AppleShare™ PC User's Guide

Apple® AppleShare PC

LIMITED WARRANTY ON MEDIA AND REPLACEMENT

If you discover physical defects in the manuals distributed with an Apple product or in the media on which a software product is distributed, Apple will replace the media or manuals at no charge to you, provided you return the item to be replaced with proof of purchase to Apple or an authorized Apple dealer during the 90-day period after you purchased the software. In addition, Apple will replace damaged software media and manuals for as long as the software product is included in Apple's Media Exchange Program. While not an upgrade or update method, this program offers additional protection for up to two years or more from the date of your original purchase. See your authorized Apple dealer for program coverage and details. In some countries the replacement period may be different; check with your authorized Apple dealer.

ALL IMPLIED WARRANTIES ON THE MEDIA AND MANUALS, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO NINETY (90) DAYS FROM THE DATE OF THE ORIGINAL RETAIL PURCHASE OF THIS PRODUCT.

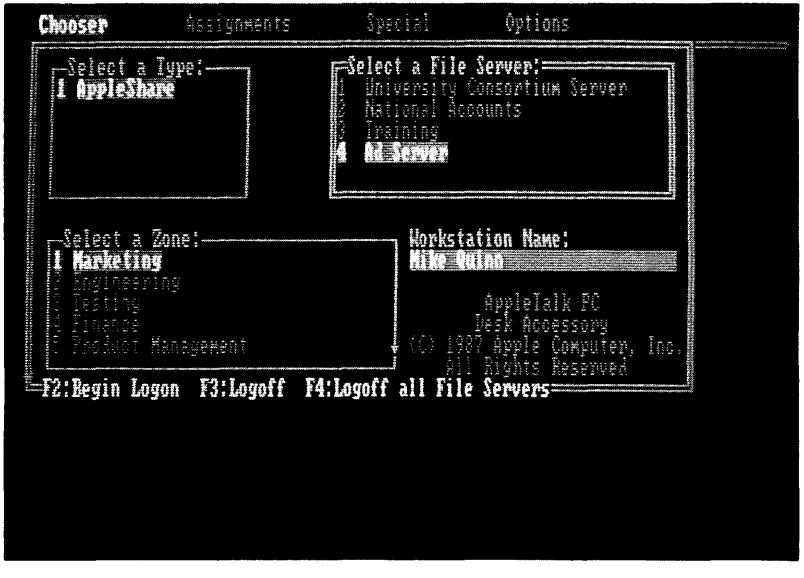
Even though Apple has tested the software and reviewed the documentation, **APPLE MAKES NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO SOFTWARE, ITS QUALITY, PERFORMANCE, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. AS A RESULT, THIS SOFTWARE IS SOLD "AS IS," AND YOU THE PURCHASER ARE ASSUMING THE ENTIRE RISK AS TO ITS QUALITY AND PERFORMANCE.**

IN NO EVENT WILL APPLE BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY DEFECT IN THE SOFTWARE OR ITS DOCUMENTATION, even if advised of the possibility of such damages. In particular, Apple shall have no liability for any programs or data stored in or used with Apple products, including the costs of recovering such programs or data.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, ORAL OR WRITTEN, EXPRESS OR IMPLIED. No Apple dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Apple® AppleShare™ PC User's Guide



Simultaneously published in the United States and Canada.

Contents

Figures and tables

Preface

Interpersonal Computing

People who work in groups—as so many of us do—need to share information: information that may, for example, take the form of a presentation, report, or letter. But there are other ways to share information besides passing around pieces of paper. Sometimes it's more efficient to pass on an electronic document, or several electronic documents. That's why Apple created the AppleShare™ **file server** for the AppleTalk® network system. AppleShare enables Apple® Macintosh® computer users to share **documents, folders,** and **applications.** And now, with a LocalTalk™ PC Card (also known as the AppleTalk PC Card) and AppleShare PC software, PC users can also use AppleShare servers—to share information with other PC users or even with Macintosh users.

The words **file server** and **server** are used interchangeably in this guide.

Macintosh users refer to **documents, folders,** and **applications** instead of files, directories, and programs.

What's more, the AppleShare file server gives you personal control over shared information. For example, while you're developing a report, you can store it on the server and keep it in a private directory so no one else can see the report, or read it, or make changes to it. When you're ready to make the report public, you can instantly make it available to any PC or Macintosh user who has access to the server. And you can still control whether others can only work with a copy of your report or make changes to the original. All this is up to you, and it can all be done through the easy-to-use menus of the AppleTalk PC Desk Accessory program that's part of your AppleShare PC package.

You can even make the AppleTalk PC Desk Accessory **memory-resident,** so you can use it while you work with another program, such as a spreadsheet.

- *PC:* This guide uses the term *PC* to refer to the IBM PC, IBM PC-XT, IBM PC-AT, the IBM Personal System/2 Model 25 and Model 30 computers, and hardware compatibles running MS-DOS software (version 3.1 or later) or PC-DOS software (version 3.1 or later).

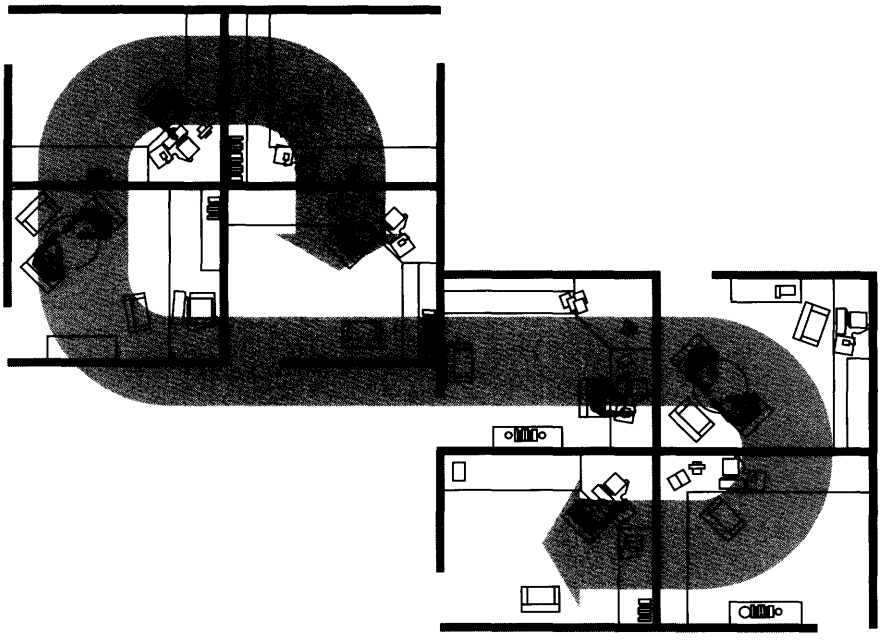


Figure P-1
Groups need to share information

About terminology

Here's a quick overview of the terms you'll see in this guide that refer to network hardware and software:

- **AppleTalk network system**—A network system consisting of three components: a cable system (including the card in your PC), the network software you load into your computer, and the shared services you use over the network, such as an AppleShare file server.
- **LocalTalk hardware**—One type of cable system used to link computers and peripheral devices in an AppleTalk network system.
- **AppleShare file server**—A network service originally designed for use with Macintosh computers. **AppleShare PC** makes AppleShare file servers accessible to PC users.

About this guide

This guide shows you how to set up your PC so you can use the AppleShare file server on your AppleTalk network. You'll learn how to use the server to store and share information, and how to control access to the contents of the directories you create.

The guide is divided into three parts. Part I is for new users:

- Chapter 1 introduces AppleShare and describes how to install it on your PC.
- Chapter 2 gives step-by-step instructions on how to use the AppleShare file server to store information.
- Chapter 3 explains how to share and control the information you store on the server, and how to use information stored by other users.

Part II is for users who have a general understanding of the product:

- Chapter 4 summarizes the basic tasks you can do with AppleShare PC.

Part III is for experienced AppleShare PC users:

- Chapter 5 introduces the AppleTalk PC Desk Accessory.
- Chapter 6 describes items found within the Chooser window. A map of the Chooser options appears at the beginning of the chapter.
- Chapter 7 describes items found within the Assignments window. A map of the Assignments options appears at the beginning of the chapter.
- Chapter 8 describes items found within the Special window. A map of the Special options appears at the beginning of the chapter.
- Chapter 9 describes items found within the Options window. A map of the Options activities appears at the beginning of the chapter.
- Chapter 10 describes advanced features, including the ANET command interpreter.
- Chapter 11 tells you what to do if something goes wrong.

At the back of the guide you'll find:

- An appendix that provides additional information on DA keyboard commands.
- A glossary of technical terms and an index.

What you should know to use this guide

You should be familiar with basic MS-DOS (or PC-DOS) terminology and skills to use this guide. If tasks such as copying a file, finding out what's on a disk, or creating a directory are unfamiliar, be sure to read your DOS manual.

Do you have what you need?

To use AppleShare you need:

- ☐ a PC with at least 384K of random access memory (RAM) and one disk drive
- ☐ a LocalTalk PC Card with a LocalTalk connector
- ☐ version 3.1 or greater of MS-DOS, or version 3.1 or greater of PC-DOS
- ☐ the *AppleShare PC Installer* disk

The *AppleShare PC Installer* disk contains the AppleShare software and the latest version of the LocalTalk PC Card driver (ATALK.EXE).

Before you begin, be sure that your LocalTalk PC Card is properly installed. See the *LocalTalk PC Card* guide for more information.

In addition, this guide assumes that the AppleTalk network is set up, your PC is properly connected to it, and the AppleShare administrator has set up a server on the network.

Finally, this is a good time to check with your administrator to see if you've been given a registered user name and password. You'll learn what to do with your registered user name and password in Chapter 2, "The Server: A Guided Tour." If you haven't been given a registered user name and password, you may still be able to use the server as a guest. Check with your AppleShare administrator for more information.

Part I

Learning AppleShare PC

Chapter 1

Getting Started

This chapter begins by introducing AppleShare™ and defining some of the terms you'll encounter as you start using it. Then you'll learn how to install the AppleShare PC software on your computer, so you can use the AppleShare server.

About AppleShare and AppleShare PC

A **workstation** is a computer—in this case, a PC—that you can use to send or receive information over a network—in this case, an AppleTalk network.

Your PC is probably one of several **workstations** connected to an AppleTalk network so you can share expensive office equipment economically. For example, you may be sharing a LaserWriter® to print documents. With the right hardware and software installed, your PC can "talk" to the LaserWriter. Likewise, with AppleShare PC software installed, you have access to the AppleShare file server—a Macintosh computer on the network that has one or more hard disks used exclusively for storing and sharing information. For the most part, you can use the hard disk (or disks) attached to the file server just like you use the disk drives attached to your PC.

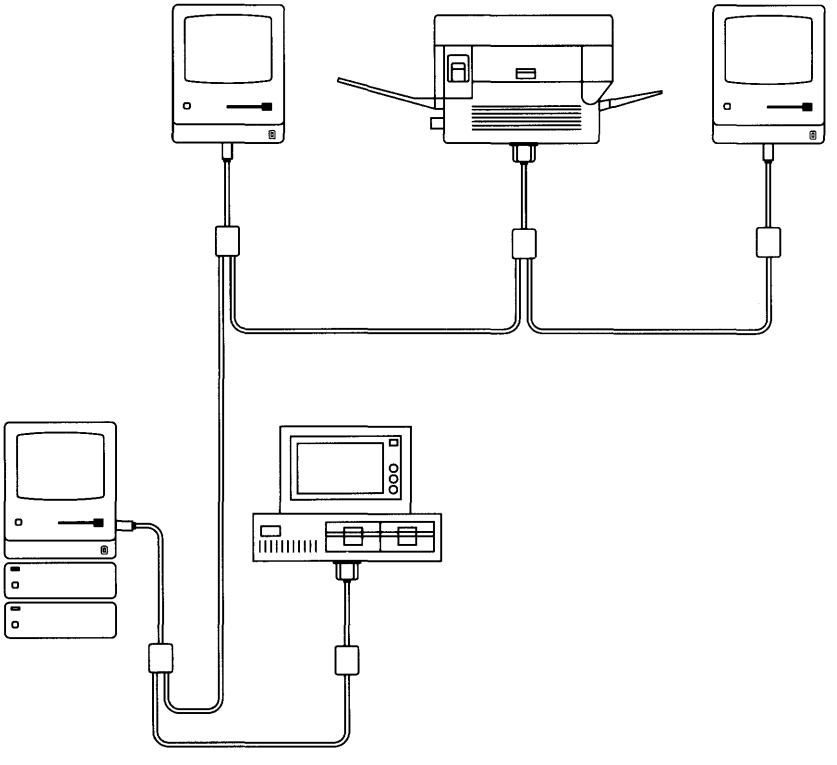


Figure 1-1
A typical AppleTalk network

The AppleShare **administrator** sets up, manages, and troubleshoots the file server. The administrator is probably someone in your work group.

To set up an AppleShare server on the network, someone in your organization, called the **administrator,** installs the AppleShare server software on one or more hard disks that are attached to a Macintosh Plus, Macintosh SE, or Macintosh II. Each hard disk that's part of the server is known as a **volume.**

While setting up the server, the administrator names the server and each of the hard disks. The administrator may also set up the server so that only users with a **registered user name** and **password** have access to the information stored on server volumes.

Once you've installed the AppleShare PC software on your PC, it's easy to use the information stored on a server volume. If you've made AppleShare PC memory-resident, you just press the hot-key combination—usually the Alt-Enter key combination—to activate the program. Or, type `DA` at the DOS system prompt and press Enter to run the AppleShare PC program. You then use the AppleTalk PC **Desk Accessory** (or **DA**) to select the server you want and identify yourself to the server. This process is called **logging on.** Finally, you select server volumes and **attach** DOS drive letters to them. You can then (for example) create directories, run programs, or save files on the volume(s)—just as you're used to doing with disks inside your PC.

A memory-resident program such as **DA** is often referred to as a **desk accessory,** because like the notepad on your desk, DA makes it easy to store, organize, and manipulate information.

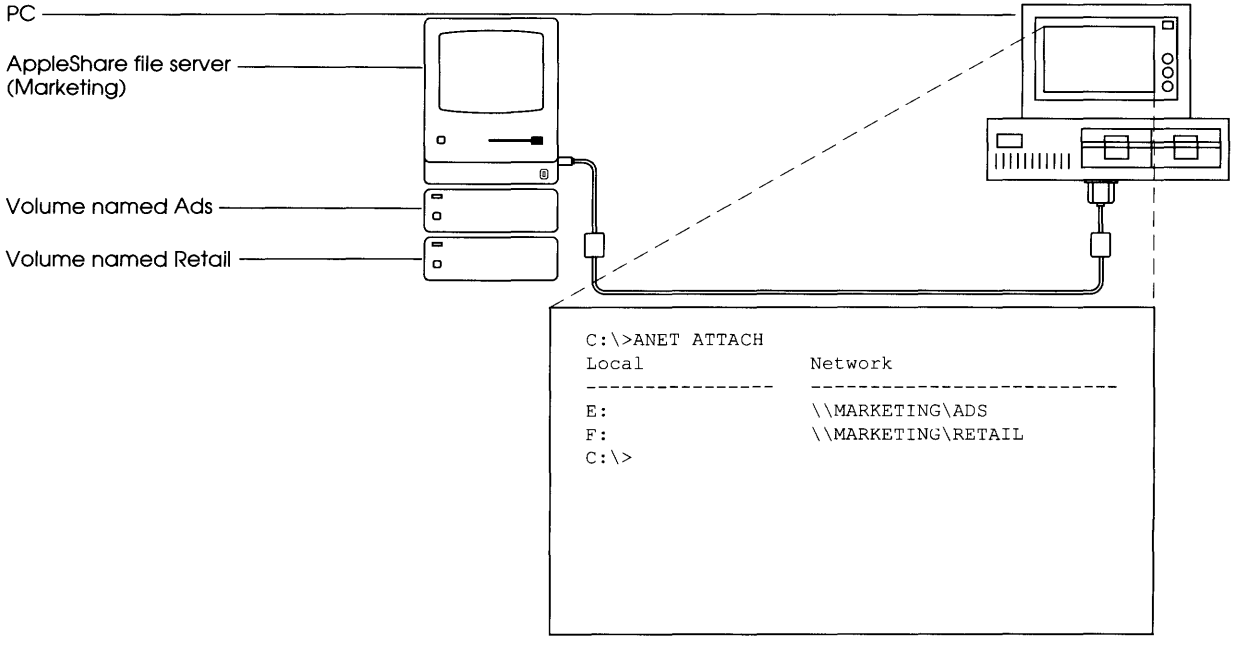


Figure 1-2
Server volumes available to your PC

With AppleShare, you can use the file server as more than just a way to gain the extra storage space of a hard disk. You can control access to the information you store on a server volume. You can keep the contents of a directory private, make it available to only a certain group of people, or make it available to everyone who has access to the server. In addition, you control how others can use the directory's contents.

You'll learn more about **access privileges** in Chapter 3.

The **access privileges** you choose for a directory depend on the kinds of files the directory contains. For example, files that are general announcements need to be available to all users, though you might not want your announcements changed. At the same time, you may have another directory that contains files for a new ad campaign; your work group will need access to the CAMPAIGN directory on the server, but you may want to keep what's in the directory from inquisitive eyes. Finally, you'll probably want to keep the personal correspondence that you store on the server private—available to you and only you.

About your AppleTalk network system

If you've been using a LaserWriter to print documents, you're probably already familiar with your AppleTalk network. But if you're new to AppleTalk (or if you want a quick refresher) here are a few network basics.

Imagine for a moment that you're looking at a map of a large, unfamiliar city, trying to find the street and building where you have an important meeting. To get to your destination, you'll go from one freeway—over an interchange—to another freeway. While each of the freeways may have a different name (the Kamins freeway and the Hewes freeway, for example), the two are still part of one larger freeway system. AppleTalk network systems work together in a similar fashion: individual networks interconnect—through devices called **bridges**—with other networks. Each network can keep its own identity even as it constitutes part of the larger network.

Networks within the larger network may be grouped together into **zones** (just as streets are grouped together into neighborhoods). And, just as you found your meeting in the example above by looking for the right street in the right part of town, you may also have to look for a specific AppleTalk device, such as a file server, within a zone of your office network.

Setting up your PC

A **startup** or **boot disk** contains DOS system files. See your DOS manual for more information.

Before you begin to use the server on your network, you need to have a DOS **startup disk** with DOS and the AppleShare PC software on it. Then you can start up your PC and have access to the file server.

About the installation program INSTALL.EXE

The installation program INSTALL.EXE installs the AppleShare PC software on your startup disk(s).

Important The *AppleShare PC Installer* disk contains a file called README.DOC that provides important information about AppleShare PC. Read the README.DOC file *before* you install AppleShare PC on your startup disk(s).

- *Single-drive PCs:* Although you can't install or update AppleShare PC software on a PC that has one 360K floppy drive and no others, you can run AppleShare PC from a single-drive PC. Just do your installation and updates on a dual-drive system.

If you're installing AppleShare PC on floppy disks, you begin by preparing your disks. If your workstation has 360K drives, you need two formatted disks to install the AppleShare PC program. One disk (the startup disk) will contain DOS and some of the AppleShare–related files. The other disk (the applications disk) will contain the remaining AppleShare files. If your workstation has one 720K (or higher capacity) drive, you need only one formatted disk with DOS.

When you run INSTALL.EXE to install the AppleShare PC software, the program copies the following files onto your disk(s):

- ATALK.EXE—the LocalTalk PC Card driver program
- ASHARE.COM—the AppleShare PC translator
- MINSES.EXE—the network session interface software
- REDIR.EXE—the DOS redirector
- DA.EXE—the AppleTalk PC Desk Accessory (commonly referred to as DA)

- DA.DTA—the data file for the DA program
- DA.HLP—the help file for the DA program
- ANET.EXE—the command line interpreter

These files require approximately 330K of disk space. If you plan to update a current startup disk, you might need to remove some files to make room for the AppleShare software.

When you run the Installer, you're asked some configuration questions, such as whether you want to make DA memory-resident. Once you answer these questions, your AUTOEXEC.BAT file is modified to ensure that the AppleTalk PC Desk Accessory is loaded into memory and properly configured. The following lines are added:

The memory allocated depends on your system configuration.

```
ATALK/MEM=XXK
ASHARE
MINSES
REDIR
ANET AUTO
DA/R
```

❖ *Note:* The line "ANET AUTO" is added to your AUTOEXEC.BAT file to ensure that automatic connections are made.

The line "DA/R" is only added when you choose to make the Desk Accessory memory-resident at startup.

The following sections detail the configuration questions you'll be asked. For more information on memory allocation, see "Memory Considerations" in Chapter 10.

Making the Desk Accessory memory-resident

During installation, you'll be asked whether you want to make the AppleTalk PC Desk Accessory memory-resident. There are three important reasons why you may choose to do so. First, once the program is in your computer's memory, you can bring up the Desk Accessory from within any program just by typing a hot-key combination. Second, the program starts faster when it's memory-resident. Third, making DA memory-resident ensures that you will always get an on-screen message when the server is shutting down.

The hot-key combination is usually Alt-Enter, although you can change the hot key using the Options window. See "Changing the Hot Key" in Chapter 4 for more information.

The memory-resident form of the Desk Accessory occupies between 60K and 85K of random access memory (RAM) *beyond* the memory normally occupied by the other AppleShare–related programs. The additional memory required depends on the kind of memory and video you're using. If memory is at a premium, you may not want to make the program memory-resident. You can then use the Desk Accessory by running the program at the DOS prompt.

Important Do not make DA memory-resident if you're also using multitasking shell software.

Expanded memory

If you choose to make the Desk Accessory memory-resident, you'll be asked whether you have expanded memory.

The AppleTalk PC Desk Accessory requires memory to save screens and perform other program functions. Normally, DA uses DOS memory for these functions. When DOS memory is unavailable, the program uses memory from the AppleTalk driver's memory pool. If you have expanded memory, DA will use that memory instead of the other sources.

High-resolution graphics

If you choose to make the Desk Accessory memory-resident and you don't have expanded memory, you'll be asked whether you want to be able to pop up the Desk Accessory on top of a high-resolution graphics screen.

If you choose to pop up the Desk Accessory on top of a high-resolution graphics screen, the Installer allocates an additional 15K of memory to the driver (25K instead of 10K), since it takes more memory to save high-resolution graphics than low-resolution graphics.

Using low-density (360K) floppy drives

If your PC has 360K floppy drives, you will need two formatted floppy disks to install the AppleShare PC program. One disk (the startup disk) will contain DOS, COMMAND.COM, your AUTOEXEC.BAT file, and the following AppleShare files: ATALK.EXE, ASHARE.COM, MINSES.EXE, and REDIR.EXE. The AppleShare files on this disk require approximately 130K. The other disk (the applications disk) will contain COMMAND.COM and the following AppleShare files: ANET.EXE, DA.EXE, DA.DTA, DA.HLP, and a second batch file called GO.BAT. The AppleShare files on this disk require approximately 200K. When you run AppleShare PC using the startup disk, the AppleShare programs on that disk are loaded into memory. Then you're prompted to insert the applications disk. When you type `GO` and press Enter, the remaining AppleShare files are loaded into memory and any automatic connections you've set up are performed.

To begin, format one disk using the `format /s` DOS command. This disk will become your working startup disk.

❖ *Note:* If you already start your PC with a boot disk that has at least 130K of space available, you won't need to format a new startup disk. Substitute your boot disk for the disk formatted with the /s option in the instructions below.

If you are formatting low-density (360K) disks in a high-density floppy drive, use the /4 formatting option to generate low-density disks.

Format the other floppy disk with the DOS `format` command (without the /s option). This disk will become your working applications disk.

If you have questions about formatting a floppy disk, refer to your DOS reference manual.

To install AppleShare PC on two floppy disks:

1. **Turn on your PC and load DOS.**

   Wait until the DOS system prompt appears.

2. **Insert the *AppleShare PC Installer* disk (the disk that came with the product) in drive A.**

If you want to quit the installation program at any time, press Ctrl-C.

3. **Type `a:install` and press Enter.**

   Read the introductory message; then press any key to continue the installation.

4. **Type the letter designator of your other disk drive (usually B).**

   Press Y, for Yes, to confirm your choice and continue.

   Press N, for No, to choose another drive.

5. **Insert the disk formatted with the /s option (or your boot disk) into your second drive. Press any key.**

   The programs ATALK.EXE, ASHARE.COM, MINSES.EXE, and REDIR.EXE are installed in your root directory. Press any key to continue.

   A message appears about the creation of a new AUTOEXEC.BAT file. Press any key to continue.

6. **Next, you're asked whether you want the Desk Accessory to be made memory-resident each time you boot your system.**

   Press Y, for Yes, if you want to make the Desk Accessory memory-resident.

   Press N, for No, if you plan to run the Desk Accessory only from the DOS prompt. Then go to step 9.

7. **Next, the program asks you if you have expanded memory installed in your workstation.**

   Press Y, for Yes, if you have expanded memory. Then go to step 9.

   Press N, for No, if you do not have expanded memory or are unsure whether you have expanded memory installed in your workstation.

8. **Finally, the program asks if you want to be able to pop up the Desk Accessory on top of a high-resolution graphics screen.**

   Press Y, for Yes, if you want to be able to pop up the Desk Accessory on top of a high-resolution graphics screen.

   Press N, for No, if you do not want to be able to pop up the Desk Accessory on top of a high-resolution graphics screen or are unsure.

If you already have an AUTOEXEC.BAT file, a copy of it is saved.

9. **Remove the startup disk from the second drive and label it as your working startup disk.**

10. **Insert the other formatted disk (the one formatted without the /s option) into drive B. Press any key to continue.**

    The Installer program continues to install AppleShare by copying the programs and files DA.EXE, DA.DTA, DA.HLP, and ANET.EXE to your applications disk. It also creates a batch file called GO.BAT. Press any key to continue.

    The installation is now complete.

11. **Remove the applications disk from drive B. Label it as your working applications disk.**

    If you want to create additional AppleShare PC startup disks, format additional startup and applications disks and start again at step 3.

12. **Remove the *AppleShare PC Installer* disk from drive A and store it in a safe place.**

Now you're ready to go on to Chapter 2, where you'll learn how to use the server.

Using hard drives or high-density (720K or greater) floppy drives

If your PC does not have a hard disk, you will need one formatted 720K (or greater) floppy disk to install the AppleShare PC program.

Format the disk using the `format /s` DOS command. This disk will become your working startup disk.

❖ *Note:* If you already start your PC with a boot disk that has at least 330K of space available, you won't need to format a new startup disk. Substitute your boot disk for the disk formatted with the /s option in the instructions below.

If you have questions about formatting a floppy disk, refer to your DOS reference manual.

To install AppleShare PC on one high-density floppy disk or a hard drive:

1. **Turn on your PC and load DOS.**

   Wait until the DOS system prompt appears.

2. **Insert the *AppleShare PC Installer* disk (the disk that came with the product) in drive A.**

3. **Type `a:install` and press Enter.**

   Read the introductory message; then press any key to continue the installation.

If you want to quit the installation program at any time, press Ctrl-C.

4. **Type the letter designator of your other disk drive (usually B or C).**

   Press Y, for Yes, to confirm your choice and continue.

   Press N, for No, to choose another drive.

5. **If you're installing onto a floppy disk, insert the disk formatted with the /s option (or your boot disk) into your second drive. Press any key.**

   The program ATALK.EXE is installed in your root directory.

6. **Indicate the directory in which you want to install the other AppleShare–related programs and files.**

   Press Y, for Yes, to install the additional programs and files in the root directory.

   Press N, for No, if you don't want to install the additional files in the root directory. Then type the name of the directory in which you do want to install the additional AppleShare programs and files and press Enter. You're asked to confirm your choice. Note that the Installer will create the directory you specified if it doesn't already exist.

   The programs ASHARE.COM, MINSES.EXE, REDIR.EXE, DA.EXE, DA.DTA, DA.HLP, and ANET.EXE are installed in the directory you specified. Press any key to continue.

   A message appears about the creation of a new AUTOEXEC.BAT file. Press any key to continue.

7. **Next, you're asked whether you want the Desk Accessory to be made memory-resident each time you boot your system.**

   Press Y, for Yes, if you want to make the Desk Accessory memory-resident.

   Press N, for No, if you plan to run the Desk Accessory only from the DOS prompt. Then go to step 10.

8. **Next, the program asks you if you have expanded memory installed in your workstation.**

   Press Y, for Yes, if you have expanded memory. Then go to step 10.

   Press N, for No, if you do not have expanded memory or are unsure whether you have expanded memory installed in your workstation.

9. **Finally, the program asks if you want to be able to pop up the Desk Accessory on top of a high-resolution graphics screen.**

   Press Y, for Yes, if you want to be able to pop up the Desk Accessory on top of a high-resolution graphics screen.

   Press N, for No, if you do not want to be able to pop up the Desk Accessory on top of a high-resolution graphics screen or are unsure.

   If you already have an AUTOEXEC.BAT file, a copy of it is saved.

10. **Press any key to continue. If you installed onto a floppy disk, remove the startup disk from the second drive and label it as your working startup disk.**

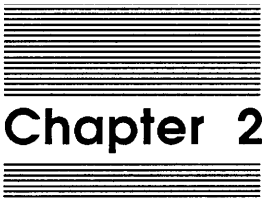
    The installation is now complete.

    If you want to create additional AppleShare PC startup disks, format additional startup disks and start again at step 3.

11. **Remove the *AppleShare PC Installer* disk from drive A and store it in a safe place.**

❖ *Note:* You may want to include a path statement in your AUTOEXEC.BAT file that identifies the directory containing DA.EXE and the other AppleShare PC files.

Now you're ready to go on to Chapter 2, where you'll learn how to use the server.



Chapter 2

The Server: A Guided Tour

This chapter guides you through a tour of the AppleShare file server. You'll learn how to run the AppleTalk PC Desk Accessory program, select a file server, log on, select a server volume, attach a DOS drive letter to it, create a directory, and log off.

Accessing a volume on the server

With AppleShare PC installed on your startup disk, you can select a server. However, before you can use the server, you must identify yourself to let the server determine what your access privileges are. The server then knows which directories you have permission to use.

You can think of the server as an organization's central storeroom for files. Some files have restricted access—only certain people can use them. Other files are public. When you want to enter the storeroom, you must first identify yourself. Your name may be on a list that says certain restricted files are available to you. Or your name may not be listed, so you're issued a guest pass that allows you to use only those files that are open to everyone.

Registered users have their names on a list created by the AppleShare administrator.

Similarly, you have to identify yourself and be on the server's list of **registered users** to have access to the server. Or you can register as a **guest.** In many cases, anyone with access to the network who has installed AppleShare on his or her workstation startup disk can use the server as a guest.

Your **password** is given to you by your AppleShare administrator.

You're put on the list of registered users by the administrator (if the administrator decides to create a list). To keep others from using your name to gain access to the server, you also have a **password.**

Using your registered name and password, you'll have access to certain restricted directories and be able to select access privileges for your own directories to keep their contents as private as you wish.

A guest can only use information that's public. And anything a guest creates or stores on the server is available to everyone.

The members of an AppleShare **group** usually need access to the same information—for example, all the files that relate to a new project.

The administrator may also set up **groups** of registered users. Just as when you choose to share information—such as a performance review—with a certain group of people in your organization (and no one else), the same can be true on the server. When you assign access privileges for a directory to a group, only you and the group members have access to the directory's contents.

You'll soon learn more about access privileges and how to use them to protect the contents of your directories after you've accessed the server. But before you continue, check with your AppleShare administrator—if you haven't already—to see if you're going to be a registered user with a password. Also, ask your administrator if you've been assigned to any groups. Then continue with "Using Your AppleShare PC Startup Disk."

If you're going to be a guest on the server, you can go on to "Using Your AppleShare PC Startup Disk" right away.

Using your AppleShare PC startup disk

Now you're ready to start your PC with a startup disk that has AppleShare PC installed on it. The steps to start the AppleTalk PC Desk Accessory depend on whether you have a PC with a hard disk or one that uses a floppy drive.

❖ *Note:* This is a good time to make sure that a LocalTalk connector is attached to the port on your LocalTalk PC Card. For more information, see the *LocalTalk PC Card* guide or ask your AppleShare administrator.

Starting your PC from a floppy drive

To access a file server, first you must start up your PC using a startup disk that has AppleShare PC installed on it. Once you've started your PC using an AppleShare PC startup disk, you can use the AppleTalk PC Desk Accessory at any time, without restarting your computer.

1. **If you started your PC with a startup disk that does not have AppleShare PC installed on it, return to DOS and remove the disk from drive A.**

2. **Insert your AppleShare PC startup disk.**

   Remember to close the drive door.

3. **Turn on your PC or press Ctrl-Alt-Del to reboot your PC.**

   The computer starts (or reboots) and executes the AUTOEXEC.BAT file. If you chose to install the AppleTalk PC Desk Accessory as a memory-resident program, it's now in your computer's memory, ready to run at a touch of the hot key.

If you're using a PC with a 360K drive and chose to install DA as a memory-resident program, after a few seconds you'll be prompted to remove the startup disk and insert your applications disk. Once you've done so, type GO and press Enter. The remaining AppleShare files are loaded into memory. DA will run when you press the hot-key combination.

Starting your PC from a hard disk

To access a file server, you must start your PC using the hard disk that has the AppleShare PC software installed on it.

1. **If you started your PC with a startup disk other than your hard disk, make sure that drive A is empty or that the drive door is open.**

2. **Turn on your PC or press Ctrl-Alt-Del to reboot your PC.**

   The computer starts (or reboots) and executes the AUTOEXEC.BAT file. If you chose to install the AppleTalk PC Desk Accessory as a memory-resident program, it's now in your computer's memory, ready to run at a touch of the hot key.

Starting the AppleTalk PC Desk Accessory

To select a server you need to run the AppleTalk PC Desk Accessory. You can do this in one of two ways: if you've made the AppleTalk PC Desk Accessory memory-resident, you can press the hot key. If you haven't made the AppleTalk PC Desk Accessory memory-resident, you can run the program from the DOS system prompt.

When the program is memory-resident

- **Press Alt-Enter.**

  The AppleTalk PC Desk Accessory appears with the Chooser window open.

When the program is not memory-resident

- **From the DOS system prompt, type** `DA` **and press Enter.**

Important To start DA, you may have go to the subdirectory that contains the Desk Accessory program or type the subdirectory path.

The AppleTalk PC Desk Accessory appears with the Chooser window open.

If you're using a PC with a 360K drive, after a few seconds you'll be prompted to remove the startup disk and insert your applications disk. Once you've done so, type `GO` and press Enter. The remaining AppleShare files are loaded into memory and DA appears with the Chooser window open.

If you have a monochrome monitor, you may want to take a moment to adjust the contrast and brightness of your screen. The box labeled Select a Type (the one framed with a double border line) should appear bright, while the other parts of the screen appear dimmer.

Whether you have a monochrome or color monitor, you can change the default screen settings using the Change Colors command in the Options window. See "Changing Display Colors and Attributes" in Chapter 4 for more information. You can also change some other display options for DA. See "Personalizing DA" in Chapter 4 for details.

A **list pane** has a list of choices from which you select by using the Up and Down Arrow keys.

An **edit pane** contains text fields that you can edit using standard editing conventions, such as the Backspace key to erase text.

Figure 2-1 shows the Chooser window. Each part or section of the window is called a **pane.** The Chooser window contains three **list panes** labeled Select a Type, Select a Zone, and Select a File Server. The window also contains an **edit pane:** Workstation Name. The other type of pane you'll encounter in the Desk Accessory is a **toggle pane.** It's used when you have to choose one of two options, such as Yes or No.

❖ *Remember:* Your network may or may not contain zones, so you may not see a Zone pane when you look at the Chooser window on your screen.

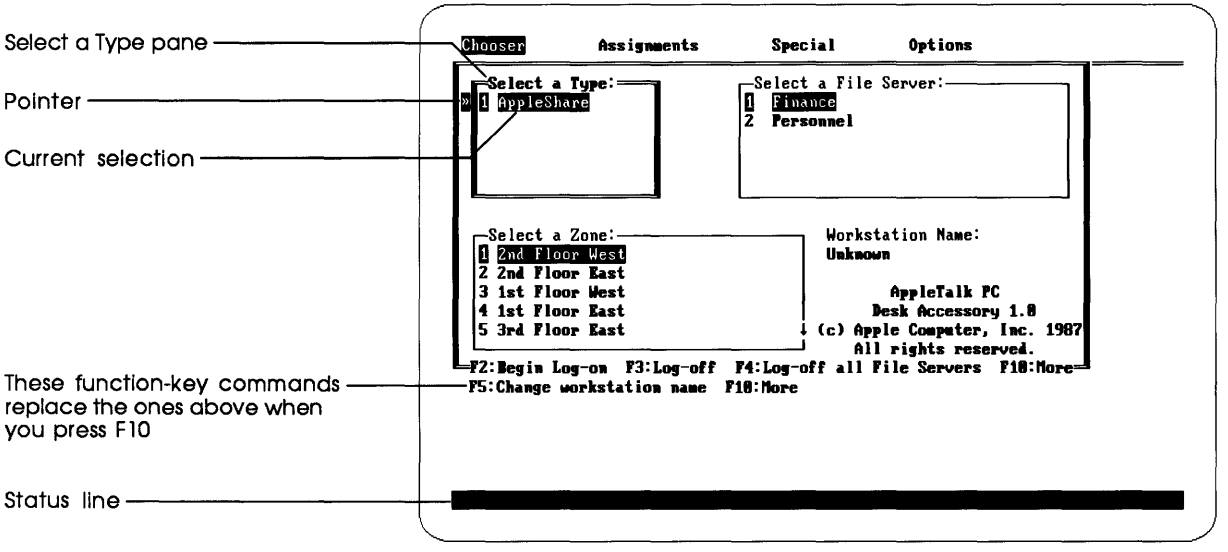


Figure 2-1
The Chooser window

- *A 40-column display?* The figures in this manual show the AppleTalk PC Desk Accessory as it appears on an 80-column display. What you see on a 40-column display will look somewhat different. Note, however, that the Desk Accessory functions the same way no matter which display you use.

The **active pane** is where you make a selection or enter information. The pointer always appears to the left of the active pane.

The Type pane is **active,** as indicated by its double border line. The first item in the pane is highlighted. This is the current selection. A pointer appears to the left of it.

Naming your workstation

Before you use the file server for the first time, you should name your workstation so that your administrator will be able to diagnose network troubles more easily should they occur.

1. Press F5, the Change Workstation Name function key.

The cursor moves to the Workstation Name field.

2. Type the name of your workstation and press Enter.

Your workstation name may be a location (such as Red Room PC) or it may be your name. The workstation name can be up to 31 characters long.

You can press Ctrl-Backspace to delete the current contents of the field (everything to the left of the cursor).

If you make a typing mistake, use the Backspace key to erase text.

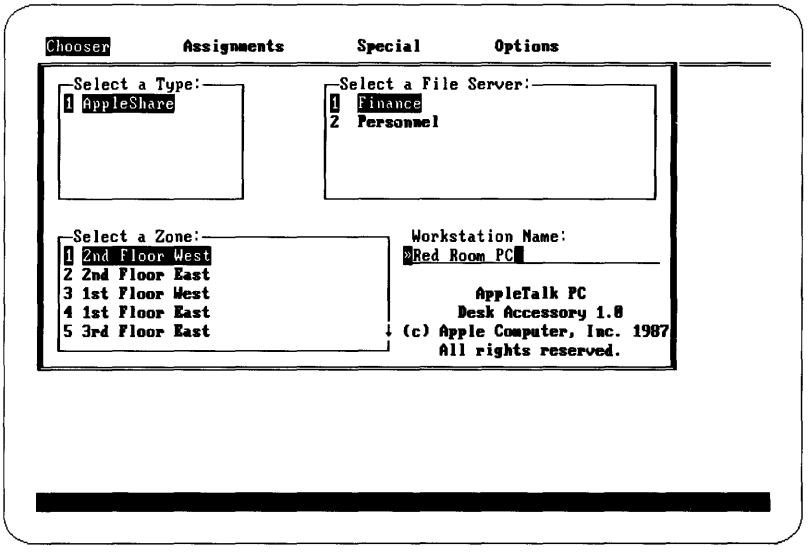


Figure 2-2
Type your workstation name

When you press Enter, the program stores the name you typed. You may also see the message "Registering" and your workstation name as the workstation registers itself on the AppleTalk network.

Note that you won't have to rename the workstation the next time you use the AppleTalk PC Desk Accessory.

Now, you're ready to select a file server.

