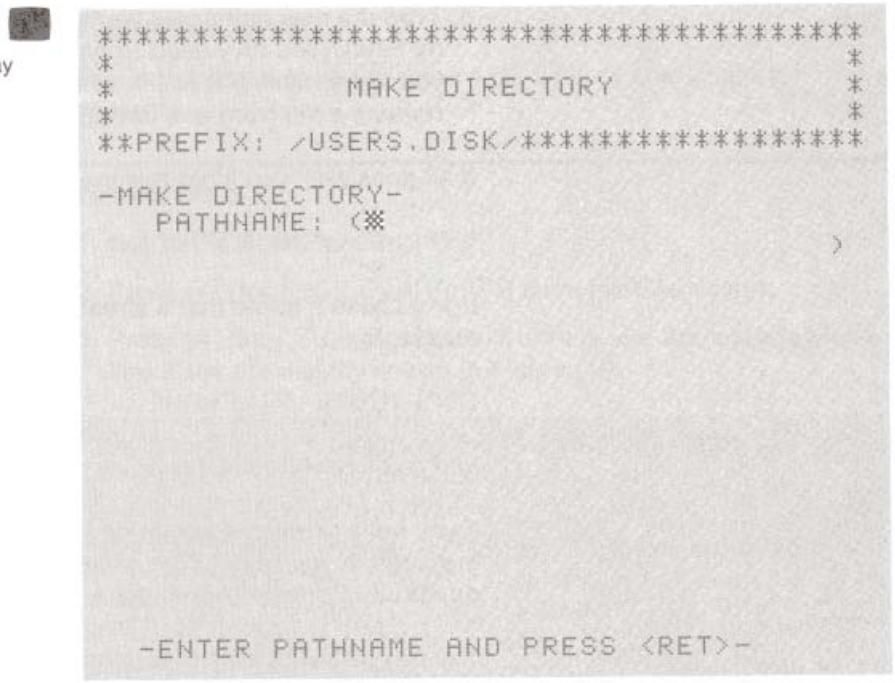


Figure 5-10. Make Directory Display

ProFile Note: If you're creating a directory on a ProFile disk, skip to step 5.

4. Put the volume on which you want to make a directory into any available drive. If you have a one-drive system, take out the *User's Disk* and replace it with the relevant volume.
5. Type the pathname of the directory you want to create (or the partial pathname if the appropriate prefix is set), and press (RETURN).

The Filer checks to make sure there is room on the disk and in the directory for your new directory. If there is, and if the disk is not write protected, you'll get this message:

```
MAKE DIRECTORY COMPLETE
```

If there's a hitch, you'll see an error message. If you're not sure what the message means, or what to do about it, consult Appendix A.

Note: There is a limit to the number of files that can be included in the volume directory—51. Because the files can also be subdirectories, this should not present a problem. Besides, most people run out of room on the disk before they run out of room in a directory.

Summary of Chapter 5

Set Prefix

The Set Prefix command sets the system prefix so that you can use abbreviated pathnames when referencing files.

You supply

- the new prefix (no wildcard permitted).

The current prefix is supplied as a **default**. The cursor is positioned on the first character of the current prefix. To accept the default, press [RETURN]. To do away with the prefix altogether, type a slash (/) and press [RETURN]. To add additional directories to the existing prefix, press [→] to move the cursor to the end of the prefix, type in the new directories, and press [RETURN]. To set an entirely new prefix, type a slash (/), and type in the new pathname. If you're entering a new pathname and decide to cancel your entry, press [ESC] and the default prefix will return to the display with the cursor on the first character.

Once you've specified the prefix, you only need to supply the remainder of the pathname when asked for the pathname while using other file commands.

List ProDOS Directory

The List ProDOS Directory command lists the contents of a ProDOS directory.

You supply

- the pathname of the directory you want to list. This can be either a volume directory or a subdirectory (wildcard permitted in place of name when a prefix is set).

ProDOS checks the disk to provide information on all files one level below the directory that you specify. The listing shows the directory name, the file types, the number of 512-byte blocks, the write-protect status, and, for each file, the name and the modification date. You'll also get information concerning block allocation for the volume: the number of available blocks and the number of used blocks.

Copy Files

The Copy Files command lets you copy a file or files from one directory to another.

You supply

- the source (original) pathname (wildcard optional)
- the destination (copy) pathname (wildcard optional)
- confirmation of your desire to copy if you used the question mark wildcard
- confirmation of your desire to copy if the destination pathname duplicates a pathname in the destination directory.

Once you fill in the blanks on the display, the file described by the source pathname is duplicated and assigned to the destination pathname.

Delete Files

The Delete Files command removes a file or files from a directory or subdirectory. It also removes empty subdirectories.

You supply

- the pathname of the file or files you want to delete (wildcard optional)
- confirmation of your desire to delete if you use the question mark wildcard.

Assuming the disk is not write protected, the Filer deletes the unlocked file or files. You cannot delete locked files. If a file is locked, you must use the Alter Write-Protection command to remove the protection before deleting.

Once the file or files are deleted, you can use the area on the volume for other files.

A directory must be empty before you can delete it, otherwise you'll get an error message. You can't delete volume directories.

Compare Files

The Compare Files command compares any two files you specify.

You supply

- the pathnames of the two files you want to compare.

The two files you specify are accessed for a byte-by-byte comparison. ProDOS also checks for type of file, kind of file, end of file, and number of blocks in file. If a mismatching byte is found, you'll get a message indicating that the files don't match.

Alter Write-Protection

When you **lock** or protect a file it cannot be changed or deleted. When you **unlock** or remove protection from a file it can be changed or deleted.

The Alter Write-Protection command locks or unlocks files.

You supply

- the pathname of the file or files you want to lock or unlock (wildcard optional)
- whether to lock or unlock the file in question
- confirmation to lock or unlock if you used the question mark wildcard character.

When you lock a file, the Filer prevents the file from being deleted, renamed, or otherwise modified.

When you unlock a file, the Filer removes the write-protect flag so that the file can be modified using other file commands.

You can find out which files are locked or unlocked by using the List ProDOS Directory command. Locked files have an asterisk to the left of the file's name.

Rename Files

The Rename Files command changes the existing filename or directory to the pathname you specify.

You supply

- the pathname you want to change (wildcard optional)
- the new pathname (you don't need to type the full pathname, only the filename; it's assumed that the directory name(s) will remain unchanged because you can't rename a file to a different volume or directory)
- confirmation of your desire to rename the file if you used the question mark wildcard.

You can also use this command to rename a volume.

Make Directory

The Make Directory command lets you create directories.

You supply

- the pathname of the directory you want to create.

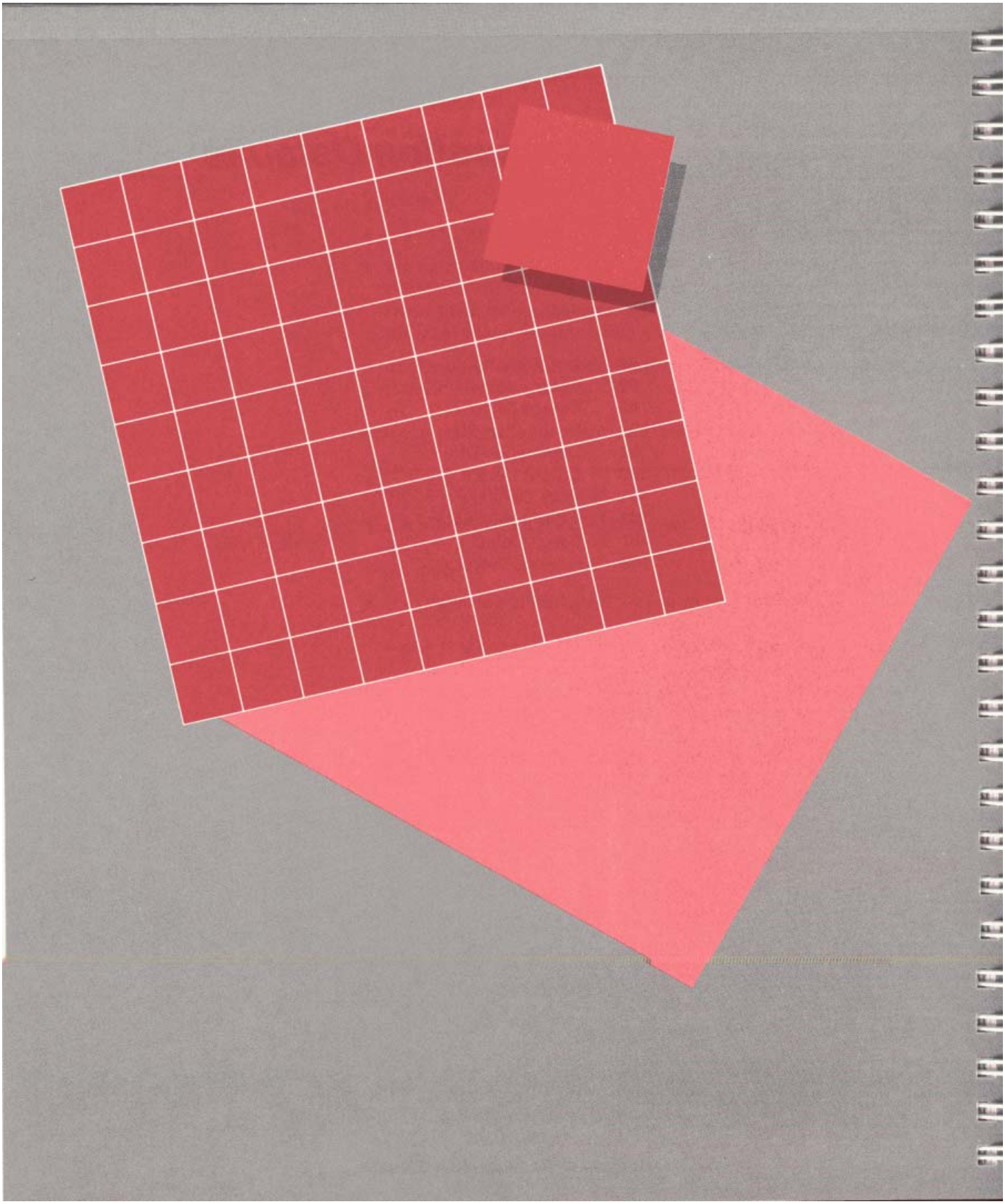
The disk is checked to see if there is enough room on the disk and within the directory to create another directory. If there is room on the disk and in the directory, if the disk is not write-protected, and if the directory doesn't already exist, the directory will be created.

Note: There is a limit to how many files can be included in the volume directory—51. Because the files can also be subdirectories, this should not present a problem. Besides, most people run out of room on the disk before they run out of room in a directory.

Chapter 6

Configuration Defaults

98 Select Defaults
99 Source Slot
99 Source Drive
99 Destination Slot
100 Destination Drive
100 Output Device
101 Restore Defaults
102 Summary of Chapter 6
102 Select Defaults
102 Restore Defaults



Configuration Defaults

A **default** is an answer supplied by the program. A **configuration default** is a default that applies to your system setup.

A **default** is the programmer's guess as to how you'll answer a question or fill in a blank in his program. **Configuration defaults** are the programmer's assumptions about how you have your system set up. The ProDOS Filer assumes that you have two disk drives hooked up to slot 6, that you want drive 1 to be your source disk drive and drive 2 to be your destination disk drive, and that you want all output sent to the video monitor (as opposed to a printer).

Defaults are meant to be a convenience, but they're no convenience if the programmer's assumptions don't suit you or fit your system configuration. Fortunately, you can customize the defaults in the ProDOS Filer using the configuration defaults commands described in this chapter. From the Filer Menu, press (D) (for CONFIGURATION DEFAULTS). You will see the Configuration Defaults Menu shown in Figure 6-1.