Selecting a server

File servers are like LaserWriters on the AppleTalk network in that both are shared resources. And, just as you might have more than one LaserWriter on the network, each with a name, you may have more than one server on the network, each with its own name.

1. Select AppleShare in the Type pane and press Enter.

When the items in a list pane are numbered or lettered, you can select them just by pressing the appropriate key.

When you press Enter (or type a number or letter in the list), the next pane becomes active (as indicated by the double border line). The first item in the next pane is highlighted.

If your network has **zones**, you'll see them listed in the Chooser window. Check with your AppleShare administrator to find out which zone the server is in.

If your network has zones, the pane titled Select a Zone is now active. Go on to step 2.

If your network does not have zones, the pane titled Select a File Server is now active. Go ahead to step 3.

Select the zone that contains the file server you want to use

This arrow indicates the direction you can scroll

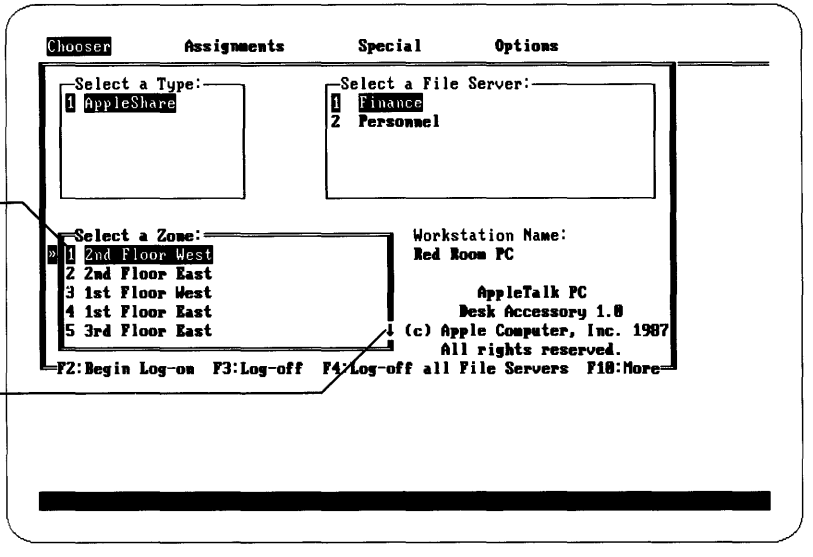


Figure 2-3
Select a zone

2. If your network contains zones, select the zone that contains the file server you want to use and press Enter.

Scroll the list of zones, if necessary, using the Up and Down Arrow keys. The small arrow(s) along the right edge of a pane tell you which direction(s) you can scroll.

The pane titled Select a File Server is now active.

3. Select the file server you want to use in the Select a File Server pane and press Enter.

Remember, you can type the number of the server you want to use, or select the item and press Enter.

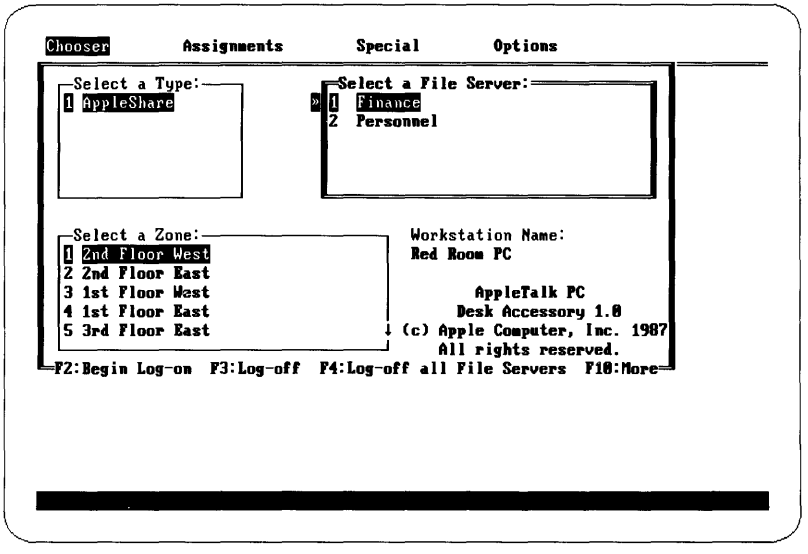


Figure 2-4
Select a file server

❖ *Note:* If you find that you made a mistake while making a selection, use the Tab key or Shift-Tab key combination to move forward or backward through the Chooser window panes. Then select the type, zone, or server you want.

4. Press F2, the Begin Logging On function key, to begin logging on.

The Log On window appears, as shown in Figure 2-5.

Need help? Remember that you can always press the F1 function key to get help.

Now that you've selected the server you want, you must identify yourself before you can select the server volumes (hard disks) you want to work with.

Logging on

Before you can use the server, you must identify yourself. You tell the server whether you want to log on as a registered user or as a guest. If you're not a registered user, you may be able to log on as a guest to access the server over the network.

❖ *Note:* Some servers are set up so that only registered users can use the information they contain. You cannot use these servers as a guest. If you are not a registered user on a server that contains information you want to use, see the administrator—you may be able to get a registered user name and password.

1. Select the log-on option you want to use.

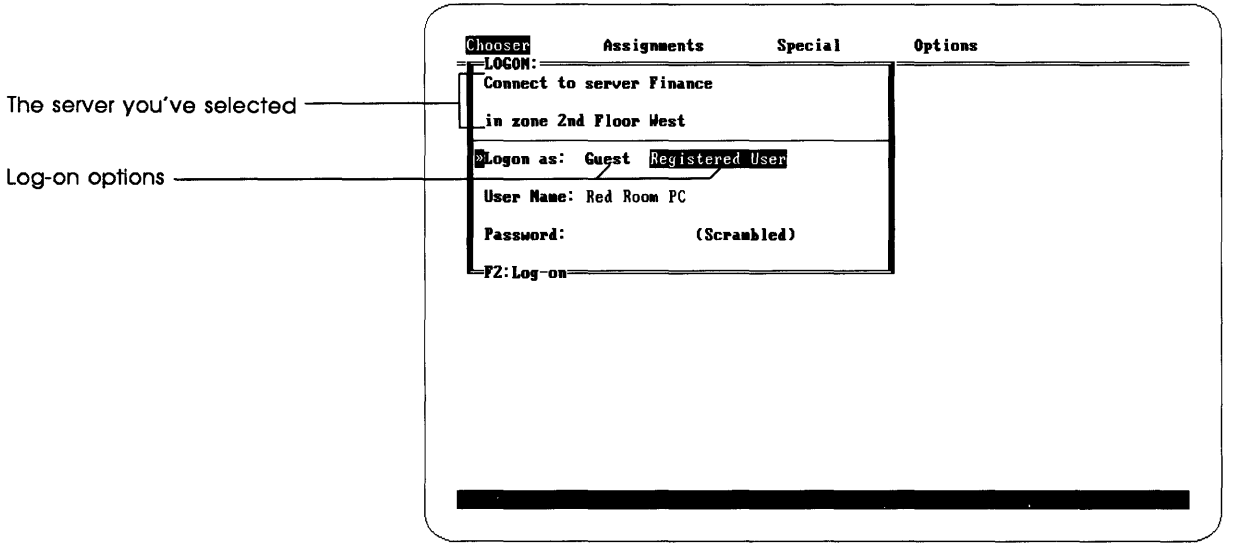


Figure 2-5
The Log On window

The Registered User option is already selected as the default log-on option.

If you're a registered user, press Enter to move to the User Name field.

If you're logging on as a guest, use the Left Arrow key to select the Guest option.

Important If your AppleShare administrator did not register you as a user, you must log on as a guest.

If you selected Guest, the places for entering a name and password disappear—you don't need to enter them to access the server as a guest. Go on to step 3.

2. If you're logging on as a registered user, type your name, press Enter, and then type your password.

The name you entered as the workstation name appears in the User Name field as the default user name. If necessary, press Ctrl-Backspace to erase the name that appears in the User Name field and type your registered user name (see Figure 2-6).

- *Note:* If another user has used the workstation to log on to the same server, that user's name will appear in the User Name field. Just erase the name that appears and type in your user name.

Type your name and password exactly as the administrator gave them to you. If you make a typing mistake, use the Backspace key to erase text.

As you type your password, it appears as a series of asterisks so anyone who happens to be looking can't read it. Be sure to type uppercase and lowercase characters exactly as they appear in your password, or the server won't recognize your password and won't allow you to log on. For example, if your password is "teapot" (with all lowercase characters), the server won't recognize "Teapot" (with one uppercase character).

Type your name and password exactly as the administrator gave them to you

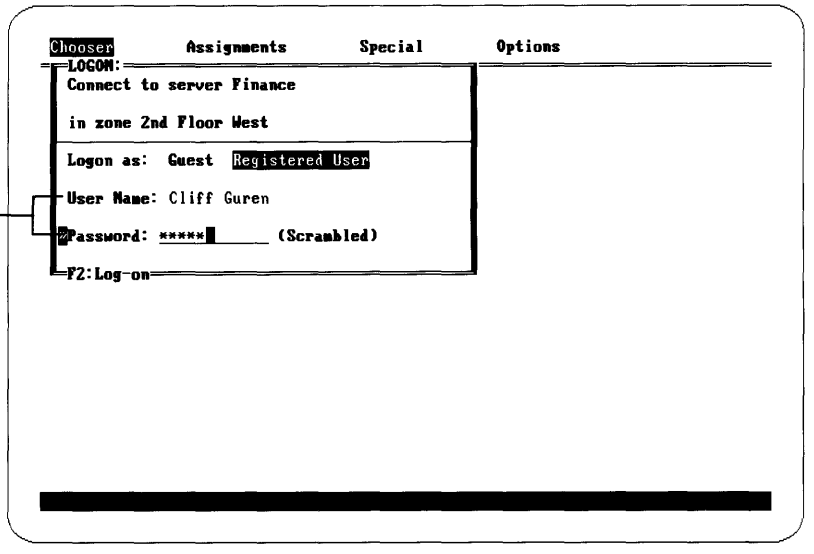


Figure 2-6
Type your name and password

Scrambled means encoded.

Your password is **scrambled** as it's sent over the network so no one can pick it up through electronic eavesdropping.

3. Press F2, the Log On function key.

You may have noticed a double-headed arrow appear and disappear in the top-left corner of your screen. This is the AppleShare activity indicator. It lets you know when your workstation and the server are transferring information.

If you're logging on as a registered user and the server doesn't recognize your name, or if you type an incorrect password, an error message appears. Press any key to continue, then try again.

The Attach Volume to DOS window appears and asks you to select the server volume(s) you want to use.

Escape If you become confused or realize you've navigated to a part of DA where you don't want to be, you can get out of it by pressing the Escape key. Press Escape enough times and you will exit from the Desk Accessory. To leave the program quickly, press Ctrl-C or Ctrl-Break.

Selecting a volume

After you log on to the server, you can select a volume to use at your workstation. Then you attach a DOS drive letter to the volume you selected. Note that if you want to select several server volumes, you can repeat the following steps.

❖ *Remember:* A volume is a hard disk that's part of the server. If the server you're accessing has one hard disk, you see one volume name. If you access a server with two hard disks, you see two volume names, and so on.

1. Select a volume.

Use the Up and Down Arrow keys to scroll the list, if necessary, to find the volume name you want.

You can also select a volume by typing the number that appears to the left of the volume name.

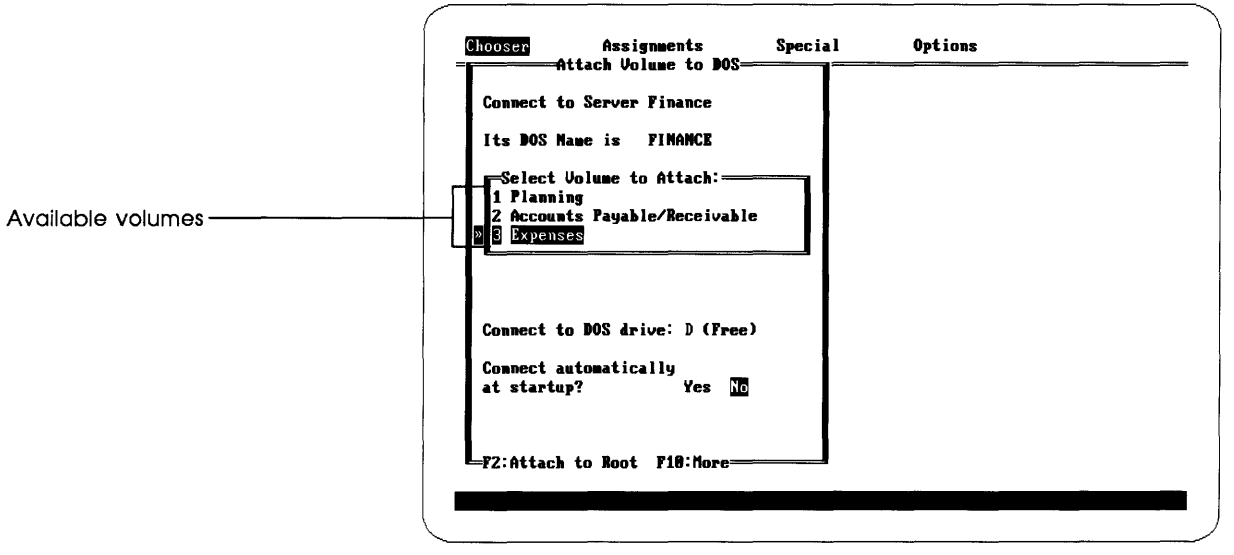


Figure 2-7
Select a volume

The Connect to DOS Drive pane also enables you to change the DOS drive letter that will be assigned to the volume you've selected.

Each time you log on to a server, the Desk Accessory identifies a DOS drive letter. When you select and attach a volume, it's assigned that letter.

❖ *Note:* In most cases, the Desk Accessory will identify an unused (or free) letter to assign to the volume you've selected. However, if you've run out of valid drive letters, you need to detach a currently attached drive or use the DOS Lastdrive command to increase the maximum number of drives you can access. See your DOS manual for more information.

To change the DOS drive letter, press Enter to move to the Drive pane. Press the Left Arrow key and type the letter that you want to assign to the volume you've selected.

If you use the Enter key to move to the Connect Automatically at Startup pane, you can set up the program so the volume you've selected will be attached automatically whenever you boot from the current startup disk. In addition, if you're a registered user, your name is automatically entered at startup, and you only need to type your password. See "Connecting Automatically" in Chapter 4 for more information on how you can also select an option to have both your name and password entered automatically at startup.

2. Press F2, the Attach to Root function key.

When you press F2, you attach the drive letter to the root directory of the volume you selected.

When the log-on process is complete, you see "Connect complete to drive" and a letter in the status line at the bottom of your screen.

If you want to attach another volume on this server, select the volume, assign it a drive letter, and press F2 to attach it to your system.

The Desk Accessory also enables you to attach to a subdirectory of the volume instead of the root directory. See "Attaching a DOS Drive Letter to a Subdirectory" in Chapter 4 for more information.

3. **Press Ctrl-C to exit from DA.**

   Or, keep pressing Escape until you see the DOS system prompt or the program you were using when you pressed the hot key.

Important If you started the Desk Accessory from within another program, quit the program and return to DOS to continue with this tutorial.

You've just learned how to use the AppleTalk PC Desk Accessory to select a server, identify yourself, and select one or more volumes. Now you're ready to use the server to store information.

By the way, you can take a break at any time. To quit the server, start the Desk Accessory, select the server you've been using, and press F3, the Log Off function key.

When you're ready to log on to the server again, use your AppleShare startup disk and run DA. Then follow the steps outlined in "Selecting a Server" in this chapter and continue until you reach the point where you left off.

Using AppleShare to store information

You're now ready to use the server volume you selected with the AppleTalk PC program. You'll learn how to use the server by creating directories and reviewing how to manage their contents. You'll also learn how to quit the server.

Creating your own directories

Once you log on to the server, you can create directories on a volume of the server and use them for storing or sharing information. As with any DOS disk, you can create subdirectories within a directory to produce a hierarchy of directories. On the server, the highest level of the hierarchy (or root) is the volume itself.

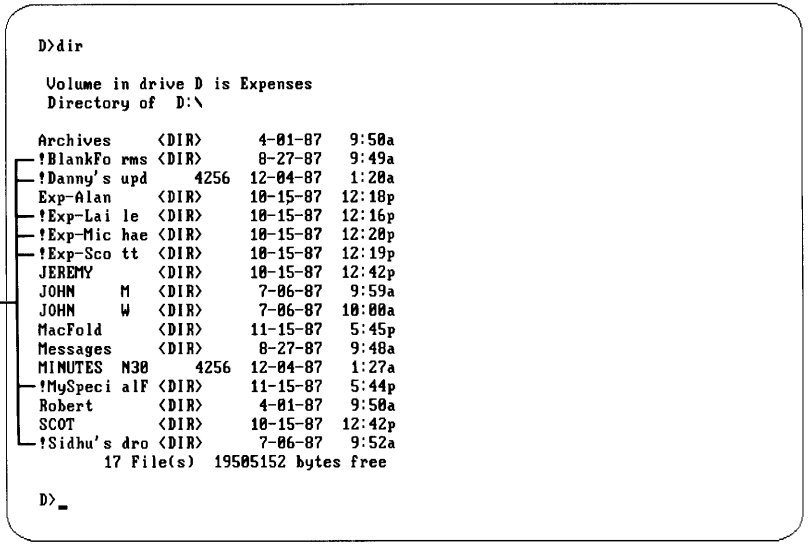
1. **At the DOS system prompt, type the letter you assigned to the server volume followed by a colon. Then press Enter.**

   For example, if you assigned the letter D to the server volume you attached, type `D:`.

❖ *Can't remember the drive letter?* Bring up DA and use the Right Arrow key to find the Assignments window—it contains a list of your system's current drive assignments. Press the Escape key or Ctrl-C to return to DOS.

2. Type `DIR` and press Enter to display the contents of the volume.

You now see a directory listing like the one shown in Figure 2-8. This is the root directory of the server volume you attached.



You may see alternative DOS names (such as these) for files and directories created by Macintosh users

Figure 2-8
A sample directory

Notice anything unusual? You may see some file or directory names that begin with an exclamation point (!). This tells you that the file or directory was created on a Macintosh computer, and that the server had to create an alternative DOS name because the Macintosh file or directory name was unacceptable in DOS. The Macintosh gives users more flexibility than DOS when naming a file or directory. For example, Macintosh file and directory names can be up to 31 characters long (as opposed to 8 characters plus a 3 character extension in DOS), and can contain just about any character including a blank space.

You can use the Comment pane in the Info window to add information about your directory that might be useful to other users. See "Displaying Information About a File, Directory, or Drive" in Chapter 4.

Because the DOS and Macintosh naming conventions are different, the server keeps two names on hand for each file and directory—a long name (for Macintosh users) and a short name (for DOS users). When a Macintosh file or directory name is not an acceptable DOS file or directory name, the DOS name is changed (although the Macintosh name remains the same). The altered name is preceded by an exclamation point. For example, if a Macintosh user names a directory "MacFold," you see "MacFold" in the volume directory (because "MacFold" is an acceptable directory name to both DOS and the Macintosh). But if a Macintosh user names a file "My Special Folder," you see "!MySpeci.alF" because "My Special Folder" is not an acceptable filename in DOS.

Important Whenever you type a directory or filename that begins with an exclamation point, type the name exactly as you see it, including the exclamation point and the filename extension. Rename a directory or file using DA if its name contains characters you can't type. See "Renaming a File or Directory" in Chapter 4 for more information.

---

3. Type `MD` and your name to create a new subdirectory on the volume.

For example, if your name is "Cliff," type `MD Cliff`. A subdirectory with your name is created on the server volume.

❖ *Get a directory creation error?* The root directory may be restricted so that no changes can be made in it. See Chapter 3 for information on access privileges, or see your AppleShare administrator.

4. Type `DIR` and press Enter to redisplay the contents of the volume.

You now see a directory with your name in the volume's root directory.

5. Type `CD` and the name of the subdirectory you created to move to the new subdirectory.

For example, if the directory name is "Cliff," type `CD Cliff`.

6. **Type `MD Special` to create a new subdirectory named Special within the first subdirectory you created.**

7. **Type `DIR` and press Enter to redisplay the contents of the subdirectory.**

   You now see the subdirectory Special in the first subdirectory's contents.

You've just created two new subdirectories on the server volume—one nested inside the other—using the same DOS skills that you use when you work with disks inside your PC.

❖ *Struggling with DOS?* DA contains easy-to-use DOS utilities. See Chapter 4 for more information.

You'll use the subdirectories you've just created when you go through Chapter 3, "Privacy on the File Server."

Using directories

As the **owner** of a directory, you can choose to keep the contents of your directory private or to share the contents with others.

When you create a directory on the server as a registered user, you are the directory's **owner.** Your directories are automatically set up as private directories, and only you can use the information contained in your directories until you use the AppleTalk PC Desk Accessory to give access to other users. Likewise, when other registered users create directories on the server, they own their directories, and only they can use the information their directories contain until they use the AppleTalk PC Desk Accessory (or its Macintosh equivalent) to give others access.

When you create a directory on the server as a guest, any user with access to the server has access to your directory and its contents—including all registered users and guests. As a guest, you cannot set access privileges that will keep your directory private.

As you use the server, you may come across directories that don't seem to have anything in them. The directories may only appear empty. The information they contain might be invisible to all users except their owners and the people who've been given access privileges. You'll learn more about access privileges in Chapter 3. For now, remember that there's often more than meets the eye!

Using programs

You can store files on the server and use many programs from the server. But if the program you're using wasn't specifically designed for use on a network, keep in mind the following guidelines:

- When you want to modify a file stored in a directory on a server volume that several users have access to, move the file to a private directory (one that only you have access to) before you open the file. This precaution is advised because many current PC programs will allow, but not correctly manage, secondary users accessing and modifying files while they are in use—which can lead to data loss.
- Programs stored on server volumes will generally run smoothly if they are stored in directories for which you have both the See Files and Make Changes privileges.

  Many programs will also run smoothly when stored in "read-only" directories (directories for which you have the See Files privilege, but not the Make Changes privilege). To determine whether a program will run from a read-only directory, put the program and its related files in a directory and remove your Make Changes privilege. Try standard program functions such as creating a new file, saving it to another directory, and printing to see if the program behaves normally.

Now you're ready to learn how to log off the server when you no longer need access to the information it contains.

Logging off the server

When you **log off**, you disconnect from the server. You can't use it again until you log back on.

When you finish working with the server, you **log off** or quit the server.

The server is a shared resource—used by you as well as others in your work group. Consider logging off when you're not actively working with the server so it will be more accessible to others.

1. Start the AppleTalk PC Desk Accessory program.

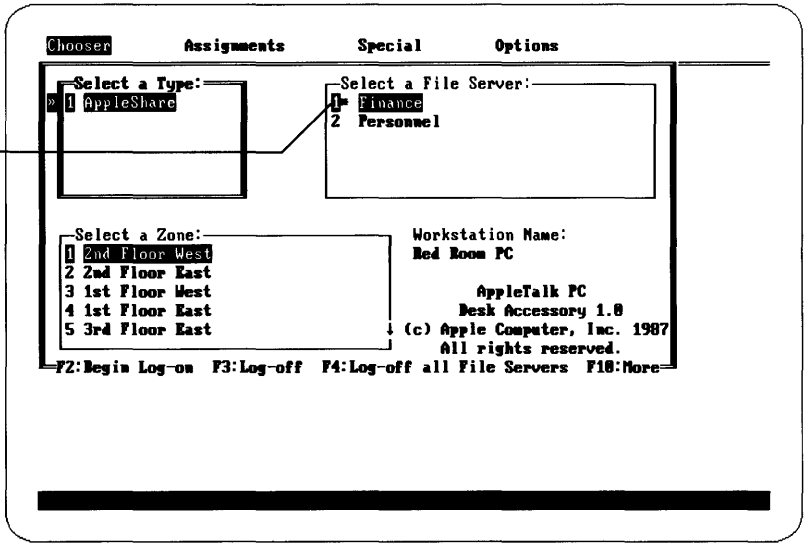
If you've made the AppleTalk PC Desk Accessory memory-resident, press Alt-Enter.

If the AppleTalk PC Desk Accessory is not memory-resident, type `DA` at the system prompt.

❖ *Note:* You may have to specify the directory that contains the AppleTalk PC Desk Accessory program (DA.EXE) to start the program.

Use the Right and Left Arrow keys to return to the Chooser window, if necessary.

Notice that there is an asterisk in the Select a File Server pane next to the name of the file server you've been working with. This means that you're currently logged on to that file server.



The user is currently logged on to this file server

Figure 2-9
File servers you're logged on to are marked with an asterisk

2. Select the server from which you want to log off.

Use the arrow keys to return to the Chooser window, if necessary.

3. **Press F3, the Log Off function key.**

   The Verify window appears.

4. **Press Enter to confirm your log-off command.**

   You're now detached from the volume (or volumes) of the file server you selected.

   If you've attached drive letters to several volumes of a server, you can use the Assignments window to detach one volume and still remain attached to the others. See "Logging Off the File Server" in Chapter 4 for more information.

Logging off when the server is being shut down

Occasionally your AppleShare administrator will have to shut down the server for maintenance. Before shutting down the server, the administrator starts a countdown, giving you time to save information and log off before the server becomes unavailable. A warning message is sent out when the countdown begins. The warning message appears at your workstation as a dialog box that tells you how much time you have to save your information and log off.

❖ *Note:* If you haven't made the AppleTalk PC Desk Accessory memory-resident, you will only hear a series of high trills when the warning message is sent. To see the message, return to the DOS prompt and run the Desk Accessory program.

See "Logging Off the File Server" in Chapter 4 for more information.

Important Any information you haven't saved when the server is shut down may be lost.

Practicing AppleShare

You've learned how to use an AppleShare PC startup disk, log on to the server, create directories on the server, and quit the server. With these skills you can use volumes on the server to store directories and their contents.

Play with AppleShare. Try logging on and logging off. Open a program and try saving a file on a server volume. Test your DOS file management skills by copying and moving files from the disk drive inside your PC to a server volume. (If you're just experimenting, remember to delete your test directories and files when you're finished!) If you have questions about what you've learned, see Chapter 4, "AppleShare PC Operations."

Now you're ready to go on to Chapter 3, where you'll find out how to set access privileges to control your personal information.

Chapter 3

Privacy on the File Server

Now that you know how to use AppleShare to store information, in this chapter you'll learn about using the server to share information. You'll learn how to keep the contents of your directories private, or how to share them with your work group, or even how to make them available to all users who have access to the server. You'll also learn about working with directories owned by other users.

As you learned in Chapter 2, you log on to the server as either a registered user (if you have a registered user name) or a guest. If you log on to the server as a guest, you can create directories and store information in them—just as registered users do. You can also set access privileges for your directories—again, just as registered users do.

However, when you create a directory on the server as a guest, "<Any User>" is named as the directory's owner. This means that any user with access to the server—whether logged on as a registered user or guest—has the same access to your directory that you (as a guest) have. Also, any user can change the directory's access privileges, and a registered user can claim your directory and become its owner. Since a guest cannot be a directory's exclusive owner, you cannot keep your directory's contents private.

Even if you always plan to use the server as a guest (and never set access privileges), read this chapter. Knowing how to use the AppleTalk PC Desk Accessory to review access privileges will be helpful when you use directories owned by others.

Controlling your personal information

When you create a directory as a registered user, the directory is automatically set up as a private directory. Only you can use what's in your directory until you give others access privileges.

You'll probably store some information on the server that you want to keep private—for example, files pertaining to your personal finances. But you may also store information on the server that you want to share—for example, a directory containing spreadsheets that you want only members of a certain group to have access to. Or you may want every user with access to the server to be able to use the spreadsheets you've developed. In addition, you may want your original spreadsheets to remain unchanged, or you may want others to make changes to your originals as they see fit. It's all up to you.

When you set access privileges, you must decide what privileges you want to assign to each of the following three user categories:

- **Owner**—meaning you
- **Group**—meaning any AppleShare group that's been set up by the administrator
- **Everyone**—meaning every user with access to the server

You assign each category any combination of the following privileges:

- **See Directories**—the privilege to see the subdirectories (if any) in your directory
- **See Files**—the privilege to see the names of files and programs (if any) in your directory as well as read files, copy files, run programs, and copy programs
- **Make Changes**—the privilege to make changes to your directory's contents, including renaming or deleting any of its contents (unless a subdirectory has access privileges that don't permit you to make changes to it)

If you assign others the See Files privilege for your directory, they can see a file in it. They can then edit and print the file. However, they must save the edited file in another directory to which they have the Make Changes privilege. Without the Make Changes privilege, they cannot replace the original in your directory or save the file in your directory; others cannot make changes to your directory or its contents. For more information, see "Locking a Directory" in Chapter 4.

Note that when you assign the privilege Make Changes, you do not automatically assign the privileges See Directories and See Files. This way, you can mix and match privileges to create directories for special uses.

For example, you might want to use the server to set up a "drop box" for yourself—a directory you own that others can use when they need to drop off files for you. But once files are dropped in the directory, they stay unseen by anyone else (including the person who dropped them off). Only you can use them.

To set up this kind of drop box, you create a directory on the server and assign the Make Changes privilege (and not See Directories or See Files) to Everyone. Other users can then drop files in the directory using the DOS Copy command, thereby making changes to the directory's contents without seeing its contents. For more information on setting up a drop box, see "Setting Up a Drop Box" in Chapter 4 after you learn how to review and set access privileges.

❖ *Note:* If you didn't read Chapter 2, you may want to do so before going on. In Chapter 2 you learn to access the server and select a volume. You create a directory on the volume, then create a subdirectory within that directory. You'll use these directories as you learn about access privileges.

Reviewing access privileges for your directories

In this section, you'll use the AppleTalk PC Desk Accessory to review and set access privileges.

1. Log on to the server and attach a drive letter to the volume you used in Chapter 2, if you haven't already done so.

If you've made DA memory-resident, the program remembers the last window you used and opens to it when you use the program again.

If you need a quick review of what to do, see "Attaching a DOS Drive Letter to a Server Volume" in Chapter 4 for step-by-step instructions.

2. Use the Right and Left Arrow keys to move to the Assignments window.

When you select Assignments, a window appears with a list of your system's current DOS drive letter assignments.

The AppleShare volume name is displayed as a network path that includes the server name and volume name.

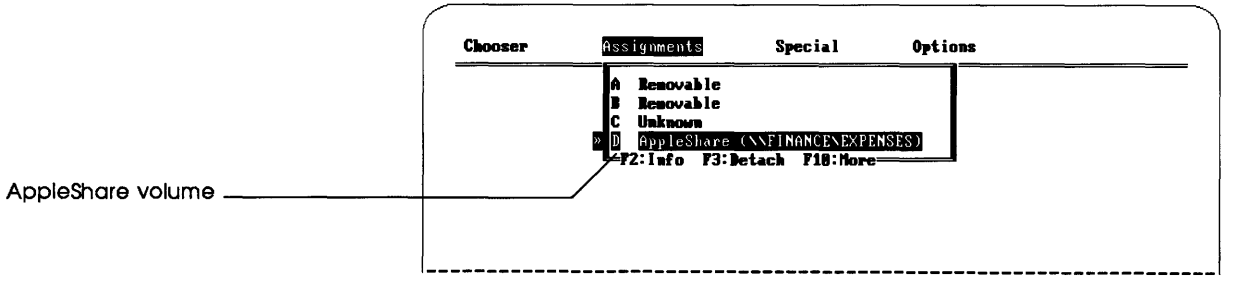


Figure 3-1
The Assignments window

3. Select the drive letter that's assigned to the AppleShare volume and press Enter.

Use the Up or Down Arrow key to move to the drive letter you want.

You now see the current directory of the AppleShare volume you selected.

4. **Move to the name of the first directory you created in Chapter 2 and press Enter.**

   If you don't see the name of your directory, use the Up and Down Arrow keys to scroll the list one name at a time. Or, use the PgDn key to move ahead eight names at a time.

   If you still don't see your directory, make sure you're in the root directory of the volume on which you created your directories. The name of the directory you're currently viewing appears at the top of the window. To move from a subdirectory to its parent, choose the directory indicated with a double period (..) and press Enter. You're in the root directory when you no longer see a parent directory.

   When you press Enter you see another directory: it lists the contents of the subdirectory you selected. If you completed the exercise in Chapter 2, the subdirectory Special is listed in the directory.

5. **Move to the subdirectory Special.**

   If you don't see the subdirectory Special, scroll the list until you find it.

6. **Press F8, the Privileges function key.**

   You now see the Access Privileges window with information about the subdirectory Special (see Figure 3-2).

   In the top of the window you see the name of the directory, your user name, and your access privileges to the directory's contents. In the middle of the window is the name of the directory's owner—in this case, your user name because you created the directory. A group name may also be in the middle. Below the user name and group name are the access privilege settings. At the bottom of the window is a field that enables you to easily change the access privilege settings of all the subdirectories you own within the directory you're viewing.

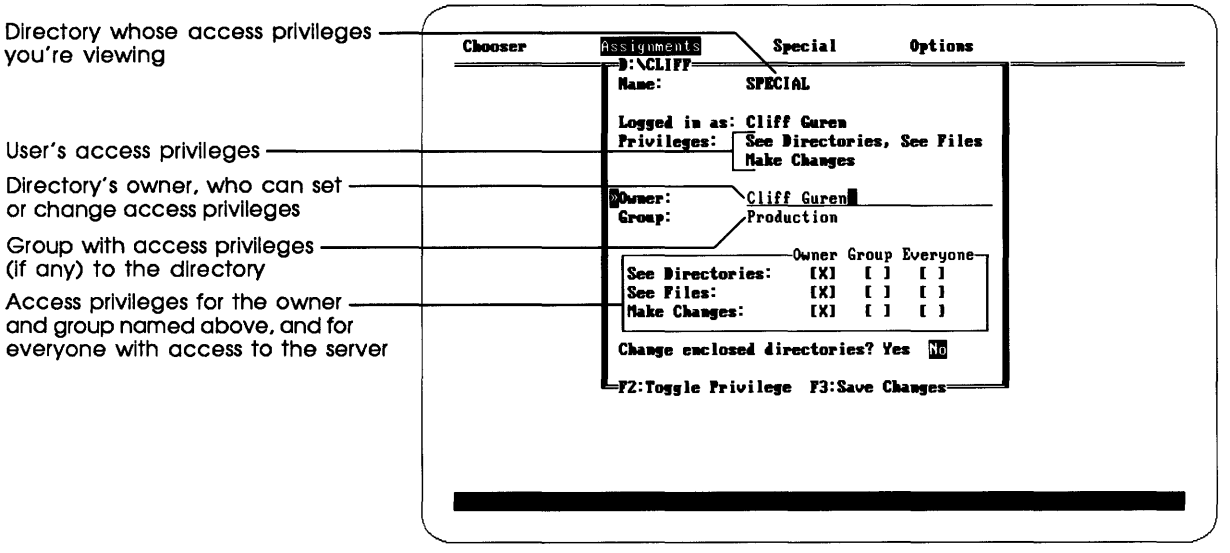


Figure 3-2
The Access Privileges window for a directory you own

❖ *Note:* If you see a group name in the middle of the Access Privileges window, it's because the AppleShare administrator specified the group whose name appears as your **primary group.** Usually, your primary group consists of those users with whom you'll most often be sharing the information you store on the server. So each time you create a directory on the server, the name of your primary group (if specified) is automatically entered as the group of users to whom you may want to give access privileges. See your AppleShare administrator to find out what groups you're a member of, and if you have a primary group.

When you created the subdirectory Special in Chapter 2, it was automatically set up as a private directory. If you were logged on as a registered user, the access privileges for Special were set so that you and only you have the following Owner privileges:

- **See Directories**—meaning you can see any subdirectories in Special
- **See Files**—meaning you can see files and programs contained in Special, and only you can read and copy those files and programs
- **Make Changes**—meaning you can make changes to Special's contents

Since only you have access, Special is like a locked drawer in your desk to which only you have the key.

❖ *Note:* In an emergency, your AppleShare administrator can get to the information in your private directories.

Next, you'll set access privileges for the first directory you created so that any user with access to the server can use the directory—just as you give people in your work group access to your desk so they can leave reports where you'll see them. And just as your desk drawer stays locked until you open it—even as your office door stands open—the directory named Special will stay private, even though it's within a directory that's accessible to all.

Changing access privileges for your directories

You'll now change the access privilege settings for the first directory you created. Any user with access to the server will be able to open the directory, see its contents, read files, run programs, and make changes within the directory. However, any subdirectory within this first directory may have different access privilege settings that limit access to its contents. For example, Special can't be opened by anyone except you.

Think again of your office. There are probably files that you want others to be able to use—for example, a project schedule. You may leave your office door open so that others in your work group can have access to the information they need. But you probably store information that you want to keep private in a locked cabinet or drawer.

You're now going to set up a similar arrangement on the server.

1. **Press the Escape key.**

   Once again, you see the list of subdirectories (including Special) within the first directory you created.

When you look at a directory listing of a subdirectory, the parent directory is indicated by a double period (..). You can also press Ctrl-Home to move to the parent directory.

2. **Select the parent directory (indicated with a double period) and press Enter.**

   This moves you up a level in the hierarchy of directories, back to the parent directory where you'll find the name of the first directory you created (see Figure 3-3).

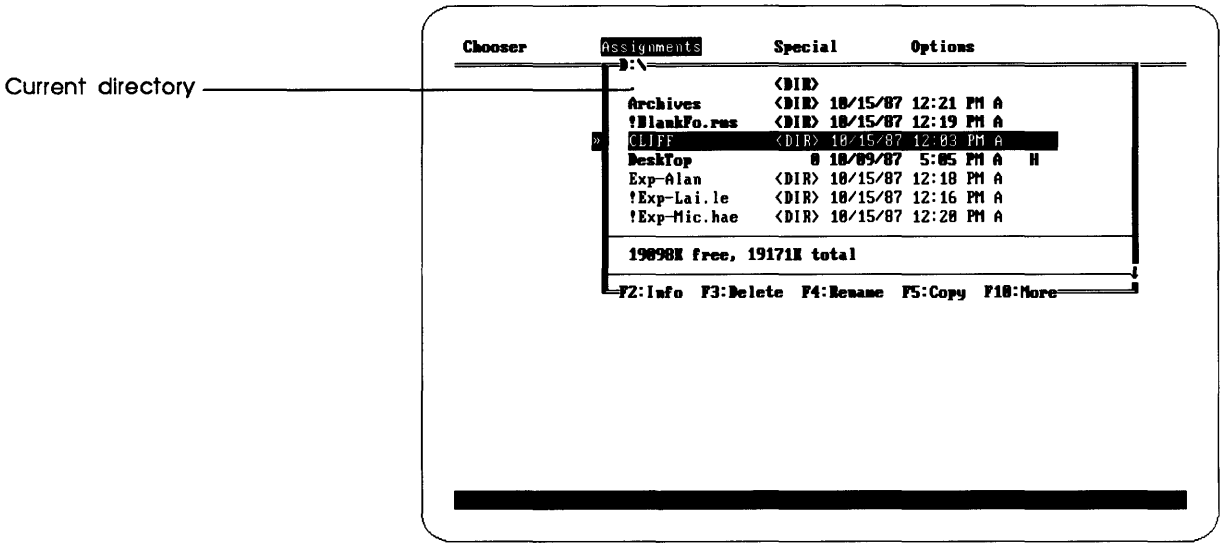


Figure 3-3
Select the first directory you created to get to the subdirectory Special

3. **Select the first directory you created in Chapter 2, then press F8, the Privileges function key.**

   Scroll the list, if necessary, to find your directory.

   After you press the Privileges function key, the Access Privileges window appears, and you see the access privilege settings for the first directory you created in Chapter 2. You're going to change them to enable any user with access to the server to use your directory.

4. **Press Enter twice—until the pane that contains the access privilege settings is active.**

5. **For the See Directories privilege, move the cursor to the Everyone field.**

   Use the Right and Left Arrow keys to move the cursor.

6. **Press F2, the Toggle Privileges function key, to toggle the privilege on.**

   An X appears in the Everyone field for the privilege See Directories.

   You've now given every user with access to the server the privilege to see the subdirectories (if any) within your directory.

7. For the See Files privilege, toggle Everyone.

Use the Down Arrow key to move to the appropriate check box.

An X appears in the Everyone field for the privilege See Files.

You've now given every user with access to server the privilege to see the files and programs (if any) in your directory. Any user can also run and copy the programs and files.

When you assign an access privilege to the user category Everyone, you effectively assign the same privilege to the user categories Owner and Group.