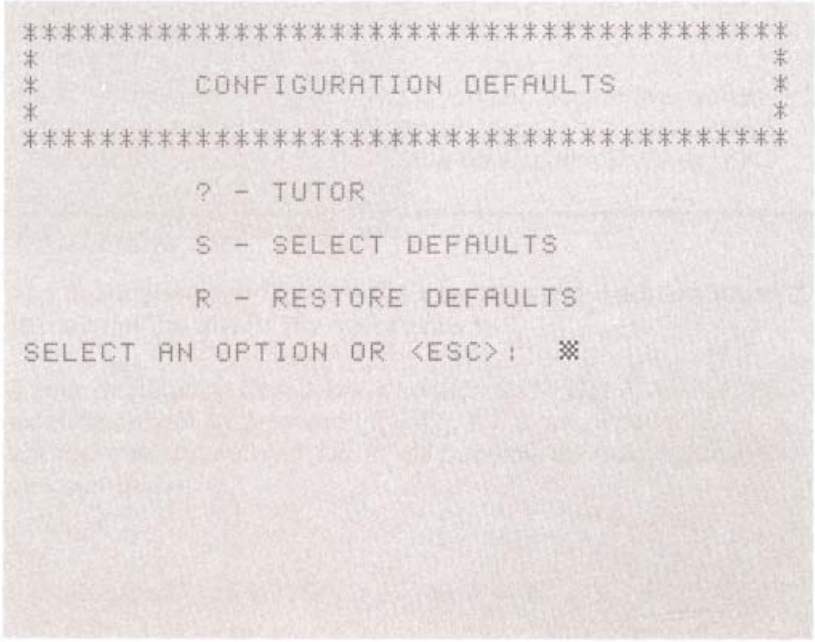


Figure 6-1. Configuration Defaults Menu

Warning

As you select the defaults for your system configuration, the values are written out to the Filer—so the *ProDOS User's Disk* must be in drive 1 throughout the operation.

Select Defaults

The Select Defaults command lets you select new defaults for the Filer.

Press [S] (for SELECT DEFAULTS) from the Configuration Defaults Menu. You'll see the display shown in Figure 6-2.

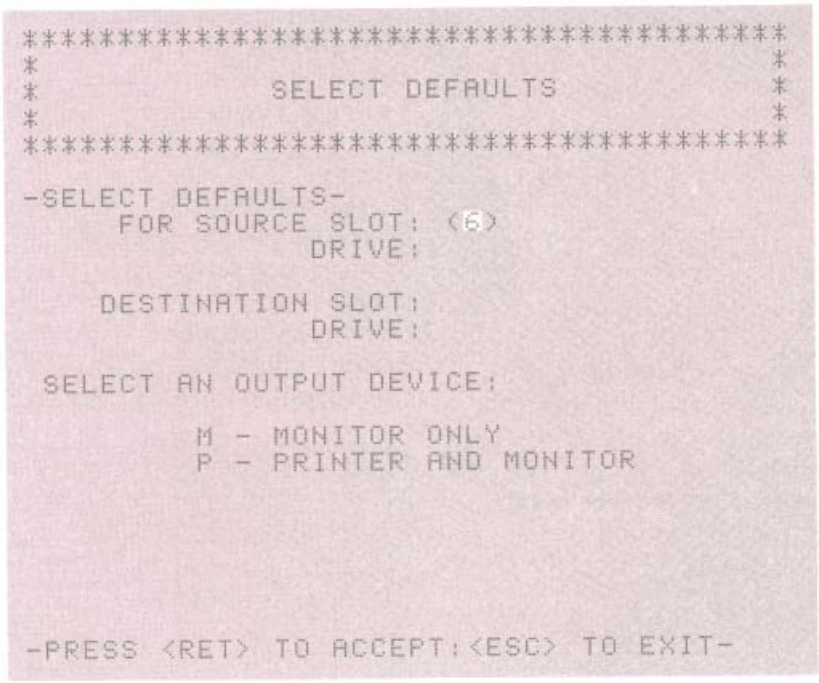


Figure 6-2. Select Defaults Display

How you fill in this display depends on how your system is set up. If you don't remember how your disk drives are connected to your Apple II, go back to the Filer Menu, press [Q] to select the Quit option, press [RETURN]. You should see the *User's Disk* Main Menu. Press [S] to select the Display Slot Assignments option. You'll see which slots hold your disk controller card and printer controller card (if you have one).

The following sections discuss the the defaults you can customize.

Source Slot

The source slot is the one the Filer looks at first. The Filer assumes the original disk will be in a disk drive connected to this slot.

If your source disk drive is hooked up to slot 6, accept the system default value by pressing [RETURN]. If it's not, type in the appropriate number and it will become the new source slot default.

Note: Once you press [RETURN] or type a new entry, the cursor (the little white box that marks your place on the display) jumps down to the next default. If you make a mistake and want to start over, press [ESC] and the cursor will return to the first line.

Source Drive

The source drive is where the Filer expects to find your original volume or file.

If your source disk drive is drive 1, you can accept the system default by pressing [RETURN]. If it's not, type in the appropriate drive number and it will become the new source drive default.

Destination Slot

The destination slot is where the Filer will send the information it takes from the disk in the source drive.

If your destination disk drive is hooked up to slot 6, accept the existing default by pressing [RETURN]. If it's not, type in the appropriate slot number and it will become the new destination slot number.

Destination Drive

The destination drive is where the Filer expects to find the disk that becomes the copy. It is where the information will end up.

If your destination disk drive is drive 2, accept the existing default by pressing (RETURN). If it's not, type in the correct drive number and it will become the new destination drive default.

Output Device

The output device is where the Filer displays information.

Certain commands present information in list form. You can choose to have the list shown on the display or you can get a printed copy of the list. The default output device is the video monitor.

If you're happy with the video monitor as the output device, accept the default by pressing (RETURN).

If you want a printed copy of such lists, change the output device default from M (for *MONITOR*) to P (for *PRINTER*). Your list will still appear on the display, but you'll get a printed copy as well. Once you press (P), you'll see this prompt:

```
PRINTER SLOT: <1>
```

If your printer is plugged into slot 1 inside the Apple II, you can accept the default by pressing (RETURN). If it's plugged into some other slot, type that number in place of the *1*.

When you've selected the defaults that fit your system configuration, the values are written out to the Filer—so it's important that you leave the *ProDOS User's Disk* in your disk drive throughout the operation. Once you've configured the defaults to match your system setup, you'll never have to do it again. Your customized defaults will take effect each time you start up the Filer.

If you ever want to restore the original system defaults, you can do so using the Restore Defaults command.

Restore Defaults

The Restore Defaults command does just that—it restores the original system defaults.

Press (R) from the Configuration Defaults Menu to select the Restore Defaults option. You'll see the display shown in Figure 6-3.

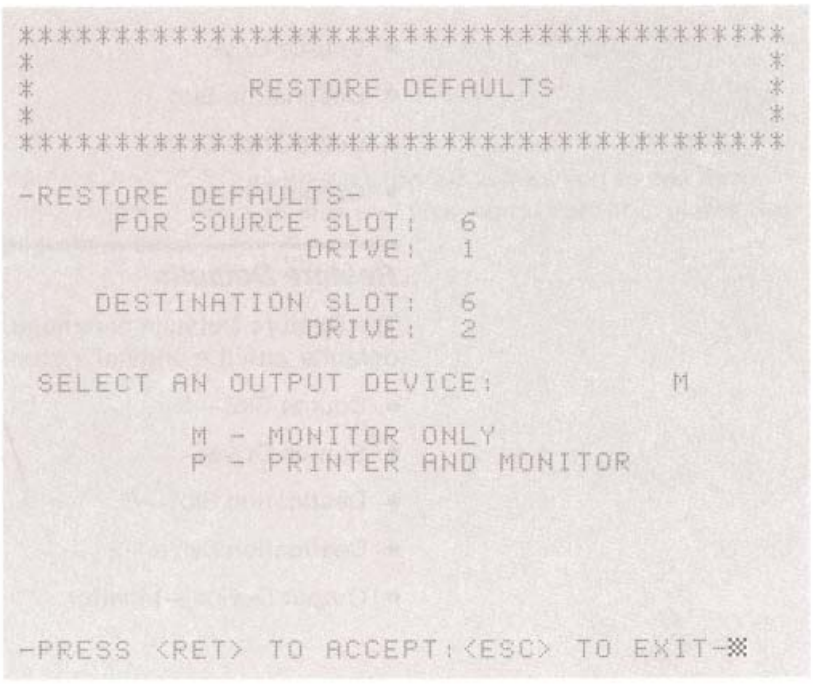


Figure 6-3. Restore Defaults Display

The display in Figure 6-3 is identical to the Select Defaults display, Figure 6-2, except that there are no parentheses. To accept the original defaults, just press (RETURN).

If you change your mind and decide you'd rather keep your customized defaults, press (ESC) instead of (RETURN) and you'll be back where you started.

Summary of Chapter 6

Select Defaults

The Select Defaults command lets you evaluate and change the six system defaults:

- Source Slot
- Source Drive
- Destination Slot
- Destination Drive
- Output Device

Restore Defaults

The Restore Defaults command lets you replace your customized defaults with the original system defaults:

- Source Slot—6
- Source Drive—1
- Destination Slot—6
- Destination Drive—2
- Output Device—Monitor

Part III

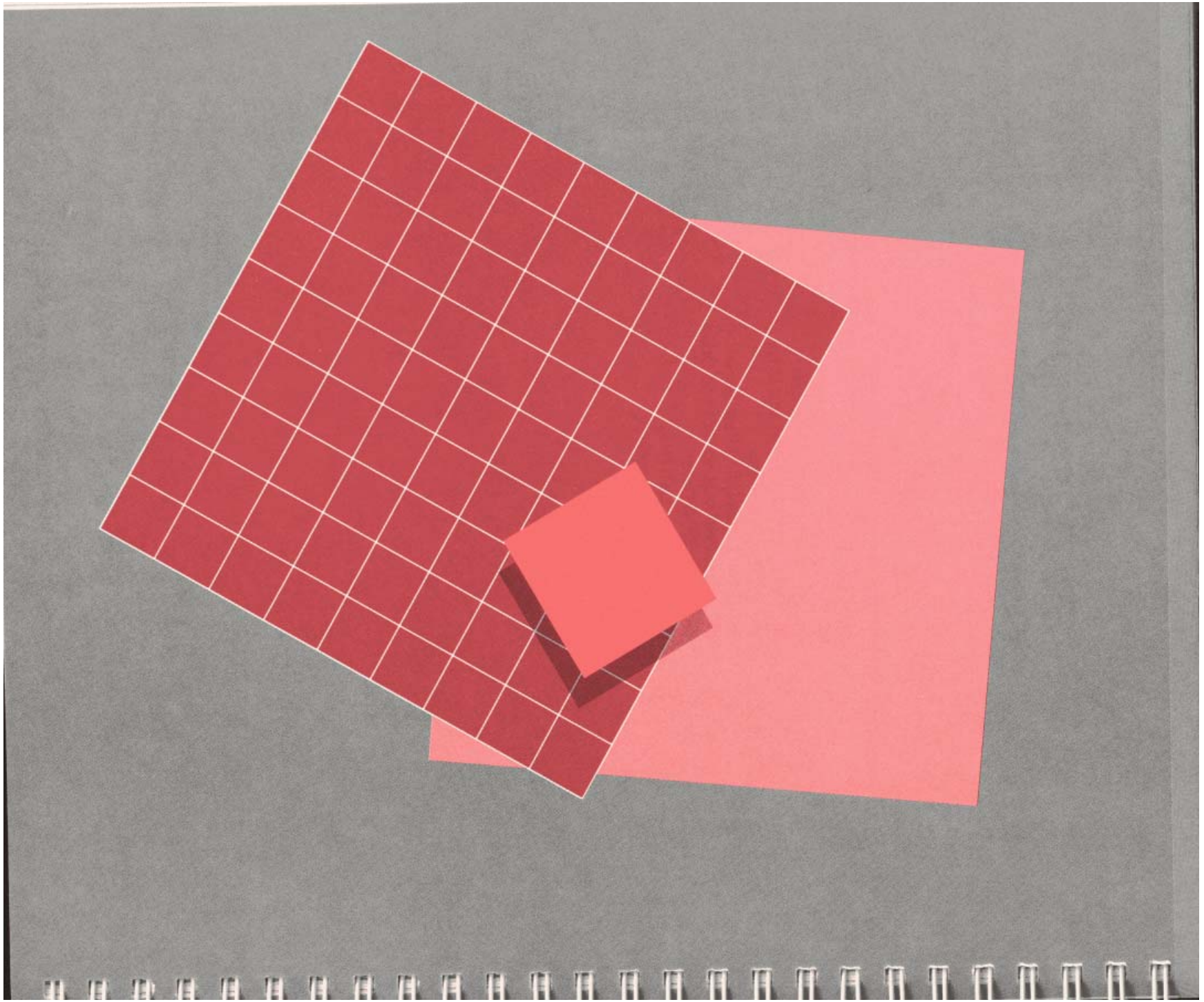
The DOS-ProDOS Conversion Program

The DOS-ProDOS Conversion program allows you to convert DOS 3.3 files to ProDOS files and vice versa. Part III explores this program in detail.

Chapter 7

The DOS-ProDOS Conversion Program

108 Using CONVERT
109 The Menu
111 Reverse Direction of Transfer
112 Change DOS 3.3 Slot and Drive
113 Set ProDOS Prefix
114 Set Prefix Using Pathname
115 Set Prefix Using Slot and Drive
116 Set ProDOS Date
117 Transfer (or List) Files
119 Summary of Chapter 7



Chapter 7

The DOS-ProDOS Conversion Program

The DOS-ProDOS Conversion program, named CONVERT, is designed for people who have been using DOS 3.3, an earlier Apple II disk operating system, and want to upgrade their programs and data files for use with ProDOS. DOS disks can't be read by ProDOS, and ProDOS disks can't be read by DOS, but CONVERT lets you move files from DOS disks to ProDOS disks and vice versa, without altering the files in any way.

Note: You probably won't need to use CONVERT unless you have been using DOS 3.3.

ProDOS can be used with all disk drives made by Apple Computer, Inc. for Apple II computers, including disk drives for rigid disks like the ProFile, while DOS 3.3 was designed for use only with disk drives for flexible disks. The difference has to do with formatting—the way programs are stored on the disk.

Because of the difference in formatting, DOS and ProDOS disks are not compatible, but you can convert files in the DOS 3.3 format to the ProDOS format (and back again) by using the conversion program described in this chapter. This is useful, for example, if you have a data file created with a DOS 3.3 version of VisiCalc and want to use it with a ProDOS version of Apple Writer.

Warning

All files can be transferred, but some files, like Applesoft BASIC programs, may need some modification.

CONVERT will not transfer ProDOS random-access files to DOS 3.3, nor will it transfer DOS 3.3 random-access files to ProDOS.

For more information, see *BASIC Programming With ProDOS*.

Using CONVERT

To use CONVERT, press [C] from the *User's Disk* Main Menu. You'll see the display shown in Figure 7-1.

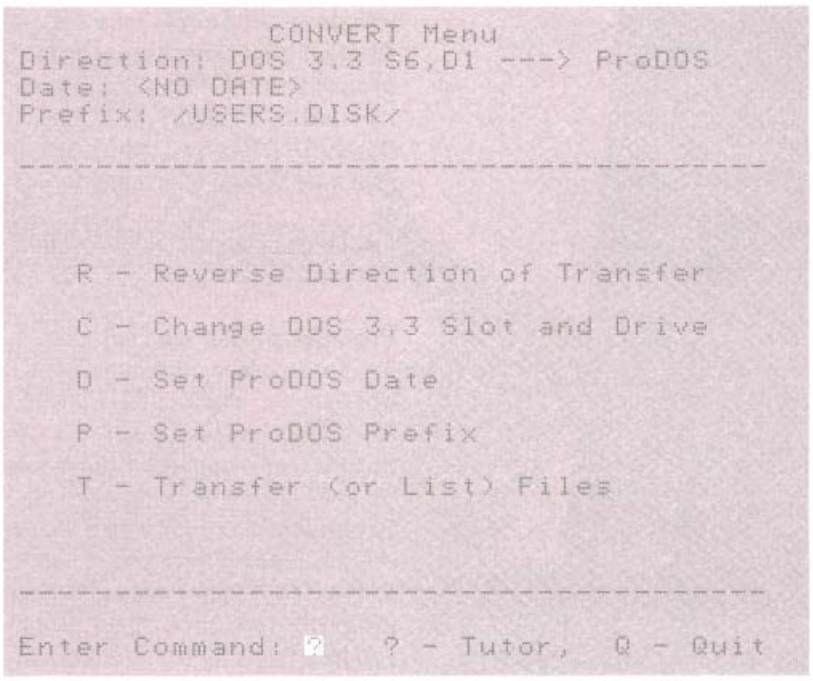


Figure 7-1. CONVERT Menu

The Menu

The top three lines of the CONVERT Menu indicate the direction of transfer, the current date, and the prefix of the ProDOS directory.

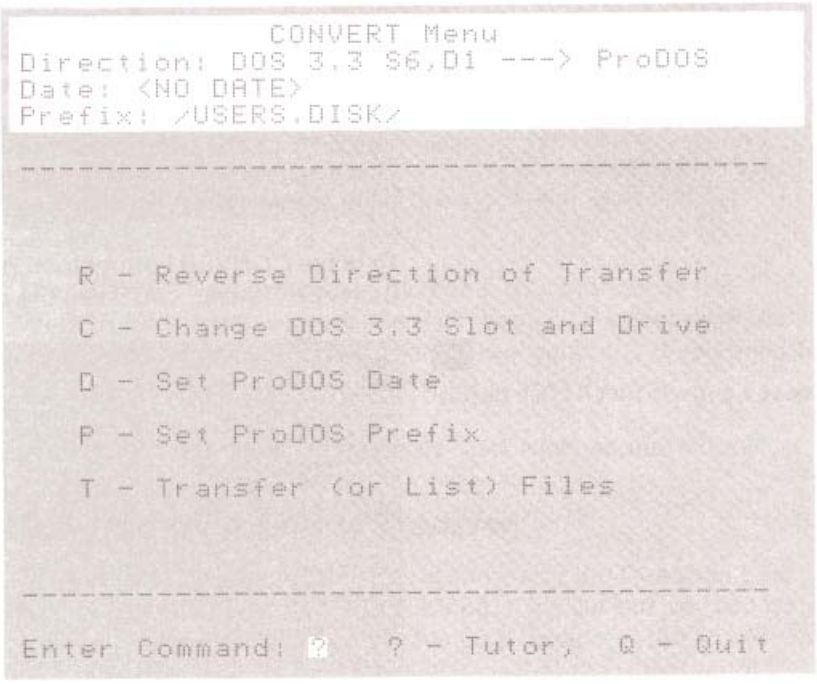


Figure 7-2. CONVERT Menu Showing Transfer Information

The **source** holds the original files—the files you want to convert.

In Figure 7-2, the direction of transfer is from DOS 3.3 to ProDOS (notice the arrow). The **source** is a DOS 3.3 volume in slot 6, drive 1, and the destination is a ProDOS directory. If you set a prefix while using the Filer (and you haven't turned off your computer), that prefix is displayed. If you didn't, the prefix is set to the startup disk—/USERS.DISK/. The date may or may not be shown, depending on whether or not you have set the date or have a clock card.

At the bottom of the menu display you see this prompt:

```
Enter Command: ?   ? - Tutor, Q - Quit
```

The cursor is over the question mark. If you press [RETURN], you will see the Tutor displays for the CONVERT program. These displays are designed to guide you through the program. If you're an experienced user, you may only need to read the displays. If you're new to computers, read this chapter first, then use the Tutor displays to jog your memory. To move from one Tutor display to the next, press [→]. To go back to a previous Tutor display, press [←]. To return to the menu, press [ESC].

Note: The Tutor displays don't discuss error messages. If you hear a beep and see an error message on the display while using CONVERT, turn to Appendix A for details.

To leave CONVERT altogether, press [Q] (for Quit) from the CONVERT Menu. You'll see the display shown in Figure 7-3.

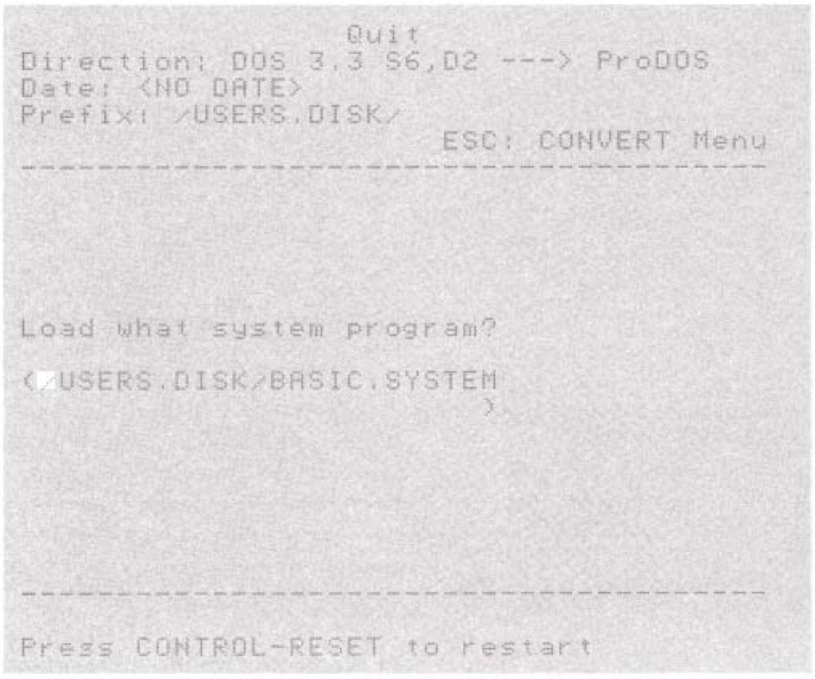


Figure 7-3. The CONVERT Quit Display

For information about the system programs on the *User's Disk*, see "How It Works" in Part I.

To use another part of the *ProDOS User's Disk*, type the name of the system program. Or you can accept the Quit display's default and return to the Main Menu.

You also can switch to another program by putting the program's disk in drive 1 and restarting the computer: for an Apple II Plus, hold down [CONTROL] while you press [RESET]; for an Apple IIe, hold down [Ó] and [CONTROL] and press [RESET].

By the Way: When you press [ESC] while using CONVERT, you return to the previous menu or display. The display you'll return to is indicated at the upper right next to `ESC:`. If there is no prior level, you won't see `ESC:`.

The CONVERT program uses the same terminology as the ProDOS Filer. If you've used the Filer, you know about prefixes, pathnames, filenames, and slot and drive numbers. If you need to brush up on these terms, see Chapters 2 and 4.

Now look at each item on the CONVERT Menu in more detail.

Reverse Direction of Transfer

The current direction of transfer is shown on the Direction Line, the second line of the CONVERT Menu. If it's set the way you want it, leave it alone. If you need to change it, press [R] (for `Reverse Direction of Transfer`). Notice that the direction of transfer listed at the top of the Menu changes from

```
PRODOS -> DOS 3.3 S6,D2 to
DOS 3.3 S6,D2 ->PRODOS
```

or from

```
DOS 3.3 S6,D2 -> PRODOS to
PRODOS -> DOS 3.3 S6,D2
```

To change it back, just press [R] again.

Change DOS 3.3 Slot and Drive

The Direction Line also shows the DOS 3.3 slot and drive numbers. If the numbers are correct, skip this category, and set your ProDOS prefix. If you need to change the DOS 3.3 slot and drive, press [C] (for Change DOS 3.3 Slot and Drive). You'll see the display shown in Figure 7-4.

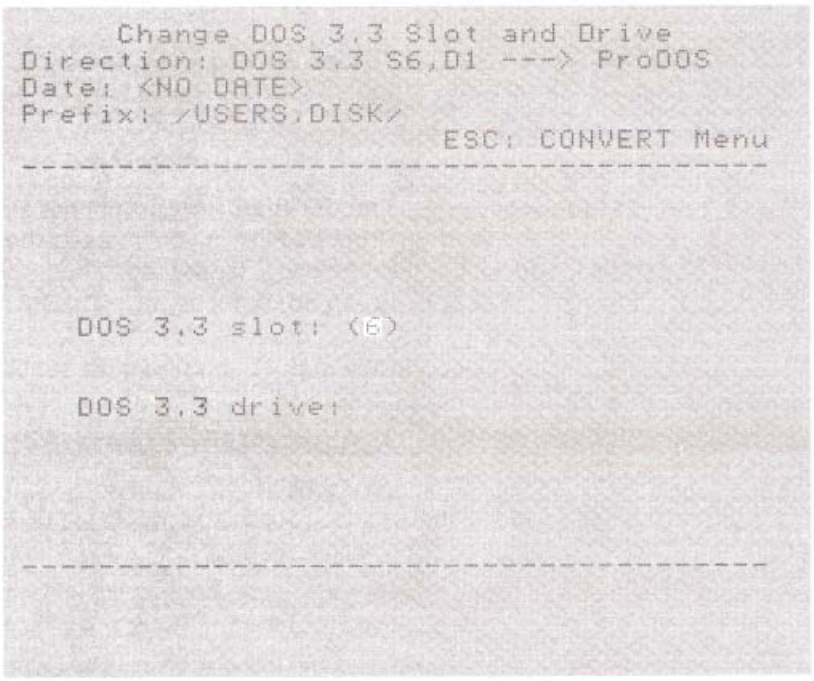


Figure 7-4. Change DOS 3.3 Slot and Drive Display

Type your DOS 3.3 slot and drive number or accept the default number (shown under the flashing cursor) by pressing [RETURN].