8. For the Make Changes privilege, toggle Everyone.

An X appears in the Everyone field for the privilege Make Changes.

You've now given every user the privilege to make changes to your directory's contents.

The access privilege settings on your screen should now look like the ones in Figure 3-4.

An **X** appears for each selected option

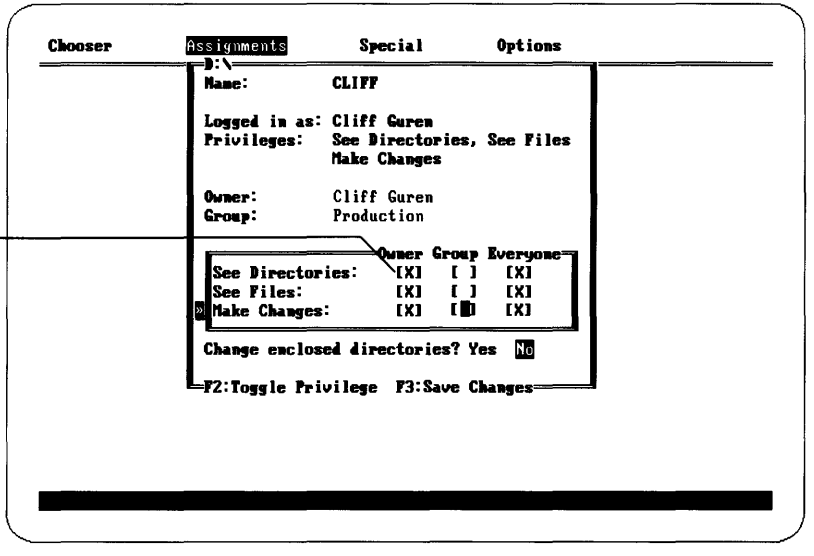


Figure 3-4
Press F2 to toggle access privileges on and off

9. Press F3, the Save Changes function key.

The new access privileges go into effect immediately.

You've now set the access privileges for the first directory you created so that anyone with access to the server can open the directory, see its contents, and make changes to them (including changes to files). The only exceptions are the contents of subdirectories, such as Special, that limit other users' access because of their access privilege settings.

You can use AppleShare's wide range of access privilege settings to create a variety of special directories. For example, you can create a "reading" directory of files for an AppleShare group by typing the group name in the Access Privileges window, then assigning the See Files privilege to Group, while assigning yourself all three privileges. Only you will be able to add, change, or delete files. Only those in the group will be able to read or copy files (but not change the originals).

For more information on setting access privileges, see "Reviewing and Setting Directory and Drive Access Privileges" in Chapter 4.

Using information in directories owned by others

The steps you followed to review the access privilege settings for your directories are the same ones you follow when you want to review the settings for directories created by other users. The following are general instructions for reviewing access privilege settings.

1. **Start the AppleTalk PC Desk Accessory program.**

   If you've made DA memory-resident, press Alt-Enter.

   If DA is not memory-resident, type `DA` at the DOS system prompt. Remember that to run the Desk Accessory you may have to specify the directory in which you installed DA.EXE, the Desk Accessory program.

2. **If necessary, log on to the server that contains the directory whose privileges you want to review. Attach a DOS drive letter to the appropriate volume.**

3. **Move to the Assignments window.**

4. **Select the drive that contains the directory you want to see and press Enter.**

5. **Select the name of the directory whose access privileges you want to review.**

   Scroll the list, if necessary, to find the name of the directory you want.

   To see a list of the subdirectories within a directory, select the directory name, then press Enter. In this way, you can move down through the hierarchy of directories until you find the subdirectory you want.

   To move back up the hierarchy, select the parent directory (indicated with a double period) and press Enter.

   To review your access privileges for directories on another volume, return to the Assignments window and select the volume you want.

6. **Press F8, the Privileges function key.**

   In the top part of the Access Privileges window (Figure 3-5), you see a summary of your access privileges for the directory you selected. In the middle part, you see the name of the directory's owner (and any group that's associated with the directory).

   Because you're not the directory's owner, you cannot change the access privileges, so you see no access privilege settings in the window.

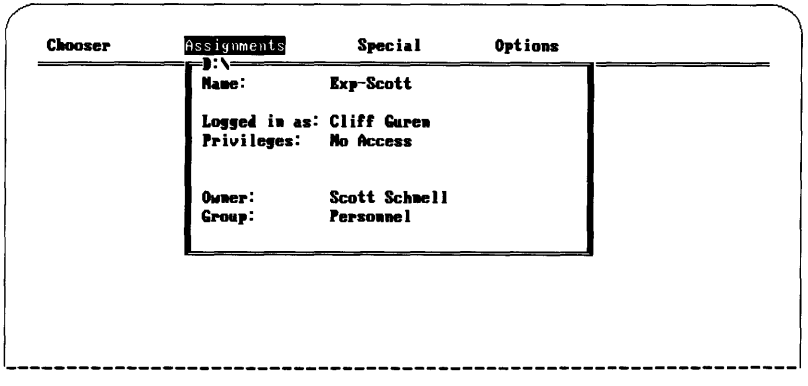


Figure 3-5
The Access Privileges window for a directory owned by another user

❖ *Note:* Anyone can claim a directory that was created by a guest. When you see <Any User> listed as the owner name, you become the new owner of the directory if you type in your registed user name and press F3 to save the change.

7. When you finish your review, press Escape to return to the directory listing or Ctrl-C to exit from the program.

The Access Privileges window closes.

Now you're ready

You've learned how to review the access privilege settings for directories you own, how to set access privileges for your directories, and how to review the settings for directories owned by others.

The access privilege settings you choose for your directories will depend on the ways in which you and the others in your work group need to use the information stored on the server. You may decide to use the server primarily as a storage space, or you may use the server primarily as a group communications tool, or you may do both. Remember, there's no "right" way to use the server: it's up to you.

Remember that you don't need any special skills to use directories on the server for which you have complete access privileges: you use the information they contain just as you use information on local disks.

Now you're ready to use AppleShare on your own. As you use the server, you'll probably have questions. How do you transfer ownership of a directory? How do you share files with Macintosh users? How do you use access privileges to set up special directories—for example, a bulletin board? How do you make backup copies on workstation disks of directories stored on the server? See Chapter 4, "AppleShare PC Operations." You'll find basic instructions for most of the tasks you'll want to do while using the server.

If you'd like to know more about AppleShare, see Part III, "AppleShare PC Reference." In Chapters 5–10, you'll find a more detailed discussion of the DA menus as well as information on advanced AppleShare PC features. In Chapter 11, you'll find help if something goes wrong. And in the appendix you can learn about Desk Accessory keyboard shortcuts.

Part II

Using AppleShare PC

Chapter 4

AppleShare PC Operations

This chapter provides specific instructions for most operations you can perform with AppleShare PC. Each operation is presented in step-by-step format within its section of this chapter, so that you can easily perform an AppleShare PC task by following the instructions in that section.

The AppleShare PC operations are grouped into the following functional categories:

- logging on to an AppleShare server
- attaching a DOS drive letter to a server volume
- establishing automatic connections
- logging off the file server
- working with DOS drives
- performing file and directory operations on all drives
- performing special file and directory operations on AppleShare drives
- reviewing and setting directory and drive access privileges
- creating specialized access privilege settings
- personalizing DA
- using batch files with AppleShare PC

Each of these categories includes instructions for two or more specific operations.

You use the AppleTalk PC Desk Accessory program (DA) on your AppleShare PC disk for all these operations except using batch files. As you will note when you begin working with DA, this program resembles many other PC desk accessories in its use of the screen. Specifically, the program "pops up" in a window that covers part of the screen; any graphics or text displayed outside the window area are not affected. When you close DA's window (by pressing the Escape key one or more times), the data previously covered by the window is again visible.

❖ *Note:* If you are using DA from the DOS prompt, you can clear the screen by typing `CLS` before typing `DA` to start the program.

The first section in this chapter, "Getting Around in DA," describes the windows and navigation features of DA in more detail.

To make optimal use of the AppleShare PC software, you should be a registered user of the file server, and you should be familiar with the access privileges you and others can set for a directory or subdirectory. Check with your AppleShare administrator to determine your registration status.

See "Controlling Your Personal Information" in Chapter 3 for an explanation of access privileges.

Getting around in DA

The AppleTalk PC Desk Accessory is made up of **windows.** The names of DA's four primary windows appear at the top of the screen. You use the Right and Left Arrow keys to move between these windows.

Many of DA's windows are subdivided into **panes.** A pane can be one of three types, each of which corresponds to the operation you can perform in that pane.

In a **list pane,** you use the Up or Down Arrow keys to select an item displayed in a list.

In an **edit pane,** you enter or edit information. A blinking cursor appears when the pane is active; any character you type fills the space occupied by the cursor and moves it to the right. You move the cursor with the Right and Left Arrow keys and delete information with the Backspace key; pressing Ctrl-Backspace deletes all text to the left of the cursor.

In a **toggle pane,** you have one of two choices, such as Yes or No. Pressing the Right or Left Arrow key selects one of the choices; pressing that key again selects the other choice.

When you have selected an item or entered information in a pane, you make the next pane active by pressing the Enter key or the Tab key. Pressing Shift-Tab activates panes in reverse order.

Each of DA's primary windows has one or more auxiliary windows. When a subsidiary window is displayed, you can move to the next higher level by pressing the Escape key. Pressing Escape in a primary window will take you out of the program and return you to the previous activity.

When a subdirectory is displayed, pressing Escape removes the directory listing and displays the window you used most recently. You can move to the next higher directory level by selecting the parent directory (indicated by two periods) and pressing Enter.

The PC's function keys initiate many of DA's commands. For example, you press F2 to log on to a file server. The function-key assignments are displayed at the bottom of the windows from which they are available.

The F1 function key always displays help information, and the F10 function key displays additional function-key operations if any are available for the window that is currently open.

Logging on to an AppleShare server

The log-on process has several steps. First you enter the name of your workstation, an optional step. Next you choose the file server you want to use; then you identify yourself to the server, thereby creating a **session** with it.

A **session** is a connection between a workstation and a file server.

Once you have logged on, you can attach DOS drive letters to one or more server volumes or subdirectories (as discussed in the section that follows). The connections you make by logging on and attaching DOS drive letters to server volumes or subdirectories remain intact until you either log off or turn off your computer.

Need help? You can press the F1 key to get help whenever you are using the AppleTalk PC Desk Accessory program.

Entering the workstation name

The first time you log on to an AppleShare server, you must supply a workstation name. This name represents the computer; it is not the same as your user name (which you enter later in the log-on process).

If someone else has previously entered a workstation name, that name will appear when you start DA.

You can leave the workstation name unchanged, if someone else has already entered one, or you can enter a name you choose. If the workstation name already in use is satisfactory to you, however, there is no need to change it.

Follow these steps to enter a workstation name.

1. Start the AppleTalk PC Desk Accessory by pressing Alt-Enter or by typing `DA` at the DOS prompt.

See "Setting Up Your PC" in Chapter 1 for an explanation of DA's installation options.

The option you chose when installing DA determines how you start the program.

When DA appears for the first time, it displays the Chooser window (Figure 4-1), which is where you perform the first two steps of the log-on process. If you are using DA as a memory-resident program and you've already performed another operation with it since turning on or rebooting your PC, the window you used most recently will be displayed. Use the Left Arrow key to display the Chooser window.

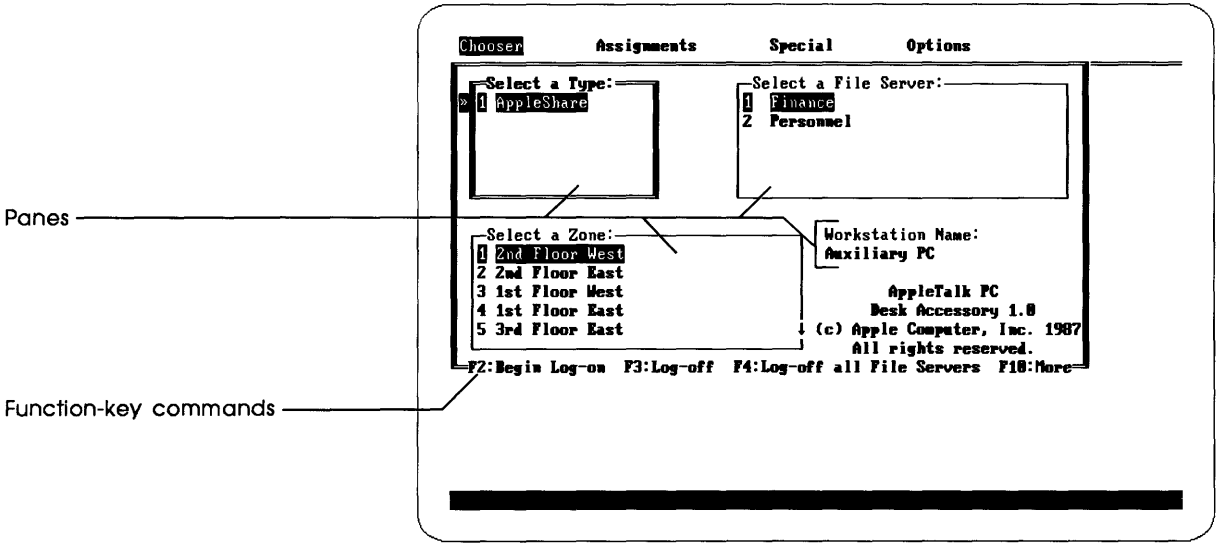


Figure 4-1
The Chooser window

The Chooser window has four panes; the Workstation Name pane appears at the lower right. At the bottom of the window is a list of operations controlled by the PC's function keys.

If the name currently displayed in the Workstation Name pane is satisfactory, you can skip steps 2 through 4.

2. **Press F5 to activate the Workstation Name pane.**

   A blinking cursor to the right of the current name indicates that the Workstation Name pane is active. The name is underlined on a monochrome monitor.

3. **Press Ctrl-Backspace to delete the current name, and type the new workstation name.**

   You can use the Backspace and Right and Left Arrow keys to edit the name.

4. **Press Enter to record the new workstation name.**

   A message appears briefly to report that the new name is being registered. This name will now appear in the Workstation Name pane whenever you use DA.

Once you have entered a workstation name, you choose the server to which you will log on.

Selecting an AppleShare server

Follow these steps to select the server.

1. **Start DA and display the Chooser window.**

   In addition to the Workstation Name pane, the Chooser window contains three list panes, in which you select a type of service (AppleShare), an AppleTalk zone, and a file server. If your network does not have zones, the Zone pane does not appear.

   The Type pane is active when the Chooser window appears, as the double border line around it in Figure 4-2 indicates. This pane lists the types of devices you can use on the AppleTalk network.

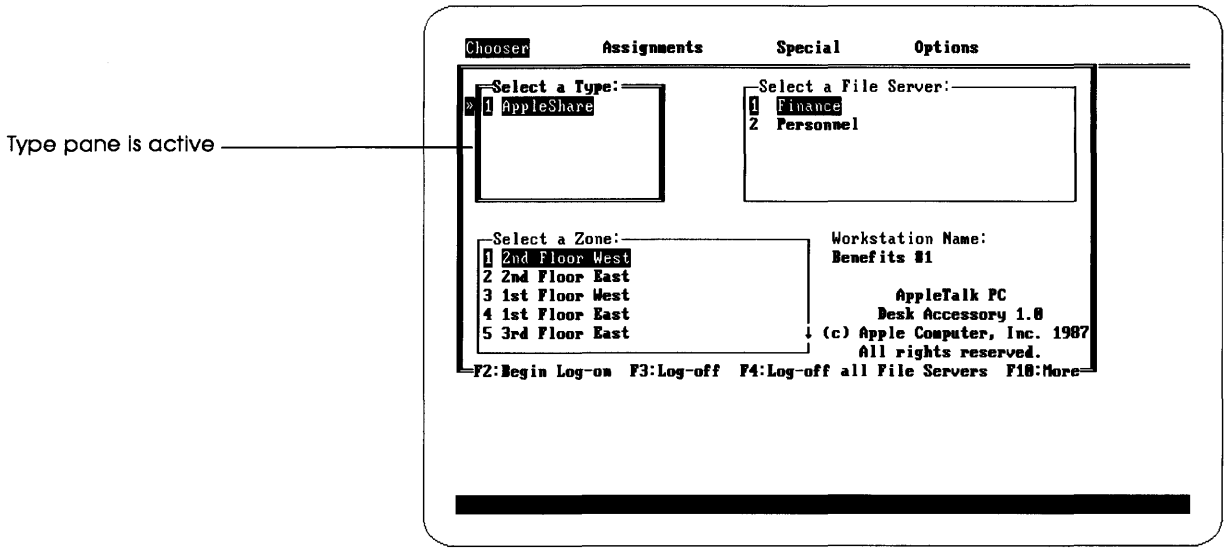


Figure 4-2
The Type pane active in the Chooser window

2. If necessary, use the Up or Down Arrow key to select AppleShare as the type of device, and press Enter to move to the next pane.

The selected type is highlighted. You can simply press Enter if the type you want is already highlighted. In the example shown in Figure 4-2, AppleShare is already selected.

After you press the Enter key, the Zone pane becomes active (if your network has zones), as indicated by a double border line around it. Figure 4-3 shows the Chooser window with the Zone pane active.

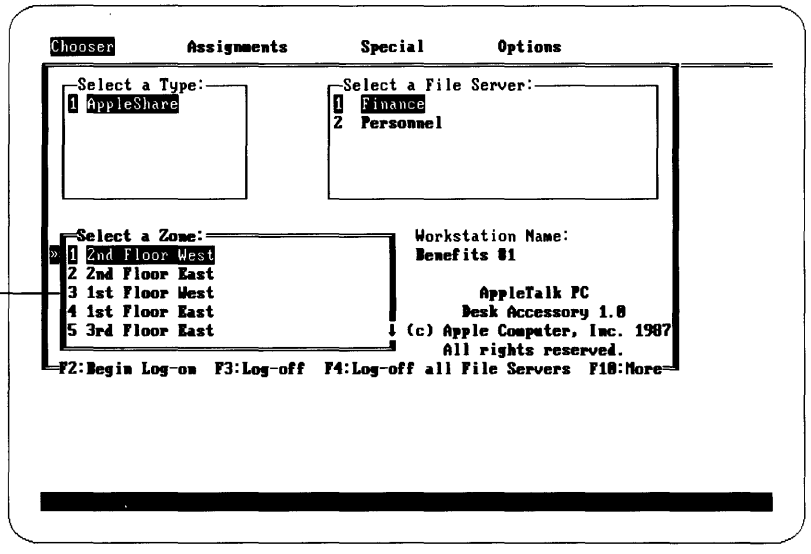


Figure 4-3
The Zone pane active in the Chooser window

The Zone pane lists your AppleTalk zone and the others that are available.

3. **Use the Up or Down Arrow key to select a zone, and press Enter to move to the next pane.**

   After you press Enter, the File Server pane becomes active, as shown in Figure 4-4. This pane lists all the servers in the zone selected previously (or on your entire network, if the Zone pane is not displayed).

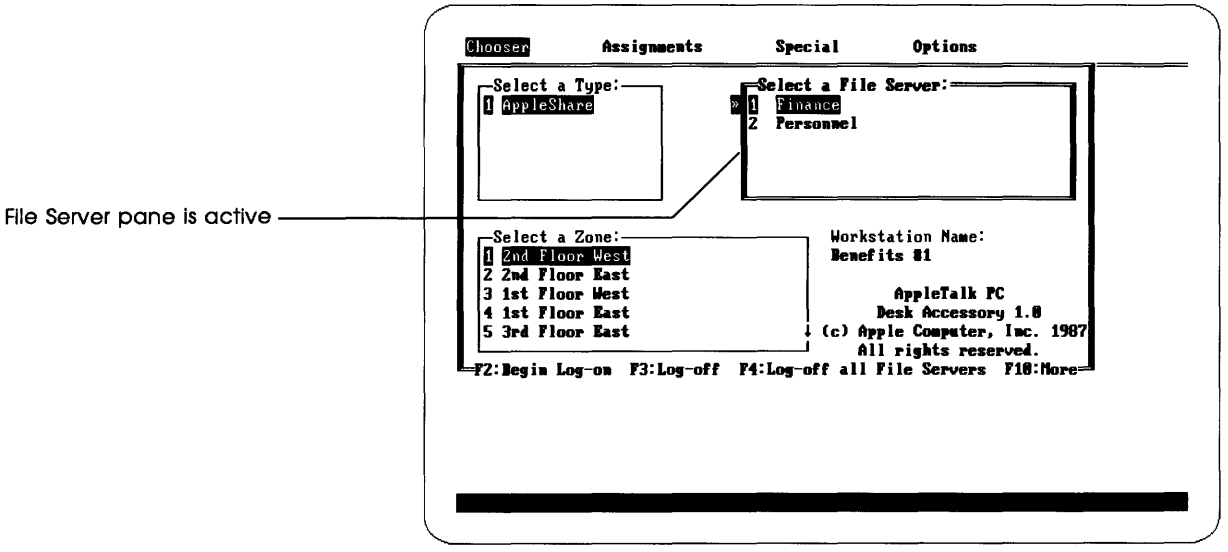


Figure 4-4
The File Server pane active in the Chooser window

4. Use the Up or Down Arrow key to select a server.

You have now made all the selections necessary to begin logging on.

If you want to change any of the selections you made in the Chooser window, you can use the Enter or Tab key to move through the panes; Shift-Tab activates the panes in reverse order.

Once you have made your selections in the Chooser window, you have indicated the file server you want to use.

5. Press F2 to begin logging on to the file server you have selected.

After you press F2, the Log On window appears.

You use the Log On window for the next step in logging on.

Entering your log-on status and name

The Log On window is where you identify yourself and supply a password, if appropriate. Figure 4-5 shows this window.

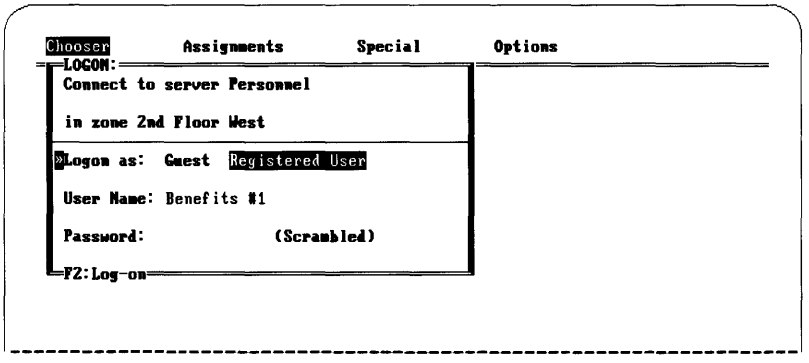


Figure 4-5
The Log On window

Before you can log on to a server as a registered user, you must obtain a user name and password from the administrator. If you are uncertain about any of the items displayed in this window, check with your AppleShare administrator.

See "Accessing a Volume on the Server" in Chapter 2 for more information about registered user status and guest status.

If you do not have a user name and password, you might be able to log on and use some or all server volumes as a guest. This status allows you to view public directories and files, and to store information on the server where allowed.

Follow these steps to continue the log-on process.

1. **Use the Right or Left Arrow key to select either Guest or Registered User status, and press Enter to move to the next pane.**

If you select Registered User status, the User Name pane becomes active and the name entered most recently appears in the pane, with a blinking cursor immediately to its right. The workstation name appears in this pane by default if you are not currently logged on to this server, as the example in Figure 4-6 shows. When the pane is active, the name is underlined on PCs with a monochrome monitor.

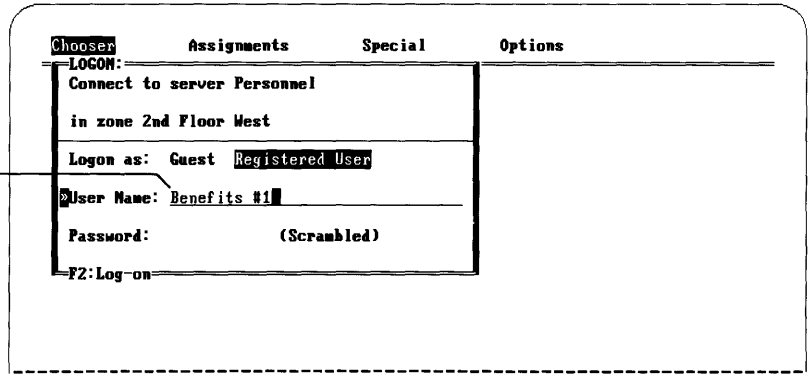


Figure 4-6
The User Name pane active in the Log On window

If you select Guest status, the User Name and Password panes disappear when you enter the selection. You can move directly to step 4 if you are logging on as a guest.

2. Press Ctrl-Backspace to delete the contents of the User Name pane, then type your user name and press Enter.

You can also use the Backspace key to delete the contents of the pane.

Be sure to type your name in the exact format provided by the AppleShare administrator. If you make a mistake, use the Backspace or arrow keys to edit your entry.

After you press Enter, the Password pane becomes active, as indicated by a blinking cursor. Figure 4-7 shows this pane.

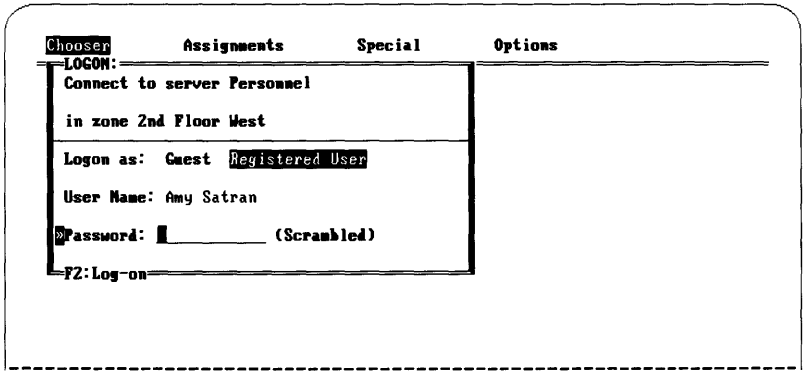


Figure 4-7
The Password pane active in the Log On window

3. Type your password.

Remember to type the password in the exact format you were given by your administrator, including uppercase and lowercase letters.

As you type, a series of asterisks appears in the pane, so that your password remains secret.

4. Press F2 to finish logging on.

After you press F2, the information you entered in the Log On window is sent to the server. If you are logging on as a registered user, the server must recognize your user name and password. If the server does not recognize them, DA will display a message alerting you that the server did not recognize the name or password. You may have made a typing error, or you may not be registered to use the server you have chosen.

Try entering your user name and password again. If the alert message is repeated, check with your AppleShare administrator to verify that you are registered for the selected server and that you are using the correct user name and password.

When your log-on data is accepted, the Attach window appears. You have completed the log-on process, and now you can attach a DOS drive letter to a server volume or subdirectory.

Attaching a DOS drive letter to a server volume

Two kinds of drives are discussed in this manual: **local drives** (such as floppy drives and hard drives), to which DOS automatically assigns drive letters, and **network drives,** to which you must attach a DOS drive letter before you can use them. AppleShare volumes are network drives.

Before you can begin using an AppleShare server from your PC, you must attach DOS drive letters to one or more volumes on the file server you selected in the Chooser window. You make server volumes available to your computer by labeling them with DOS drive letters.

You can attach a drive letter to a server volume or to a subdirectory on a volume, and you can make multiple attachments if you want to be connected to more than one volume or subdirectory.

Attaching a DOS drive letter to a volume's root directory

You use the Attach window to designate a DOS drive letter and volume and to attach the letter to the volume's root directory. Figure 4-8 shows this window, with the Volume pane active.

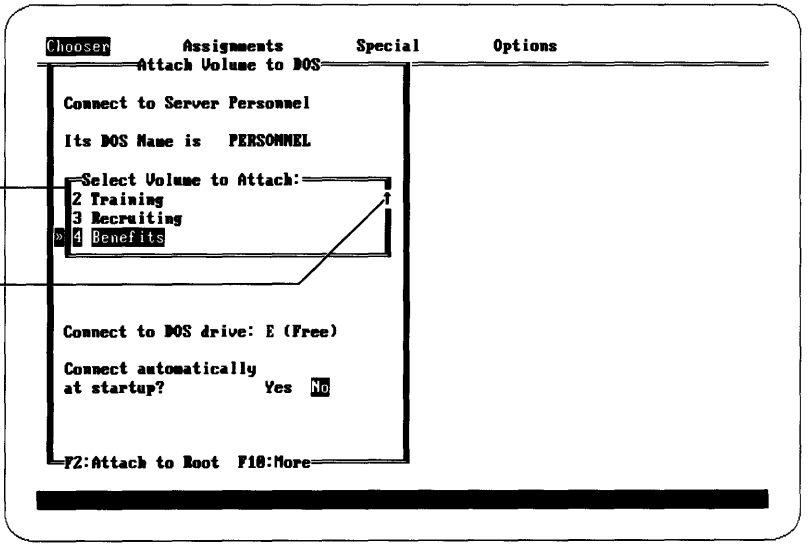


Figure 4-8
The Volume pane active in the Attach window

Follow these steps to attach a drive letter to the root directory of a server volume.

1. **Use the Up or Down Arrow key to select a volume in the Volume pane of the Attach window, and press Enter to move to the next pane.**

   You can also type the number of the volume to select it.

   After you enter your selection, the Drive pane becomes active in the Attach window. The letter of the next available drive automatically appears in the pane, with that drive's status in parentheses to its right. A blinking cursor next to the drive letter indicates that you can edit this information.

   Figure 4-9 shows the active Drive pane.

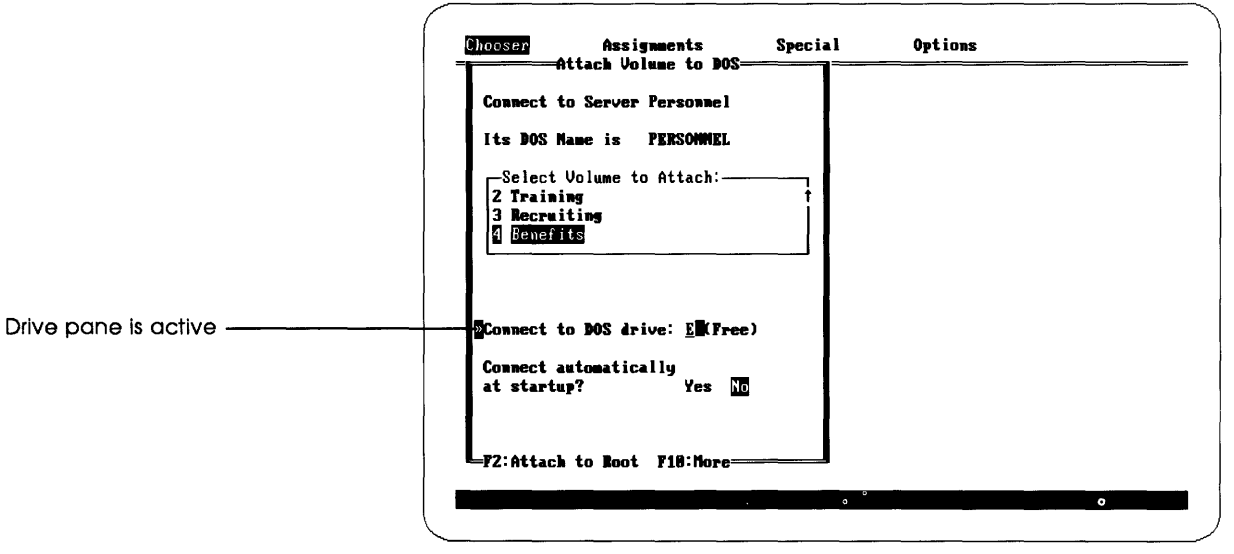


Figure 4-9
The Drive pane active in the Attach window

If no drive letter is available, the cursor will appear in the pane but no letter will appear in the pane. You can still move the cursor to the left and type a drive letter, but the letter you type may be in use or the status notation will be "Illegal" if you have not used the DOS Lastdrive command to make it available. (Consult your DOS manual for more about the Lastdrive command.)

If you type a drive letter that is already in use and complete the attachment process, DA will recognize your new designation and remove the previous designation for that letter. If the drive letter was attached to a local drive, that drive will be unavailable until you detach the network drive assignment.

The Verification window appears, in which you confirm the new attachment.

2. **To change or enter a letter in the Drive pane, press the Backspace key once to delete the current letter or blank space, type a new letter, and press Enter to move to the next pane.**

   When you press Enter, the Automatic Connect pane becomes active. Follow the steps in "Connecting Automatically" later in this chapter to log on automatically and attach a drive letter to a server volume or subdirectory.

3. **Press F2 to attach the drive letter to the root directory of the server volume.**

   In a few moments, the word "AppleShare" replaces the word in parentheses to the right of the drive letter in the Drive pane.

   A message also appears in the status line noting that the connection has been completed. Figure 4-10 shows an example of this message.

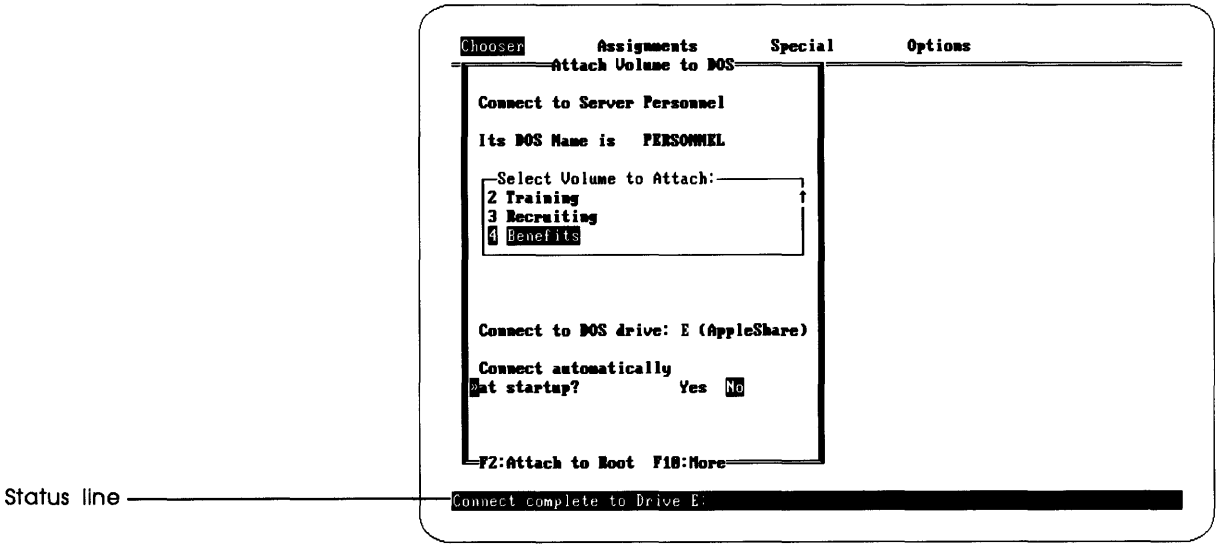


Figure 4-10
The status line showing attachment complete

Attaching a DOS drive letter to a subdirectory

In some instances you may want to attach a drive letter to a subdirectory on a server volume, rather than to the root directory. You do this by changing the last step in the attachment process.

Important DOS views the directory to which you attach a letter as the root directory of that drive. This means that you can use any directories at or below the level at which the drive letter is attached, but you cannot access any directories at a higher level, including the actual root directory of the volume, unless you reattach to the root directory.

This is a is useful technique if most of the information you wish to use on a server volume is located in a particular directory or its subdirectories.

Follow these steps to attach a drive letter to a subdirectory.

1. **Complete the information in the Attach window and press F10.**

   This includes selecting a server volume, designating a drive letter, and indicating whether you want to establish an automatic connection.

   Pressing F10 displays additional function-key operations at the bottom of the window, as Figure 4-11 shows. (You do not have to press F10 to initiate the connection; it merely displays the additional function-key operations.)

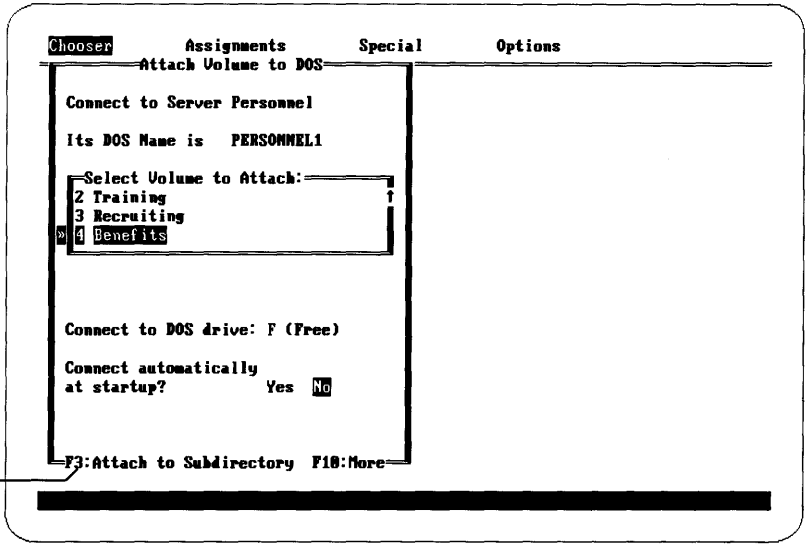


Figure 4-11
The Attach window showing additional function-key operations

2. **Press F3 to see a list of subdirectories to which you can attach a drive letter.**

When you press F3, a new window appears containing a list of subdirectories in the root directory of the selected volume (Figure 4-12).

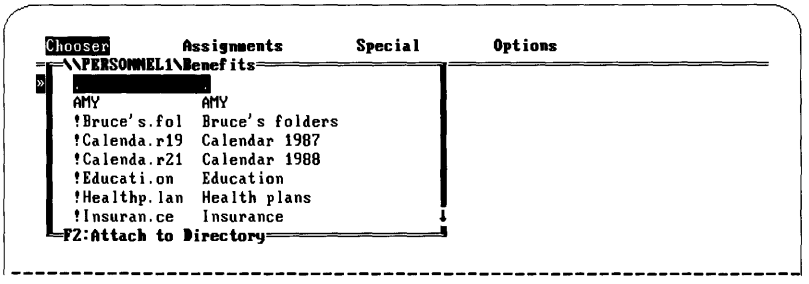


Figure 4-12
Subdirectories in the root directory of the selected volume

3. Use the Up or Down Arrow key to select a subdirectory.

Pressing Enter when a directory name is selected reveals its subdirectories. You will need to use this procedure if the subdirectory you want is nested within a directory listed in the current window.

To move to a subdirectory's parent directory, select the entry consisting of two periods (..) and press Enter.

4. When the desired subdirectory is selected, press F2 to complete the attachment.

In a few moments, the word "AppleShare" replaces the word in parentheses to the right of the drive letter in the Drive pane. A message also appears in the status line noting that the connection has been completed.

If you see a message that tells you to modify the redirector options, see "Increasing Sessions and Network Drives" in Chapter 10.

Establishing automatic connections

When you log on to a server volume or subdirectory, you can specify that DA log on automatically each time you turn on or reboot the PC thereafter.

If you will always be using the same server volume or subdirectory, establishing an automatic connection is an efficient way to log on and attach a drive letter to the desired volume or subdirectory. If you will be using different volumes or subdirectories at different times, an automatic connection is probably not as useful for you.

Connecting automatically

You can easily establish one or more automatic log-on and attachment records to save time and effort.

Follow these steps to connect automatically.

1. **Select and enter the information in the Chooser and Log On windows as usual, and proceed to the Attach window.**

   The Automatic Connect pane in the Attach window asks whether you want to connect automatically.

2. **Select Yes in the Automatic Connect pane and press Enter.**

   When you press Enter after selecting Yes, the Save Password pane appears at the bottom of the window (Figure 4-13). It asks whether you want to save your password as part of the automatic connection.