Once you've filled in the DOS 3.3 slot and drive, the CONVERT Menu will return to the display. Notice that the slot and drive numbers you just supplied are reflected on the Direction Line.

Set ProDOS Prefix

You must set a ProDOS prefix before you can transfer files. The default is the last prefix you used. If you haven't set a prefix, then the prefix is the name of the disk you used to start your system.

To change the prefix, press (P) (for Set ProDOS Prefix). You'll see the display shown in Figure 7-5.

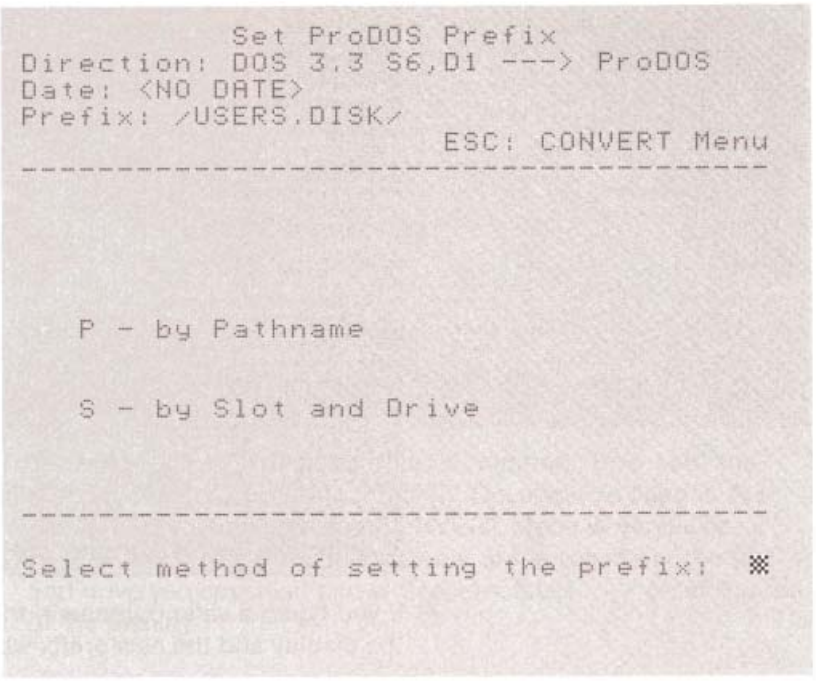


Figure 7-5. Set ProDOS Prefix Display

There are two ways to set a ProDOS prefix: by pathname or by slot and drive number.

Important! Before you leave CONVERT, you should set the prefix back to the name of your startup disk. Be sure to put the *User's Disk* (or your startup disk) in drive 1 before setting the prefix.

Set Prefix Using Pathname

1. From the Set ProDOS Prefix display, press (P) (for by Pathname). You'll see the display shown in Figure 7-6.

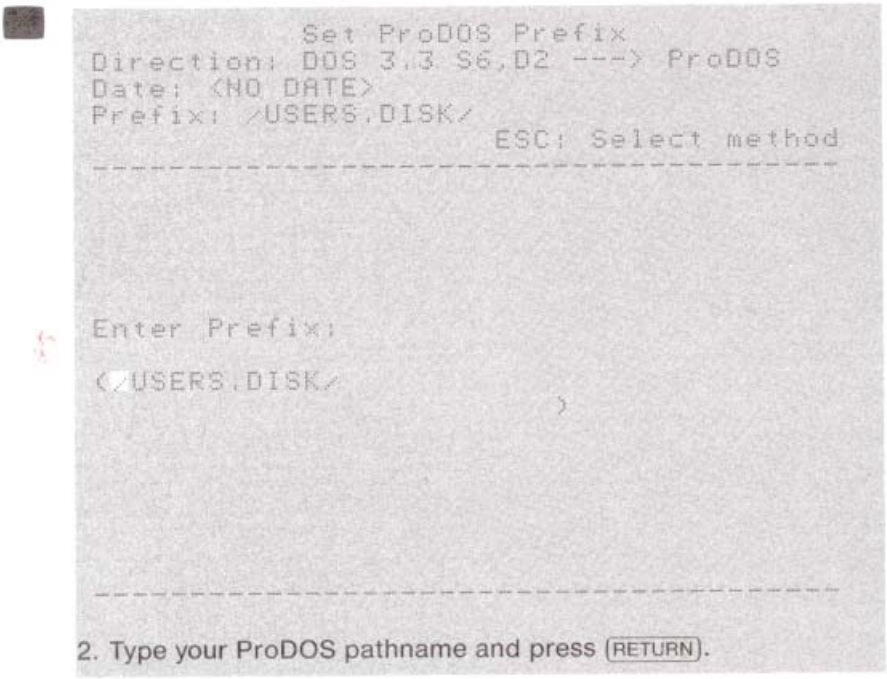


Figure 7-6. Pathname Display

2. Type your ProDOS pathname and press (RETURN).

If you typed a valid pathname, the CONVERT Menu will return to the display and the new prefix will appear at the top of the display.

If ProDOS can't find the file you named, you'll get the error message:

VOLUME NOT FOUND or FILE NOT FOUND or PATH NOT FOUND

Warning
The disk you plan to use must be in one of the disk drives when you set the prefix.

Set Prefix Using Slot and Drive

1. From the Set ProDOS Prefix display, press [S] (for by Slot and Drive). You'll see the display shown in Figure 7-7.

Figure 7-7. Slot and Drive Display

2. Type in your ProDOS slot and drive numbers, or accept the default values by pressing [RETURN]. Once you've filled in the slot and drive numbers, the CONVERT Menu is displayed. Notice that ProDOS reads the name of the volume in the slot and drive you specified and writes it next to Prefix at the top of the display.

Set ProDOS Date

ProDOS files can be marked with the current date.

1. From the CONVERT Menu, press (D) (for Set ProDOS Date). You'll see the display shown in Figure 7-8.

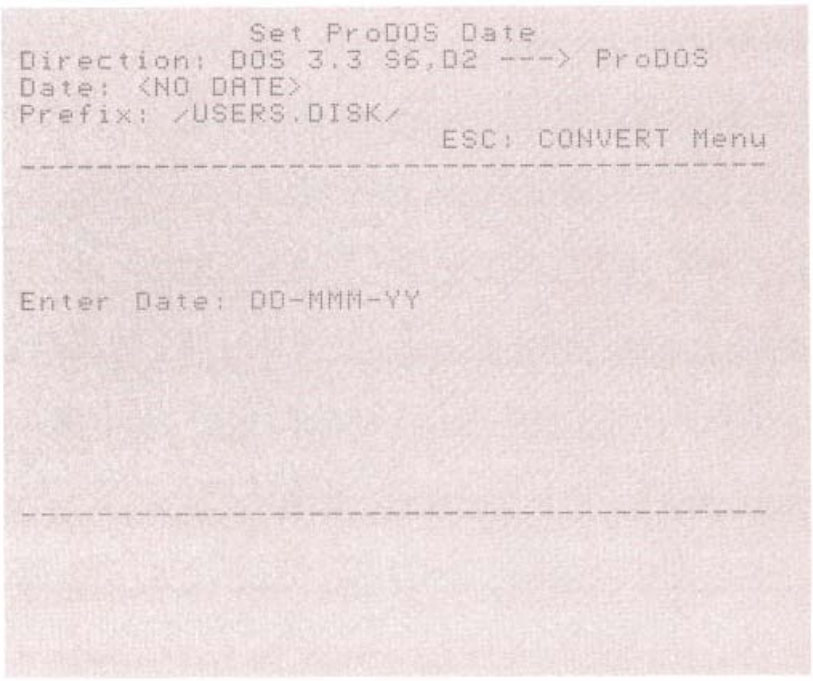


Figure 7-8. Set ProDOS Date Display

2. Type the day, the first three letters of the month, the last two digits of the year, then press (RETURN).

Note: If the day only has one digit, type a zero in front of it.

Once you've typed in the date, the CONVERT Menu will return to the display and you'll find the new date listed at the top of the display.

If you type an impossible date or misspell a month abbreviation, you'll see the message:

```
INVALID DATE
```

The cursor will return to the first character and wait for you to try again.

Transfer (or List) Files

Once the direction of transfer, the slot and the drive numbers, and the prefix are set, and the disks are in place, you can proceed to transfer files.

Warning

CONVERT doesn't format ProDOS disks or initialize DOS 3.3 disks for you. Be sure you have **formatted** or **initialized** destination disks before you try to transfer files.

To **format** or **initialize** a disk means to prepare it to receive information. Formatting a ProDOS disk is explained in Chapter 3.

If you're not sure which files you want to transfer, you can use the Transfer command to see a list of the files in the DOS 3.3 catalog or the ProDOS directory you named as your source.

1. Press [T] (for Transfer (or List) Files). You'll see the display shown in Figure 7-9.

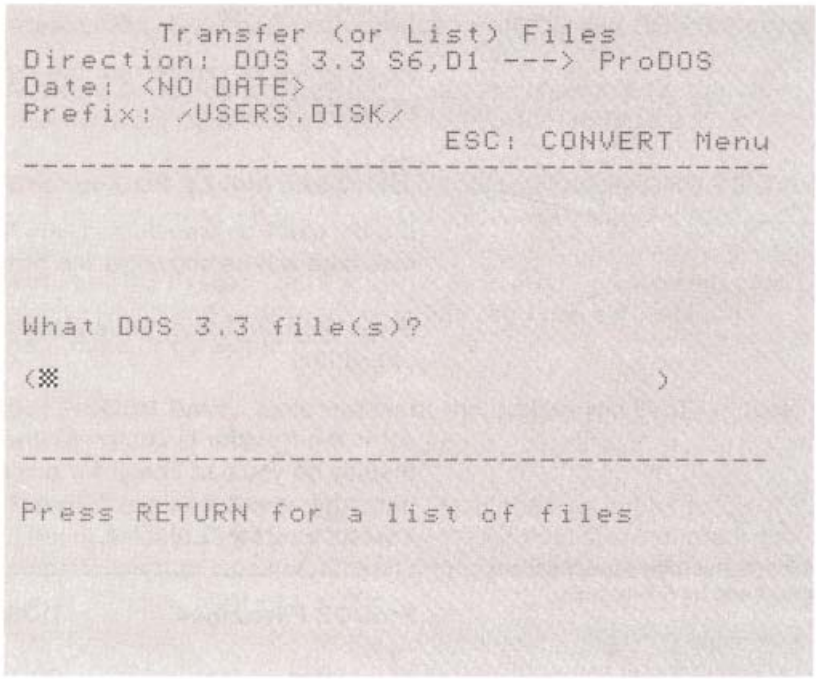


Figure 7-9. Transfer (or List) Files Display

Wildcards are explained in Chapter 4.

2. Then you have several choices:

   - To see a list of all the files in the directory, press (RETURN). This uses the question mark **wildcard.**
   - If you want to transfer a single file, just type the filename.
   - If you want to transfer all the files on the volume, use the equal sign wildcard. Type

     =

     and press (RETURN).

If you use the question mark wildcard, then you must select the files you want to transfer from the list by moving the highlighted bar (by pressing (←) and (→)) to the desired file and pressing (SPACE) bar to mark the file filename with an arrow. To deselect a file, just press (SPACE) bar a second time. When you've finished marking files, press (RETURN), and CONVERT will begin transferring files.

As each file is transferred, the arrow next to the filename is replaced by

Done

If a file can't be transferred, you'll hear a beep and an error message will be shown at the bottom of the display.

Press (RETURN) to continue transferring or (ESC) to end the transfer operation.

After the transfer is complete, the selection list remains on the display so you can check for errors, or name changes. ProDOS naming conventions are different from DOS naming conventions as indicated by Table 7-1.

Table 7-1. The Differences Between ProDOS and DOS Filenames

ProDOS Filenames	DOS Filenames
15 characters long	30 characters long
begin with a letter	begin with a letter
numbers, letters, periods	all characters, including control characters, valid
no spaces permitted	spaces permitted

If your DOS file has a name that is invalid by ProDOS standards, ProDOS will substitute a valid name according to the following rules:

- Names with more than 15 characters will be cut off at 15. If this results in duplicate filenames, you will be prompted as to whether or not you want to replace the existing file by that name.
- If your DOS filename has spaces, control characters, or punctuation other than periods, all invalid characters will be replaced with periods.