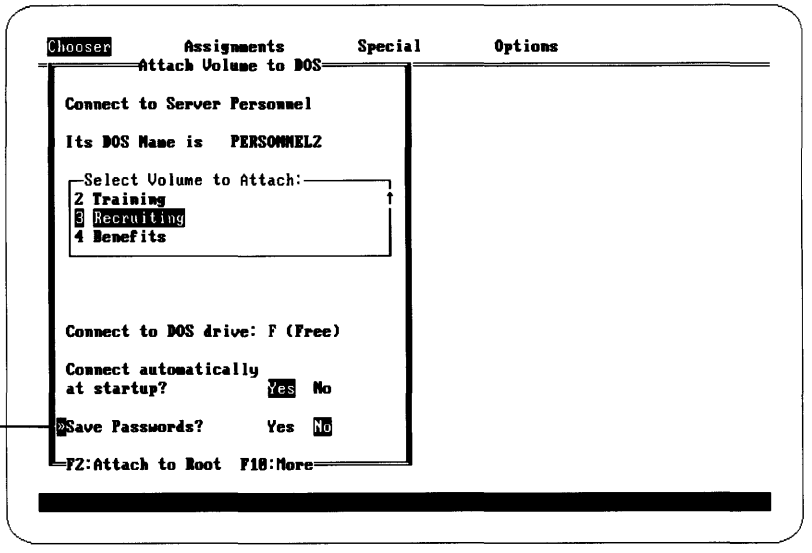


Figure 4-13
The Save Password pane added to the Attach window

If you are not the only person who uses your workstation, saving your password for automatic connection is probably not a good idea, because anyone turning on your PC will be connected automatically using your name and password. Therefore, anyone using your computer will have access to all your information.

3. **Select Yes or No in the Save Password pane, and either press F2 to attach to the root directory, or press F3 to attach to a subdirectory of the selected volume.**

   Pressing F2 completes the connection; pressing F3 allows you to select a subdirectory and then complete the connection. Completing the connection saves a record of the connect information on your startup disk.

   The next time you turn on your PC using the startup disk, AppleShare PC will automatically establish your connection with the server volume or subdirectory you selected. If you did not save your password as part of the automatic connection, you will be prompted to type the password during the automatic-connection process.

Reviewing or canceling automatic connections

You can see a list of the automatic connections established for your workstation, and you can delete one or more of those automatic connections.

1. Start DA and use the Right or Left Arrow key to select Special.

The Special window appears (Figure 4-14). It lists several choices.

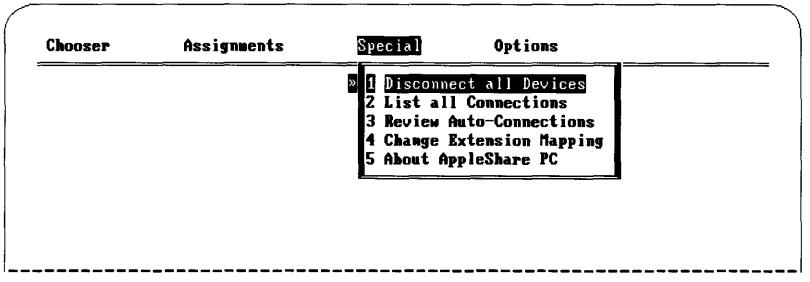


Figure 4-14
The Special window

2. Use the Down Arrow key to select Review Auto-Connections in the Special window and press Enter.

The Review Auto-Connections window appears, showing the file server, user name, and DOS drive letter for each automatic connection. Figure 4-15 shows an example of this list.

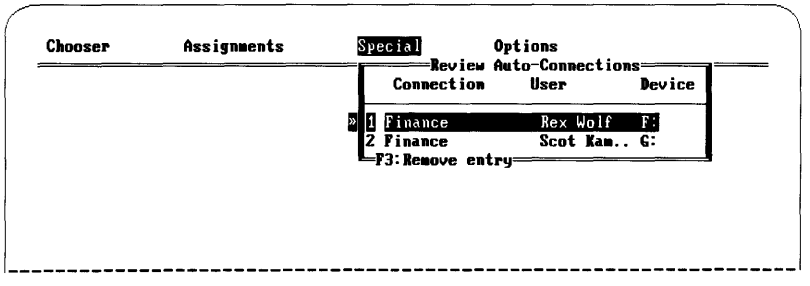


Figure 4-15
The Review Auto-Connections window

3. **To remove an automatic connection, select the desired entry in the Review Auto-Connections window and press F3.**

   The selected item is deleted.

An automatic connection is also deleted if you create a new automatic connection that uses its DOS drive letter.

Logging off the file server

You should log off the server when you have finished using it. Although logging off is not mandatory before you can use your workstation for other operations, it's good network etiquette.

Because the number of workstations that can be logged on to the AppleShare server at one time is limited, you may prevent someone else from using the server if you neglect to log off. By logging off you are being considerate of others who are using the file server and of those who may want to use it soon.

Logging off one server

As with logging on, you begin the log-off process in DA's Chooser window.

If you have established more than one server connection, you can log off selectively with the Log Off command.

Follow these steps to log off one server.

1. **Start DA and select Chooser at the top of the screen.**

   The Chooser window appears (Figure 4-16). The servers to which you have active connections in the selected zone are identified with an asterisk to the left of their names in the File Server pane. The function-key operations are listed at the bottom of the window.

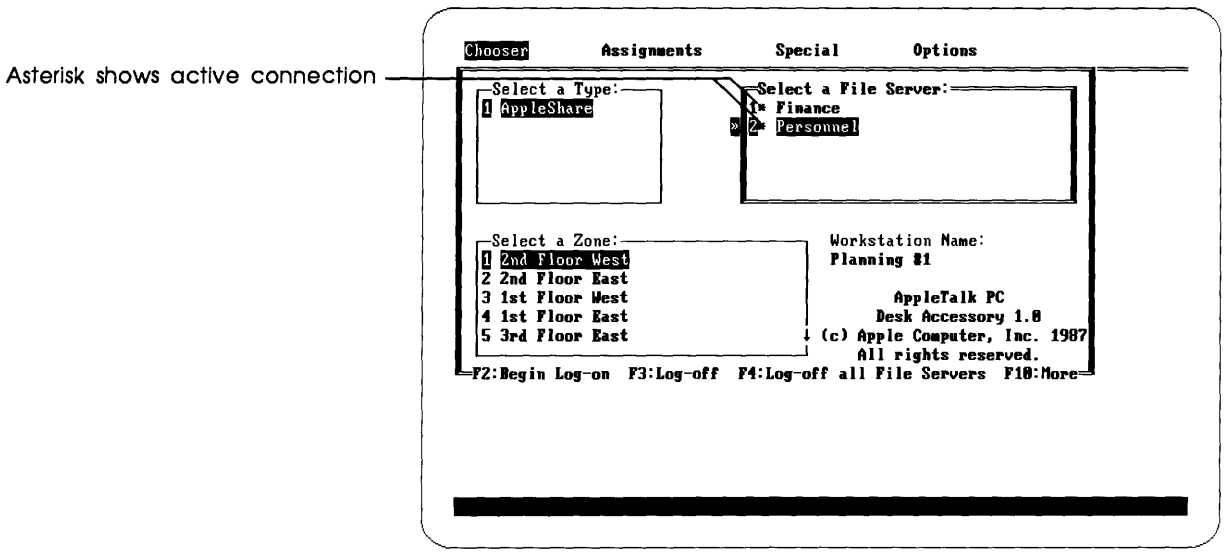


Figure 4-16
The Chooser window showing active file server connections

2. Select the server from which you want to log off.

Use the Up or Down Arrow key to select the server.

3. Press F3 to begin logging off one server connection.

If you have established only one connection with that server, the Verification window appears, asking you to confirm your Log Off command. Proceed directly to step 5.

If your PC has active connections with the server under more than one user name, the Log Off window appears instead of the Verification window. Figure 4-17 shows the Log Off window, which lists the sessions (each user name and server connection) that are currently active.

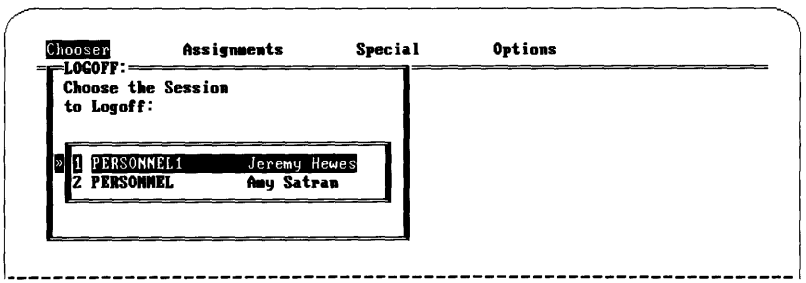


Figure 4-17
The Log Off window listing the current sessions

4. Use the Up or Down Arrow key to select the session from which to log off, and press Enter.

You can also type the number of the session to select it.

When you enter the selection, the Verification window appears.

5. Select Yes in the Verification window to log off.

When you select Yes, the connection is broken.

If you select No, the connection remains intact.

You can also log off a server by displaying a list of the active connections in the Special window and then breaking the appropriate connection.

Follow these steps to use this alternate log-off procedure.

1. Display the Special window by selecting its name at the top of the screen.

Use the Right or Left Arrow key to select this window.

2. Use the Down Arrow key to select List All Connections, and press Enter.

When you press Enter, the Connections window appears, showing a list of all active connections.

3. To break a particular connection, select its name in the list and press F3.

When you press F3, the Verification window appears, asking you to confirm your command.

4. **Select Yes and press Enter to log off.**

   When you press Enter, the connection is broken.

   If you select No, the connection remains intact.

Logging off all connections

You can also log off all server connections with one command.

1. **In the Chooser window, select AppleShare in the Type pane, and press F4 to begin logging off all server connections.**

   The Verification window appears, asking you to confirm your command.

2. **Select Yes and press Enter to log off all server connections.**

   If you select No, all connections remain intact.

You can also use the Disconnect All Devices command in the Special window to disconnect your PC from all network devices, including file servers.

1. **Use the Right or Left Arrow key to select Special.**

   The Special window opens. The item used most recently is selected. Figure 4-18 shows this window.

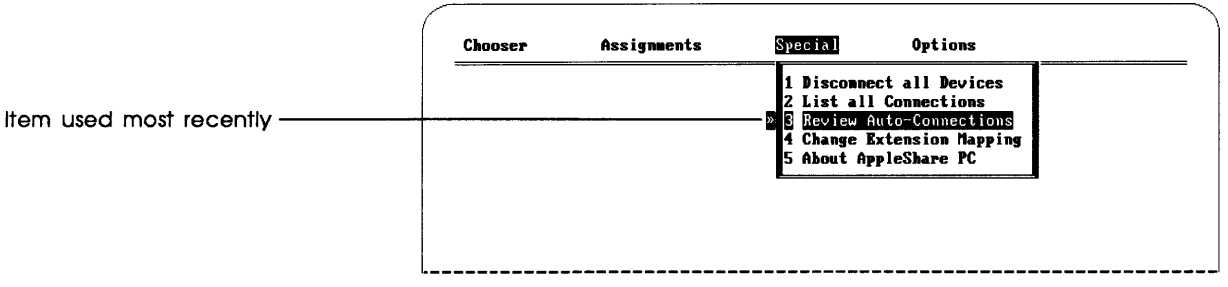


Figure 4-18
The Special window

2. **Use the Up or Down Arrow key to select Disconnect All Devices and press Enter.**

   The Verification window appears, asking you to confirm your command.

3. **Select Yes and press Enter to disconnect all devices.**

   Selecting Yes disconnects all devices; selecting No keeps the connections intact.

Working with DOS drives

You can use DA to perform operations on and get information about the local disk drives connected to your PC, as well as AppleShare volumes and subdirectories.

Listing drive letters, attributes, and attachments

You can see a list of all the local and network drives attached to your PC by using the Assignments window of DA. Each active drive letter is listed, along with the type and the name of the device or connection it represents.

- **Start DA and use the Right or Left Arrow key to select Assignments at the top of the screen.**

  When you select Assignments, the Assignments window appears (Figure 4-19).

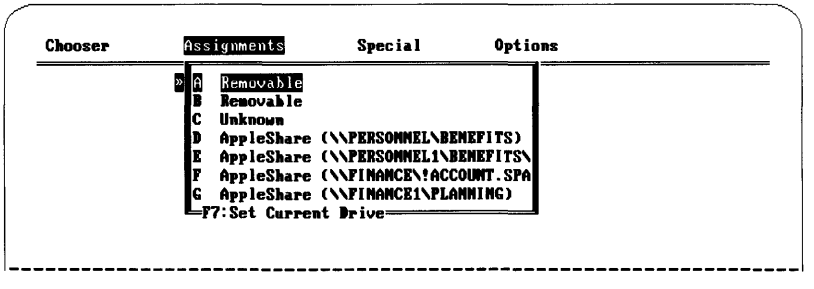


Figure 4-19
The Assignments window

This window shows the drive letter on the left, the type of device (with its volume name, if any, in parentheses) on the right. The window may obscure the right-hand portion of a long name.

The current drive is selected in the window. A small arrow appears at the top- or bottom-right side of the screen if the list contains more items than the window can show. You can scroll the list with the Up and Down Arrow keys, or move a windowful at a time with the PgUp and PgDn keys.

Listing directories on a drive

Once the list of drives is displayed in the Assignments window, you can easily select a drive and see the contents of its directories.

- **With the Assignments window displayed, use the Up or Down Arrow key to select the drive whose directories you want to see, and press Enter.**

  The current directory of the selected drive appears in a Directory window (Figure 4-20).

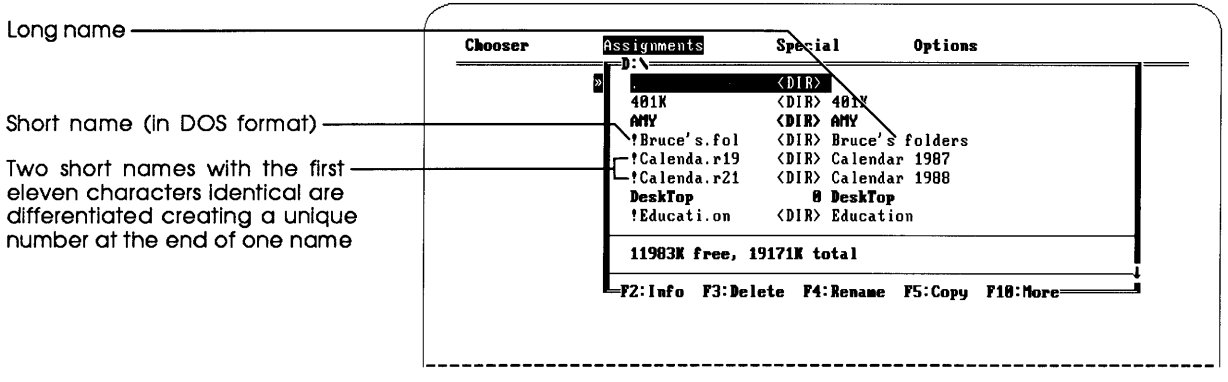


Figure 4-20
The Directory window

See "Getting Information About the Root Directory" in Chapter 7 for more details about the two forms of filenames.

As the figure shows, the directory listing contains two versions of each file or directory name; between them is a number representing the size in bytes of a file, or the standard DOS identification of a directory (<DIR>). The DOS version of a file or directory name appears on the left. The long form of the name appears on the right; this is the Macintosh version, which can contain blank spaces and a greater number and variety of characters than DOS permits. The DOS version of a long Macintosh name begins with an exclamation point (!) to signify that the DOS name was derived from the Macintosh name.

- **To see nested directories, select a directory name in the list and press Enter.**

  You can continue this procedure to view the various directory levels.

  If a directory name is dimmed, you do not have privileges to see its contents.

  See "Reviewing and Setting Directory and Drive Access Privileges" later in this chapter for more about access privileges, or consult your AppleShare administrator if you have questions about access to a particular directory.

- **To return to the next higher directory level, select the directory consisting of two periods (..) and press Enter.**

  This directory, called the parent directory, always appears second from the top of a subdirectory listing.

  You may have to repeat this process several times if you want to return to the root directory.

  Pressing the Escape key when a directory is displayed will return you to the Assignments window.

Setting the current drive

You can easily change the current drive (the letter displayed in the DOS prompt) in the Assignments window.

- **To set the current drive, select the desired drive in the Assignments window and press F7.**

  The selected drive becomes the current drive.

Detaching an AppleShare drive

For information about attaching, see "Attaching a DOS Drive Letter to a Server Volume" earlier in this chapter.

You can detach a DOS drive letter from a server volume or subdirectory by using the Detach command in the Assignments window. This command can only be used with AppleShare drives.

Follow these steps to detach a drive letter.

1. **In DA's Assignments window, select the desired drive letter.**

   Use the Up or Down Arrow key to select the drive.

2. **Press F3 to detach the drive letter from this directory.**

   When you press F3, the Verification window appears, asking you to confirm your command. Selecting Yes and pressing Enter in this window detaches the drive letter.

3. **Select Yes and press Enter to confirm the detachment.**

   Selecting No and pressing Enter keeps the attachment intact.

   You will not be able to detach a drive letter from an AppleShare drive if any files on it are open.

Performing file and directory operations on all drives

The AppleTalk PC Desk Accessory provides a number of DOS file and directory utilities, such as copying, deleting, and renaming files or directories. DA enhances some of these utilities to facilitate bulk operations and to give PC users access to Macintosh data files and Macintosh users access to PC data files.

See "Displaying Information About a File, Directory, or Drive" and "Reviewing and Setting Directory and Drive Access Privileges" later in this chapter for details about getting information and setting access privileges for AppleShare drives.

If you have installed DA as a memory-resident program, you can use it to perform file and directory operations without quitting another program. This can be a great advantage if you need to log on to use an AppleShare file with a program that's running on your PC.

Copying a file or a directory's contents

Copying a file from one drive or directory to another or copying a directory's contents is a simple procedure when you are using DA. It resembles the DOS Copy command, but often with fewer items to type.

Copying a file

1. **In the Assignments window, select a drive and press Enter to display the directory.**

   The Directory window appears, displaying the current directory of the selected drive and listing several function-key operations at the bottom of the window.

   If you want to copy a file from a subdirectory, continue the process of selecting a directory and displaying its contents until you see the filename you want.

2. **Use the Up or Down Arrow key to select the file you want to copy and press F5.**

   When you press F5, the Destination window appears (Figure 4-21). It displays the current pathname of the file you selected for copying; a blinking cursor to the right of the pathname indicates that you can edit this information.

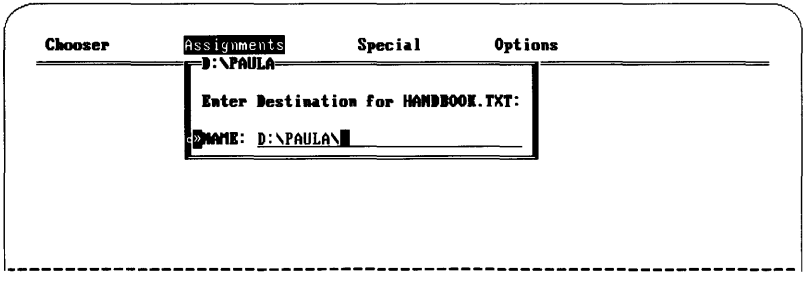


Figure 4-21
The Destination window for copying a file

3. Type the desired pathname for the file copy and press Enter.

You can delete the entire pathname by pressing Ctrl-Backspace, or edit the path with the Backspace and Right and Left Arrow keys. You can also include a new name for the file in the destination pathname, if desired.

If you only specify a destination directory, the filename will remain unchanged (as in the DOS Copy command).

See "Copying Files and Directories" in Chapter 7 for more information about file conversion.

When you press Enter, the Conversion window appears. You have the option to convert the file from DOS text to Macintosh text, from Macintosh text to DOS text, or to copy without any conversion. See "Converting a File While Copying" later in this chapter for more information about text-file conversion. In this example, no conversion takes place during copying.

4. Select None and press Enter to begin the copying process.

When you press Enter, the file is copied to the drive and directory you entered in the Destination window.

Copying a directory's contents

Using DA, you can copy the contents of a directory, including its subdirectories. You can also specify whether the DOS text files should be converted to Macintosh text files, or vice versa, as they are being copied.

❖ *Note:* When you copy a directory with DA, you are copying some or all of the files and subdirectories in that directory. As in DOS, the directory name itself will not be copied to the destination.

1. Select a drive in the Assignments window and press Enter to display the directory.

You can also type the letter of the drive to select it.

The Directory window appears, displaying the current directory of the selected drive and listing several function-key operations at the bottom of the window.

If you want to copy a lower-level directory, continue the process of displaying levels until you see the desired directory.

2. **Use the Up or Down Arrow key to select the directory whose contents you want to copy and press F5.**

When you press F5, the Copy Directory window appears (Figure 4-22). It displays the directory name and path at the top and contains panes in which you can enter the destination, specify which files are to be copied, select a file conversion option, and indicate whether subdirectories and their contents are to be copied and whether existing files should be overwritten. The Destination pane is active, as the blinking cursor indicates.

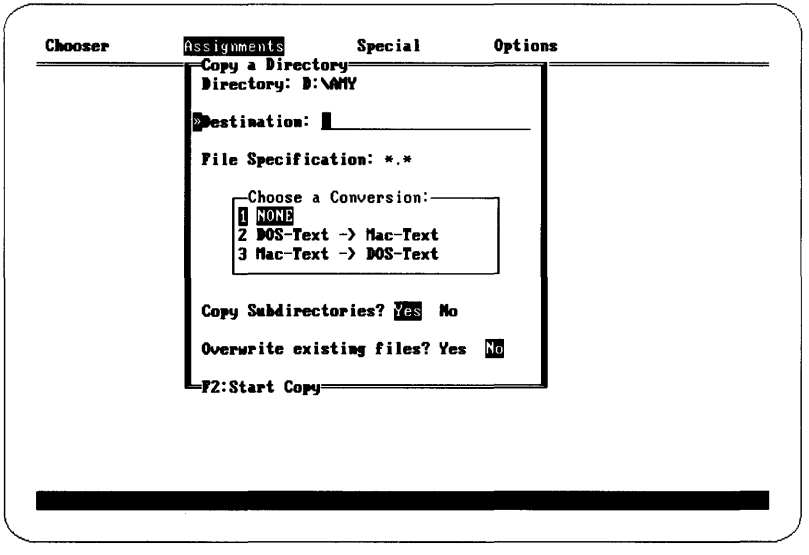


Figure 4-22
The Copy Directory window

3. **Type the desired pathname for the destination of the directory's contents, and press Enter to move to the next pane.**

You enter the destination in the same way that you would when copying with the DOS Copy command. The destination must not include a file specification; the destination specified will be created if it does not exist.

When you press Enter, the File Specification pane becomes active. It contains the global characters representing all files (*.*), which specify that all files in the directory should be copied.

4. **Edit the file specification as desired to indicate the specific files to be copied, and press Enter to move to the next pane.**

   If you want all files copied, you can simply press Enter.

   If you want to copy all files with the extension TXT, you can edit the pane to read *.TXT. You can also use other DOS wildcard conventions, such as the question mark.

   When you press Enter, the Conversion pane becomes active.

5. **Select a conversion option from the list displayed, and press Enter to move to the next pane.**

   You can convert DOS text files to Macintosh text files or Macintosh text files to DOS text files. DA recognizes a file as DOS or Macintosh text by the extension in its filename on local drives, or by the file's **icon type** on AppleShare drives.

   An **icon type** is a visual file identifier that AppleShare PC creates for display on Macintosh screens.

   See "Changing Extension Mappings" later in this chapter for more information about file extensions.

   If you select a conversion option (DOS text to Macintosh text or Macintosh text to DOS text), DA will convert all the files of the specified type. Other files will be copied with no conversion.

   You also can select None as the conversion option and no files will be converted, regardless of their type.

   When you enter the conversion option, the Subdirectory pane becomes active.

6. **Select Yes or No and press Enter to move to the next pane.**

   Indicating Yes in the Subdirectory pane will create matching subdirectories at the destination and copy all files matching the file specification.

   When you enter the selection, the Overwrite pane becomes active.

7. **Select Yes or No and press F2 to start the copying process.**

   Indicating Yes in the Overwrite pane means that any existing files with names identical to those specified for copying will be overwritten.

   When you press F2, the Copying Status window appears; it displays the copying status and shows the number of files and subdirectories copied as the process is taking place. This window also lists several error conditions that might develop during copying.

Figure 4-23 shows the Copying Status window after a directory's contents have been copied successfully.

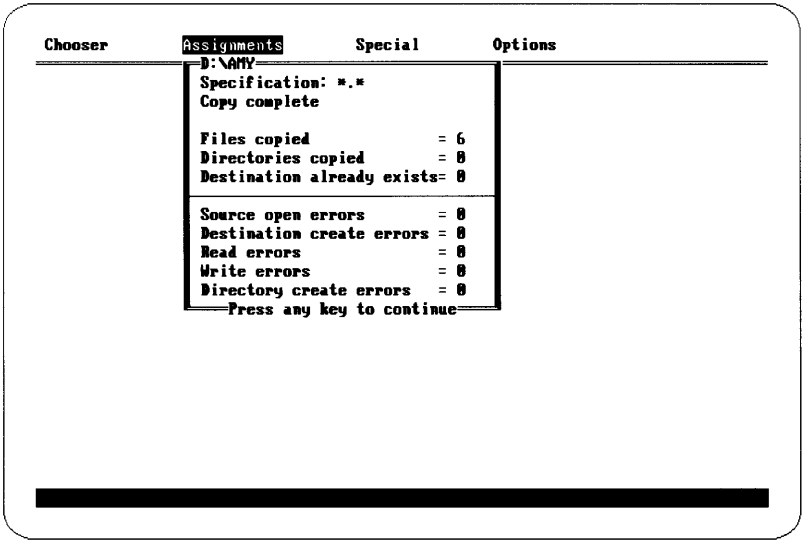


Figure 4-23
The Copying Status window

8. Press any key to return to the Directory window.

The directory whose contents you copied is still selected in the window.

Converting a file while copying

When you copy a DOS text file or a Macintosh text file, you have the option of converting it from DOS text to Macintosh text or vice versa. For example, you may want the Macintosh users in your department to read a report you wrote with the PC; they can easily do so if the file is converted from PC text format to Macintosh text format.

See "Changing Icon Types" and "Changing Extension Mappings" later in this chapter for more information about file icon types and extensions.

DA recognizes a file as DOS text or Macintosh text by the file extension (on local drives) or by the file's icon type (on AppleShare drives). You can designate which file extensions DA will recognize as DOS text files or Macintosh text files.

1. To copy and convert a file, follow the standard copying steps.

After you enter a destination for the file, the Conversion window appears. This window lists the file-conversion options; Figure 4-24 shows this window.

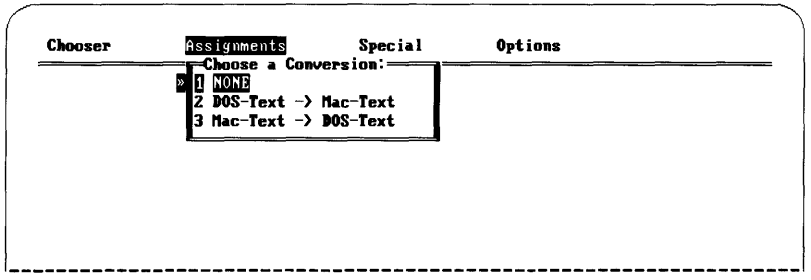


Figure 4-24
The Conversion window

2. Select a conversion option for the copy and press Enter.

The file is converted while being copied. A status message confirms that copying is taking place.

Selecting the None option results in copying without any conversion.

❖ *Note:* Selecting an inapplicable conversion option may result in an unusable destination file.

You can also convert files when copying a directory. See "Copying a File or a Directory's Contents" earlier in this chapter for details of this procedure.

Deleting a file or directory

Deleting a file or directory is another operation that DA can perform. You initiate this procedure in the Directory window.

Deleting a file

1. **In the Assignments window, select a drive and press Enter to display its current directory.**

   The Directory window appears. If the file you want to delete is not listed, repeat the selection process until you locate it.

2. **Select the file to delete and press F3.**

   The Verification window appears, showing the file preceded by its pathname. (This window will not appear if you have turned off the Verify Deletes option. See "Verifying Delete Operations" later in this chapter for more about this option.)

3. **Select Yes to confirm the deletion.**

   Selecting No cancels the file deletion.

Deleting a directory

Deleting a directory removes the files, subdirectories, and the directory selected.

1. **In the Assignments window, select a drive and press Enter to display its current directory.**

   The Directory window appears. If the directory you want to delete is not listed, repeat the selection process until you locate it.

2. **Select the directory to delete and press F3.**

   The Delete Directory window appears, showing the directory preceded by its pathname, along with a File Specification pane and a Subdirectories pane.

Figure 4-25 shows an example of the Delete Directory window.

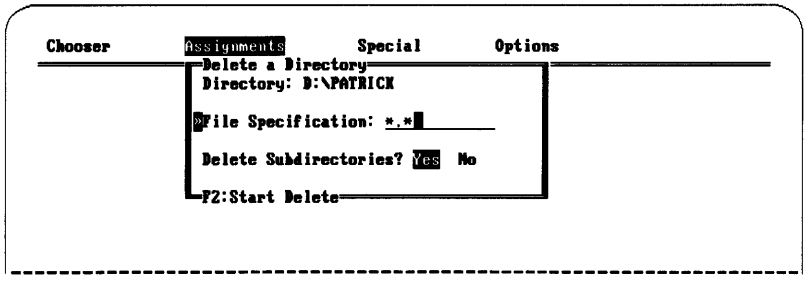


Figure 4-25
The Delete Directory window

The File Specification pane is active, as the blinking cursor indicates. (The text field is also underlined on a monochrome monitor.) The global file specification appears in the pane.

3. **Edit the pane to specify the files you want to delete from the selected directory, and press Enter to move to the next pane.**

   When you press Enter, the Delete Subdirectories pane becomes active.

4. **Select Yes or No to indicate whether appropriate files in subdirectories will be deleted, and press F2 to start the deletion process.**

   If the file specification for deletion is the global one (*.*) and you also select Yes in the Delete Subdirectories pane, all subdirectories of the selected directory will be deleted.

   The Verification window appears, asking whether you want to delete the directory and its contents.

5. Select Yes to confirm the deletion and press Enter.

If you select No, the directory will not be deleted.

When you enter a confirmation, the Deletion Status window appears. It lists the number of files and directories removed and two possible error conditions. Figure 4-26 shows the Deletion Status window.

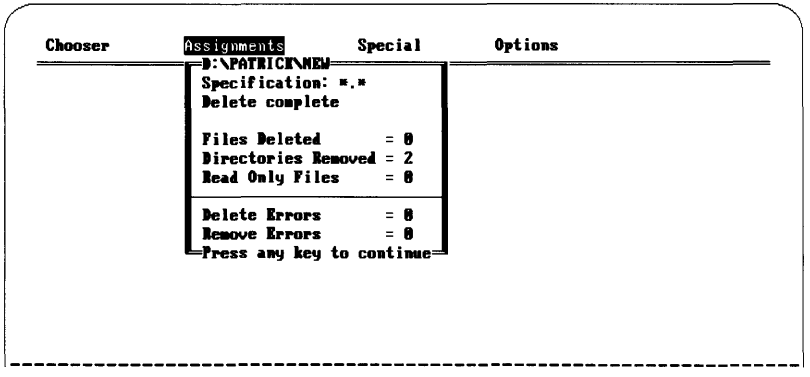


Figure 4-26
The Deletion Status window

6. Press any key to return to the Directory window.

The directory you selected is no longer in the list displayed in this window.

Renaming a file or directory

Renaming a file or directory is another simple procedure with DA.

1. In the Assignments window, select the drive that contains the file or directory you want to rename, and press Enter.

Continue the selection process in the Directory window until it displays the name of the desired file or directory.

2. Select the file or directory you want to rename and press F4.

The New Name window appears (Figure 4-27). It displays the current pathname but not the filename (if you have selected a file to rename). A blinking cursor indicates that you can enter new information or edit the data displayed.

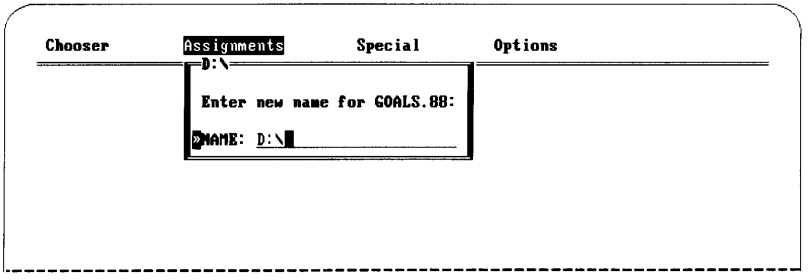


Figure 4-27
The New Name window

3. Type the new name and press Enter.

The file or directory is renamed to match your entry.

- *Moving a file:* If you change the pathname when renaming a file, the renamed file will be moved to the directory.
- *Moving a directory:* For AppleShare drives only, you can change the pathname when renaming a directory, and the entire renamed directory will be moved.

Creating a directory

You can use DA to create a directory on any drive.

Follow these steps to create a directory.

1. In the Assignments window, select the drive on which you want to create a directory and press Enter to display the Directory window.

The Directory window opens, showing the current directory of the selected drive.

2. Press F6 to begin the directory-creation process.

The New Directory window opens (Figure 4-28). It shows the current pathname.

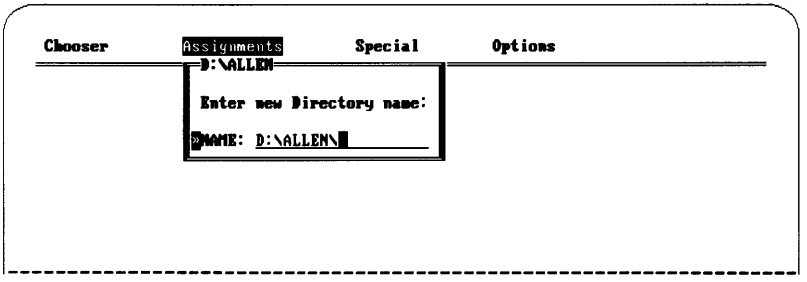


Figure 4-28
The New Directory window

3. Type the name of the new directory and press Enter.

You can also change or edit the pathname if you wish.

The new directory is created at the location specified in the pathname.

Changing the current directory

Like most other directory operations, changing the current directory is initiated from the Directory window.

- **To change the current directory, open the Directory window, select the directory you want to make the current directory, and press F7.**

  The selected directory becomes the current one, although the contents of the Directory window do not change.

  The directory you specified will remain the current one until you change it again with DA or the DOS Change Directory command.

  If DA is memory-resident and you display the path as part of the DOS prompt, you may need to press Enter to see the new directory name.

Performing special file and directory operations on AppleShare drives

DA performs certain file and directory operations only with AppleShare drives. These include changing the type of information displayed in a directory, displaying and changing detailed information about a file or directory, and changing or mapping icon types.

Changing the file and directory display

See "Getting Additional Directory or File Information" in Chapter 7 for more information about filenames.

By default, DA displays two versions of each file or directory name in the Directory window—the DOS (short) version and the Macintosh (long) version.

You can change the Directory window's listing to display only the short version of file and directory names, along with the date and time of their creation and their DOS attributes.

- **In the Directory window, press F9 to toggle between the short filenames and the long names display option.**

  Figure 4-29 shows the short names and file information.

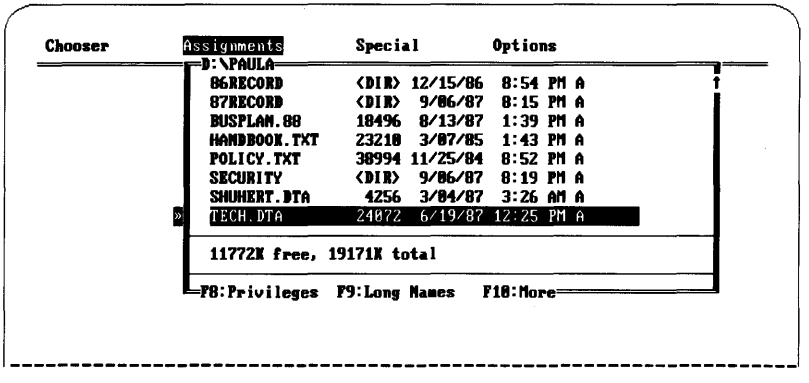


Figure 4-29
Short names in the Directory window

In most instances, the long-name format (both names plus file size) will probably be the more useful directory display option.

Displaying information about a file, directory, or drive

You can use the Assignments window to select a file, directory, or drive and display detailed information about it.

1. **Use the Right or Left Arrow key to select Assignments.**

   The Assignments window opens, showing a list of the active drives connected to your PC (see Figure 4-19).

2. **Select the drive for which you want to see file or directory information and press Enter.**

   The Directory window appears, showing a list of the files and subdirectories in the current directory of the selected drive. If the list extends below the bottom edge of the window, a small arrow appears at the lower-right side of the window's border. Figure 4-30 shows an example of the Directory window.

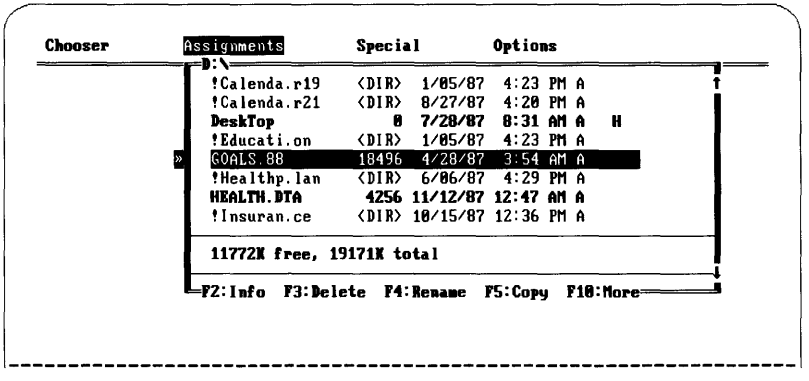


Figure 4-30
The Directory window

3. **Use the Up or Down Arrow key to select a file or a directory from the list and press F2.**

   If you selected a file, the File Info window opens (Figure 4-31). The window shows the name of the file (in both the DOS form and the longer form used by the Macintosh), its location, the file type and size, relevant dates, its read-only status, and a comment pane.

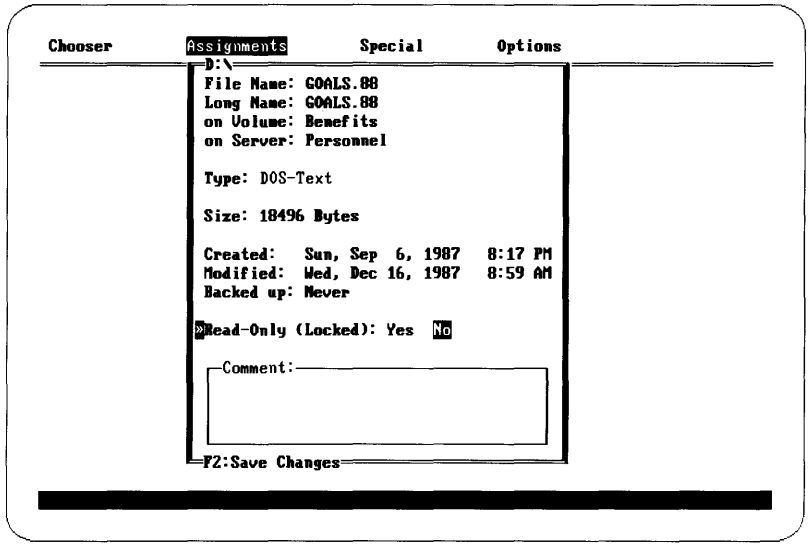


Figure 4-31
The File Info window

If you selected a directory or drive, the Directory Info window opens (Figure 4-32). This window shows the name, location, number of enclosed files and directories, relevant dates, your access privileges for the directory, and a comment pane.

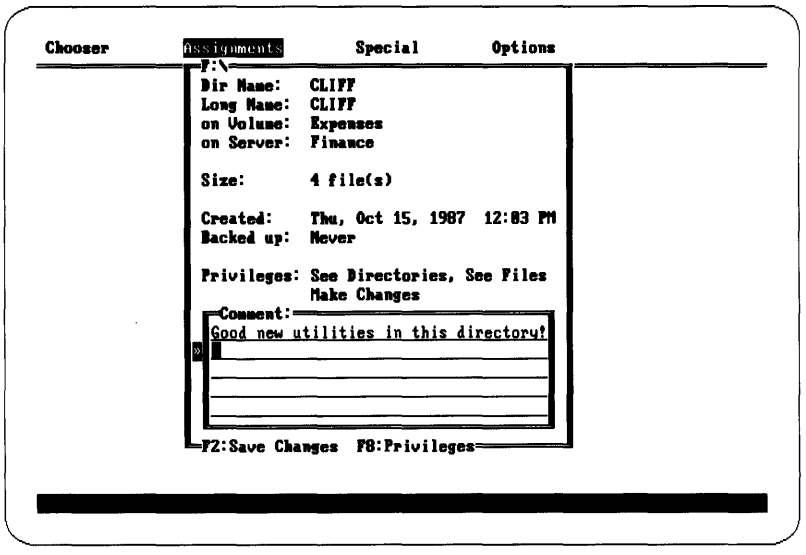


Figure 4-32
The Directory Info window

Adding a comment about a file, directory, or drive

You can add notes about a file or a directory in the Comment pane of either window. Both Macintosh and PC users can see the comment.

For example, you may want to notify all AppleShare users in your group that a worksheet on the server is the latest version of the department budget.

Follow these steps to add a comment about a file, directory, or drive.

1. **Display the name of the the file, directory, or drive about which you want to add a comment and press F2.**

   File and directory names are displayed in the Directory window; drive names are displayed in the Assignments window.

   When you press F2, the appropriate information window opens.

2. **Press Enter, if necessary, to activate the Comment pane.**

   A blinking cursor appears in this pane when it is active; on a monochrome display, the area for text entry is also underlined. You can use the arrow keys and Backspace, Insert, and Delete to edit your entry. In the Directory Info window this pane is active when the window opens.

3. **Type the desired comment, and press F2 to save the new information.**

   Your comment is recorded, as a message in the status line confirms. The File Info or Directory Info window stays open.

4. **Press Escape once to return to the Directory window or twice to return to the Assignments window.**

   Alternatively, you can keep the information window open to make other changes relevant to this file, directory, or drive.

Changing the read-only status of a file

You can change the read-only status of the file in the File Info window. This technique is useful when you want to ensure that a data file or program can't be overwritten accidentally.

1. **Select the file whose read-only status you want to change, and press F2 to open the File Info window.**

   The File Info window opens, with the Read Only pane active.

2. **Select Yes or No in the Read Only pane and press F2 to save the new information.**

   Selecting Yes locks the file so that no one can make changes in it; a message in the status line confirms the change. The File Info window remains open until you press Escape.

Changing icon types

See "Getting Additional Directory or File Information" in Chapter 7 for more information about file types and icons.

You can change the icon of some DOS files located on server volumes. The icon is displayed on Macintosh screens and used to identify the file. Macintosh icons can't be displayed on a PC.

If the icon type of a file is one that the PC can create, you can change it with DA. Follow these steps to change the icon of a file.

1. **In the Assignments window, select the desired drive and press Enter.**

   Continue the selection process in the Directory window if the file is not in the current directory.

2. **Select the file and press F2 to display the File Info window.**

   The File Info window appears (Figure 4-33).

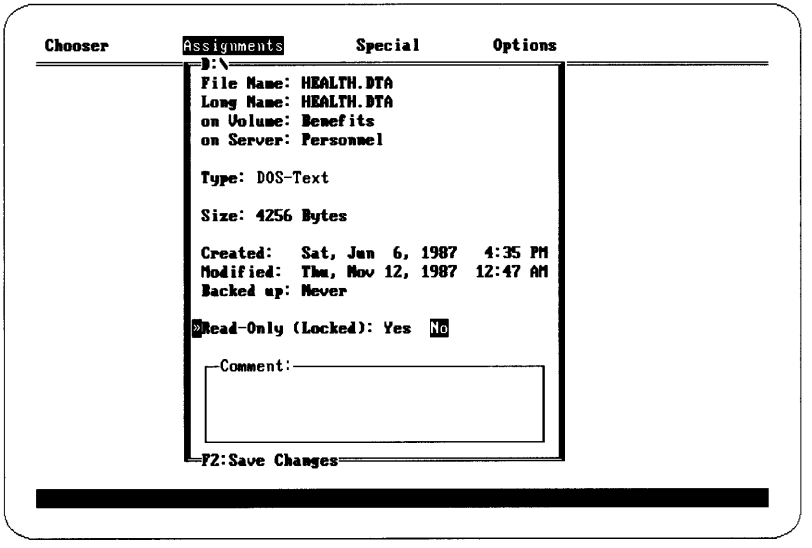


Figure 4-33
The File Info window

3. **Press Enter one or more times to activate the File Type pane in the window.**

   If you can't activate the File Type pane, the file's icon type is not one that DA recognizes. You will not be able to change the icon type.

   When the pane becomes active, a list of available file icon types appears (Figure 4-34).

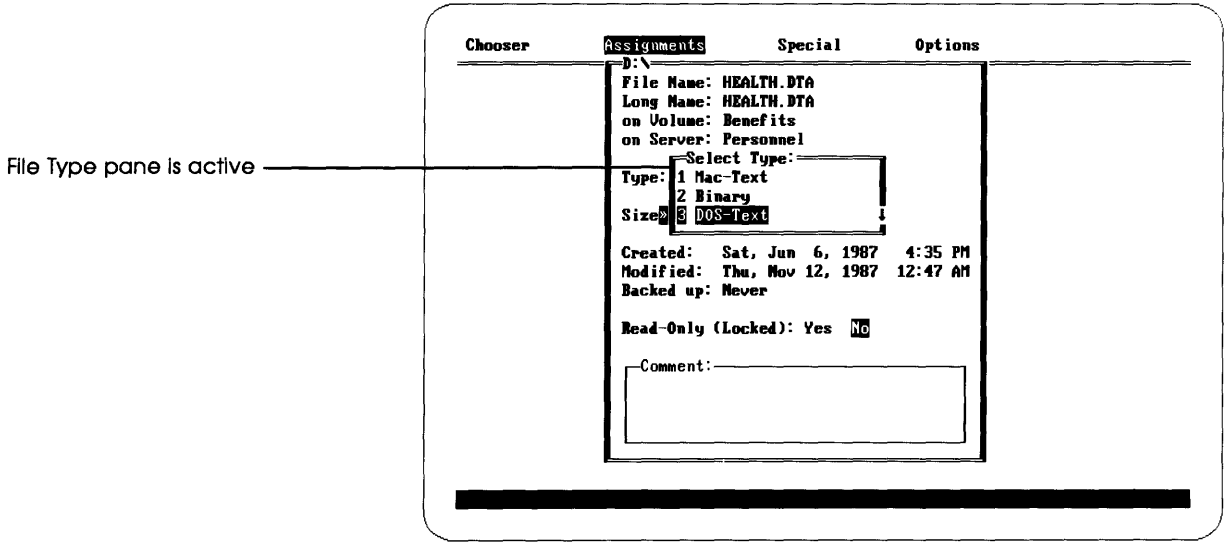


Figure 4-34
A list of file icon types

4. **Use the Up or Down Arrow key to select the desired file icon type and press Enter.**

   The icon type of the selected file changes in the File Type pane.

5. **Press F2 to save the change in file icon type.**

   The new file icon type is saved, and the File Info window stays open. Pressing Escape once returns you to the Directory window; pressing Escape twice returns you to the Assignments window.

Changing extension mappings

When DA creates a file on a server, it assigns an icon type to that file. The icon type determines how the file will be represented visually to Macintosh users.

The AppleShare PC software determines what icon type to assign to a file by looking at the file extension. For example, batch files (with the extension BAT) are assigned the DOS text icon type.

If the AppleShare PC software doesn't recognize a particular file extension, it assigns the icon type Binary to all files with that extension.

When you change an extension mapping, your changes go into effect for all files created thereafter. Changing an extension mapping does not alter the icon type of existing files. (You can change the icon type of individual files in the Type pane of the File Info window, as explained in "Changing Icon Types" earlier in this chapter.)

You can see the complete list of file icon types by using the ANET MAP command; see "Using ANET" and "MAP" in Chapter 10 for an explanation of the ANET program and the MAP command.

Follow these steps to view or change a file extension mapping.

1. In the Special window, select Change Extension Mapping and press Enter.

The Extension Mapping window appears (Figure 4-35). The Extension pane is active, as the blinking cursor indicates.

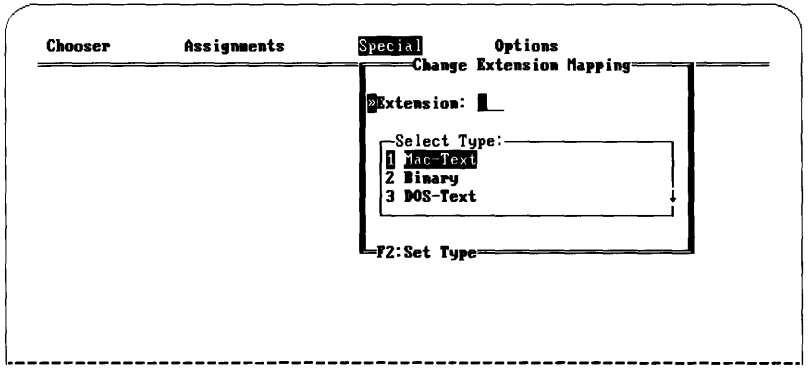


Figure 4-35
The Extension Mapping window

2. **Type the extension whose mapping you want to view or change, and press Enter to move to the next pane.**

   When you type an extension, DA displays the current icon type for that extension. The default type for unknown extensions is Binary.

   The Icon Type pane becomes active when you press Enter. If the icon type that appears when you type an extension is the one you want, you do not need to select a new icon type in this pane.

3. **Use the Up or Down Arrow key to select a new icon type, and press F2 to save the new icon-type assignment.**

   All new files that you create with the designated extension will have the selected icon type.

   Press Escape to return to the Special window.

Reviewing and setting directory and drive access privileges

Every directory on an AppleShare server has an owner. When you create a directory on a server, you become its owner. By default, only you have access to that directory's contents if you are a registered user. If you are a guest, you and everyone else have access to the directory's contents.

As the owner of a directory, you can also specify who else may use its contents. You can set access privileges to the contents of a directory for each of three user categories: for the Owner, for a Group (which is established by the AppleShare administrator), and for Everyone.

For each of the three categories, you set access privileges that specify what the users in those categories may do with the contents of a directory you own. The three access privileges you set for others are:

- See Directories, which allows users to view and potentially to use the contents of subdirectories in your directory
- See Files, which allows users to see the names of data files and programs in your directory, to read and copy files, and to execute programs there

- Make Changes, which allows users to make changes to the directory's contents, such as creating, deleting, or modifying files or subdirectories

You use DA to review and set access privileges for the directories that you own, and to determine what your privileges are for other directories on the AppleShare server.

Table 4-1 shows how DA's access privilege settings correspond to commands in DOS.

Table 4-1
Minimum access privileges for use of common DOS commands

DOS Command	Minimum Access Privileges			
	See Directories		See Files	Make Changes
Type			X	
Directory	X *	or	X **	
Delete	X *	or	X **	
Copy (from)			X	
Copy (into)				X

* Directories only. ** Files only.

Setting and changing access privileges is easy, but determining who will have access to the information on a server and what users can do with that information requires careful consideration. Consult your AppleShare administrator if you are uncertain about any aspect of using access privileges. And even if you have used shared resources before, it's a good idea to read Chapter 3, "Privacy on the File Server."

Displaying access privileges for a directory or drive

You initiate most operations related to access privileges in DA's Directory window.

Follow these steps to display the access privileges for a directory or drive.

1. **In DA's Assignments window, select the drive letter that is attached to the appropriate server volume and press Enter.**

   The Directory window appears, displaying a list of files and subdirectories in the current directory of the selected drive.

2. **Select the name of the directory for which you want to review access privileges and press F8.**

   The Access Privileges window appears. It lists the directory name, your user name, the privileges you have for this directory, the directory's owner, and the name of a group if one is associated with this directory.

   Figure 4-36 shows the Access Privileges window.

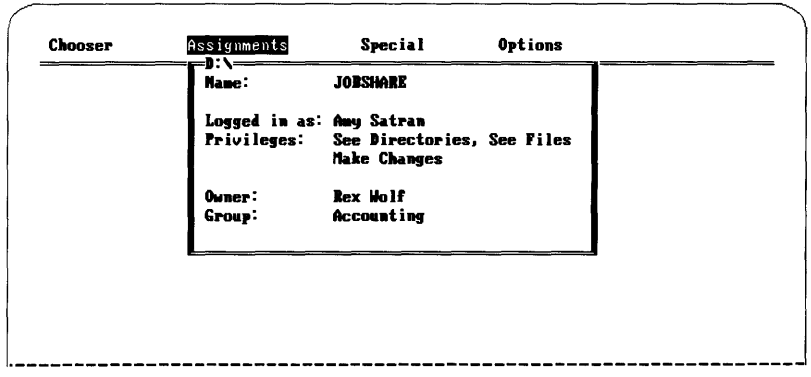


Figure 4-36
The Access Privileges window

If you are not the owner of this directory, you can only review this information; you cannot change the access privileges.

Changing access privileges

For a directory you own, the Access Privileges window contains an extra pane that allows you to change the directory's privileges. Figure 4-37 shows the Access Privileges window with the Change Privileges pane displayed.

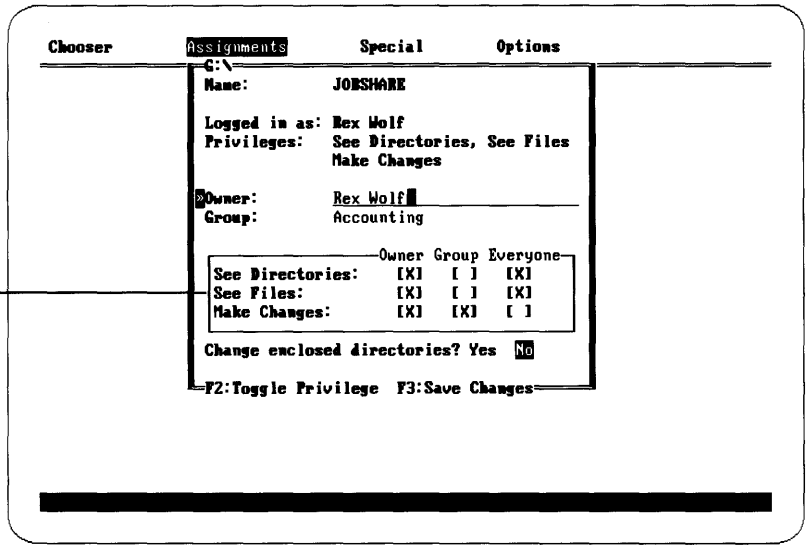


Figure 4-37
The Change Privileges pane in the Access Privileges window

Follow these steps to change access privileges for a directory or drive.

1. **Press Enter as many times as required to make the Change Privileges pane active in the Access Privileges window.**

   A blinking cursor appears in the matrix of boxes when this pane becomes active.

2. **Use the Up and Down Arrow keys to select the level of access, and use the Right and Left Arrow keys to select who has these privileges.**

   Select only boxes that you want to change.

3. **Press F2 to change the designation in the selected box.**

   The letter X in the box indicates that the corresponding privilege is set. Pressing F2 for an empty box inserts an X; pressing F2 for a box containing an X removes the letter.

4. **Repeat steps 2 and 3 until you've set the privileges desired, then press Enter to move to the next pane.**

   When you press Enter, the Enclosed Directories pane becomes active.

5. **Select Yes to set the privileges of all enclosed subdirectories or No to exclude subdirectories, and press Enter.**

   If you select Yes, the privileges of all enclosed subdirectories that you own will also be changed. If you select No, only the selected directory's privileges are changed.

6. **Press F3 to save the new privileges.**

   The status line shows DA's progress as it sets the privileges.

You can change privileges for an AppleShare drive's root directory as well. Select the desired drive in the Assignments window, display the Access Privileges window, and then follow steps 1 through 6 above.

Transferring ownership of a directory

You can transfer ownership of a directory to another registered user or to everyone who uses the server. A directory that everyone owns has <Any User> as the owner, an AppleShare designation that includes guests who are logged on.

Directories created by guests on the server are owned by <Any User>. You can transfer any of these directories to a new owner as well.

Important You will not be able to change the access privileges for a directory after you transfer it to another owner. Furthermore, the new owner can restrict or remove your access to the directory.

Follow these steps to transfer ownership of a directory.

1. **Display the Access Privileges window for a directory you own and make any desired changes in privileges.**

   Change privileges by toggling them on or off in the matrix of boxes in the Change Privileges pane.

As you make changes, remember that you will no longer be the owner or have owner's access privileges. If you want to retain access to the directory's contents, either give privileges to everyone or to a group of which you are a member.

2. **Activate the Owner pane (using Enter or Tab), type the name of the new owner, and press F3 to record the new owner and privileges.**

   When you press F3, ownership of the directory is transferred and the new access privileges take effect.

Creating specialized access privilege settings

The examples that follow demonstrate some of the ways you can use directory access privileges on an AppleShare server.

Locking a directory

In addition to setting others' access privileges for a directory that you own, you can lock a directory so that its contents can't be changed or accidentally erased—even by you.

Follow these steps to lock a directory.

1. **Select the directory you want to lock in the Directory window, and press F8 to display the access privileges for that directory.**

   The Access Privileges window opens.

2. **Use the Enter key to activate the Change Privileges pane.**

   The matrix of boxes for access privileges is displayed.

3. **Use the arrow keys to select a Make Changes box that contains an X and press F2 to remove that privilege.**

   You do not need to change the See Directories or See Files privileges.

4. **Repeat step 3 for all user categories that show an X for the Make Changes privilege.**

   Toggling off the Make Changes privilege assures that no one can modify, delete, or add to the selected directory.

   Figure 4-38 shows the desired settings in the Change Privileges pane.

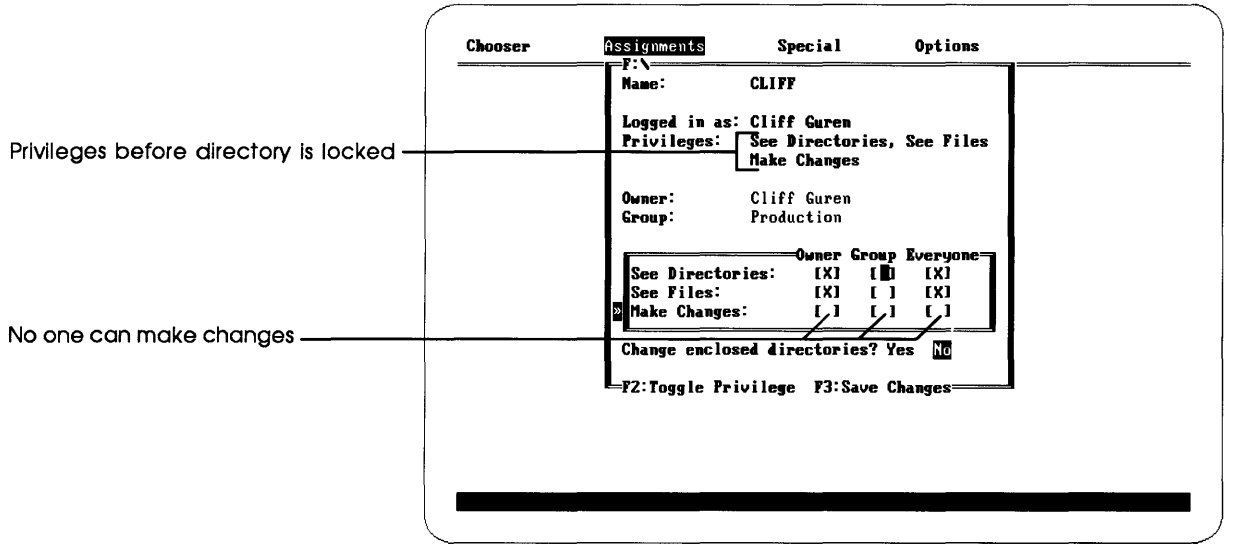


Figure 4-38
The access privileges for a locked directory

5. **Press F3 to set the new privileges.**

   The new privileges take effect immediately. To unlock this directory, you must change its access privileges.

Setting up a drop box

You can use DA to set up a directory that serves as a "drop box"—a storage area where users can place files or subdirectories, but where only you can see or change the directory's contents once the files or subdirectories are deposited.

Follow these steps to create a drop box.

1. **Create a new directory to use as a drop box.**

   You can also select an existing directory for this purpose.

2. **Select the directory in the Directory window, and press F8 to display the access privileges for that directory.**

   If you created a new directory, you are the owner and the only one with access privileges for it.

3. **Use the Enter key to activate the Change Privileges pane.**

   The matrix of privilege boxes is activated.

4. **Use the arrow keys to select the Make Changes/Everyone box, and press F2 to toggle on that privilege.**

   Figure 4-39 shows the settings for a drop box that everyone can use.

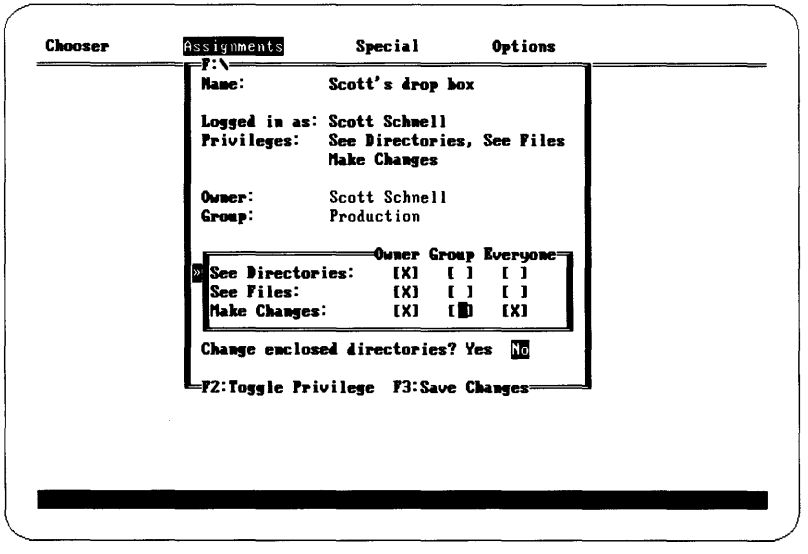


Figure 4-39
The access privileges for a drop box

If you want the drop box to be available only to members of a particular AppleShare group, toggle on the Make Changes privilege for Group instead of for Everyone.

5. **To specify the directory's use by an AppleShare group, use Enter to activate the Group pane and type the name of the group.**

   If necessary, verify the name and membership of the group with your AppleShare administrator.

6. **Press F3 to set the new privileges.**

   The new privileges take effect immediately.

Setting up a bulletin board

You can set up another directory as a bulletin board, where all users can read the directory's contents but only a small group can make changes or delete or add files.

Follow these steps to create a bulletin board.

1. **Create a new directory to use as a bulletin board.**

   You can also select an existing directory for this purpose.

2. **Select the directory in the Directory window, and press F8 to display the access privileges for that directory.**

   If you created a new directory, you are the owner and the only one with access privileges for it.

3. **Use the Enter key to activate the Change Privileges pane.**

   The matrix of privilege boxes is activated.

4. **Use the arrow keys to select the See Directories/Everyone box, and press F2 to toggle on that privilege.**

   Repeat this process for the See Files/Everyone privilege.

5. **To allow an AppleShare group to post information on the bulletin board, select the Make Changes/Group box and press F2 to toggle on that privilege.**

   Any member of the group can both see directories and files and add notices to the board.

6. **Use Enter to activate the Group pane and type the name of the group.**

   If necessary, verify the name and membership of the group with your AppleShare administrator.

   Figure 4-40 shows the Access Privileges window with settings for a bulletin board where a group has privileges to read and post or delete notices.

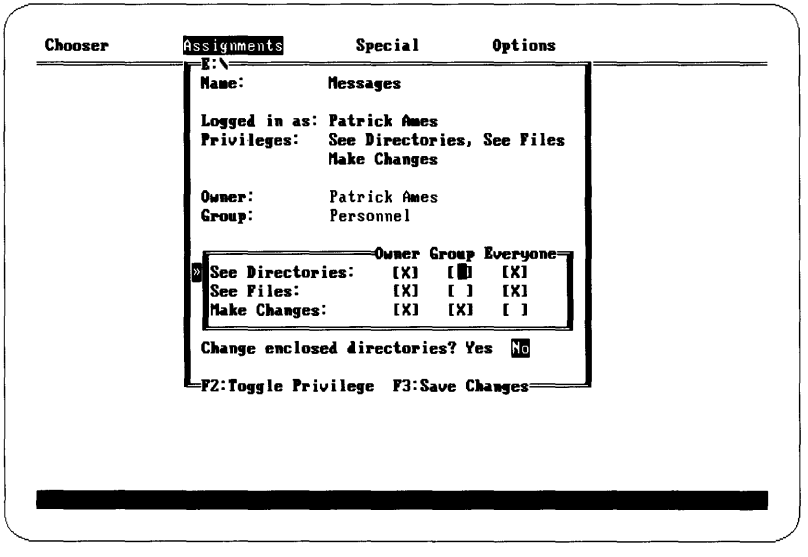


Figure 4-40
The access privileges for a bulletin board

7. **Press F3 to set the new privileges.**

   The new privileges take effect immediately.

Personalizing DA

DA allows you to change several program settings, such as the screen display and the keyboard combination that starts DA when it is memory-resident (the hot key).

You can make the following modifications when the Options window is open.

Showing hidden files

This option lets you see the names of files in DA that are normally hidden by DOS (those with the hidden bit set). This option is off when you first use DA.

- **To change the display of hidden files, select Show Hidden Files in the Options menu and press Enter.**

  Pressing Enter toggles the option on or off. An X indicates that the option is on; an empty box indicates that it is off. Pressing Enter again will change the setting.

Showing the status line

DA includes a status line at the bottom of the PC's screen—a bar that displays messages as the program performs certain operations. If you are thoroughly familiar with DA, you may wish to turn off the status line, although this is not recommended.

- **To change the display of the status line, select Show Status Line in the Options menu and press Enter.**

  The option is toggled on or off.

Verifying delete operations

DA displays the optional Verification window before deleting a file. Although it may be risky to use DA without this chance to confirm or cancel a delete operation, you can turn off the Verification window.

- **To change the display of the Verification window, select Verify Deletes in the Options menu and press Enter.**

  The Verification option is toggled on or off.

As a precaution, DA displays the Verification window when you delete a directory that contains any files or subdirectories, even if you have used this option to turn off verification.

Increasing video display speed

Some PCs use video cards that can display images and refresh the screen at higher speeds than ordinary cards. The Desk Accessory is designed to take advantage of these faster cards. If you are using such a card, turn on this option.

- **To change the video display speed option, select Fast Video in the Options window and press Enter.**

  The fast display option is toggled on or off.

  If you see "snow" on your screen, turn the fast display option off.

Indicating a color monitor

You should also indicate that your PC is equipped with a color monitor in the Options window.

- **To indicate whether your computer has a color monitor, select Color Monitor in the Options window and press Enter.**

  The color monitor option is toggled on or off.

  If you have a monochrome monitor, turn off this option.

Changing display colors and attributes

You can change the colors and screen display attributes for some parts of the Desk Accessory. Here's how:

1. To change the colors and screen attributes, select Change Colors in the Options window and press Enter.

The Color window appears (Figure 4-41). It lists the colors that you can change.

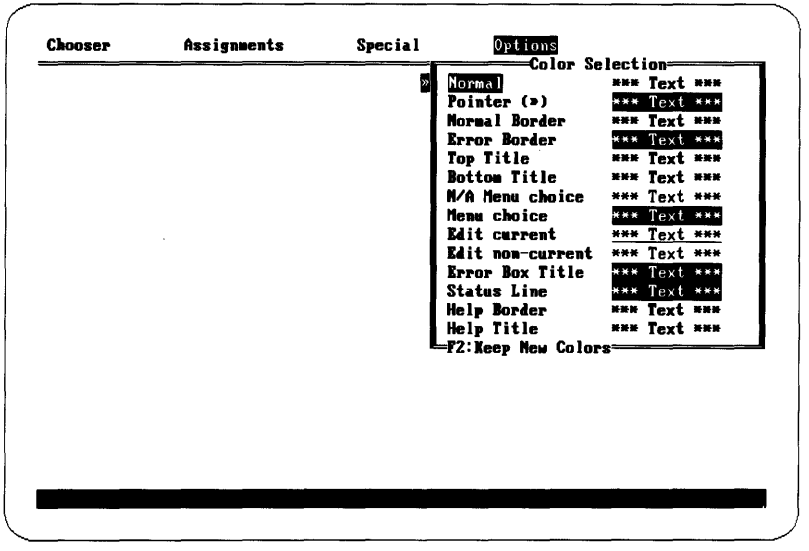


Figure 4-41
The Color window

2. Use the Up or Down Arrow key to select the item you want to change.

The item is highlighted in the window.

See Figure 4-42 for examples of the items you can change.

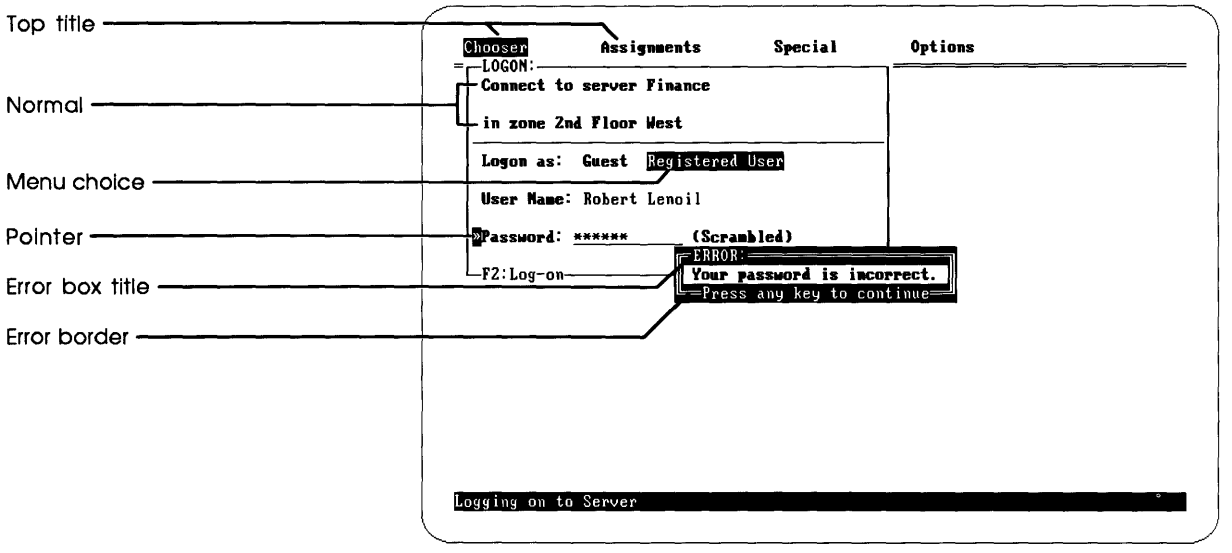


Figure 4-42
Some of the items you can change

3. **Use the Plus and Minus keys on the PC's number pad to change the text color (on a color monitor) or attribute (on a monochrome monitor) of the selected item.**

   You can press the Plus and Minus keys repeatedly to cycle through the possible changes.

4. **If you have a color monitor, use the Right and Left Arrow keys to change the background color of the selected item.**

   You can press the Right and Left Arrow keys repeatedly to cycle through the possible changes.

5. **Press F2 to save the changes.**

   The Disk window appears, asking if you want to save the changes in the disk version of DA.

6. **Select Yes or No to indicate whether the changes are to be saved in the disk version of DA.**

   Selecting Yes in this window saves the changes in the version of DA you are using, as a message in the status line confirms. These new settings will be in effect each time you use that version (until you change them again and save the changes to the disk).

Selecting No does not save the changes in the disk version of DA, but the new colors and attributes will be in effect until you quit DA or reboot your PC.

Changing the hot key

The hot-key combination is a sequence of keystrokes that starts the DA as a pop-up program.

You use the hot-key combination to start DA if you have installed it as a memory-resident program. The default hot-key combination is Alt-Enter.

1. **To change the hot key, select Change Hot Key in the Options window and press Enter.**

   The Verification window appears, asking you to confirm your desire to change this keystroke combination.

2. **Select Yes, press Enter, and type the new key combination.**

   The hot key is now the new combination.

Using batch files with AppleShare PC

AppleShare PC contains a program, ANET, that performs some operations without using DA. For example, you can use ANET to log on to an AppleShare server, attach a drive letter to a volume or subdirectory, change access privileges, and log off.

The ANET commands are especially useful when placed into a batch file to perform a series of AppleShare operations with your PC. A batch file to log on to a directory set up as a drop box, copy all its files to drive A on your workstation, and log off would look like this:

```
ANET LOGON S(SERVER1) D:(SERVER1) U(JOAN) P(ARC)
ANET ATTACH E:\\SERVER1\VOLUME1\JJHDROP
COPY E:*.* A:
ANET DETACH E:
ANET LOGOFF SERVER1
```

Detailed instructions for using ANET are provided in Chapter 10.

Part III

AppleShare PC Reference

Chapter 5

Reference Introduction

What's in Part III

Here's a summary of the chapters in Part III:

- "The Chooser Window" (Chapter 6) summarizes logging on to file servers and attaching DOS drive letters to file server volumes.
- "The Assignments Window" (Chapter 7) provides information about DOS assignments and about directories and files, and describes how to perform a variety of DOS housekeeping functions from within DA. This section also describes how to perform AppleShare–specific functions, such as reviewing and setting directory access privileges.
- "The Special Window" (Chapter 8) gives information about your workstation's links to servers on the network, and tells how to break those links individually or collectively.
- "The Options Window" (Chapter 9) describes how to change standard program settings.
- "AppleShare PC Advanced Features" (Chapter 10) gives details on ANET, the command interpreter; makes suggestions for automating AppleShare PC with batch files; and covers other areas of importance for successful operation.
- "If Something Goes Wrong" (Chapter 11) can help you diagnose and solve problems that may arise when you use AppleShare PC.

What's in this chapter

DA is another name for the AppleTalk PC Desk Accessory.

This chapter covers material you need to know to use AppleShare PC effectively; it pays particular attention to **DA,** the AppleTalk PC Desk Accessory.

- "Navigating and Selecting" describes how to move through DA's windows, how to make selections, and how to get DA to act on your selections.

- □ "Navigating Through Directories" summarizes how to see the contents of a drive.
- □ "Getting Help" describes DA's on-line help system.
- □ "Starting DA" describes how to start the program, and includes information on how to make DA available even while other programs are running.
- □ "Running Programs" deals with running programs from a file server, and covers general compatibility issues.
- □ "Providing Privacy" summarizes how access privileges work in the system.

❖ *Automating DA:* You can automate many of DA's functions by using commands from ANET (AppleShare PC's command interpreter) with batch files. See Chapter 10, "AppleShare PC Advanced Features," for the details.

Navigating and selecting

DA sometimes requires you to specify several pieces of information before you can act. You provide this information through one of DA's windows. Most windows in DA have several **panes.** Panes have three forms: the **list pane,** where you select from groups of alternatives (such as the names of file servers); the **edit pane,** where you enter information that only you can know (such as your registered name or password); and the **toggle pane,** where you choose between two alternatives (such as logging on to the server as a guest or as a registered user). Only one pane at a time can be **active.** The active pane is the one that's ready to accept keystrokes.

An active list pane has a bright, double border line around it. When a list is too long to fit within a pane, arrows appear on the pane's right edge, indicating that more items are available above the pane's top or below the pane's bottom; use Home, End, PgUp, PgDn, and the arrow keys to see these items. You select an item in a list with the arrow keys, usually the Up and Down Arrow keys (Figure 5-1).

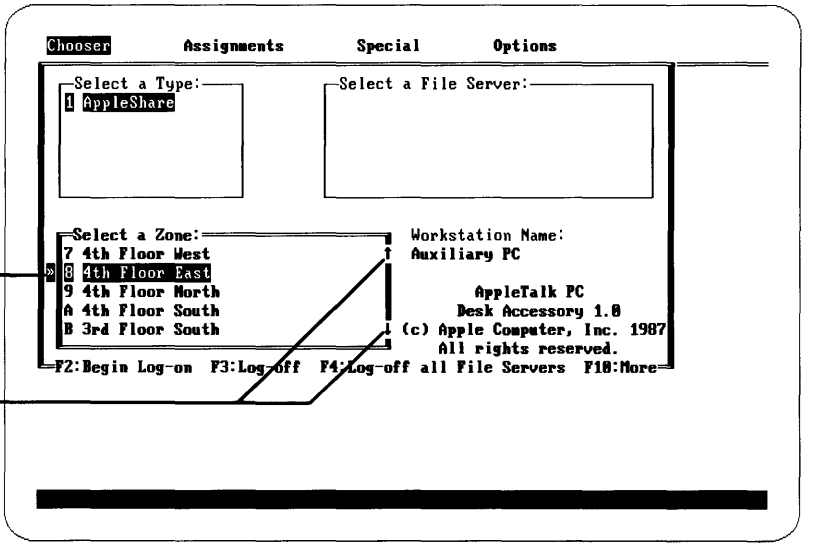


Figure 5-1
An active list pane

An active edit pane has a blinking cursor, and a pointer appears on its left edge. Use Insert, Delete, Backspace, Home, End, and the Right and Left Arrow keys to reposition the cursor and edit the text in the field (Figure 5-2).

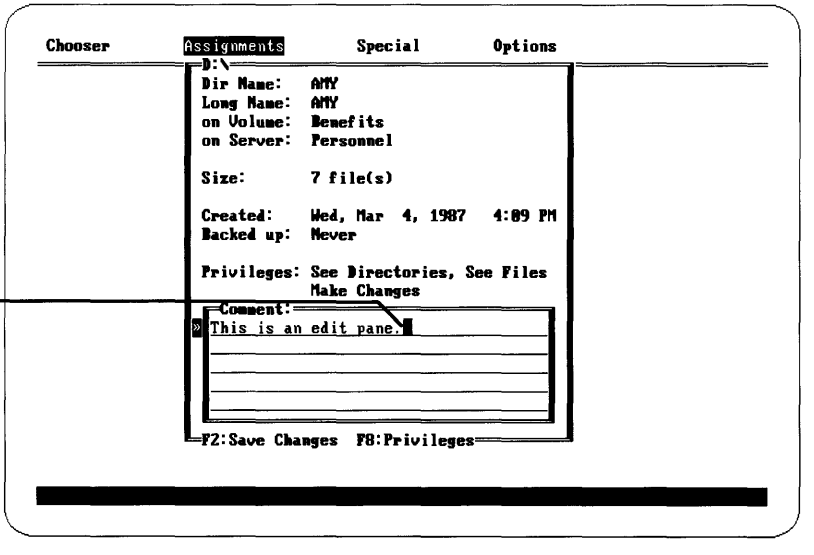


Figure 5-2
An active edit pane

Here's a summary of editing techniques you can use in an edit pane:

- To reposition the cursor, use the Left and Right Arrow keys. Ctrl-Left Arrow and Ctrl-Right Arrow move the cursor one word at a time.
- To insert a character, press Insert (which inserts a space); then type the new character.
- To delete the character under the cursor, press Delete.
- To delete the character to the left of the cursor, press Backspace.
- To delete all characters to the left of the cursor, press Ctrl-Backspace.
- To overwrite a character with a new one, position the cursor on top of the old character; then type the new character.
- To move to the start of the field, press Home.
- To move to the end of the field, press End.

An active toggle pane has a pointer at its left edge. Use the Left or Right Arrow key to **toggle** (that is, move between) two choices. The current choice is highlighted (Figure 5-3).

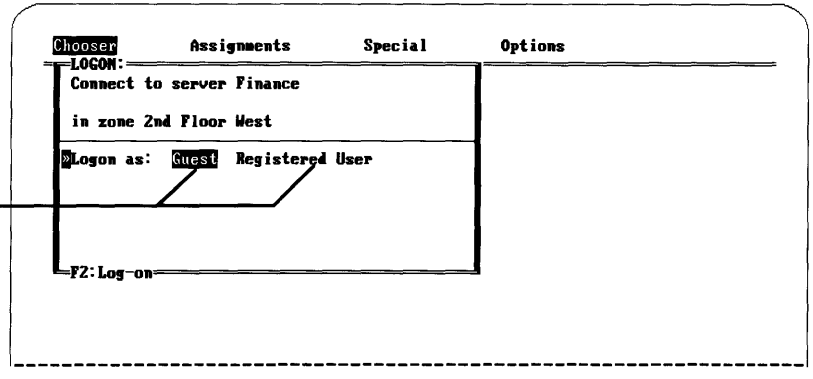


Figure 5-3
An active toggle pane

If the window contains more than one pane, Tab or Enter will move you to a different pane.

Alternatively, you can select an item in a list and move to the next pane by typing the number or letter displayed to the item's left. If the window has only one pane, such as the Assignments window, pressing Enter will get additional choices if any exist (for example, the contents of a directory).

Press Enter when a directory is highlighted to see what's inside it.