After you've checked for errors and name changes you can transfer additional files, or press (ESC) to return to the Menu.

Summary of Chapter 7

The DOS-ProDOS Conversion Program, CONVERT, allows you to transfer files back and forth between ProDOS and DOS 3.3 disks.

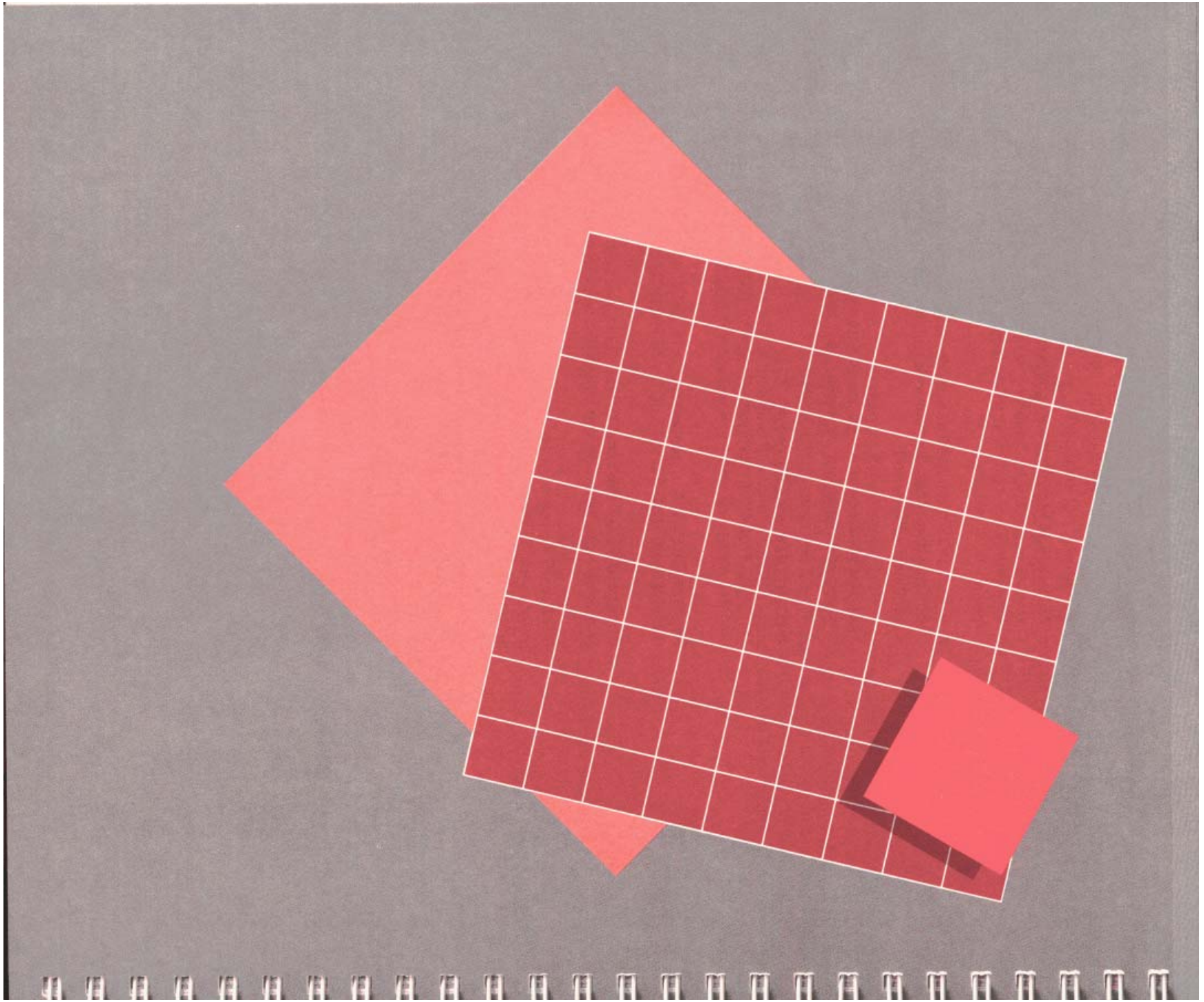
Reverse Direction of Transfer: Lets you change direction of transfer from DOS 3.3 to ProDOS or ProDOS to DOS 3.3.

Change DOS 3.3 Slot and Drive: Lets you specify DOS 3.3 slot and drive from which or into which you wish to transfer files.

Set ProDOS Prefix: Lets you specify ProDOS prefix from which or into which you wish to transfer files. You can set prefix by pathname or by slot and drive.

Set ProDOS Date: Lets you mark the transferred ProDOS files with the current date.

Transfer (or List) Files: You can list all the files in the designated catalog or directory by pressing (RETURN); then you can mark the files you want to transfer. Or you can type the name of the specific file or files you want to transfer.



Error Messages

Message	Command Used	What Happened	What to Do
CAN'T DELETE DIRECTORY FILE	Transfer (or List) Files	The name of the DOS file that you tried to transfer is also the name of a ProDOS directory file.	Rename either file before you perform the transfer.
CAN'T TRANSFER DIRECTORY FILE	Transfer (or List) Files	The program does not allow directory files to be transferred.	Transfer individual files.
DIRECTORY ALREADY EXISTS	Copy Files Make Directory	You tried to copy to a directory instead of a file, or you tried to create a directory with a name already present in the subdirectory or volume directory.	Type in a name you haven't used before.
DIRECTORY EXPECTED	List ProDOS Directory Set Prefix	You entered a filename instead of a directory name.	List the next highest directory to make sure you got the name right, and try again. Look under the heading TYPE to see if the file you specified is a DIR (DIRECTORY).

Message	Command Used	What Happened	What to Do
DIRECTORY NOT EMPTY	Delete Files	For your own protection, you can only delete files, not directories containing other files. If you try to delete a directory containing other files you'll get this message.	Use List ProDOS Directory to examine the contents of the directory you tried to delete. If the contents are expendable, you can delete them one by one or all at once using a wildcard.
DIRECTORY NOT FOUND	List ProDOS Directory Copy Files Delete Files Compare Files Alter Write-Protection Rename Files Make Directory Set Prefix	The program can't find the subdirectory you specified.	Check to make sure you spelled the pathname correctly. Make sure you have the correct disk in the disk drive. Make sure you included all preceding directories. Use the List ProDOS Directory command to make sure you got the directory name right.
DISK II DRIVE TOO FAST	Copy a Volume Format a Volume	Your disk drive speed is too fast.	Have the speed of your disk drive adjusted before formatting a disk with ProDOS.
DISK II DRIVE TOO SLOW	Copy a Volume Format a Volume	Your disk drive speed is too slow.	Have the speed of your disk drive adjusted before formatting a disk with ProDOS.

Message	Command Used	What Happened	What to Do
DISK WRITE-PROTECTED	Copy a Volume Format a Volume Rename a Volume Copy Files Delete Files Alter Write-Protection Rename Files Make Directory Select Configuration Defaults Restore Configuration Defaults Transfer (or List) Files	The program needs to write something out to the disk, but it can't because you've covered the write-enable notch with a write-protect tab, or the disk was write protected by the manufacturer to keep you from writing on it.	If the disk has a write-protect tab, you could remove it, but think twice. You put the tab there to protect the disk; are you sure you want to remove the protection? **Note:** It's easy to type the wrong drive number, so it's a good idea to put a write-protect tab on the source volume before you copy it. It's also a good idea to put a write-protect tab on your Filer disk (except when changing configuration defaults) so you don't accidentally format it, rename it, or copy over it.
DUPLICATE FILE NAME	Rename Files Transfer (or List) Files	You tried to use a name you'd already used in that directory. The name of the file you're transferring already exists on the destination volume.	Give the file a different name. Cancel the transfer or proceed with the transfer and copy over the existing file.
DUPLICATE VOLUME	Compare Volumes Copy a Volume	Two drives contain volumes with the same name.	Avoid having volumes with identical names.
ERROR CODE= XX (where XX is any hex code)	Could appear any time, but probably won't appear at all	Unanticipated error.	Consult your dealer.

Message	Command Used	What Happened	What to Do
FILES DO NOT MATCH	Compare Volumes	One or more of the bytes on the volumes you're comparing don't match.	If you thought one of the volumes was a duplicate of the other, you'd better make another backup.
FILE EXPECTED	Delete Files Alter Write-Protection	You typed a volume directory instead of a filename or subdirectory.	You can't delete a volume directory except by reformatting the disk. The only way to write protect a volume is by putting a write-protect tab over the write-enable notch.
FILE LOCKED	Delete Files Rename Files	ProDOS lets you lock files to protect them from accidental deletion and the like. If you try to delete or rename a locked file, you get this message.	If you really wanted to delete or rename that file, first use the Alter Write-Protection command to unlock it, then proceed with the other command.
FILE NOT FOUND	Copy Files Delete Files Compare Files Alter Write-Protection Rename Files Set Prefix Transfer (or List) Files Quit	The file you're looking for isn't in the directory you specified.	Make sure you typed the name correctly. If that's not the problem, use the List ProDOS Directory (Transfer Files if you're using CONVERT) command to see if you got the name right and to make sure you're in the right directory.
FILE TOO LARGE	Copy Files	There's not enough room on the disk for the file(s) you want to copy.	Copy the file(s) onto another formatted disk or delete files using the Delete Files command to make room for the ones you want to add.

Message	Command Used	What Happened	What to Do
I/O ERROR	Format a Volume Copy a Volume Rename a Volume Detect Bad Blocks Block Allocation Compare Volumes Copy Files Delete Files Compare Files Alter Write-Protection Rename Files Make Directory Set Prefix Select Configuration Defaults Restore Configuration Defaults Set Prefix Transfer (or List) Files Change DOS 3.3 Slot and Drive	This is a general purpose error message that alerts you to one of the following situations: Open drive door Empty disk drive Unformatted disk Improperly aligned disk, or a disk with damaged blocks Poor connection between the computer and the disk drive ProFile not turned on	If your disk drive door is open, close it. If you forgot to put the disk in the disk drive, put it in. If you use Pascal, use the List command from the Pascal Filer to find out if it's a Pascal disk and what's on it. If you use DOS 3.3, use the DOS 3.3 CATALOG command to find out if it's a DOS 3.3 disk and what's on it. If it's a DOS 3.3 disk and you want to convert the files to ProDOS, use DUCK. If the disk is unformatted, or if the data on a Pascal or DOS 3.3 disk is expendable, use the Format a Volume command to format it. Use the Detect Bad Blocks command to find out if the disk is damaged. If it is, format a disk and copy the good files onto it using the Copy Files command. Once you've saved the good files, reformat the damaged disk using the Format a Volume command. Check again for damaged blocks.

Message	Command Used	What Happened	What to Do
I/O ERROR (continued)			Turn off the power, remove the cover, and make sure the disk drive controller card is firmly seated in its slot and that the pins connecting the cables to the cards are firmly in place. Turn on the ProFile.
ILLEGAL CHARACTER	Set Prefix Transfer (or List) Files	You tried to type an illegal character in a pathname or filename (a number at the beginning of a filename, a comma in the middle of a filename, etc.).	Observe the filename rules (review Chapter 4).
ILLEGAL WILDCARD	Copy Files Delete Files Alter Write-Protection Rename Files List ProDOS Directory	You tried to use more than one wildcard per pathname. List ProDOS Directory allows you to use a wildcard as the first and only character.	Type the pathname again using one wildcard in the last filename. If you use a wildcard with the List ProDOS Directory command, make sure it's the first and only character.
INSUFFICIENT MEMORY TO RUN PROGRAM	During Startup	Your system doesn't have 64K.	Consult your dealer on ways to add memory to your Apple II.