Acting on your selections

F1 always brings up a Help window, and F10 shows additional function keys if they're available.

Once you've made a choice or supplied appropriate information in a window, you can act on what you've typed by pressing a function key. Function keys perform a variety of tasks, from those specific to a file server (such as logging on or changing directory access privileges) to those involving DOS utility functions (such as copying or deleting).

Escape backs you out.

Escape backs out to the previous window, and eventually to DOS or to the program you were running.

Pressing Ctrl-C at any point takes you out of DA.

Navigating through directories

Often in DA you need to navigate through the directory structure of a drive. This happens when you want to attach a drive letter to a subdirectory on a server volume, or when you want to select a subdirectory or a file for some action (for example, getting information about the subdirectory or file).

You can see a list of all the drives (both local and network) currently attached to your PC in DA's Assignments window (see Figure 5-4). (The Assignments window is discussed in detail in Chapter 7.)

Press Enter to see the directory of the highlighted drive

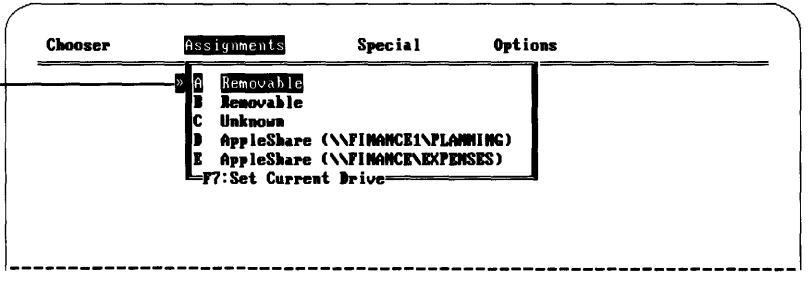


Figure 5-4
The drives list

The current drive is highlighted in the window. You can scroll through the list with the Up and Down Arrow keys, or move a windowful at a time with the PgUp and PgDn keys. Use Ctrl-PgUp and Ctrl-PgDn to get to the top and bottom of especially long lists.

To see a listing of a drive's current directory, use the arrow keys to move to a drive name and press Enter (or type the letter representing the drive designator). To see a subdirectory within a directory, you again use the arrow keys to move to a subdirectory name and press Enter. Directories to which you don't have access privileges are dimmed (Figure 5-5).

- *"Current" doesn't necessarily mean "root":* The directory you see listed isn't necessarily that drive's root directory. The current directory is the default directory associated with a particular drive. You change it with the DOS CD command or with DA's Set Current Directory command.

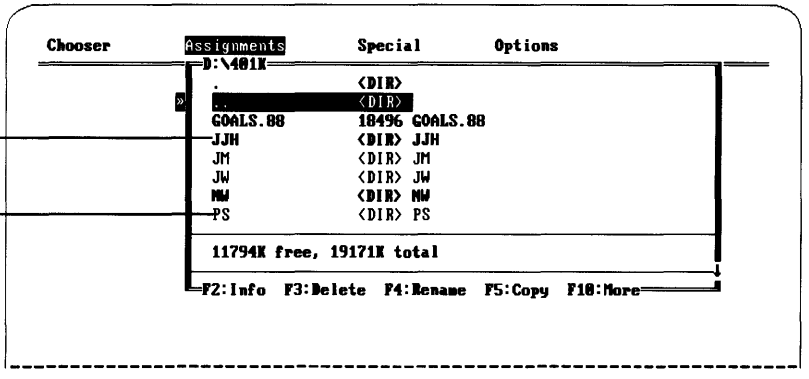


Figure 5-5
Navigating though directories

Pressing Enter with the double-period (..) directory selected brings you back to the parent directory. (The single-period directory is the directory you're looking at.) Pressing Escape brings you to the Assignments window.

For more details on navigating through directories, see "Working with DOS Drives" in Chapter 4.

Getting help

Each window in DA has its own on-line help. The Help window gives a brief explanation of what your current options are.

Press **F1** to get help.

You get help by pressing F1.

If you can't get the information you need about a specific topic from on-line help, look the topic up in the index to this manual.

Starting DA

You start DA from the DOS prompt by entering the command DA.

Important Before you can run DA, you must run the AppleShare PC installation program and boot from the installed disk. See Chapter 1 for details.

Making DA memory-resident

You can make DA memory-resident so you can invoke it without leaving the program you're currently running.

DA/R makes DA memory-resident.

To make DA memory-resident, enter this command at the DOS prompt:

```
DA/R
```

Important Don't make DA memory-resident while you're running a multitasking environment such as TopView, Windows, or DESQview. Instead, run DA as you would any program from DOS prompt.

Press the **hot key** to invoke DA when it's memory-resident.

To invoke DA at any time, press the hot key (initially set to Alt-Enter).

- *Changing the hot key:* The hot key is the key or key combination you press to invoke DA when it's memory-resident. You can change the hot key by using Change Hot Key in the Options window. See "Change Hot Key" in Chapter 9 for details.

Important Don't press the hot key while launching any copy-protected program.

Running programs

Network-aware means able to operate correctly under typical network conditions.

Most programs will operate correctly when you run them from a file server, and they'll work successfully with data files stored on a server volume. Some current software, however, isn't "network-aware," and might not correctly handle situations common on a network.

For example, a typical network situation involves two users trying to open the same file at the same time. To be network-aware, a program has to be able to keep files open for their original users, and either exclude or properly manage additional users.

Using multi-user programs

If you're using a multi-user program (one that allows and correctly coordinates several users updating the same file simultaneously), you need to install SHARE.EXE on your PC's startup disk according to the instructions that come with the multi-user program. SHARE.EXE adds concurrent-use capability to DOS.

SHARE.EXE is included with DOS version 3.1 (and later versions).

Using standard programs

Programs stored on file server volumes will generally run correctly if they're stored in directories to which you have both the See Files and Make Changes privileges. (But read "Honoring Licenses," later in this section.) Many programs will also run correctly when you run them from directories where you can't make changes. To see if this is the case for a particular program, you'll need to experiment. Try typical program operations such as opening and printing a file, and storing changes to a file in a different directory.

Using files with programs that aren't network-aware

Many current PC programs let more than one person access and change a file, but some of these programs don't correctly manage the file while it's in use. As a result, the file can be destroyed or garbled.

When you want to modify a file stored in a server directory that several users have access to, before you open the file move it to a directory to which you alone have access privileges. (Use the DA Rename command to do this.) When you've finished using the file, move it back to its original location.

If you want several users to have simultaneous read access to files stored on file server volumes, mark such files read-only and store them in a directory to which no one has the Make Changes privilege. (You can set the read-only attribute through DOS or through the File Info window in DA.)

Honoring licenses

Be sure to check the license that comes with a software package before you install the software on a server volume. Most software copyright holders provide a license for the use of their products rather than selling copies free of any restrictions; the license often limits your use of the software to a single computer.

For more information on the limits of a particular license, contact the copyright holder or the software distributor.

Providing privacy

The server provides privacy by letting you set access privileges for directories that you create on server volumes. When you create a directory on a server volume, you become the directory's owner.

- *This discussion provides a frame of reference:* This section provides a frame of reference for understanding how privileges work in AppleShare PC. For details on how to set the access privileges you read about here, see "Viewing and Changing Access Privileges" in Chapter 7.

If you're logged on to the server as a registered user, when you create a new directory on a server volume the directory is automatically set up as a private one. Only you (and the network administrator) can see and change the directory's contents. If you want others to have access to what your directory contains, you must change the directory's access privilege settings by using the Access Privileges window. (To get to this window, press F8 from the Assignments window with the directory name highlighted.)

If you're logged on to the the server as a guest, when you create a new directory on a server volume the directory's owner is <Any User>—which means anybody with access to the server. Any user can use the information your directory contains. In addition, any registered user can claim the directory as his or her own. As a guest, you can set privileges for the directories you create, but the settings you choose can easily be changed by anyone with access to the server.

To become a registered user, contact your AppleShare administrator.

User categories

When you set access privileges for a directory, you must determine what access you want to give to each of three user categories—Owner, Group, and Everyone:

- **Owner** means you as owner of the directory. Ordinarily, you'd give yourself all access privileges (as described in "Access Privileges," below). But in some instances it pays to withhold privileges from yourself. For example, when you want to create a directory from which you can't accidentally delete files, you withhold your own privilege to make changes to the contents of that directory. (As Owner, you can change the access privilege later to let yourself make changes.)
- **Group** refers to an AppleShare group. AppleShare groups are created by the AppleShare administrator. The members of a group usually share a common interest—for example, a common project or department affiliation. When you assign access privileges to a group, you're setting them for the group named in the Access Privileges window. You can change the group to which you assign privileges for a particular directory.

  If a group name automatically appears in the access privileges window for a directory that you've just created, that group is your primary group. The primary group is set up by your AppleShare administrator as a convenience.
- **Everyone** refers to any user with access to the server, whether logged on as a registered user or a guest.

Access privileges

You can assign to each of the three user categories any combination of three privileges—See Directories, See Files, and Make Changes:

- **See Directories** lets people see subdirectory names within the directory for which you are setting access privileges. Whether the contents of any of those subdirectories may be accessed depends on the privileges set for each of them.
- **See Files** lets people see the names of files and programs within the directory for which you're setting access privileges. See Files includes the privilege to read or copy files.
- **Make Changes** lets people make changes to the contents of the directory—including adding to, renaming, moving, or deleting the directory's contents.

Each privilege is set independently. For example, the Make Changes privilege does not automatically include the privileges See Directories and See Files.

❖ *Creating a drop box:* A directory that has Make Changes as its only access privilege for people other than its owner is a drop box directory—people can copy subdirectories and files to the directory, but they can't get at the contents. This is an extremely useful way to collect confidential information, such as expense reports, from several people.

Owner's exclusive rights

The owner of a directory has three exclusive rights: the right to set access privileges for the directory, the right to change the AppleShare group associated with the directory, and the right to transfer ownership of the directory. Ownership can be transferred to another registered user or to <Any User> (which includes guests).

Access privileges may also be set for volumes, because they're directories too. The user categories and privileges used to set access privileges for volumes are the same as those used for directories. Usually, only the network administrator (as creator of file server volumes) can set access privileges for volumes.

Chapter 6

The Chooser Window

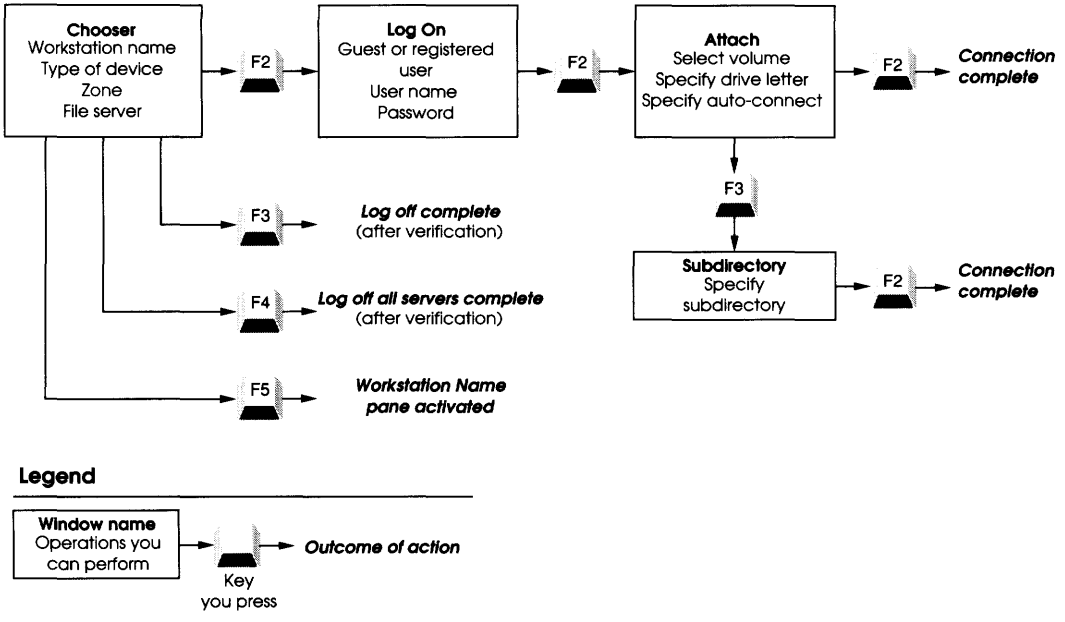


Figure 6-1
Map to the Chooser window

You use the Chooser window (summarized in Figure 6-1) to log on to a file server, and to establish links between drive letters and file server volumes or subdirectories. You also use it to name your workstation. (See Figure 6-2.)

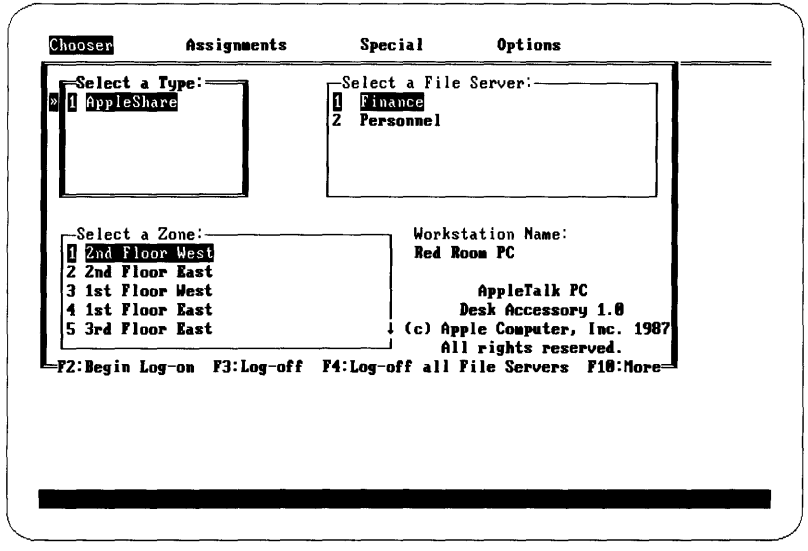


Figure 6-2
The Chooser window

Here's what each section of this chapter is about:

- "Naming Your Workstation" tells what the workstation name is for, and how to change it.
- "Logging On and Attaching Drive Letters" describes how to create sessions with a file server, both as a guest and as a registered user.
- "Logging Off Servers" gives details on how to end a session with a single server, or with several servers at the same time.

The Chooser window has four panes: Workstation Name, Select a Type, Select a Zone, and Select a File Server. In most situations, you use only the the last three.

Naming your workstation

The workstation name identifies a workstation to the network administrator. (The name appears in the lower-right pane of the Chooser's main window.) If only one person uses it, the workstation can have the same name as that person.

- *Workstation versus user:* The workstation name identifies a piece of hardware—a terminal or a computer. The user name identifies a person using the workstation.

The workstation name should remain constant from user to user to make it easy for the network administrator to track down problems that might occur from time to time.

Changing the workstation name

Press F5 to change the workstation name.

To change the workstation name, press F5. The cursor moves to the right of the last character in the Workstation field.

The workstation name can be up to 31 characters long, and can contain any character.

If the name you want to use is taken by some other workstation on the network, DA appends a digit to the end of the name—1 if this is the first duplicate name, 2 if this is the second duplicate name, and so on. For example, if the name you want to use is OVERTIME and there's already a workstation with that name, your workstation would be assigned the name OVERTIME1.

Logging on and attaching drive letters

Using a file server requires four steps:

1. Select a file server.
2. Identify yourself to the file server.
3. Select the file server volume you want to work with.
4. Attach a drive letter to the volume you've chosen.

(You can repeat steps 3 and 4 if you want to work with more than one file server volume.) This section gives the details of these steps.

Selecting a file server

You select a file server by making a series of choices. First, you make sure that AppleShare is the type of device selected; second, you select the zone where the specific device resides (if the AppleShare network has zones); and third, you select the device itself.

Select a Type

You use this pane to select the type of network device you want to work with. You can use the navigation keys to go through the list and highlight the type of device; or you can press the device type's number or letter.

The choice you make in this pane determines what appears in the File Server pane, described in "Select a File Server" later in this section.

Select a Zone

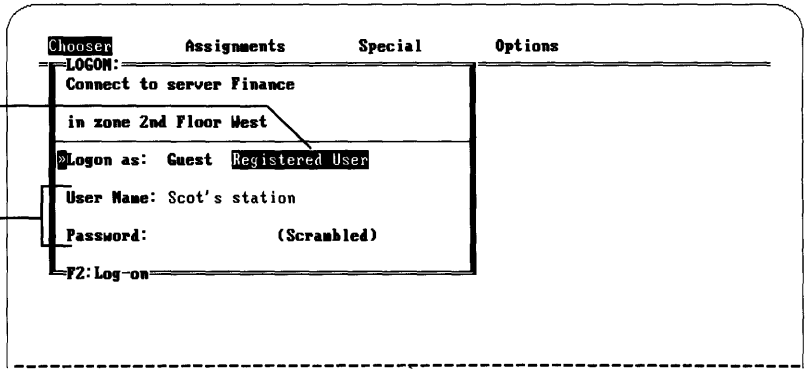
This pane appears if your network contains zones. (A **zone** is a group of AppleTalk networks in a larger system of many interconnected AppleTalk networks.) The first zone in the list is always the one your PC is located in. You look in a zone for the specific device or server you want to use. For example, you might want to log on to the file server called Development, which resides in the zone called Engineering.

Select a File Server

You use this pane to select the specific file server or device that matches the type you've selected to log on to. An asterisk to the left of a file server name means you're already logged on to it. The names in this pane aren't in any particular order.

Identifying yourself and establishing a session

After you've made selections in the Type, Zone, and File Server panes, pressing F2 starts the log-on procedure. The pane in Figure 6-3 appears.



Contact the network administrator to be registered

You don't see these panes if you log on as a guest

Figure 6-3
Establishing a session

You can identify yourself either as a guest or as a registered user. (Use the Left or Right Arrow key to toggle between the two.) Guests and registered users might have different access privileges to information on the system. See "Providing Privacy" in Chapter 5.

Logging on as a guest

Guests logged on to a file server might have more limited privileges than registered users.

When you log on as a guest:

- You can use only those volumes that allow guests to use them.
- You can use only those directories that everyone has access to.
- Any directories you create on the server, and the contents of those directories, are accessible to all users.
- You can't create directories accessible just to yourself.
- Directories that you create can be confiscated by any registered user and made private — denying you access to any files you've placed in them.

Logging on as a registered user

A **registered user** can restrict who can change or even see the contents of certain directories, and no one except that registered user can change those restrictions.

When you initially log on as a registered user, only you (and the AppleShare administrator) have access to your directories, and you control who else has access to them:

- You can create directories that only you can access, that only members of a specific group can access, or that anybody can access.

- If you allow access to your directories, you can set the kind of access privileges that people will have—see subdirectory names within a particular directory, see and read the files in a directory, and/or make changes to the contents of a directory.

See "Viewing and Changing Access Privileges" in Chapter 7 for details on setting access privileges.

- *Getting registered:* If you don't have a registered user name, see the AppleShare administrator to be registered and to get a password.
- *About names and passwords:* The user name is not case-sensitive. The password is case-sensitive. You must type in your password exactly as it appears in the registry: if your password is "DoggyBag" then "DOGGYBAG" won't be accepted.

Press **Escape** to cancel the log-on process and to back out of the program.

If the system rejects your name or password, check the spelling and try again.

Attaching DOS drive letters to server volumes

After you've logged on to a file server, you need to attach a DOS drive letter to a server volume. When you press F2 from the Log On window, the pane in Figure 6-4 appears:

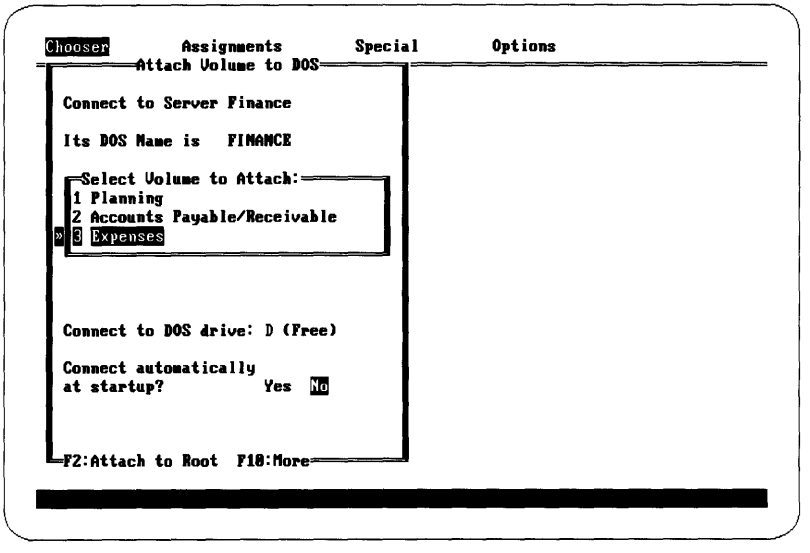


Figure 6-4
Attaching to a volume

You use this pane to select the specific volume on the file server you want to work with, set the drive letter to be attached to that volume (for example, `D:`), and decide whether you want to log on to the file server and attach the volume automatically at startup.

Each hard disk attached to a file server has its own volume name. All volume names appear in the Volume pane; use the arrow keys to pick the one you want to use.

Selecting the DOS drive letter

"Connect to DOS drive" shows the next sequential drive letter that's available. You can change this letter to whatever letter you want; the word Free appears to the right if the letter you want to use is available.

If you try to use an unavailable letter (because it's in use or illegal, or because the available drive letters as set by Lastdrive have been exhausted), DA tells you so: you must confirm your choice (which might displace an already existing drive assignment), make another choice from existing alternatives, or change the Lastdrive parameter in your CONFIG.SYS file to free up more drive letters.

See your DOS manual for information on CONFIG.SYS.

Important When you select (and confirm) the use of a drive letter already attached to a server volume or to a local drive, you break an existing attachment.

Specifying a volume to be attached at startup

"Connect automatically at startup" lets you mark this server volume to be attached automatically when you turn the computer on.

Don't save your password if you're not the only user of your workstation!

If you're a registered user and you indicate that you want automatic startups, a new line appears asking whether you want to store your password. Unless you're the only person who has access to your workstation, it's a good idea to answer No. Automatically logging on with your password gives anybody who turns on the computer with your startup disk the same access to directories and files that you have.

F2 completes the connection to a volume's root directory; F3 lets you specify a subdirectory instead.

At this point, you can press F2 to connect to the root, or F3 to connect to a subdirectory. Pressing F2 completes the link; you're logged on to the root level of the volume you've chosen.

Attaching to a directory instead of a volume

Alternatively, pressing F3 brings up a list of all the subdirectories to which you can connect. Attaching to a subdirectory can be a real convenience if you tend to work in the same subdirectory on the volume. Use the Up and Down Arrow keys to select a subdirectory; then press F2 to establish a link between the drive letter and the subdirectory. If the subdirectory contains further subdirectories, press Enter to move further down the directory tree until you reach the subdirectory you want to attach to (Figure 6-5).

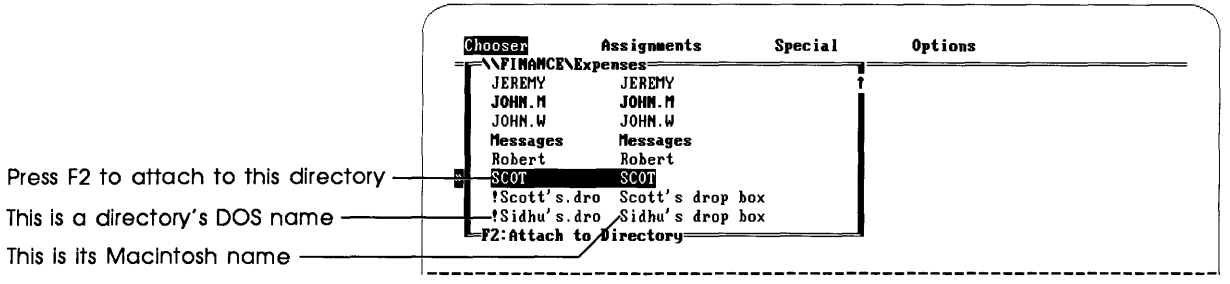


Figure 6-5
Attaching to a subdirectory

- *Subdirectory becomes root:* When you select a subdirectory to attach to a drive, the subdirectory becomes the root directory for that drive. For example, if you select TwoDown—a subdirectory of OneDown, which itself is a subdirectory of the root directory Main—and attach it to drive E, then TwoDown becomes the root directory for drive E and you won't be able to get to OneDown or Main using drive E.

Completing/repeating the process

Once you've attached a drive letter, DA returns to the Attach window. You can repeat the attachment process and attach other volumes, or you can press Escape to return to the Chooser window. You can have up to six drives attached at the same time.

Important If DA displays an error message about REDIR options, see "Increasing Sessions and Network Drives" in Chapter 10 for information on changing redirector parameters.

Logging off servers

A **session** is a connection between a workstation and a file server.

When you log off a file server, you end your **session** with the server and free up all related drive letters attached to directories on that server; you can then use those letters with another file server. You can log off one server by pressing F3, or off all file servers by pressing F4.

To return to DOS or the program you were running, press Escape until all DA windows disappear (or just press Ctrl-C).

Logging off one server at a time

You log off the currently selected server by pressing F3 at the main Chooser window. A window appears, asking you to verify your decision. If you've logged on to the same server more than once, you'll see a message asking which session you want to close.

Logging off all servers at once

You log off all file servers by pressing F4 at the main Chooser window with type AppleShare highlighted. Another window appears, asking you to verify your decision.

- *Close all files:* You can't log off a server volume if you have any open files on that server volume.

Chapter 7

The Assignments Window

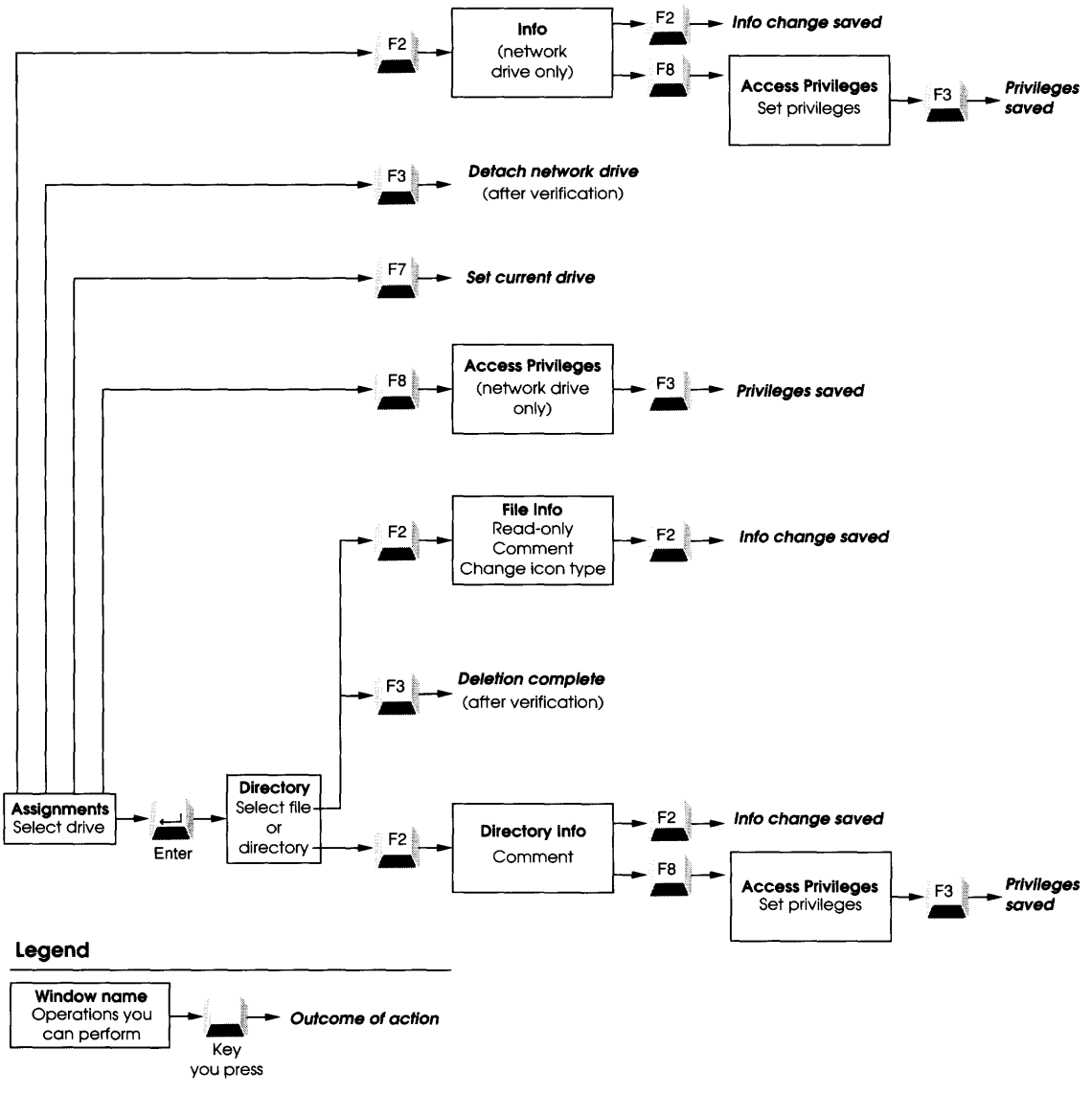
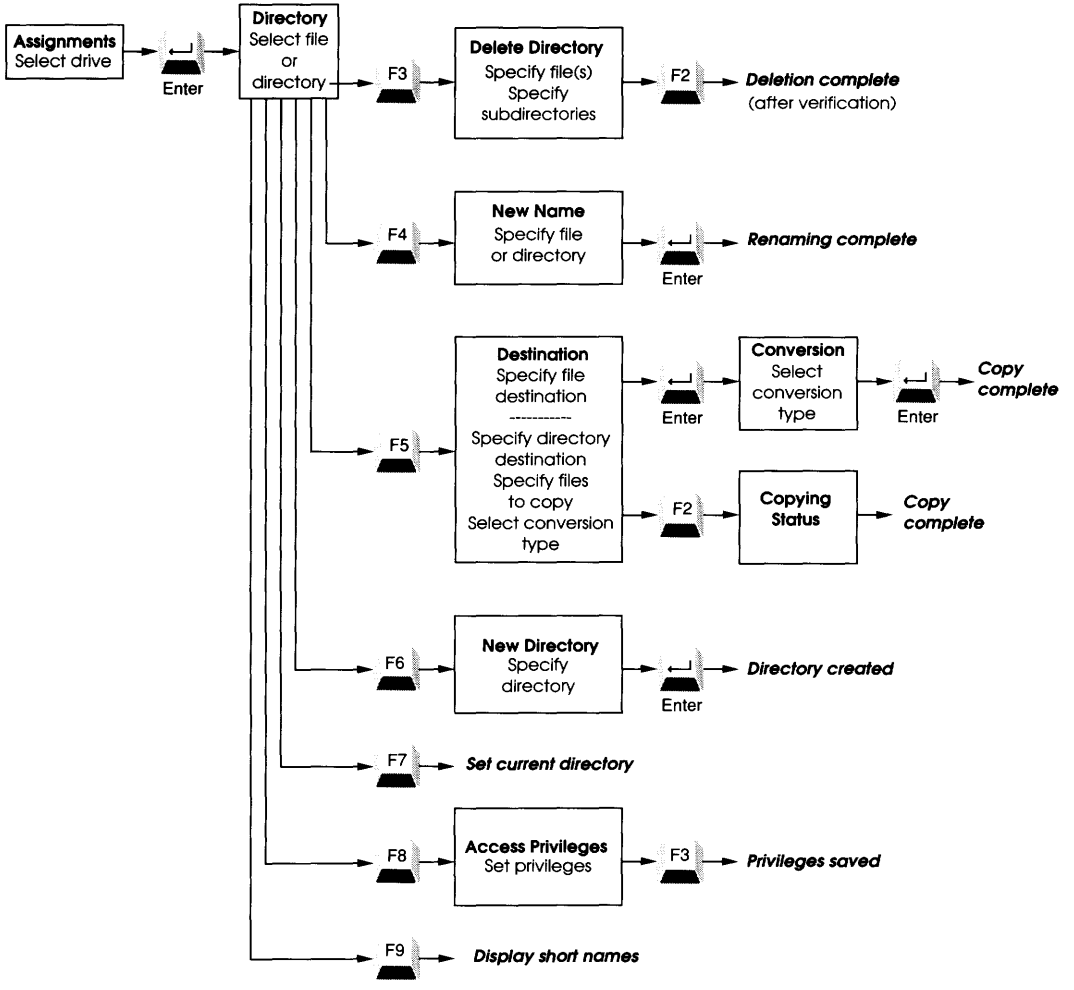


Figure 7-1
Map to the Assignments window


Assignments
Select drive
Enter
Directory
Select file
or
directory
F3
Delete Directory
Specify file(s)
Specify
subdirectories
F2
Deletion complete
(after verification)
F4
New Name
Specify file
or directory
Enter
Renaming complete
F5
Destination
Specify file
destination
Specify directory
destination
Specify files
to copy
Select conversion
type
Enter
Conversion
Select
conversion
type
Enter
Copy
complete
F2
Copying
Status
Copy
complete
F6
New Directory
Specify
directory
Enter
Directory created
F7
Set current directory
F8
Access Privileges
Set privileges
F3
Privileges saved
F9
Display short names

You use the Assignments window (summarized in Figure 7-1) to get information about DOS devices, including local and network drives. You can get information about files and directories on drives, perform a variety of DOS housekeeping operations, and perform special functions with directories and files on AppleShare server volumes.

This chapter has two main sections:

- "Working at the Drive Level" lists the commands you can use at the drive level for both local and network drives. (Most commands in this section apply only to network drives.)
- "Working With Directories and Files" gives details on commands that apply to directories and to files on local and network drives. (Some commands in this section apply only to network drives.)

When you select the Assignments window, a window appears showing drive designators, the device types attached to them, and the names of the devices. The current drive (the one that appears at the DOS prompt when you quit DA or the program you're currently running) is highlighted.

If the device is a local one, its type is either Removable (for example, a floppy disk), Fixed (for example, a hard disk), or Unknown (for example, a RAM disk); its name is that of the drive's volume label. If the device is a network drive, its type is either AppleShare (for AppleShare drives) or Network (for non-AppleShare drives), and its name is listed as a **network path.** (See Figure 7-2.)

A **network path** has the form: *\\sessionname\volumename\pathname*

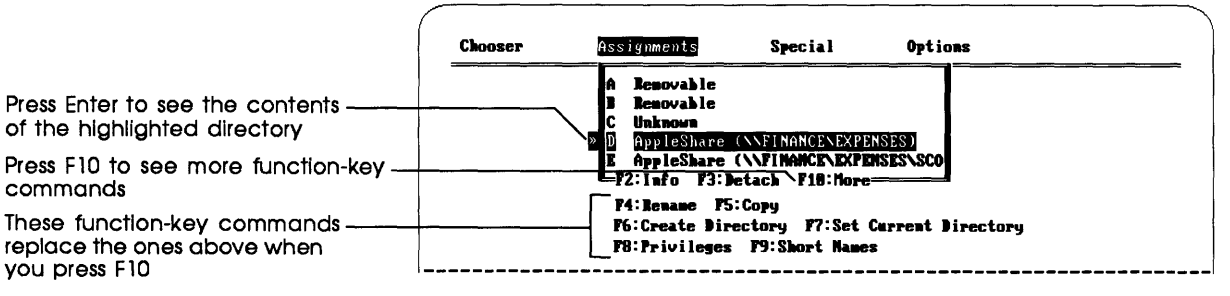


Figure 7-2
The Assignments window

To see a directory's contents, move to its name and press Enter.

To see a listing of a drive's current directory, use the arrow keys to move to a drive name and press Enter (or just type the letter representing the drive designator). To see a subdirectory within a directory, you again use the arrow keys to move to a subdirectory name and press Enter.

- *"Current" doesn't necessarily mean "root":* The directory you see listed isn't necessarily that drive's root directory. The current directory is the default directory associated with a particular drive. You change it with the DOS CD command or with DA's Set Current Directory command.

Working at the drive level

This section describes the commands you can use from the drive level—that is, before you open a directory. Most of the commands in this section apply only to network drives.

Drive-level commands for all drives

You can make the drive highlighted in the Assignments window the current drive by pressing F7. The current drive is the one you come back to when you leave DA and return to DOS or to the application you were running.

Except for F1 (the Help key), this is the only function key in the Assignments window that has any effect when a local drive is highlighted.

Drive-level commands for network drives

With a network volume selected, you can:

- get information about the drive's root directory
- detach the drive
- see access privileges for the drive's root directory

Getting information about the root directory

Pressing F2 with the Assignments window on the screen brings up an information window about the directory you designated as the root when you attached the highlighted drive (Figure 7-3).

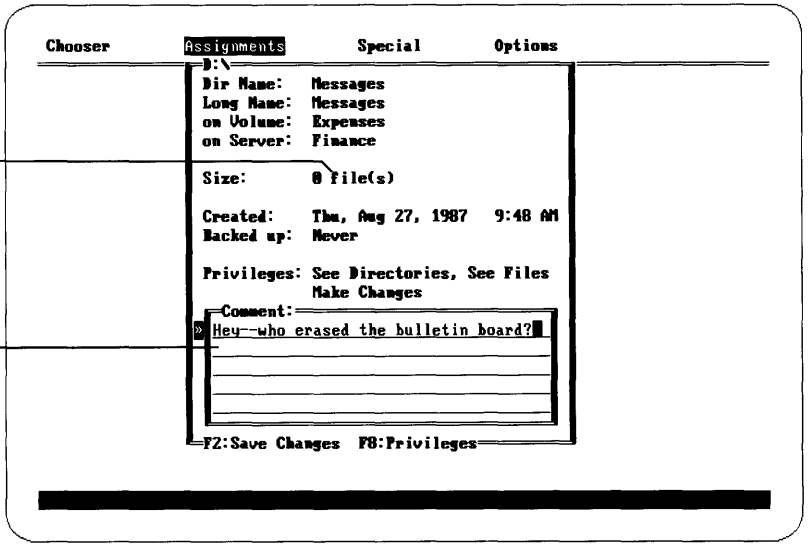


Figure 7-3
The Directory Info window

- DOS Name and Long Name refer to how a directory's name appears to a Macintosh user or to a PC user. The long name is the directory's name as it would appear on a Macintosh. The DOS name is how it appears on a PC. If the directory was created on a PC, the DOS name and long name will be identical. If the directory was created on a Macintosh, and the long name isn't a legal DOS name (that is, it's too long or contains illegal characters), the DOS name will be a converted form of the long name, and will begin with an exclamation point (!).
- Volume is the name of the server volume to which a drive letter is attached, expressed as its original Macintosh long name (as opposed to its DOS name).
- Server is the name of the file server.

- Size is the size of the directory given in files, where "files" includes directories. Size doesn't include a count of subdirectories or files further along the directory hierarchy.
- Created shows the original date and time of the directory's creation on the server. This can reflect either when the directory was first created, or when it was copied to the file server volume from some other source.
- Backed Up shows the last time this directory was backed up.
- Privileges indicates what you as the logged-on user can do with directories and files within the root directory. You can get more detailed privilege information by pressing F8; see "Access Privileges to the Root Directory's Contents," later in this section, for detailed information.
- The Comment pane holds comments up to 199 characters long. You can use the Comment pane to include brief notes on the purpose of a directory, instructions to group members about using files within the directory, and so on. Both Macintosh and PC users can view and edit comment information.

  You can use the Home, End, and arrow keys to move to any character you want to edit; the Delete key removes a character, and the Insert key makes space for a new one. Pressing F2 saves any changes you've made in the Comment pane. Pressing Escape throws away unsaved changes and closes the Directory Info window.

Detaching AppleShare drives

Pressing F3 detaches the highlighted network drive. A window comes up asking you to verify your action.

When you detach a drive, you sever the link between that drive letter and its associated file server directory. The drive letter becomes available for another assignment. If the drive letter initially stood for a local drive (that is, if the network drive assignment overrode the local drive), the letter reverts to the local drive after detaching.

Detaching a drive doesn't close a session with the server. This saves you time when you want to attach a different volume or subdirectory on the same server.

You can't detach a drive if you have files open on that drive.

Access privileges to the root directory's contents

Pressing F8 brings up the Access Privileges window for AppleShare volumes (Figure 7-4).