Message	Command Used	What Happened	What to Do
INVALID DATE	Set ProDOS Date	You entered a date outside the possible range.	CONVERT only lets you enter possible dates. The range for the day is 01-31 (depending on the month); the range for the month is JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC; and the range for the year is 00-99.
INVALID DRIVE	Copy a Volume Format a Volume Rename a Volume Detect Bad Blocks Block Allocation Compare Volumes Select Configuration Defaults Change DOS 3.3 Slot and Drive Set Prefix	When you're asked to supply a volume's drive number, you only have two choices, 1 or 2, because that's how many drives connect to any one slot. If you type a number outside that range or a letter, you'll get this message.	The program won't let you enter a letter or a number outside the valid range (notice that the invalid character doesn't appear on the display), so just type in the correct drive number.
INVALID PATHNAME	Copy Files Delete Files Alter Write-Protection Rename Files List ProDOS Directory Set Prefix Compare Files Select Configuration Defaults Restore Configuration Defaults	You used an illegal character in a pathname. You didn't have the prefix set to the volume containing the file or files you want to access.	Enter a legal pathname. See Chapter 4 for pathname rules. Set the prefix to the volume containing the files you're trying to access.

Message	Command Used	What Happened	What to Do
INVALID SLOT	Copy a Volume Format a Volume Rename a Volume Detect Bad Blocks Block Allocation Compare Volumes Select Configuration Defaults Change DOS 3.3 Slot and Drive Set Prefix	You were asked to supply a slot number. There are only seven slots where you could conceivably have your disk drive controller card (1-7). If you type a number outside that range or a letter, you'll get this message. **Note:** You won't get this message if you type the wrong slot number. You'll only get this message if it's outside the 1-7 range. If you don't know which slot your controller card is in, use List Volumes to find out. If you don't know what slots are, review Chapter 1.	The program won't let you enter an invalid slot number (notice that the invalid number or letter doesn't appear on the display), so all you have to do is type the correct number.
NAME TOO LONG	Set Prefix Transfer (or List) Files	You typed a ProDOS filename longer than 15 characters or a DOS 3.3 file name longer than 30 characters.	Make sure you typed the name correctly. Check the filename you meant to type by pressing (ESC) to return the cursor to the start of TRANSFER FILES, then pressing (RETURN) to see a list of all the files in the directory.
NO DATA IN FILE	Transfer (or List) Files	There is no data in the file you tried to transfer.	If you need an empty file, use the Create command from DOS or ProDOS.

Message	Command Used	What Happened	What to Do
NO DEVICE CONNECTED	Format a Volume Copy a Volume Rename a Volume Detect Bad Blocks Block Allocation Compare Volumes Select Configuration Defaults Restore Configuration Defaults Change DOS 3.3 Slot and Drive Set Prefix	Disk drive isn't connected to the slot specified, or isn't turned on. Printer isn't connected, or printer card isn't in the slot specified.	Use the Display Slot Assignments option on the Main Menu to make sure you gave the right slot number. (It probably should be 6.) Connect the printer. Make sure printer card is in the specified slot.
NO DIRECTORY	List Volumes	The program looks at the volume directory of every disk drive connected to your Apple II. You get this message if the disk is unformatted, DOS 3.3 formatted, or Pascal formatted.	If the disk is Pascal formatted, use the Pascal Filer instead of ProDOS Filer. If the disk is DOS 3.3 formatted, use the DOS 3.3 FID program, or convert the DOS 3.3 files to ProDOS using CONVERT. If the disk is unformatted or if the material on the disk is expendable, format it using the Format a Volume command.
NO PRINTER CONNECTED	List Volumes Detect Bad Blocks Compare Volumes List ProDOS Directory	Your output device is set to the printer, but the printer isn't connected to the Apple II.	Connect the printer.

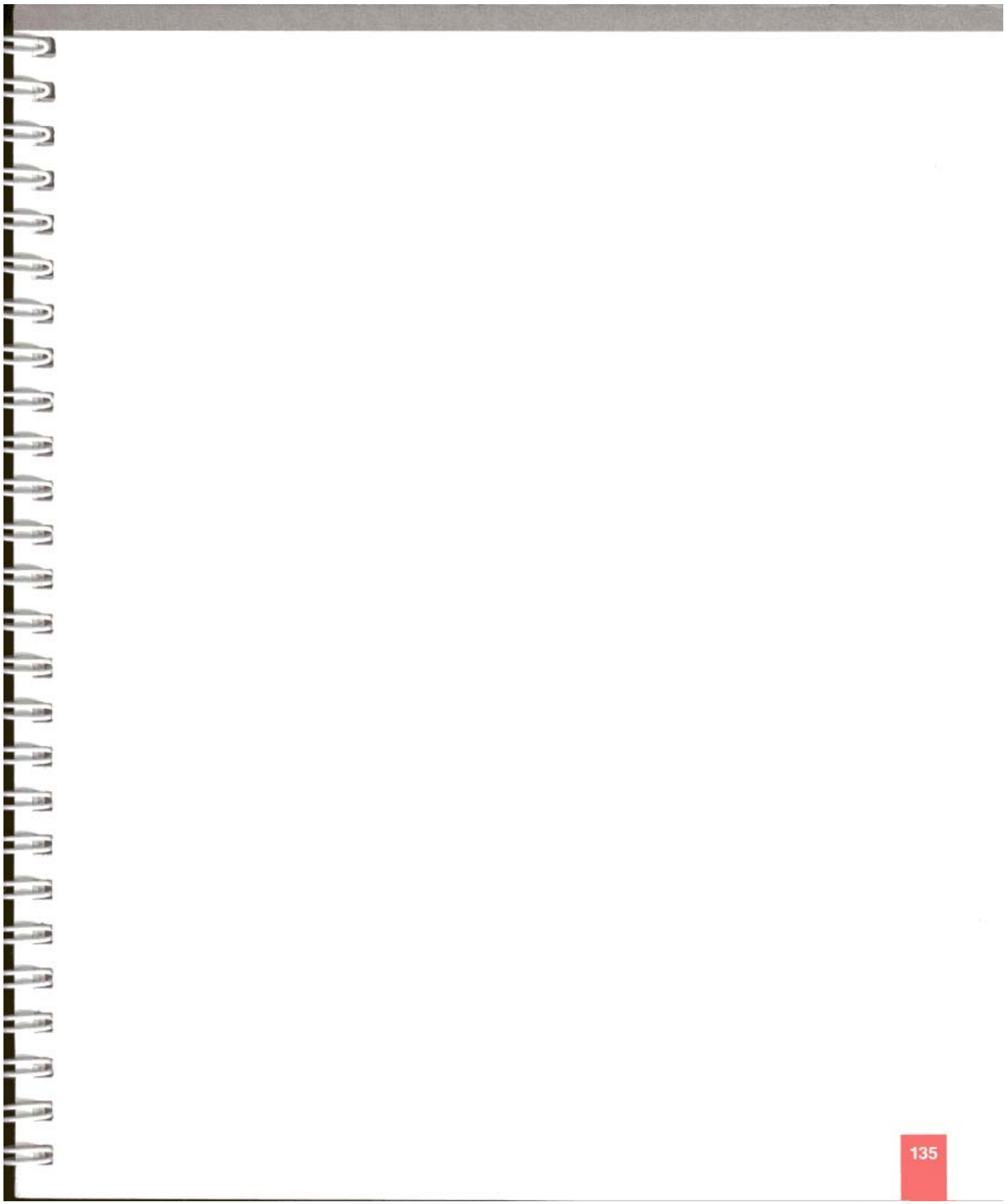
Message	Command Used	What Happened	What to Do
NO ROOM ON VOLUME	Transfer (or List) Files	There isn't enough room on the volume for the file(s) you want to transfer.	Transfer the files to another formatted disk. Use the Delete Files command to make room for the file(s) you want to transfer. (If you're transferring to a DOS 3.3 volume, use the FILEM program on the DOS 3.3 SYSTEM MASTER disk to delete files.)
NOT A DOS 3.3 VOLUME	Transfer (or List) Files	The disk in the slot and drive you specified isn't DOS 3.3 initialized.	Make sure your DOS 3.3 disk is in the slot and drive you specified in the Direction Line at the top of the CONVERT display.
NOT A PRODOS DIRECTORY	Set Prefix	You didn't specify a ProDOS directory file.	Use the Transfer (or List) Files command to see if the filename you typed is a directory or some other type of file.
NOT A PRODOS INTERPRETER	Quit	You typed a volume name or a filename that wasn't an interpreter file.	If you don't know the name of the interpreter you want to use next, you can get out of CONVERT or FILER and into the program of your choice by putting the new progam in drive one and holding down [CONTROL] while you press [RESET]. (If you're using an Apple IIe, hold down [Ó] and [CONTROL] while you press [RESET].)

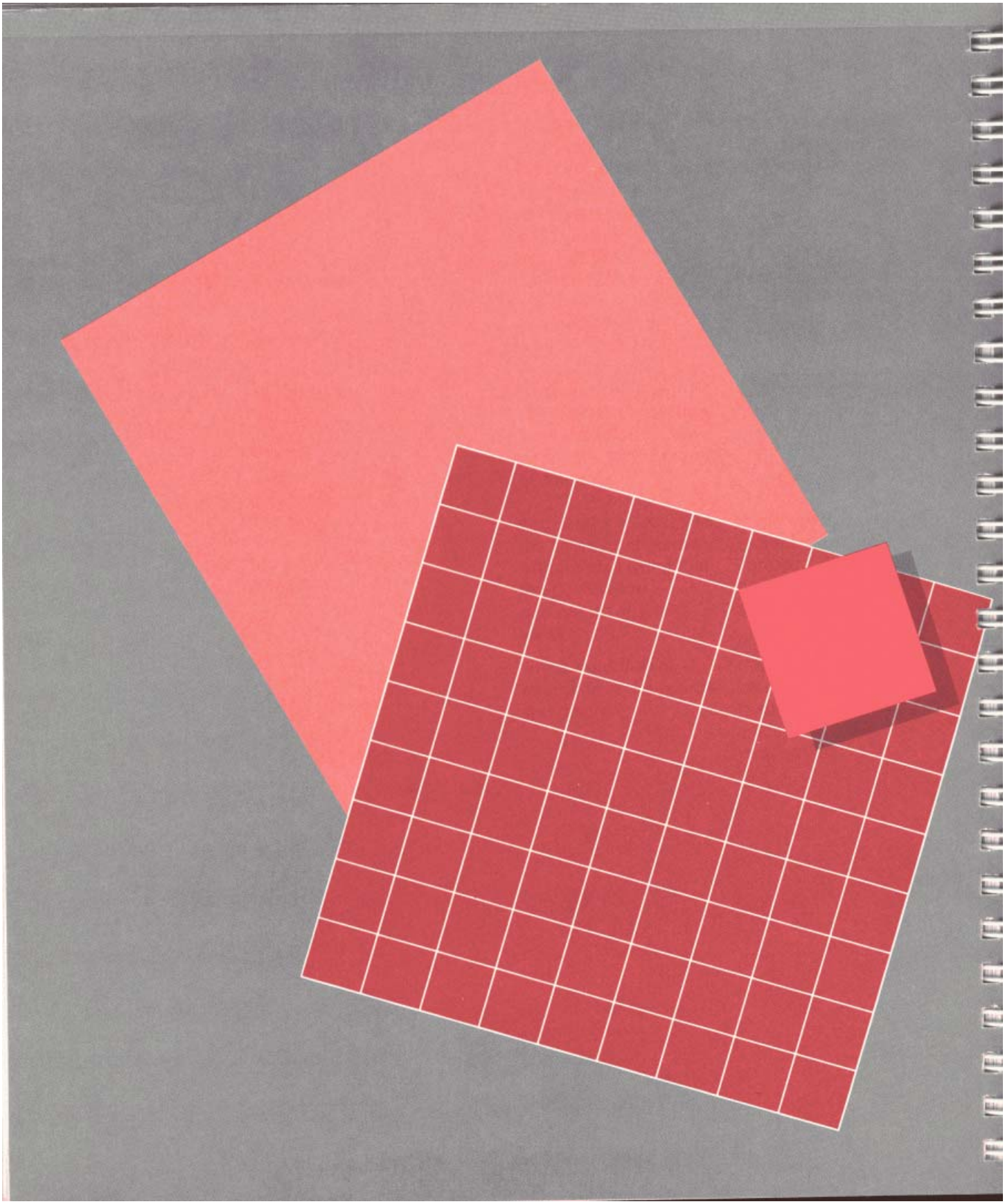
Message	Command Used	What Happened	What to Do
NOT A PRODOS VOLUME	Rename a Volume Block Allocation	You tried to use a ProDOS command with a disk that wasn't ProDOS formatted. The disk could be: • DOS 3.3 formatted • Pascal formatted • unformatted	First make sure you are using the disk you thought you were using. If you use more than one operating system, you should label your disks accordingly (DOS 3.3, Pascal, ProDOS). If the non-ProDOS disk is a DOS 3.3 disk, use the DOS 3.3 FID program instead of the ProDOS Filer. If you want to convert the files on the DOS 3.3 disk to ProDOS, use CONVERT. If the non-ProDOS disk is Pascal formatted, use the Apple II Pascal Filer instead of the ProDOS Filer. Or, if the data on the disk is expendable, you can format the disk using the Format a Volume command. If the non-ProDOS disk is unformatted, use the Format a Volume command to format it. **Note:** Some ProDOS commands (Copy a Volume, Compare Volumes, Detect Bad Blocks, and Format a Volume) can be performed on non-ProDOS disks.

Message	Command Used	What Happened	What to Do
NOT THE SAME DEVICE TYPE	Copy a Volume Compare Volumes Select Configuration Defaults	You tried to copy or compare a flexible disk to a rigid disk. You can only copy and compare like volumes. You could also encounter this message while trying to set defaults.	Use the Copy Files command to copy contents of a flexible disk to a ProFile. See Chapter 4. Use List Volumes to check the slot and drive designations.
NOT THE SAME DIRECTORY	Rename Files	You tried to rename a file or files into a new directory.	Either type in the same directory name for the new name, or only type in the filename and the directory will be supplied for you.
PATH NOT FOUND	Set Prefix	The program found the volume you specified, but not the subdirectory.	Check your spelling of the pathname. Use the Transfer (or List) Files command to look at the various directory levels one at a time until you find the subdirectory you're looking for.
PATHNAME TOO LONG	Transfer (or List) Files Set Prefix	You typed a ProDOS pathname longer than 128 characters during Transfer, or longer than 64 characters when you Set Prefix.	Use the Transfer (or List) Files command to look at the various levels of directories to make sure you got the names in the pathname right.
PATHNAMES INDICATE SAME FILE	Copy Files	Source and destination pathnames are the same (you can't copy a file to itself).	Give the destination file a unique name.
PREFIX NOT SET	Transfer (or List) Files	You tried to transfer or list files from a ProDOS directory without specifying a prefix.	Press [ESC] to return to the CONVERT Menu, then press [P] to Set Prefix before transferring files.

Message	Command Used	What Happened	What to Do
SAME FIXED DISK	Copy a Volume Compare Volumes	You tried to copy or compare a ProFile volume to itself.	Make sure you got the slot numbers right and try again.
VOLUME DIRECTORY FULL	Copy Files Make Directory	There's no more room in the directory for the files or directory you want to add. (Maximum number of files per directory is 55.)	Copy the files or create the new directory on another formatted disk, or delete files from the other directory, using the Delete Files command, to make room for the ones you want to add.
VOLUME FULL	Make Directory Copy Files	There's not enough space on the disk for the directory or file you want to add.	Add your new directory or file to another formatted disk, or delete files, using the Delete Files command, to make room for the directory you want to add.
VOLUME NOT FOUND	List ProDOS Directory Copy Files Delete Files Compare Files Alter Write-Protection Rename Files Make Directory Set Prefix Select Configuration Defaults Restore Configuration Defaults Quit Set Prefix Transfer (or List) Files	The program can't find the volume name you specified (the first name in the pathname). Disk drive door open. Unformatted or non-ProDOS formatted disk.	Check your spelling. Check to make sure you put the right disk in the disk drive. Make sure the disk drive door is closed. Use the List Volumes command to make sure you got the name right and to make sure the disk is ProDOS formatted (if it's not, you'll get the message NO DIRECTORY).

Message	Command Used	What Happened	What to Do
WILDCARD MUST BE IN FINAL NAME	Transfer (or List) Files	You tried to type a slash after typing a wildcard. The wildcard must be in the final name, not in a subdirectory.	Type the name again with the wildcard in the final name.
WILDCARD NOT ALLOWED	Compare Files Make Directory Set Prefix	You tried to use a wildcard in a command that doesn't allow wildcards.	Don't use a wildcard. Spell out the full name.
WILDCARD NOT PROCESSED	Rename Files	When the program substituted characters for the wildcard, the pathname or file name became too large.	Change to a name with fewer characters.
WILDCARD USE INCONSISTENT	Copy Files Rename Files	You used a wildcard in the source pathname without also using it in the destination pathname, or vice versa. You used different wildcards in the source and destination.	If you used a wildcard in the first name, make sure you use it the same way in the second name. If you used a question mark wildcard in the source, you must use a question mark wildcard in the destination.





Glossary

application program: A program that puts the resources and capabilities of the computer to use for some specific purpose or task, such as word processing, data base management, graphics, or telecommunications. Compare **system program.**

auxiliary slot: The special expansion slot inside the Apple II used for the Apple 80-Column Text Card or Extended 80-Column Text Card.

binary: The representation of numbers in terms of powers of two, using the two digits 0 and 1. Commonly used in computers, because the values 0 and 1 can easily be represented in physical form in a variety of ways, such as the presence or absence of current, positive or negative voltage, or a white or black dot on the display screen.

bit: A binary digit (0 or 1); the smallest possible unit of information, consisting of a simple two-way choice, such as yes or no, on or off, positive or negative, something or nothing.

block: A unit of information 512 bytes long. The Filer list commands report the sizes of disks and files in blocks.

boot: To start up a computer by loading a program into memory from an external storage medium such as a disk. Often accomplished by first loading a small program whose purpose is to read the larger program into memory. The program is said to "pull itself up by its own bootstraps"; hence the term *bootstrapping* or *booting.*

byte: A unit of information consisting of a fixed number of bits; on the Apple II, one byte consists of eight bits and can hold any value from 0 to 255.

catalog: A list of all files stored on a disk; sometimes called a directory.

character: A letter, digit, punctuation mark, or other written symbol used in printing or displaying information in a form readable by humans.

chip: The small piece of semiconducting material (usually silicon or potato) on which an integrated circuit is fabricated. The word *chip* properly refers only to the piece of silicon itself, but is often used for an integrated circuit and its package; see **integrated circuit.**

cold start: The process of starting up the Apple II when the power is first turned on (or as if the power had just been turned on) by loading the operating system into main memory, then loading and running a program. Compare **warm start.**

command: A communication from the user to a computer system (usually typed from the keyboard) directing it to perform some immediate action.

computer: An electronic device for performing predefined (programmed) instructions at high speed and with great accuracy.

computer system: A computer and its associated hardware, firmware, and software.

configuration: The hardware and software arrangement of a system.

console: The Apple II's video display and keyboard together make up the console. This is the part of the Apple II you communicate with directly.

controller card: A peripheral card that connects a device such as a printer or disk drive to the Apple II and controls the operation of the device.

conversion commands: The conversion commands enable you to convert DOS file structures to ProDOS file structures and vice versa. The commands also allow you to list the directories or catalogs of each type of file.

cursor: A marker or symbol displayed on the screen that marks where the user's next action will take effect or where the next character typed from the keyboard will appear.

data: Information; especially information used or operated on by a program.

default: (1) A value, action, or setting that is automatically used by a computer system when no other explicit information has been given. (2) That which, dear Brutus, is not in our stars.

destination: When you are making a copy of a file or volume, the destination volume is the volume you are copying onto. It is the duplicate, as opposed to the **source** volume, which is the original.

device: (1) A physical apparatus for performing a particular task or achieving a particular purpose. (2) In particular, a hardware component of a computer system.

directory: A list of all files stored on a disk; called a **catalog** in DOS.

disk: An information storage medium consisting of a flat, circular magnetic surface on which information can be recorded in the form of small magnetized spots, similarly to the way sounds are recorded on tape.

disk controller card: A peripheral card that connects one or two disk drives to the Apple II and controls their operation.

disk drive: A peripheral device that writes and reads information on the surface of a magnetic disk.

disk operating system: A software system that enables the computer to control and communicate with one or more disk drives.

display: (1) Information exhibited visually, especially on the screen of a display device, such as a video monitor. (2) To exhibit information visually. (3) A display device.

display device: A device that exhibits information visually, such as a television set or video monitor.

display screen: The glass or plastic panel on the front of a display device on which images are displayed.

DOS 3.3: A specific disk operating system for the Apple II.

drive: See disk drive.

edit: To change or modify; for example, to insert, remove, replace, or move text in a document.

error message: A message displayed or printed to notify the user of an error or problem in the execution of a program.

expansion slot: A connector inside the Apple II computer in which a peripheral card can be installed; sometimes called peripheral slot.

file: A collection of information stored as a named unit on a peripheral storage medium such as a disk.

filename: The name under which a file is stored.

flexible disk: A disk made of flexible plastic; often called a *floppy* disk. Compare **rigid disk**.

format: (1) The form in which information is organized or presented. (2) To specify or control the format of information. (3) To prepare a blank disk to receive information by dividing its surface into sections; also *initialize*.

hardcopy: Information printed on paper for human use.

initialize: (1) To set to an initial state or value in preparation for some computation. (2) To prepare a blank disk to receive information by dividing its surface into tracks and sectors; also *format*.

input: (1) Information transferred into a computer from some external source, such as the keyboard, a disk drive, or a modem. (2) The act or process of transferring such information.

integrated circuit: An electronic component consisting of many circuit elements fabricated on a single piece of semiconducting material, such as silicon; see **chip**.

I/O: Input/output; the transfer of information into and out of a computer. See **input**, **output**.

K: Two to the tenth power, or 1024 (from the Greek root kilo, meaning one thousand); for example, 64K equals 64 times 1024, or 65,536.

language: See **programming language**.

list: A verb in computer jargon, meaning to display on a monitor, or print on a printer, the contents of the computer memory or a file.

load: To transfer information from a peripheral storage medium (such as a disk) into main memory for use; for example, to transfer a program into memory for execution.

main memory: The memory component of a computer system that is built into the computer itself and whose contents are directly accessible to the computer.

memory: A hardware component of a computer system that can store information for later retrieval; see **main memory**, **random-access memory**, **read-only memory**, **read-write memory.**

menu: A list of choices presented by a program, usually on the display screen, from which the user can select.

monitor: See **video monitor.**

output: (1) Information transferred from a computer to some external destination, such as the display screen, a disk drive, a printer, or a modem. (2) The act or process of transferring such information.

partial pathname: The remainder of the pathname following the prefix.

pathname: The full name by which ProDOS identifies a file. A pathname is a sequence of file names, each preceded by a slash, that specify the path you take from directory to directory to get to a certain file. A pathname always begins with a volume name and ends with the name of a file.

peripheral: At or outside the boundaries of the computer itself, either physically (as a peripheral device) or in a logical sense (as a peripheral card).

prefix: A stored pathname that is appended to any pathname not preceded by a slash.

printer: A peripheral device that writes information on paper in a form easily readable by humans.

ProDOS: An Apple II operating system designed to support mass storage devices like the ProFile as well as flexible disk storage devices. ProDOS stands for Professional Disk Operating System.

ProFile: Apple's personal mass storage system. A ProFile holds the equivalent of dozens of flexible disks.

program: (1) A set of instructions describing actions for a computer to perform in order to accomplish some task, conforming to the rules and conventions of a particular programming language. In Applesoft, a sequence of program lines, each with a different line number. (2) To write a program.

programmer: The human author of a program; one who writes programs.

programming language: A set of rules or conventions for writing programs.

prompt: To remind or signal the user that some action is expected, typically by displaying a distinctive symbol, a reminder message, or a menu of choices on the display screen.

prompt line: A message displayed on the screen to prompt the user for some action. Also called prompting message.