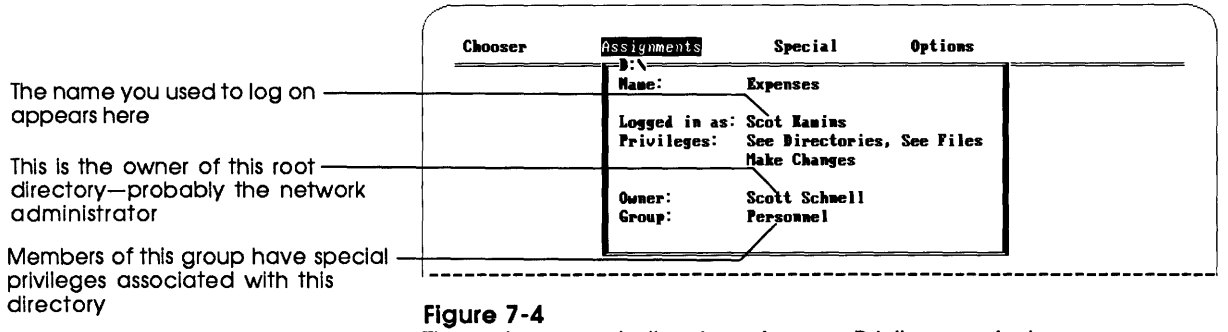


Figure 7-4
The volume root directory Access Privileges window

The Access Privileges window shows you privilege information for the volume.

- Name is the name of the selected drive's root directory.
- Logged In As is the user name as it was entered in the Log On window of the Chooser window, or as it was entered using the ANET LOGON command. (See Chapter 10, "AppleShare PC Advanced Features," for information on ANET.)
- Privileges lists what you can and can't do within the root directory of the selected drive. You might or might not have permission to see or make changes to existing files or directories, as determined by the owner of the root directory. Further, individual directories within the root directory might carry different access privileges. The notation "No access" means you can't look at or change anything in the selected directory.
- Owner is the person who owns the selected drive's root directory.
- Group is the name of the collection of people who have special privileges associated with the root directory.

An additional pane appears in the Access Privileges window for a directory you own; this pane lets you change access privilege settings. See "Viewing and Changing Access Privileges" later in this chapter for details. For a more general discussion of access privileges, see Chapter 3.

Working with directories and files

Pressing Enter when a drive is selected shows the contents of that drive's current directory.

With a directory or file within any drive selected, you can do the following:

- delete subdirectories and files
- rename the directory or file
- copy subdirectories and files
- create new subdirectories
- set the current directory for this drive

With a directory or file within an AppleShare drive selected you can also:

- get information about the directory or file
- see your access privileges
- set the display to show short names, or short and long names

Pressing F1 always gets help.

❖ *Changing a DOS name:* If a DOS name generated by a server is illegal (that is, it contains a trailing period, a space, or some other illegal character), you can change its name using DA's Rename command, described later in this chapter.

Commands for all drives

The following commands work for both local and network drives.

Deleting files and directories

F3 starts a process that deletes the highlighted file or directory. If the item to be deleted is a file or an empty directory, the program displays a window asking you to confirm the deletion. If the item to be deleted is a directory containing files or subdirectories, the window shown in Figure 7-5 appears.

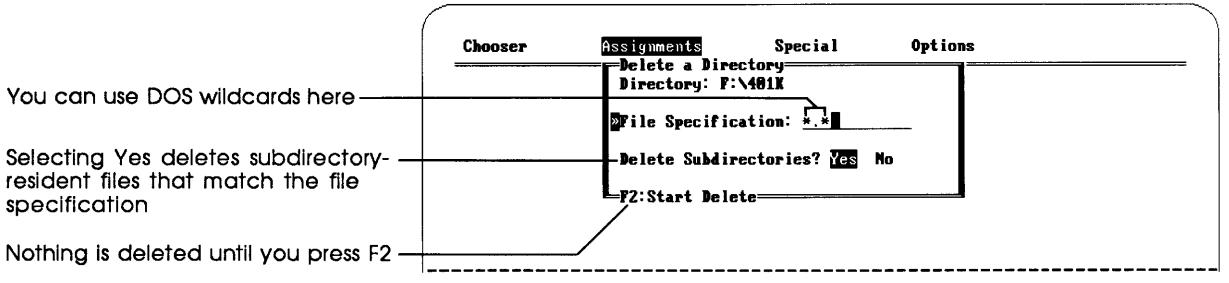


Figure 7-5
Deleting a directory

File Specification determines what files within the directory are deleted. (You make the determination by using the standard DOS conventions, including wildcards.) If you use the default specification of *.*, all files not marked Read Only in their information windows are deleted.

If you say Yes to Delete Subdirectories, files are deleted that match the file specification and that reside within subdirectories; if you say No, only files on the top level of the directory are deleted. If *.* is the file specification, and you answer Yes to Delete Subdirectories, then emptied subdirectories will be deleted as well.

Pressing F2 begins deleting the specified files and directories; pressing Escape cancels the process.

Important Once you've deleted a file or directory, it's gone forever. Be sure you really want to delete what you've specified.

Renaming files and directories

Pressing F4 renames the highlighted file or directory. A window appears, asking for the new name (Figure 7-6).

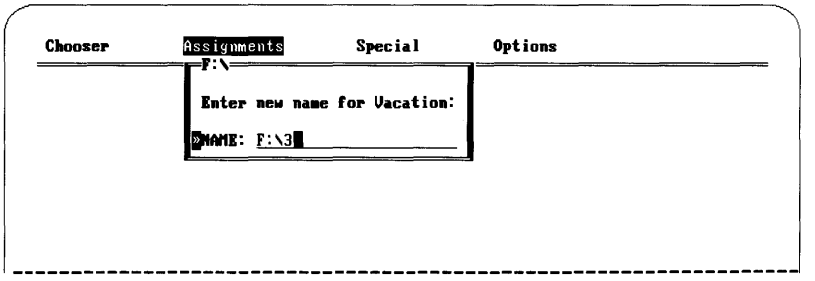


Figure 7-6
The New Name window

The file or directory is renamed when you press Enter.

- *Moving a file with Rename:* You can move a file from one directory to another using Rename: just change the pathname. The destination directory must be on the same drive as the source directory. Moving a file has the same effect as copying the file to the destination directory, and then erasing the file from the source directory (except that moving the file is much faster).
- *Moving an AppleShare directory with Rename:* On AppleShare drives, you can move a subdirectory from one directory to another. The procedure is the same as for moving a file.

Copying files and directories

Pressing F5 copies the contents of the highlighted directory or file. When a filename is highlighted, a window appears showing the current pathname (but without the file's name). You add a name for the file to make a copy in the current directory, or retype the entire pathname to make a copy in another directory.

DA can convert files from DOS text format to Macintosh text format, and vice versa.

When you press Enter with a filename highlighted, a window appears in which you can choose a conversion to apply to the file.

When a directory name is highlighted, the window in Figure 7-7 appears.

❖ *Only directory contents copied:* The Copy command copies the contents of a highlighted directory, not the highlighted directory itself. (But it will copy subdirectories within the highlighted directory, if you tell it to.)

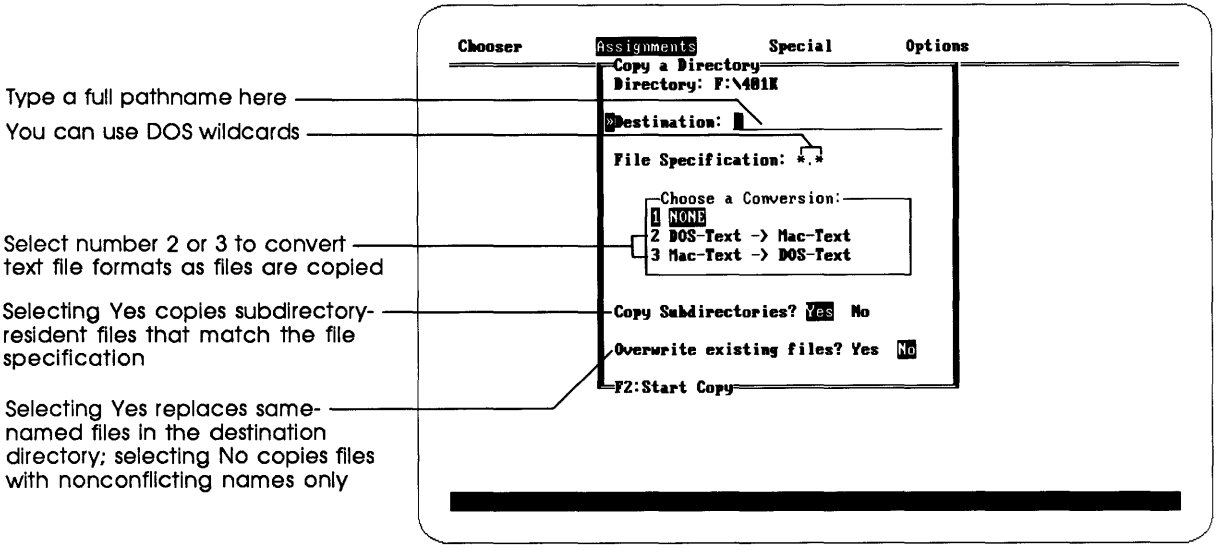


Figure 7-7
Copying a directory

The Directory line in the window is filled out for you; it names the source directory.

- Destination is where you type the pathname to the destination directory. This path will be created if it doesn't already exist.
- File Specification allows you to determine what files are to be copied from the source directory to the destination directory. (The default is *.*.)
- The Conversion window lets you choose a conversion method to apply to all the appropriate files among those you specified (useful if you want to convert text-only DOS files for use on a Macintosh, or text-only Macintosh files for use on a PC). When the copying takes place, all files are copied and the appropriate text files are converted. (When you convert a Macintosh text file to a DOS text file, carriage returns are changed to carriage return–line feeds; when you convert a DOS text file to a Macintosh text file, carriage return–line feeds are changed to carriage returns.)

- Copy Subdirectories asks if files that reside within subdirectories should also be copied. If you say Yes to Copy Subdirectories, files that match the file specification and that reside within subdirectories are also copied; if you say No, only files on the top level of the directory are copied.
- Overwrite Existing Files lets you decide whether or not a file in the source directory should replace a file with the same name in the destination directory. Selecting No does not copy files with names identical to those in the destination directory.

Pressing F2 starts the copy process. A window appears that shows the number of files copied and other useful information (Figure 7-8).

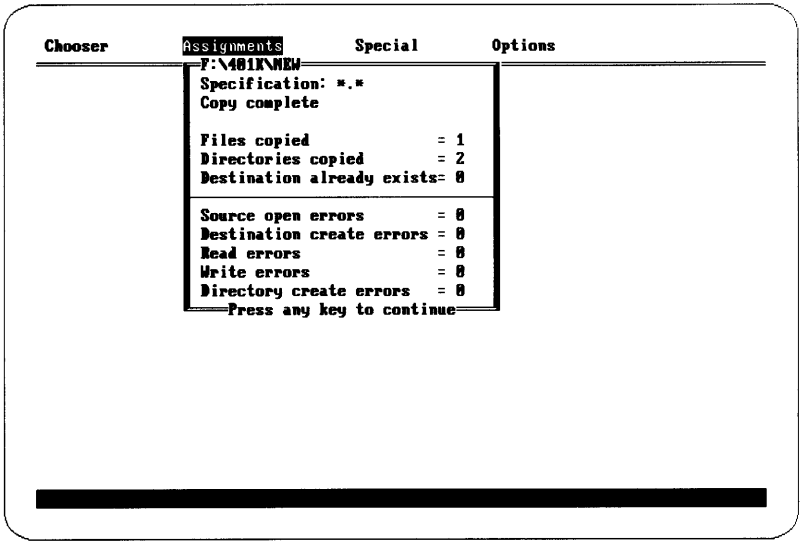


Figure 7-8
The Copying Status window

Creating new directories

Pressing F6 lets you create a new directory within the displayed directory. A window appears, into which you type the new directory's name according to DOS naming conventions. (See your DOS manual for details.) You can edit the pathname to create the directory elsewhere. When you've finished typing, press Enter to create the directory.

Setting the current directory

Pressing F7 makes the highlighted directory name the new current directory. The action occurs as soon as you press F7.

Commands for AppleShare directories and files

The following commands work only for AppleShare drives; they have no effect on directories or files that reside on local drives.

Getting additional directory or file information

Pressing F2 brings up an information window about the directory or file whose name is highlighted (Figure 7-9).

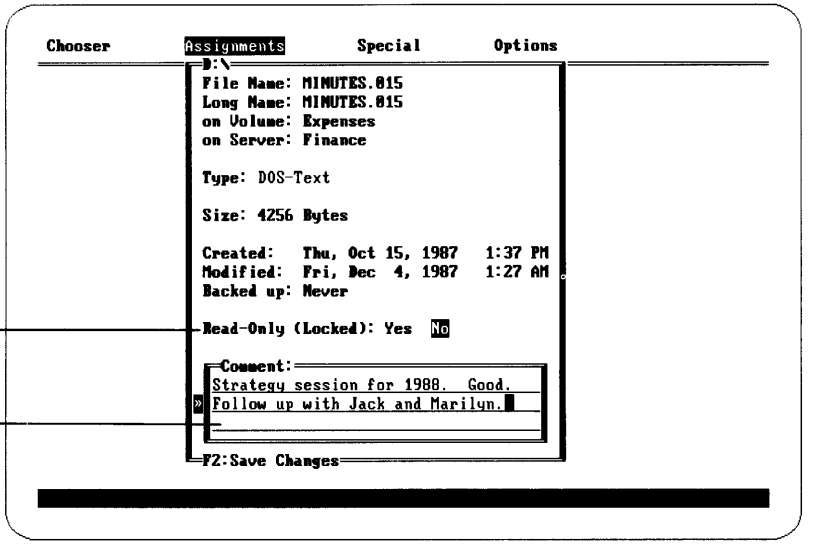


Figure 7-9
The Directory/File Info window

- DOS Name and Long Name refer to how a directory's name appears to a Macintosh user or to a PC user. The long name is the directory's name as it would appear on a Macintosh. The DOS name is how it appears on a PC. If the directory was created on a PC, the DOS name and long name will be identical. If the directory was created on a Macintosh, and the long name isn't a legal DOS name (that is, it's too long or contains illegal characters), the DOS name will be a converted form of the long name, and will begin with an exclamation point (!).

❖ *Changing a DOS name:* If a DOS name generated by a server is illegal (that is, it contains a trailing period or a space), you can change its name using DA's Rename command, described earlier in this chapter.

- Volume is the name of the server volume to which a drive letter is attached, expressed as its original Macintosh long name (as opposed to its DOS name).
- Server is the name of the file server, expressed as its original Macintosh long name.
- Type, which appears only if this information is about a file, indicates the file's icon type. If the type is one that AppleShare PC doesn't recognize, its type is listed as Unknown.

An **editable background** has a different color or shading than the other backgrounds around it.

If the file's icon type appears with an **editable background,** you can change its icon type. When you move the pointer to Type, a pane appears with a list of available icon types (Figure 7-10).

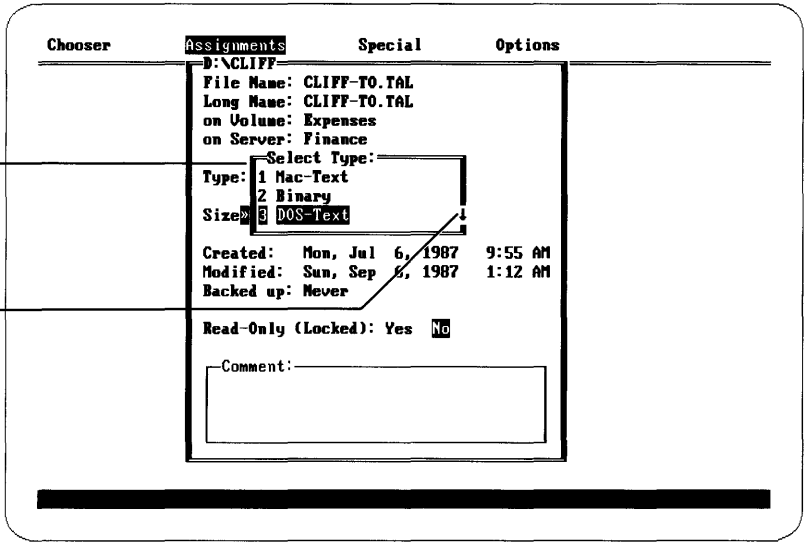


Figure 7-10
Changing a file's icon type

You can change the file's icon type to any one listed by pressing the number of the type you want to use. (Arrows appear on the right side of the pane if there are more type choices above or below the visible list; you use the Up or Down Arrow key to bring these types into view.) Information on icon types helps Macintosh users and applications identify and access files.

- Size is the size of the selected directory or file. When Size describes a directory, its label is "files" where "files" includes any subdirectories in the selected directory's top level.

  When Size describes a file, it's the number of bytes in the file. Where two numbers appear for a file's size, as in

  ```
  0 (Data), 2345 (Rsrc)
  ```

  the file is a Macintosh file; the number on the left (marked Data) is the one that's meaningful to a DOS user. The number on the right is the number of bytes in the resource fork of the Macintosh file; the resource fork isn't accessible from DOS.

- Created shows the original date and time of the file's or directory's creation on the server. This can reflect either when the file or directory was first created, or when it was copied to the file server volume from some other source.

- Modified (which appears only if this information is about a file) is the date this file was last changed.

- Backed Up shows the last time this file or directory was backed up.

- Privileges (which appears only if this information is about a directory) indicates what you as the logged-on user can do with subdirectories and files within this directory. You can get more privilege information by pressing F8. See the next section for details.

- Read Only (which appears only if this information is about a file) describes whether you can change this file's contents. This setting is in addition to the privilege setting, and does not supersede it. If the file is locked ("Yes" is highlighted), it can be read but not changed. Anyone who has the Make Changes privilege to the directory can change this Read Only setting.

- The Comment pane holds comments up to 199 characters long. You can use the Comment pane to include brief notes on the purpose of a directory, notes on who last modified a file, and so on. Both Macintosh and PC users can view and edit comment information.

  You can use the Home, End, and arrow keys to move to any character you want to edit; the Delete key removes a character, and the Insert key makes space for a new one. Pressing F2 saves any changes you've made in the Comment pane. Pressing Escape throws away unsaved changes and closes the information window. Pressing Ctrl-Backspace erases the whole comment.

Viewing and changing access privileges

With a directory selected, pressing F8 brings up the Access Privileges window (Figure 7-11).

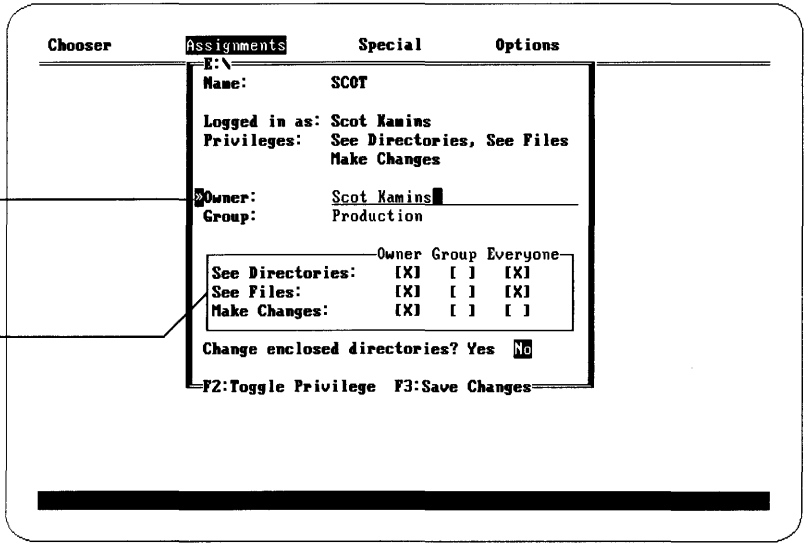


Figure 7-11
The directory Access Privileges window

The Access Privileges window shows you access privilege information for the selected directory.

- Name is the name of the current file server volume.
- Logged In As is the name you entered in the Log On window.
- Privileges lists what you can and can't do to the contents of the selected directory. You might or might not have permission to see or make changes to existing files or directories, as determined by the owner of the parent directory. Further, individual subdirectories within a directory might carry different access privileges. The notation "No access" means you can't look at or change anything in the directory.
- Owner is the person who owns the selected directory.
- Group is the name of the AppleShare group that has special privileges associated with this directory.

An additional pane appears in the Access Privileges window of a directory you own; this pane lets you change access privilege settings. You use the Up and Down Arrow keys to move among privileges (See Directories, See Files, and Make Changes), and the Left and Right Arrow keys to move among user categories (Owner, Group, and Everyone).

- See Directories controls who can see the names of subdirectories within the directory.
- See Files controls who can see the names of, read, and copy files within the directory.
- Make Changes controls who can make changes to your directory's contents (including moving or deleting any of its contents).

For a more general discussion, see Chapter 3.

Setting the display to include Macintosh (long) names

Pressing F9 toggles between the long and short name display of files and directories. Long Names shows the original Macintosh file or directory name on the right side of the listing pane; Short Names replaces the Macintosh name with the DOS time and date of the file's or directory's creation. Figure 7-12 shows what a typical directory list looks like, first with short names and then with long names.

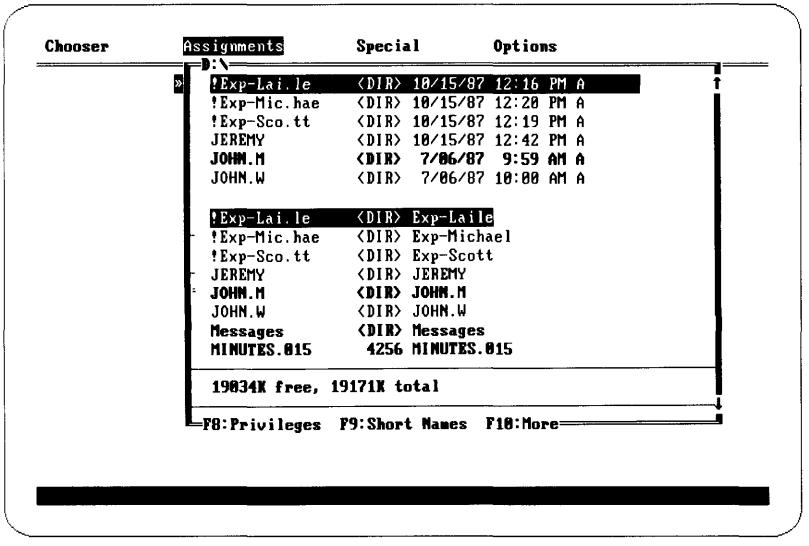


Figure 7-12
Long and short names

Chapter 8

The Special Window

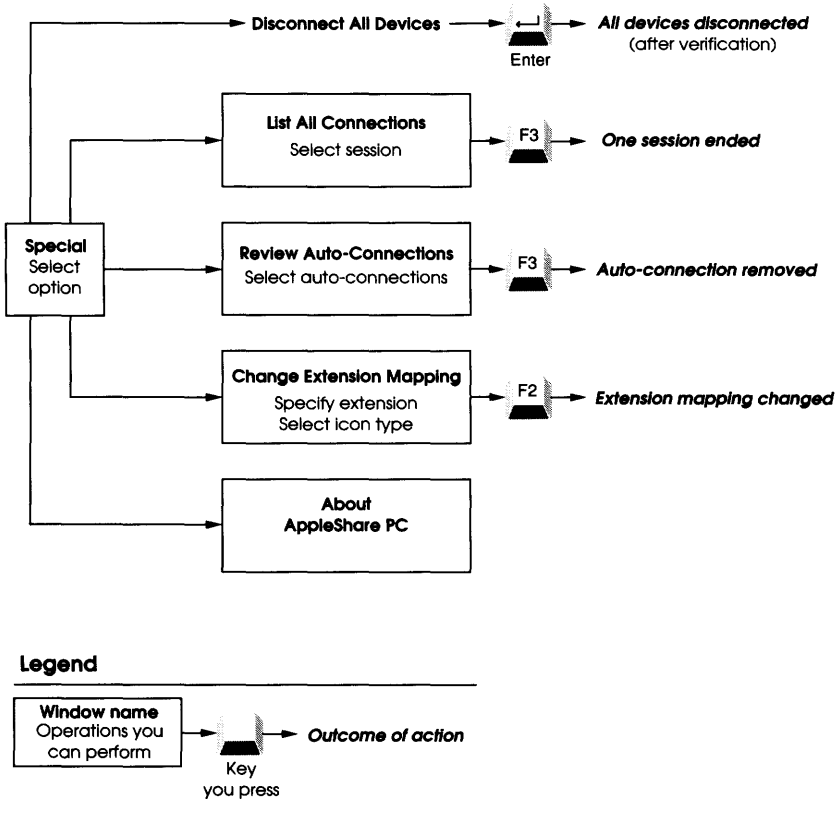


Figure 8-1
Map to the Special window

The Special window (summarized in Figure 8-1) provides information about your workstation's automatic and active connections to devices on the network, and lets you break those connections individually and collectively. One window item lets you specify the assignment of icon types.

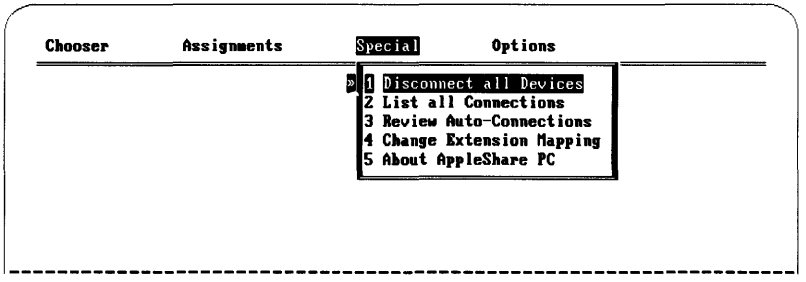


Figure 8-2
The Special window

- "Disconnect All Devices" severs all connections to devices on AppleTalk.
- "List All Connections" shows what AppleTalk device connections exist, and lets you disconnect the connections individually.
- "Review Auto-Connections" shows what attachments are made automatically when the computer is turned on, and lets you delete one or more of them.
- "Change Extension Mapping" lets you specify which Macintosh icon type will be associated with a given DOS file extension.
- "About AppleShare PC" provides information about memory use and lists the credits for this program.

To select a command, you type its number; you can also use the arrow keys to move to a command, and then press Enter.

Disconnect All Devices

Disconnect All Devices lets you close all file server sessions, detaching all AppleShare drives. Pressing Enter confirms the command; pressing Escape cancels it.

To close individual sessions, use the F3 option in "List All Connections" (described immediately below).

List All Connections

List All Connections brings up a list of all active file server sessions and related assignments. You can press Escape to go back to the Special window, or you can select the file server session you want to end. (Ending a session detaches associated drive letters.)

You press F3 to sever the link to the selected connection.

Review Auto-Connections

Review Auto-Connections shows what connections are made automatically each time the PC you're using is turned on. You can delete any of the automatic log-on sequences by highlighting its name and pressing F3.

Change Extension Mapping

AppleShare PC automatically sets a Macintosh file icon type for files created on file server volumes. These type assignments are based on the three-character DOS filename extension. DA also uses the file type and file extension information to recognize DOS text files and Macintosh text files for potential conversion while copying.

Change Extension Mapping lets you select an icon type for a given file extension. This icon type will be assigned to all appropriate new files created on server volumes; existing files are not affected. For example, you can set all files that you created with the extension WXT to be file type Binary; whenever you create a file whose extension is WXT on the file server, it will automatically be assigned the Binary icon (Figure 8-3).

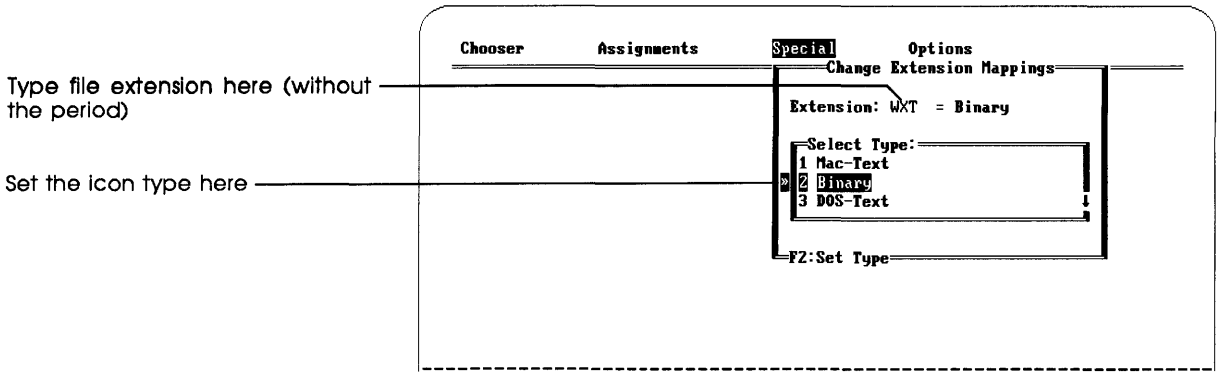


Figure 8-3
Changing extension mapping

- *Preset extensions:* Several extensions are already mapped as DOS text or Excel types. All unknown extensions are mapped as Binary by default. To see a list of the already-mapped extensions (other than Binary), at the DOS prompt enter the command

```
ANET MAP
```

You type the extension of interest at the Extension prompt. (You don't type the initial period, and wildcards aren't allowed.) You press the Enter or Tab key to move to the Type pane; then press the number of the type you want to associate with the extension you type. (You can also use the Up and Down Arrow keys to move through the list in the Type pane.)

Icons for files already on the server at the time you set the mapping remain unchanged.

- *Changing a single file's icon type:* You can change the icon type of an existing individual DOS file; see "Getting Additional Directory or File Information" in Chapter 7.

About AppleShare PC

This item presents copyright information, the names of the programmers, and information on memory use (Figure 8-4).

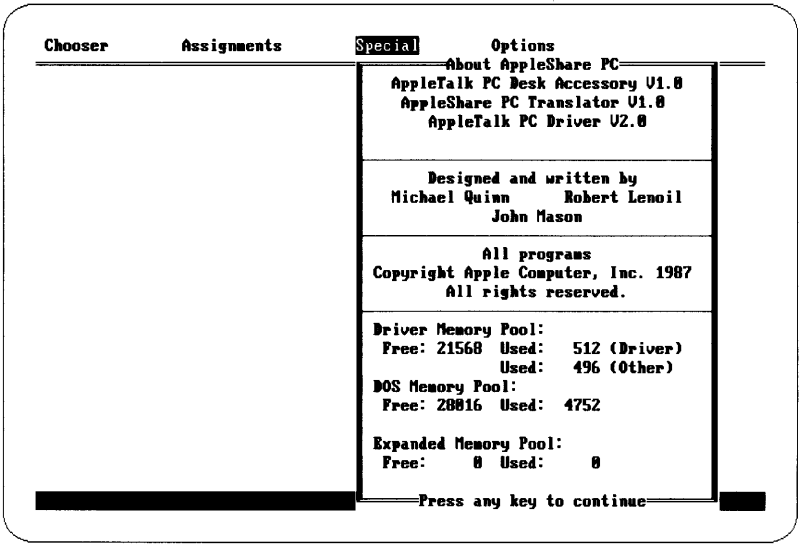
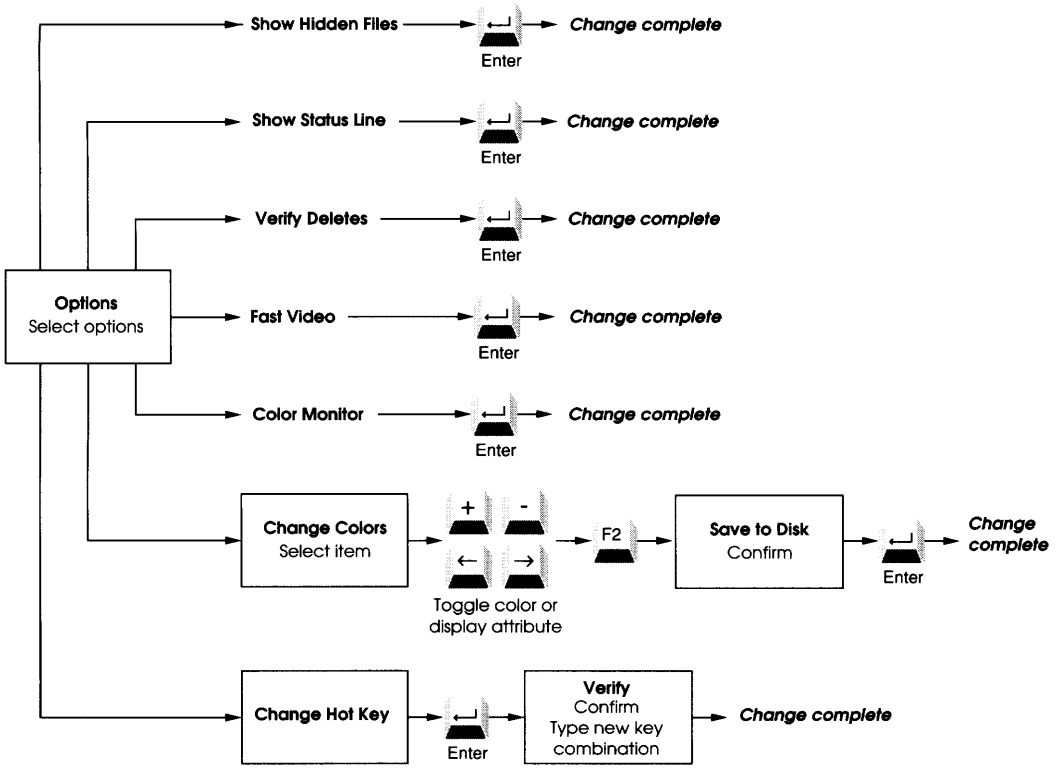


Figure 8-4
The About AppleShare PC window

Chapter 9

The Options Window



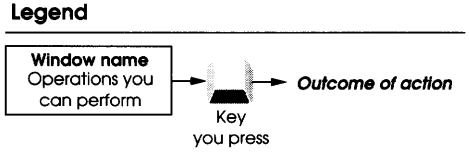


Figure 9-1
Map to the Options window

You change standard DA settings from the Options window (Figures 9-1 and 9-2).

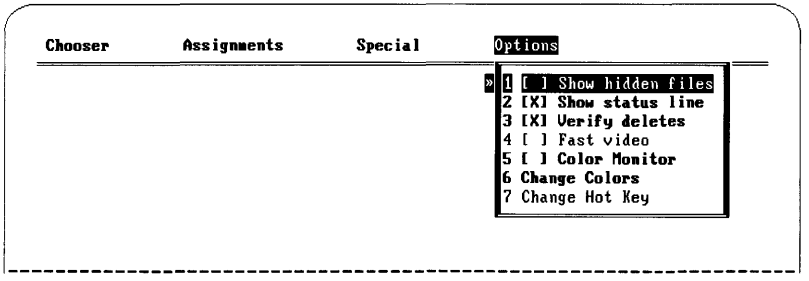


Figure 9-2
The Options window

All but the last two options are controlled by switches: You switch on an option by selecting it and pressing Enter; you switch off an option by pressing Enter again. An X appears in the box next to an option that's on.

- "Show Hidden Files" determines whether you see the names of files that are usually hidden.
- "Show Status Line" controls whether DA's status line appears at the bottom of the screen.
- "Verify Deletes" determines whether you get warnings when you're about to delete a file or directory using DA.
- "Fast Video" tells DA whether or not your video card can handle rapid display changes.
- "Color Monitor" tells DA whether your monitor is color or monochrome.

The following options are controlled by other actions:

- "Change Colors" lets you control how screen elements look.
- "Change Hot Key" sets the key combination you press to start DA when DA is memory-resident.

Show Hidden Files

DOS ordinarily hides certain system files. Their names don't appear in the directory listing. You can see the names of these files in the Assignments window when you set the Show Hidden Files parameter to On.

Show Status Line

The status line appears at the bottom of the screen; it displays messages from DA. It should normally be on.

Verify Deletes

This option works with the Delete command (F3) when you have a file selected in the Assignments window. When Verify Deletes is on, a Verify window appears each time you try to delete a file or directory using DA.

Fast Video

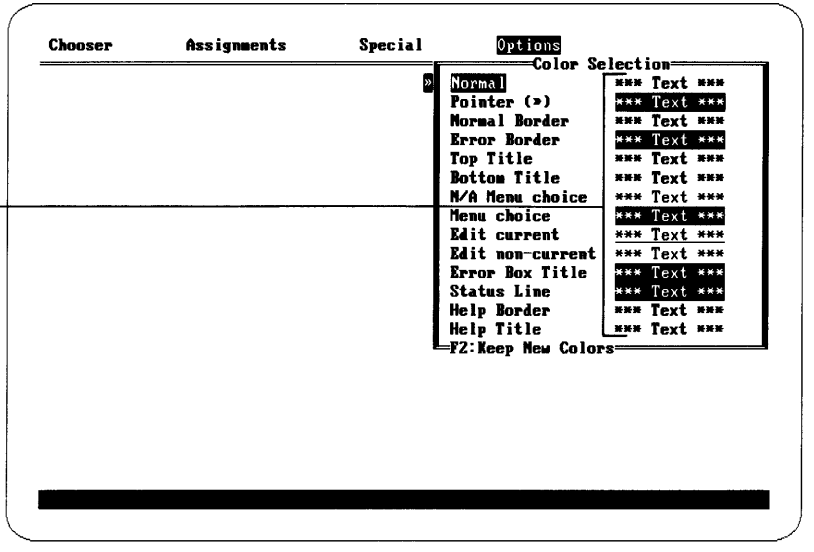
Some video cards refresh the display faster than others. DA can take advantage of your card's special ability to handle fast screen refreshes if you turn this option on. If you don't know whether your system has a fast video card, try setting this option on, and then off; use the one that makes the display look better.

Color Monitor

Turn this option on if you're using a color monitor; turn it off if you're using a monochrome monitor.

Change Colors

This option brings up a window with a list of screen elements (Figure 9-3).



Use the Plus and Minus keys (and Left and Right Arrows with color monitors) to cycle through choices for the selected item

Figure 9-3
Changing colors

You use the Up and Down Arrow keys to select the element whose color (or monochrome equivalent) you want to change.

The Plus and Minus keys cycle through the choices available for the text color. On a color monitor, the Left Arrow and Right Arrow keys cycle through the background color and background attributes (blinking and underlining).

Pressing F2 puts the new colors into effect, and brings up another box asking if you want to store the color changes to the disk for future use. (If you say Yes, the changes are stored and these colors will be in effect every time you invoke DA; if you say No, the color changes you've made are in effect only as long as DA is running or is in memory.) Pressing Escape cancels the changes you've made.

- *Test colors before storing:* It's a good idea to test the colors and attributes you've set before you store them for future use. The safest policy is to make color changes, go through different windows in DA to make sure that the changes you've made look attractive, and then select Change Colors again to make final adjustments and store the changes for future use.

Change Hot Key

Alt-Enter means hold down the Alt key and press Enter.

When DA is memory-resident, you can bring it up at any time by pressing its hot key. The default hot key is Alt-Enter.

Change Hot Key (only available if DA has already been made memory-resident by your entering DA/R at the DOS prompt) brings up a box verifying that you want to change the hot key to something else. If you answer Yes, you're prompted for the new hot key; if you answer No or press Escape, the most recently set hot key remains in effect.

- *Watch your hot key:* Any key or valid key combination can be a hot key. (Valid combinations include any key plus Alt, Ctrl, Left-Shift, and/or Right-Shift.) But you must be careful that the hot key you set doesn't interfere with normal DOS functions, or with the special functions the program you're currently running might employ.
- *Forgot your hot key?* You can't find out what the hot key is if you forget it, but you can change it again. As long as DA is resident in memory, you can use the "Change Hot Key" item in the Options window: just enter DA at the DOS prompt and follow the instructions that appear on the screen.

Chapter 10

AppleShare PC Advanced Features

Your AppleShare PC package includes ANET, a command interpreter designed to perform many of DA's functions through batch files. This chapter covers the ANET command interpreter, writing batch files, and other issues that the advanced user needs to run AppleShare PC successfully.

- "The ANET Command Interpreter" gives details on AppleShare's command language.
- "Using ANET" describes how to invoke the ANET command interpreter to best advantage.
- "ANET Commands" describes the actions of each command, and tells when and how the command should be used. It also includes a description of the command syntax, and summarizes the format in which commands are described.
- "Batch File Tips" provides important notes on starting and using AppleShare PC within batch files.
- "Memory Considerations" suggests what to do if you run into memory problems.
- "Changing the Interrupt Address" explains how to select a driver interrupt address.
- "Helping DA Find Related Files" shows how to use the DOS Set command to build a path to errant DA support files.
- "Increasing Sessions and Network Drives" describes what you must do to have more than two active sessions on a workstation.