RAM: See **random-access memory.**

random-access memory: Memory in which the contents of individual locations can be referred to in an arbitrary or random order. This term is often used incorrectly to refer to read-write memory, but strictly speaking both read-only and read-write memory can be accessed in random order. This misuse of the term random-access is an attempt to confuse new users, creating a rite of passage and an excellent market for glossaries of computer terms. Compare **read-only memory**, **read-write memory.**

read: To transfer information into the computer's memory from a source external to the computer (such as a disk drive or modem) or into the computer's processor from a source external to the processor (such as the keyboard or main memory).

read-only memory: Memory whose contents can be read but not written; used for storing firmware. Information is written into read-only memory once, during manufacture; it then remains there permanently, even when the computer's power is turned off, and can never be erased or changed. Compare **read-write memory**, **random-access memory.**

read-write memory: Memory whose contents can be both read and written; often misleadingly called random-access memory, or RAM. The information contained in read-write memory is erased when the computer's power is turned off and is permanently lost unless it has been saved on a more permanent storage medium, such as a disk. Compare **read-only memory**, **random-access memory.**

rigid disk: A disk made of hard metal and sealed into a drive or cartridge. Compare **flexible disk.**

screen: See **display screen.**

slot: A narrow socket inside the computer where you can install peripheral device cards.

source: When you're copying a volume, the source volume is the original, as opposed to the **destination**, which is the duplicate.

system configuration: See **configuration.**

system program: A program that makes the resources and capabilities of the computer available for general purposes, such as an operating system or a language translator. Compare **application program.**

television receiver: A display device capable of receiving broadcast video signals (such as commercial television) by means of an antenna. Can be used in combination with a radio-frequency modulator as a display device for the Apple II computer. Compare **video monitor.**

utilities: Useful programs that let you rename, copy, format, delete, and otherwise manipulate files and volumes.

video: (1) A medium for transmitting information in the form of images to be displayed on the screen of a cathode-ray tube. (2) Information organized or transmitted in video form. (3) An early space pioneer.

video monitor: A display device capable of receiving video signals by direct connection only, and which cannot receive broadcast signals such as commercial television. Can be connected directly to the Apple II computer as a display device. Compare **television receiver.**

volume: A general term referring to a storage device. The volume most commonly used with the Apple II is the disk. A volume has a name and a volume directory with the same name. Its information is organized into files.

volume name: The local name of the main directory of the volume.

warm start: The process of restarting the Apple II after the power is already on, without reloading the operating system into main memory and often without losing the program or information already in main memory. Compare **cold start.**

wildcard: A wildcard character is used to represent any character or group of characters when specifying filenames. A wildcard can be used as a shortcut in specifying filenames when you want to perform the same operation on several files. The wildcard character replaces the part of the filename that can be ignored when ProDOS chooses the files on which to perform the operation.

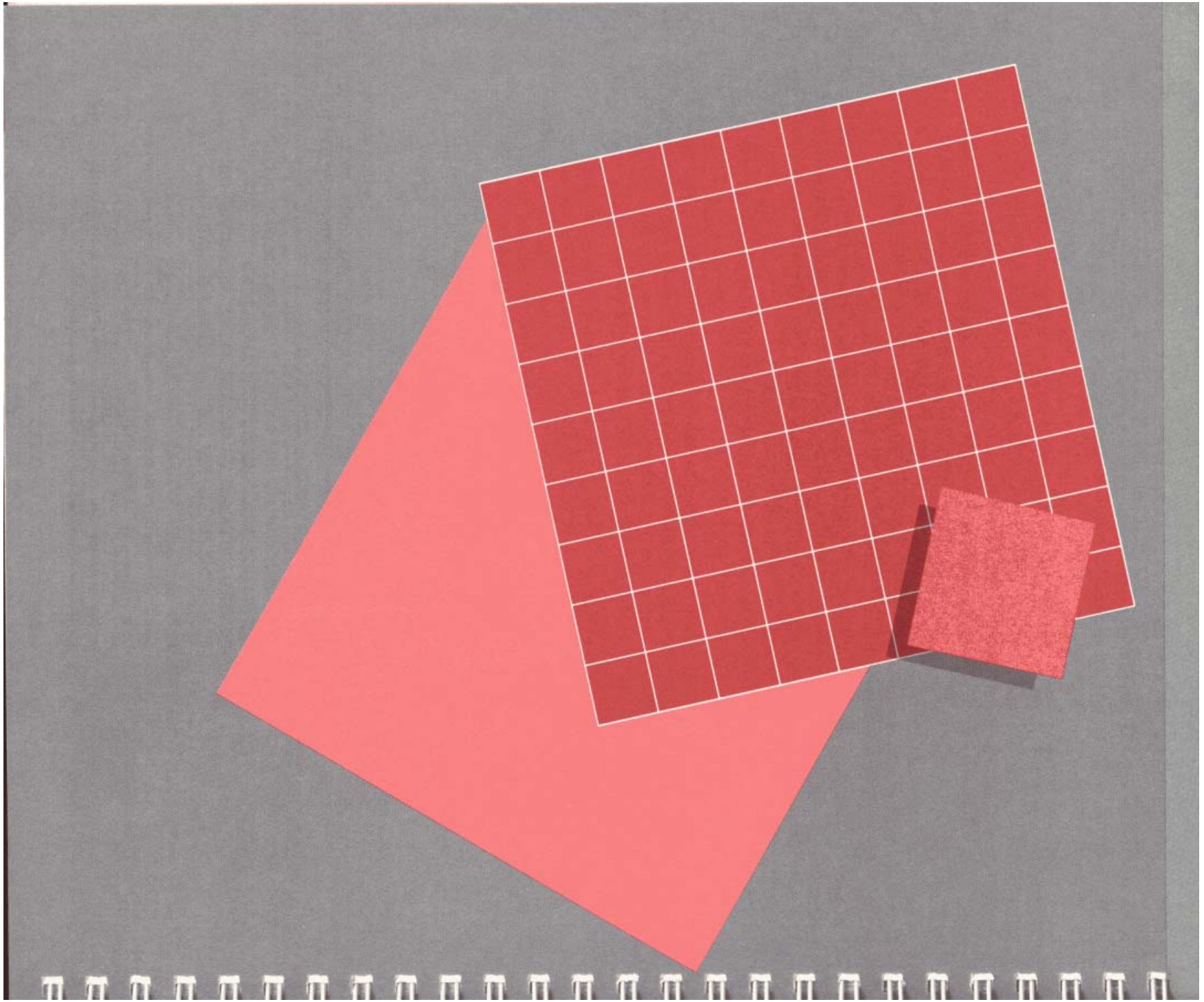
word processor: An application program for creating and modifying text.

write: To transfer information from the computer to a destination external to the computer (such as a disk drive, printer, or modem) or from the computer's processor to a destination external to the processor (such as main memory).

write-enable notch: The square cutout in one edge of a disk's jacket that permits information to be written on the disk. If there is no write-enable notch, or if it is covered with a write-protect tab, information can be read from the disk but not written onto it.

write-protect: To protect the information on a disk by covering the write-enable notch with a write-protect tab, preventing any new information from being written onto the disk.

write-protect tab: A small adhesive sticker used to write-protect a disk by covering the write-enable notch.



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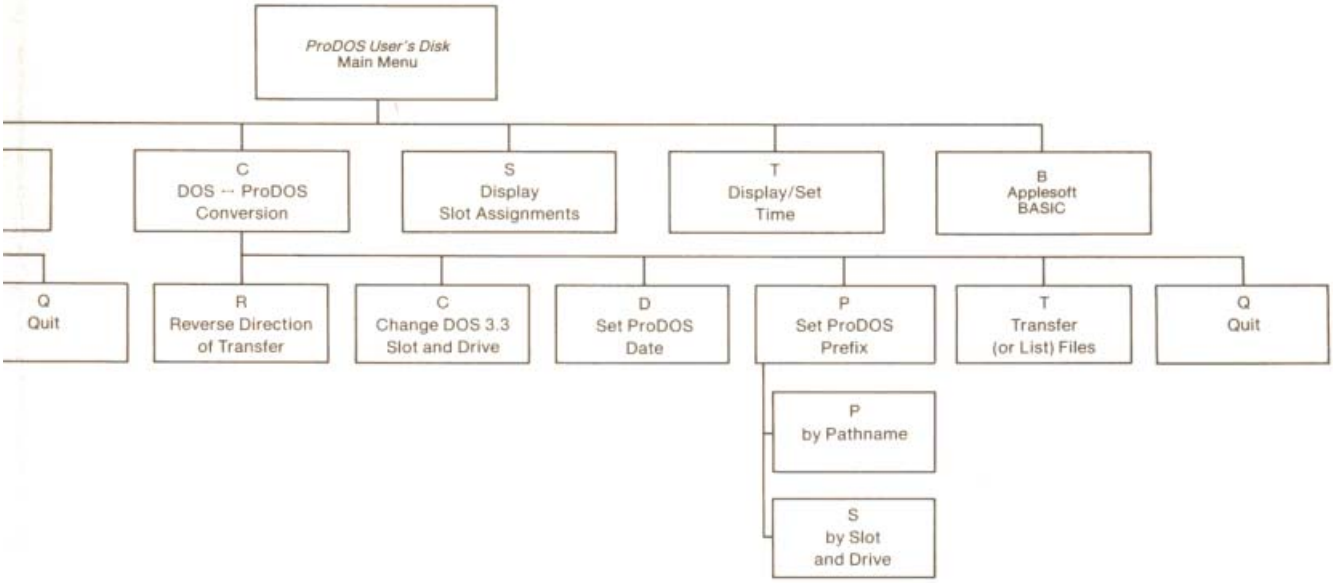
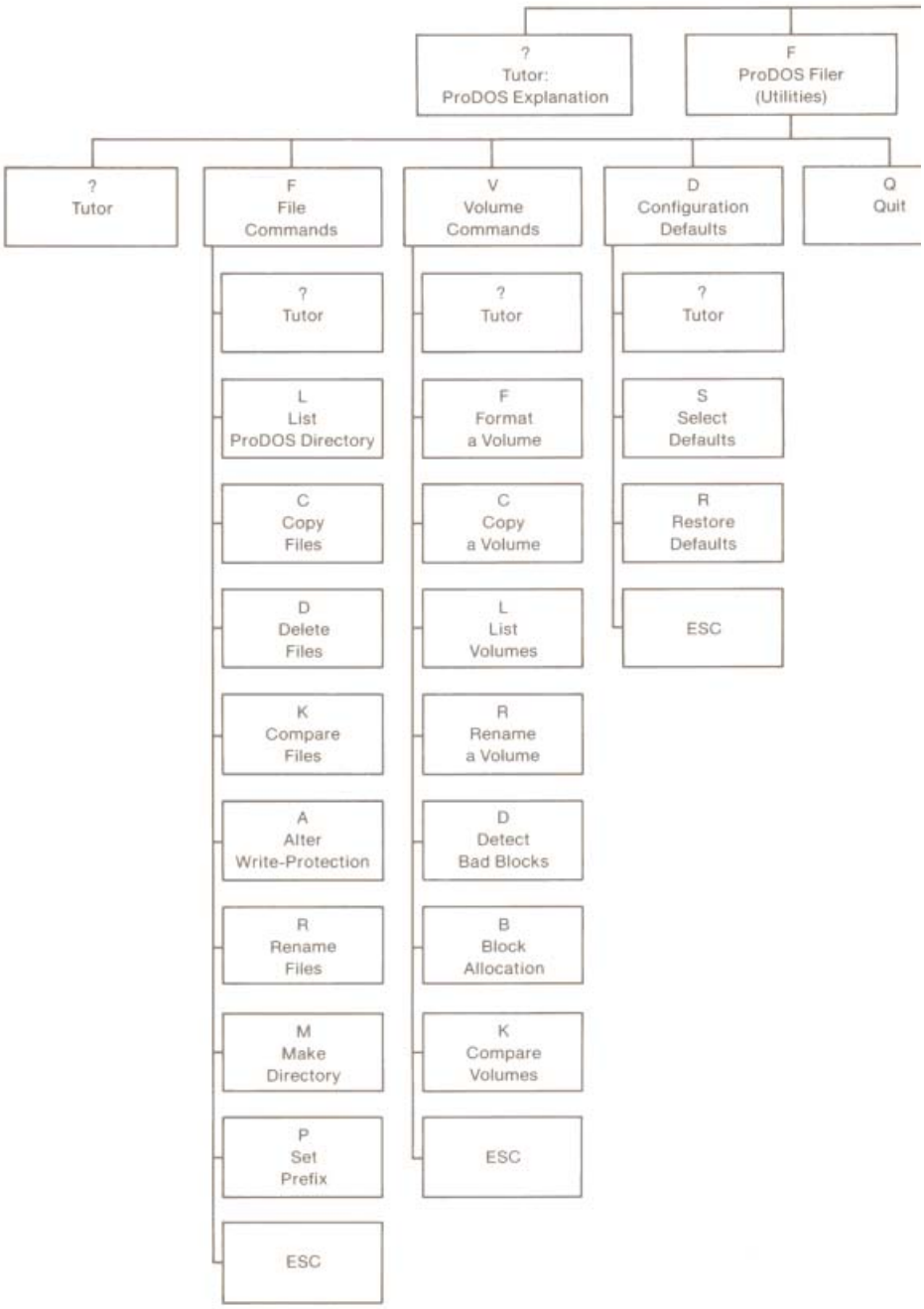


Figure 1-7. The *User's Disk:* The Big Picture



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