The ANET command interpreter

ANET is AppleShare PC's command interpreter. You use it primarily to write batch files that automate logging on to and using devices on the network. You can also use ANET's commands to get information about the network and about files on the current file server.

This section summarizes ANET's commands. Following the summary is the command syntax, and then details on each command.

- ACCESS changes access privileges for a directory.
- ATTACH associates a DOS drive letter with a server volume or directory pathname. Without parameters, this command presents a list of currently attached drives and their associated server pathnames.

- AUTO automatically logs you on to one or more servers and attaches those drives specified as automatic connections in DA.
- DETACH breaks the attachment between one or more server volumes and the specified drive letter(s).
- EXIT leaves ANET. (It does the same thing as QUIT.)
- HELP brings up a synopsis of ANET commands and command syntax.

A **session** is a connection between a workstation and a file server.

- LOGOFF terminates a session with a server, including detaching associated drives.
- LOGON logs your workstation on to a server. Without parameters, this command lists all active sessions.
- MAP assigns the specified icon type to all files with a particular extension, as they're created on a server volume. Without parameters, this command lists currently specified file extensions and their icon types.
- NAME registers your workstation on the network using the name you provide. Without parameters, this command presents the workstation's current name.
- QUIT leaves ANET. (It does the same thing as EXIT.)
- TYPE determines or sets a particular file's icon type.

Using ANET

You can invoke ANET directly from DOS or from a batch file.

You can use ANET either for single commands or for a series of commands.

- To use ANET for a single command, use the form

  `ANET commandname [parameters]`

  When you press Enter, ANET starts, carries out *commandname* using any applicable *parameters*, and exits to DOS.

- To use ANET for a series of commands, type `ANET` and press Enter. Figure 10-1 shows what appears on the screen.

```
C>ANET
ANET Version 1.0 - AppleTalk PC Command Line Interpreter
Copyright (c) Apple Computer, Inc. 1987
All rights reserved.
```

Figure 10-1
Using ANET for a series of commands

Enter each new command on its own line. When you've finished, enter a blank line or issue the command

`QUIT`

(`EXIT` also works.)

Figure 10-2 shows an example that logs a user on and attaches two DOS drives.

```
C>ANET
LOGON S(BIG GUY) N(JW SMITH) P(TopGun)
ATTACH D:\\BIG_GUY\HIVOLUME
ATTACH E:\\BIG_GUY\HIVOLUME\LODIR
QUIT
-
```

Figure 10-2
Logging on and attaching

❖ *DA and ANET share commands:* Because ANET and DA are compatible, DA and ANET commands complement each other. For example, if you've logged on using ANET, you can go on to attach drives using DA.

ANET commands

This section gives details on each ANET command. Commands are listed in alphabetical order. A note cautions you when a particular command depends on some existing condition. (For example, you can't use the ATTACH command unless you're currently logged on.)

Command syntax

The syntax statements in this section follow this pattern.

- Commands appear in all capital letters:

  `HELP`

- Italics indicate a symbolic name for which you must substitute a real argument:

  `NAME` *`name`*

- Square brackets surround optional command arguments:

  `TYPE` *`filename`* `[`*`type`*`]`

- A vertical bar indicates that you must choose one of the two options the bar separates:

  `LOGOFF` *`sessionname`* `| /ALL`

- An ellipsis means you can repeat an item:

  `DETACH` *`drivename`*`...`

Don't include the symbolic names when you issue an actual command.

❖ *Type* \\ *literally:* The double backslash is special DOS notation telling DOS to treat the name that follows as a network device, the first element of which is the session name:

```
ATTACH E: \\BIG_GUY\ODDJOB\SALES
```

The two backslashes are not symbolic names, and you must include them in a pathname that includes a network device.

Command descriptions

Command descriptions all follow the same basic pattern. The first line is always the name of the command:

```
COMMAND
```

The second line shows the syntax of the command:

```
COMMAND secondword (parameter) [anotherword
(anotherparameter)]
```

(A second, indented line appears with additional syntax when there's not enough room across the page to show the entire syntax on one line.)

The next several lines give examples of the command, one line for each common use:

```
COMMAND comehere (gothere)

COMMAND comehere

COM
```

A description of the command's action follows, sometimes with cautionary notes and additional examples.

You can use a shortened version of most commands. A command's short version is at least three letters long and is unambiguous. For example, ACC is the short version of ACCESS, but LOGOF is the short version of LOGOFF. (The short version is five letters long to distinguish it from LOGON.)

The following list shows all ANET commands, syntax, descriptions, and examples.

ACCESS

```
ACCESS pathname [O(priv [="newowner"])]
    [G(priv [="new group"])] [E(priv)]
ACCESS E: MYDIR G(DF)
ACCESS E: MYDIR G(=DF)
ACCESS E: MYDIR E(+C)
ACC E: MYDIR O(CDF="John Smith") G(DF="Accting")
    E(DF-C)
```

ACCESS (or ACC) changes access privileges for a directory. The privilege indicators (*priv*) are:

- C—Make Changes to a directory's contents
- D—See Directories in directory
- F—See Files in directory

The user categories, designating to whom the privileges apply, are:

- O—the directory's Owner
- G—the Group associated with a particular task
- E—Everybody, including anyone logged on as a guest

When you use more than one user category, the order in which you give the categories is not significant.

To use this command, you must already be logged on to a server and at least one drive must already be attached.

Using operators with ACCESS

ACCESS has three optional operators—plus (+), minus (–), and equal (=). You usually use operators to change a previous state:

- (+) Add the specified privileges to any that exist.
- (–) Take away the specified privileges from any that exist.
- (=) Use the specified privileges instead of any that might already have been assigned.

As an example of how operators can be used, note that -CD+F is the same as -C-D+F.

An operator applies to all privilege indicators to its right until another operator is used. When you use a privilege indicator without any operator preceding it—as in G(C)— + is assumed. When a privilege indicator or an operator tries to add a privilege that already exists or take away one that doesn't exist, it's ignored.

For example, if you wanted to add the Make Changes privilege to the group's privileges after these privileges had been set, you could write

```
ACCESS E:MYDIR G(+C)
```

(No matter what other privileges it already had to the contents of MYDIR, the group now also has the ability to change what's in the directory.)

The equal sign denies (or cancels) any privilege not explicitly stated as one of its arguments. When you want to state absolutely what the privilege(s) are, precede the privilege indicator letters with an equal sign:

```
ACCESS E:MYDIR G(=DF)
```

(No matter what privileges it already had to the contents of MYDIR, the group now can only See Directories and See Files.)

Putting only an equal sign in parentheses removes all privileges:

```
ACCESS E: MYDIR E(=)
```

(No matter what privileges anybody except the owner and group members previously had to the directory MYDIR, they now have none.)

Changing owners or groups

You can also assign new owner or group names to a directory that you own by placing the argument

```
="name"
```

within one of the privileges. In the following example the new owner of MYDIR (Primo Acme) gets full access privileges; group members and the general server public can see directories and files in MYDIR, but are not allowed to change its contents:

```
ACCESS E:MYDIR O(CDF = "Primo Acme") G(=DF) E(=DF)
```

To assign a new name and to take away all privileges, use a double equal sign:

```
ACCESS E:MYDIR G(=="New kids")
```

To take away a group name, use an empty string:

```
ACCESS E:MYDIR G(=="")
```

ATTACH

```
ATTACH [drive designator:\\sessionname\volumename\
        pathname]
```

```
ATTACH E:\\BIG_GUY\ODDJOB\SALES
ATT
```

ATTACH (or ATT) associates a DOS drive letter with a file server pathname.

The order in which elements of the command appear is significant.

You must have already logged on to a server to attach a drive.

Important You must use short name forms with ATTACH (that is, DOS names as opposed to Macintosh names). The session name must be the session name used with the LOGON command, or one that appears when you enter ANET LOGON at the DOS prompt.

Typing ATTACH without arguments returns a list of drives and the server pathnames to which they're attached (Figure 10-3).

```
C>ANET ATTACH
Local          Network
-------------- --------------------------
E:             \\BIG_GUY\!HIVOLUM.E
F:             \\BIG_GUY\!HIVOLUM.E\LODIR

C>-
```

Figure 10-3
Attached drives

AUTO

AUTO

AUTO (or AUT) registers the workstation name on the network and performs automatic log-on procedures and attachments. To do the automatic log-on procedures and attachments, AUTO uses the connections and user names listed under Review Auto-Connections in DA's Special window. (See "Specifying a Volume to be Attached at Startup" in Chapter 6 for details on creating automatic attachments.)

All automatic procedures in the list are performed. If a password wasn't saved as part of the automatic procedure, ANET prompts for one.

DETACH

DETACH *drivedesignator* [*drivedesignator*]...

DETACH D: E:
DET F:

DETACH (or DET) disassociates the listed DOS drive letters from file server volumes.

Important Using the DETACH command does not log you off a server (nor does it close an open session). Use LOGOFF to perform these functions.

If you use DETACH with a drive designator that isn't attached, you see the message

```
This device is not redirected
```

EXIT

EXIT

EXIT (or EXI) exits from ANET and returns to DOS. It has the same effect as the QUIT command, or simply pressing ENTER.

❖ *Quicker EXIT:* You don't need EXIT to leave ANET; just press Enter on a blank line and ANET terminates to DOS.

HELP

HELP

?

HELP (or ?) presents a list of all ANET commands and their syntax. You might have to press Ctrl-S to stop the information from scrolling off the screen too quickly for you to read.

LOGOFF

LOGOFF *sessionname* | /ALL

LOGOFF BIG_BLUE

LOGOFF /ALL

LOGOFF (or LOGOF) disconnects a workstation from a session.

If the server session from which you want to log off still has one or more drives attached, a prompt asks permission to detach them. (If you say No, LOGOFF is canceled.) When you use the /ALL option, this prompt doesn't appear.

LOGON

LOGON [S(*servername*)[Z(*zonename*)][U(*username*)] [P(*password*)][D(*sessionname*)]]

LOGON S(Far Away) U(JL Smith) P(jls)

LOGON S(Big Blue)

LOGON

LOGON logs a workstation on to a server called *servername*.

If you give no arguments, LOGON returns a list of all active sessions (Figure 10-4).

```
C>ANET LOGON
SESSION          USERNAME
---------------- ----------------
BIG_GUY          Scot
BIG_GUY          <Any User>

C>-
```

Figure 10-4
Active sessions

Important If you use any argument, then one of those arguments must be `S(servername)`.

The order of the arguments is not significant.

In the example below, J. L. Smith with the password *jls* logs on to the server named Far Away.

```
LOGON S(Far Away) U(JL Smith) P(jls)
```

If you give only the server name argument, LOGON creates a session and registers you as a guest.

When you log on without the D option, the session name becomes the server name with spaces changed to underscores, characters unacceptable to DOS stripped away, and the length of the name truncated to 15 characters.

You can force the session name to be any legal DOS name by specifying it in the argument `D(sessionname)`. This capability is useful in batch files to ensure a unique known session name for attaching drives.

- *Quotation marks and parentheses:* Arguments in parentheses must be enclosed in quotation marks if the argument contains one or more of the following characters: < > \ ) ". In addition, all embedded double quotation characters must be themselves doubled. For example, `A<"` becomes `("A<""")`.

Multiple session names

You can create more than one session with the same server. This happens when you log on to the same server from your PC with two or more user names. Assuming that you use only the `S (servername)` parameter, the name of the first session you create is the same as your server name (except for the character changes and deletions mentioned earlier to shorten the name to 15 legal DOS characters). Each subsequent name concatenates a number to the end of the name, starting with the number 1 (as in BIG_GUY1). Each additional session increments this number (BIG_GUY2, BIG_GUY3, and so on) up to the limit set by REDIR. (See "Increasing Sessions and Network Drives," later in this chapter.)

MAP

```
MAP [extension [filetype]]
```

```
MAP
```

```
MAP DOC
```

```
MAP DOC BINARY
```

MAP associates the specified *filetype* to each file with the extension *extension* that you create on a server volume after you issue the command. It has no effect on files already on the server.

You use MAP for two purposes: to set the Macintosh icon type and creator for a PC-created file so that Macintosh users can see an appropriate icon for that file; and to specify those extensions that identify DOS text files or Macintosh text files. (These files can be converted from one type to the other during copying.)

If you issue the MAP command with no arguments, it reports all current extensions already defined and their icon types.

```
C:\>ANET MAP
    = DOS-Text    ASM = DOS-Text    BAT = DOS-Text    C   = DOS-Text
TXT = DOS-Text    COD = DOS-Text    DOC = DOS-Text    H   = DOS-Text
INC = DOS-Text    LST = DOS-Text    MAP = DOS-Text    AUS = DOS-Text
E   = DOS-Text    BAK = DOS-Text    RC  = DOS-Text    DEF = DOS-Text

C:\>-
```

Figure 10-5
Using MAP with no arguments

If you use MAP with just *extension*, you see the icon type for the extension:

```
ANET MAP TXT
Type for extension 'txt' is DOS-Text
```

The default icon type for all files created on the server is Binary.

Important Changing a file's icon type does not change the file's contents. It only changes the icon type. For details on Macintosh file structure, see *Inside Macintosh*.

NAME

```
NAME [workstationname]
NAME MyStation
NAME "Accounting Dept Workstation"
NAME
```

NAME (or NAM) registers your workstation on the network under the name you give. (The administrator uses the workstation name for troubleshooting the network.)

If the workstation name includes spaces, you must enclose the whole name within double quotation marks.

Unlike other parameters for ANET, *workstationname* can contain any characters; it can be up to 31 characters long.

If the name you enter is already being used by another workstation running the same DOS version on the network, ANET appends a digit to the name: for example, if JOHN is the name, it becomes JOHN1; yet another JOHN becomes JOHN2, and so on.

If you issue NAME with no arguments, ANET shows the workstation's current name.

QUIT

```
QUIT
```

QUIT (or QUI) exits from ANET and returns to DOS. It has the same effect as the EXIT command, or simply pressing Enter.

❖ *Quicker QUIT:* You don't need QUIT to leave ANET; just press Enter on a blank line, and ANET terminates to DOS.

TYPE

```
TYPE [filename [filetype]]
```

```
TYPE D:MYFILE.DOC
TYPE \\MYSESS\MYDIR\MYFILE.TXT
TYP Q:MYFILE.TXT BINARY
```

TYPE (or TYP) changes the specified file's icon type. The command word TYPE must be followed by a legal DOS pathname that ends at a file on a network server volume.

You can't change the icon type unless it's one of the types known to AppleShare PC.

To use this command, you must already be logged on with at least one drive attached to a server volume.

❖ *File types:* A Macintosh text file ends each line with a carriage return character. A DOS text file ends each line with a carriage return and a line feed character. The Binary type implies nothing about the file's contents. Macintosh text files are what Macintosh text processing programs produce, and DOS text files are what PC text processing programs produce.

Using partial syntax

If you issue the TYPE command with only a filename, you get the file's type:

```
TYPE D:MYFILE.TXT
The file's type is DOS-TEXT
```

The example below changes the type of the MYFILE.TXT file on the D drive to Binary:

```
TYPE D:MYFILE.TXT BINARY
```

If you were now to call for the file's type, ANET would report:

```
The file's type is BINARY
```

Batch file tips

ANET gets its best use when you execute ANET commands from within a batch file at startup time. This section contains a number of tips to help you get the most out of batch files and ANET.

Using text files for ANET commands

To use ANET most efficiently in a batch file, use this syntax:

```
ANET @filename
```

The special symbol @ (Shift-2 on most keyboards) tells ANET to read its commands from *filename*, a text file containing a list of ANET commands. Here's what a file might look like:

```
LOGON S(BIG GUY) U(JW SMITH) P(GAF)
ATTACH D:\\BIG_GUY\HIVOLUME
ATTACH E:\\BIG_GUY\HIVOLUME\LODIR
```

(This code says to log J. W. Smith on to the Big Guy server with the password GAF, and then to attach drive D to the directory HIVOLUME and drive E to directory LODIR—a subdirectory within HIVOLUME. Assuming that the new file had the name LOGME, J. W. Smith could log on at the DOS prompt by typing

```
ANET @LOGME
```

- *Concerned about security?* The first line of the example shows that the password (GAF) is part of the batch file. For security purposes, you might decide not to include the password in the batch file. In that case, ANET automatically prompts for the password at the proper time.

Installing AppleShare PC with AUTOEXEC.BAT

You might want to install AppleShare PC at startup from an AUTOEXEC.BAT file (especially convenient if you use file servers often). The supplied installer will build an appropriate AUTOEXEC.BAT file for this purpose. If you create or edit this batch file on your own, be careful of the order in which you execute AppleShare PC installation files. Use the batch file created by the Installer as a guide. It calls six basic files in this order:

1. ATALK—The AppleTalk driver. Without it, data from the workstation can't get to the network.
2. ASHARE—The AppleTalk PC translator. It takes server message blocks (SMB) and translates them into AppleTalk Filing Protocol (AFP) functions. When the AFP server responds to these functions, ASHARE passes them back as SMBs to the REDIR program. (See number 4.)
3. MINSES—The session interface that REDIR uses to send and receive SMBs.
4. REDIR—The redirector. REDIR takes MS-DOS requests for network drives and converts them into server message blocks. These blocks are the DOS equivalents of AFP functions. The redirector passes these to ASHARE.
5. ANET AUTO—The command that does automatic connections and device letter attachments at startup time.
6. DA/R—The command that makes DA memory-resident.

DA—the Desk Accessory—provides the human interface. If you don't intend to make DA memory-resident, you probably won't include it in AUTOEXEC.BAT.

Important If your AUTOEXEC.BAT file calls memory-resident programs, you must load ATALK, ASHARE, MINSES, REDIR, and DA/R before loading another memory-resident program. (Some memory-resident programs block DA if they're installed first.) Also note that ASHARE must generally be loaded after other network drivers.

Memory considerations

The Installer supplied with AppleShare PC sets memory allocation for AppleShare's driver memory pool. The allocation is based on your system configuration. You might need to change this setting based upon your use pattern.

- *Add to batch files:* Commands in this section are best implemented through AUTOEXEC.BAT or some other batch file. See "Batch File Tips," earlier in this chapter, for details.

/MEM increases AppleShare PC's reserved memory.

The AppleTalk driver automatically captures some memory for its own use. To reserve additional system memory for AppleShare PC's use, add the /MEM option to ATALK:

```
ATALK /MEM=nK
```

where *n* is the amount of memory in kilobytes. For example, the following statement increases the pool by 10 kilobytes:

```
ATALK /MEM=10K
```

If you get an out-of-memory complaint from DOS or while you're using DA, begin by specifying 10K for a workstation that uses a monochrome screen (or a color screen using color text as opposed to graphics), and 25K for one that uses a color screen with DA memory-resident in graphics mode.

Expanded Memory Manager (EMM) saves the need for extra memory; if you're in EMM mode, you do not need to specify the /MEM option. The same is true if DA is not memory-resident.

If you use Lastdrive in your CONFIG.SYS file to change the default setting (LASTDRIVE = E:), you should add 1K to the memory pool for each pair of additional DOS drives you specify.

For example, if you've added four drives to your system (that is, you've set LASTDRIVE = I in CONFIG.SYS), and you're using color graphics, and you have no EMM, then you'd add 22K to the memory pool (2K for the four extra drives, plus 20K for color graphics).

- *Getting memory pool information:* To learn the amount of memory in the driver memory pool, the DOS memory pool, and the expanded memory pool, select "About AppleShare PC" in DA's Special window.

Important Whenever you change CONFIG.SYS or AUTOEXEC.BAT, you must restart the system. That's the only way that DOS or AppleShare PC can put those changes into effect.

Changing the interrupt address

The default address for the AppleTalk PC driver interrupt is hexadecimal 60. On some occasions, this address might be used by another product; when that happens, you need to change the interrupt.

❖ *Add to batch files:* Commands in this section are best implemented through AUTOEXEC.BAT or some other batch file. See "Batch File Tips," earlier in this chapter, for details.

Use **/INT** to set an interrupt.

The /INT switch specifies a driver interrupt address (in hexadecimal). Use the syntax

```
ATALK /INT=n
```

where *n* is the new interrupt address in hexadecimal. For example, to set the driver interrupt address for ATALK to hexadecimal address 61:

```
ATALK /INT=61
```

When you change the interrupt address, you also have to use the DOS Set command to let other programs know the new interrupt address. Use the form

```
SET ATALK=/INT#n
```

where *n* is the address of the interrupt in hexadecimal.

Typically, you accomplish both steps by putting them into AUTOEXEC.BAT.

Important Whenever you change AUTOEXEC.BAT, you must restart the system. That's the only way AppleShare PC can know that you've made any changes.

Helping DA find related files

If DA's support files—DA.HLP and DA.DTA—aren't in the same directory as DA.EXE, and if they're not in one of the directories listed in the DOS path, you'll have to use the Set DA command at the DOS prompt. Set DA tells DA where to find these files. Use the form

```
SET DA=drive:\pathname
```

For example, to tell DA that DA.HLP and/or DA.DTA are on drive C: in the directory named Support, at the DOS prompt you'd enter

```
SET DA=C:\Support
```

Increasing sessions and network drives

REDIR.EXE adds network capabilities to MS-DOS. Ordinarily, you can ignore settings for this program; after you've installed the system, AppleShare PC does what it needs to do automatically. But you do need to reconfigure REDIR when you want to have more than two sessions active at the same time from the same workstation (that is, when you want to log on to, and attach drives to, more than two servers at the same time).

To set the number of allowable active sessions, add a line to AUTOEXEC.BAT using the form

```
REDIR /S:n
```

where *n* is the number of allowable active sessions. (You can have up to four simultaneously active sessions.) For example, to allow three active sessions, from your AUTOEXEC.BAT file you'd enter

```
REDIR /S:3
```

The redirector supports only four network drive attachments simultaneously. If you want to attach more than four drives, reconfigure the Redirector using the form

```
REDIR /L:m
```

where *m* is the number of attachments, greater than or equal to the number of allowable active sessions. To do both settings, use the form

```
REDIR /S:n /L:m
```

You can have up to six drives attached simultaneously.

Important Whenever you change CONFIG.SYS or AUTOEXEC.BAT, you must restart the system. That's the only way AppleShare PC and DOS can put your changes into effect.

You might have to make two additional changes when you increase the number of allowable active sessions.

First, you might have to change the Lastdrive command in CONFIG.SYS. The Lastdrive command specifies the maximum number of drives that DOS recognizes. The default highest drive is E. To specify a greater number of drives, you give the highest drive letter you are likely to use. For example,

```
LASTDRIVE = F
```

gives you six possible drives. (See your DOS manual for more details on CONFIG.SYS and its commands.)

Second, you might have to change the amount of memory available to AppleShare PC. To do that, you'd use /MEM, discussed earlier in this chapter.

Chapter 11

If Something Goes Wrong

This chapter covers some of the common problems you may encounter when you work with an AppleShare file server, and offers solutions. The first section identifies problems that may arise when you're logging on to a server. The second section focuses on problems that may occur while you're using the server.

When starting your PC

Before you can use AppleShare PC, the AppleShare software must successfully load into your computer's memory. The files must load in the order specified within your AUTOEXEC.BAT file. If a problem occurs during this process, you may receive one or more of the following messages:

- Loaded AppleTalk Driver does not support AppleShare workstations.

  You are using an old or incorrect version of the AppleTalk driver. Run the AppleShare PC Installer program to install the correct AppleTalk driver on your startup disk.

- Loaded AppleTalk Driver does not have a memory pool.

  You are using an old or incorrect version of the AppleTalk driver. Run the AppleShare PC Installer program to install the correct AppleTalk driver on your startup disk.

- Could not initialize AppleTalk.

  There was an error initializing the LocalTalk PC Card. This could indicate a problem with the card, or with the ATALK.EXE driver program. Check to see that the card and driver are properly installed in your PC. If you still have trouble, contact your dealer.

- Not enough memory.

  There is not enough DOS memory for ASHARE.COM to run. AppleShare PC requires a PC with 384K of free RAM. Your available memory might have been reduced by other memory-resident programs that you have loaded.

- AppleTalk driver not installed.

  You must load the AppleTalk PC driver program before running ASHARE. This may also mean that the driver was configured to use a different interrupt number than the one ASHARE was expecting.

When you're logging on

Most problems that you encounter when you're logging on to the server have to do with startup disks—the result of improperly installed AppleShare software, or a current startup disk that doesn't have AppleShare PC software installed on it.

DA doesn't appear

If the AppleTalk PC Desk Accessory doesn't appear, you're probably missing a key AppleShare–related file, or have a damaged AppleShare–related file.

These are the AppleShare files that must be on your startup disk for AppleShare PC to work:

- ATALK.EXE—the AppleTalk PC driver program
- ASHARE.COM—the AppleShare PC translator
- MINSES.EXE—the network session interface software
- REDIR.EXE—the DOS redirector
- DA.EXE—the AppleTalk PC Desk Accessory (DA)
- DA.DTA—the data file for the DA program
- DA.HLP—the help file for the DA program
- ANET.EXE—the command line interpreter

Important The Installer program always installs ATALK.EXE in the root directory and inserts a statement referencing it in your AUTOEXEC.BAT file. Do not move it to another directory unless you also change the path in the AUTOEXEC.BAT statement referencing ATALK.EXE.

If you find that you're missing one of these files, reinstall AppleShare PC. See "Setting Up Your PC" in Chapter 1 for more information.

Other common causes of DA not appearing are:

- You did not boot from the disk on which you installed AppleShare PC. If necessary, insert your AppleShare PC startup disk and reboot.
- You are trying to run DA from the DOS system prompt and are not in the directory that contains DA.EXE.

- The hot key has been changed. If you don't know or can't remember the hot key, you can change it. See "Changing the Hot Key" in Chapter 4.
- Your AUTOEXEC.BAT file has been changed. Try reinstalling AppleShare PC. See "Setting Up Your PC" in Chapter 1 for more information.

Important Be careful of the order in which you enter commands in a batch file. AppleShare PC must load before all other memory-resident programs. In addition, the AppleShare files must load in the order they appear in the AUTOEXEC.BAT file created by the Installer.

If you need to rebuild an AppleShare PC startup disk, it's a good idea to use the Installer program INSTALL.EXE, rather than just doing straight DOS Copy operations.

The hot key doesn't bring up DA

If you hear a tone when you press the hot key and DA doesn't appear, then one of the following may be the problem:

- DOS is busy. Wait a moment, then press the hot key again.
- You're using a graphics mode that DA does not support, such as EGA graphics. Try leaving graphics mode, then press the hot key again.
- DA does not have enough memory to run. Try increasing the amount of driver memory. See "Memory Considerations" in Chapter 10 for more information.

The server isn't listed in the Chooser window

If a server isn't present in the Chooser, look into these three possibilities:

- The server you're looking for is in not in the zone you've selected. Try looking in another zone.
- The server isn't connected to the AppleTalk network or has been shut down for maintenance. Check with your AppleShare administrator.

- There's a problem in the AppleTalk network somewhere between your PC and the server you want to use. See your LocalTalk connector kit guide for more information.

If there's more than one server on the network, and if some are listed but not the one you want to use, use the above tips to locate the problem. Also, check with your administrator to see if the name of the server has been changed.

The server doesn't respond

If you select a server and it doesn't respond, don't panic. Wait at least 45 seconds. If the server is handling a lot of requests it can take 30 to 40 seconds for it to respond.

If the server still doesn't respond after two minutes and you have not received an error message or seen the activity indicator blink, a possible problem is that you've loaded an incompatible memory-resident program. This doesn't necessarily mean that you'll have to get rid of the memory-resident software (although you might). Memory residency presents some interesting problems. Sometimes the order in which programs are loaded can cause the problem. Sometimes improperly quitting a memory-resident program can cause problems.

Check your AUTOEXEC.BAT file and make sure that it calls DA (and other AppleShare related files) before it calls any other memory-resident software. If you're calling another memory-resident program first, change the order. AppleShare must load into memory before any other memory-resident programs.

The server won't accept your registered user name or password

If you select a server, but can't log on with your registered user name or password, then one of the following may be the problem:

- The administrator has not given you access to the server. Check with your AppleShare administrator.
- You're typing your name or password incorrectly. Check with your AppleShare administrator to see exactly how your registered user name and password should be typed. Type your password—using uppercase and lowercase characters—exactly as they were given to you by your AppleShare administrator.

- The Caps Lock or Num Lock key on your keyboard is down. Remember that your password must be typed exactly as it was given to you by your AppleShare administrator.

The server is currently not available

If you select a server, but find that it's currently not available, then one of the following may be the problem:

- The administrator is shutting down the server and has initiated a countdown. You cannot log on to the server if the server will shut down in five minutes or less. At first, it may appear as if the server won't accept your registered user name or password, but eventually a message will tell you that the server has been shut down.
- The server is currently being used by the maximum number of users it allows. You cannot log on until someone else logs off.

Your startup disk failed to access the server automatically

If you have selected the Connect Automatically at Startup option for one or more server volumes, but your startup disk failed to access the server at startup time, then one of the following may be the problem:

- The server has been taken out of service. Check with your AppleShare administrator.
- There's a problem in the AppleTalk network somewhere between your PC and the server you want to use.
- The DA.DTA file has been deleted or changed. Replace the file and go through a manual registration to reset the file's automatic log-on data. See "Establishing Automatic Connections" in Chapter 4.
- The volume or directory you're trying to connect to no longer exists.

In each of the above cases, log on manually and establish the automatic connection again.

Once you've logged on

Most problems you encounter while you're working with the server are the result of your having insufficient access privileges for the directory you're trying to work with. For more information on access privileges, see Chapter 3, "Privacy on the File Server." For instructions on setting access privileges, see "Reviewing and Setting Directory and Drive Access Privileges" in Chapter 4.

Many DOS programs do not operate correctly in an environment with restricted access privileges. If you are having problems, try placing the application and all its files in a private directory to which you have full access (the See Files, See Directories, and Make Changes privileges).

You can't open a volume or directory that appears in a DA window

If you have a volume or directory name in a Chooser or Assignments window that you can't open, you may not have access privileges to that volume. When you try to open the volume, a message says that you don't have access privileges. You might also ask the network adminstrator about the volume. You'll also learn the volume's owner; ask the owner to allow you access.

A subdirectory you want doesn't appear

If you're looking for a subdirectory in a directory but can't find it, then one of the following may be the problem:

- The subdirectory is in another directory, or located on a different volume.
- The subdirectory may be on a different server.
- The subdirectory is nested in a directory for which you do not have the privilege See Directories.
- Someone deleted the subdirectory.

You can't run a program stored on the server

If you've stored a program on the server and can't run it successfully, then one of the following may be the problem:

- The program may require other files to be in the same directory. Check the program's documentation.
- The program may require that you have the privileges See Files and Make Changes for the directory it's stored in. Use the Assignments window to change the access privilege settings for the directory that contains the program you want to use, and try again. (See Chapter 3 for details on changing access privileges.)
- The program may have a copy-protection scheme that is incompatible with the AppleShare file server. Check the program's documentation or consult the program's developer.
- You may need to configure the program so that it allows simultaneous access by multiple users. Mark the program and its related program files as "read-only" using the DOS Attrib command or DA, or store it in a directory to which no one else has the Make Changes privilege.

You can't copy a directory stored on the server

If you're trying to copy a directory stored on the server but can't do it, then one of the following may be the problem:

- You may not have sufficient access privileges to the directory you're trying to copy. To copy the entire contents of a directory, you must have the See Directories and See Files privileges for that directory and for all directories nested within it at any level. You can only copy what you can see. Use the Assignments window to check the access privilege settings for each directory you plan to copy. (See Chapter 3 for more information on access privileges.)
- You may not have sufficient access privileges to the directory you're trying to copy to. Try copying the directory to a disk at your workstation, or check your access privileges to the destination directory.

You can't copy to a directory stored on the server

If you're trying to copy to a directory stored on the server and you receive a message that "The destination path does not exist," then one of the following may be the problem:

- You tried to copy to a directory for which you do not have the Make Changes privilege.
- The directory has been deleted by some other user.

You can't rename a file stored on the server

If you're trying to rename a file stored on the server but can't do it, then one of the following may be the problem:

- The file has just been renamed by another user.
- You don't have the Make Changes privilege to the directory that contains the file.
- The file is locked.

You can't open a file stored on a server volume

If you can't open a file stored on a server volume, then one of the following may be the problem:

- You don't have the Make Changes privilege to the directory that contains the file. Some programs need to create temporary files in the same directory that contains the file you're working with. Check your access privileges to the directory. Try moving the file to a directory to which you have the Make Changes privilege.
- Another user may be working with the file. Wait a few moments, then try to open the file again.

You can't save changes you made to a file

If you're working with a file stored on the server and can't save changes you've made, then one of the following may be the problem:

- You don't have the privilege to make changes in the directory that contains the file. To save a file in a directory, your privileges for the directory must include Make Changes. Use the Assignments window Privileges commands to check the access privileges for the directory you want to save to.
- The server has been unexpectedly disconnected, or there's a problem in the LocalTalk network cables somewhere between your PC and the server you want to use. See your AppleShare administrator.
- Another user may have the file open. Many programs will only allow the user who first opened a file to make changes to it when two or more users have the same file open at the same time. Try saving the file under a different filename.
- The file has been marked "read-only." Try saving the file using a different filename.

You can't delete a directory from DOS

If you can't successfully delete a directory from DOS, then one of the following may be the problem:

- You may not have sufficient access privileges for all of the directory's contents. To delete a directory, you must have the Make Changes privilege to the directory and any subdirectories it contains. In addition, if the directory you're trying to delete is a subdirectory, you must have the privilege to make changes within the parent directory, too.
- The directory you're trying to delete may contain a subdirectory owned by another user for which you don't have the Make Changes privilege. If so, move the subdirectory out of your directory.
- Someone may be working within the directory you're trying to delete. If you've determined that you have the privileges required to delete the directory and still can't, try again later.

You can't quit, save, or continue from within your current program

If you're working with a program that's stored on the server and you can't continue, close, or save your file, then one of the following may be the problem:

- File service has been unexpectedly disconnected, or there's a problem in the LocalTalk network cables somewhere between your PC and the file server you're using. The program you're using is probably unable to get the information it needs to continue. In this case, you usually see an alert. See your AppleShare administrator.
- You don't have the privilege to make changes in the directory that contains the file. To save a newly created file in a directory, your privileges for the directory must include Make Changes. Run DA and use the Assignments window Info command to check the access privileges for the directory you want to save to.
- The AppleTalk driver has run out of memory. Make sure that you have allocated enough memory to the AppleTalk driver. See "Memory Considerations" in Chapter 10 for more information.

You receive a message that your server connection has been lost

If you receive a message that your server connection has been lost, then one of the following may be the cause:

- The LocalTalk cable connection between your workstation and the server has been broken.
- Your server malfunctioned or was shut down.

Try logging on again, or check with your administrator.

You receive a message that a network error has occurred

If your program is interrupted by a message of the form:

`NET???` *<message description>*

`Abort, Retry, Ignore?`

a critical DOS network error has occurred.

Try pressing R to retry the operation. If the message appears again, press I to try to ignore the error, or A to abort your program.

You hear a repeated trilling sound

If you hear a repeated trilling sound and you're not working with DA, a server you're connected to has sent you a message that it's shutting down or that your connection has been lost. Run DA to display the message.

Appendix A

DA Keyboard Command Reference

This appendix reviews AppleTalk PC Desk Accessory keyboard commands.

General keyboard commands

You can use the following keys or key combinations within DA windows, list panes, and toggle panes:

- Enter—Moves to the next pane or field in a multipane window. In a single-pane window, it invokes the next window (if any). Movement from pane to pane is always top to bottom. Enter also toggles Option window check boxes on and off.
- Escape—Cancels the current command or moves you back one level. Causes you to quit DA from the Chooser, Assignments, Special, and Options windows.
- Ctrl-C—Causes you to quit DA.
- Shift-Tab—Moves to the previous pane.
- Tab—Moves to the next pane in a multipane window.
- Left and Right Arrow—Move from one window to the next. Also used to select items in a multichoice pane or list; for example, Registered User or Guest in the Log On window, and background choices in the Option window's Change Colors item.
- PgUp and PgDn—Move up or down to the next page of the list. (A page is as deep as the display area of a pane or window.)

- Ctrl-PgUp and Ctrl-PgDn—Move to the very top or bottom of a list.
- Up and Down Arrow—Move the highlight one item in a list.
- Home—Move to the top of the current window.
- Ctrl-Home—Move to the very top of the current list.
- End—Move to the end of the current window.
- Ctrl-End—Move to the very end of the current list.
- F10—Displays more commands available for the current window.
- F1—Always brings up DA's Help window.
- Number and character keys—In a list pane, the appropriate number or character key selects the corresponding item in the list and moves you to the next pane.

Edit pane keyboard commands

You can use the following keys or key combinations within an edit pane:

- Left and Right Arrow—Move one character in the appropriate direction.
- Ctrl-Left Arrow and Ctrl-Right Arrow—Move one word in the appropriate direction. The delimiter is the space or backslash (so you can use it in ordinary text or when editing pathnames).
- Home—Move the cursor to the first character of the current line.
- End—Move the cursor past the last character of the current line.
- Backspace—Delete the character to the left of the cursor.
- Ctrl-Backspace—Delete everything to the left of the cursor.
- Delete—Delete the character on which the cursor rests and shift any text to the right of the cursor to fill the gap.
- Insert—Insert a blank at the current cursor position without overwriting text.
- Any printing character—Overwrite the character on which the cursor rests and move the cursor right.

Glossary

access privileges: The privileges given to or withheld from users to see, open, and make changes to the contents of a directory. By setting access privileges, you control access to the information that's stored on the server.

active pane: The part of the DA window in which the next action will take place. The pointer always appears to the left of the active pane.

administrator: The person who sets up the server, registers users and their passwords, creates groups, and maintains the server.

AppleShare PC: Software that works with the LocalTalk PC Card to enable PC users to store and share information on AppleShare file servers. See also **LocalTalk PC Card.**

AppleTalk network system: A network system consisting of three components: a cable system (that includes the card in your PC), the network software you load into your computer, and the shared services you use over the network, such as an AppleShare file server.

AppleTalk PC Card: See **LocalTalk PC Card.**

AppleTalk PC Desk Accessory (DA): Software that's part of the AppleShare PC package. The DA program provides AppleShare PC's window interface.

application program: The Macintosh term for software used to manipulate information (sometimes called an *application*). The equivalent of a program in the DOS world.

Assignments window: Used to get information about DOS devices, including local and network drives. Also used to get information about files and directories on drives, perform a variety of DOS housekeeping operations, and perform special functions with directories and files on AppleShare server volumes.

attach: To establish of a connection between a DOS drive letter and a network device.

automatic connection: A configuration made via DA or ANET to attach a specified DOS drive letter to a server volume when you turn the computer on.

boot disk: See **startup disk.**

bridge: A device that lets you connect AppleTalk networks together. See **zone.**

Chooser window: Used to log on to a file server and to establish links between drive letters and file server volumes or subdirectories.

conversion: The process of converting Macintosh text files to DOS text files and vice versa. In a DOS-text to Macintosh-text conversion, carriage return–line feeds become just carriage returns; in a Macintosh-text to DOS-text conversion, carriage returns become carriage return–line feeds.

Desk Accessory (DA): See **AppleTalk PC Desk Accessory.**

device: Any piece of equipment that can be attached to a network—a Macintosh, PC, LaserWriter, file server, or other peripheral.

document: For Macintosh users, whatever is created with an application program. The equivalent of a file in the DOS world. See also **application** and **file.**

edit pane: Within DA, a pane that contains text fields you can edit using standard editing conventions, such as the Backspace key to erase text.

Everyone: For the purpose of assigning access privileges, the user category that includes any user with access to the server, whether logged on as a registered user or as a guest.

extension mapping: The association of a specified file type with a particular DOS extension.

file: Any named, ordered collection of information stored on a disk.

file server (server): A combination of AppleShare software, a Macintosh Plus, and one or more hard disks, which allows users to store and share files, directories, and programs over an AppleTalk network.

folder: For Macintosh users, a holder of documents, applications, or other folders. The equivalent of a directory in the DOS world.

Group: For the purpose of assigning access privileges, the user category that includes members of groups set up by the AppleShare administrator.

guest: A user who is logged on to the server without a registered user name and password. A guest cannot own a directory.

hot key: The key (or key combination) you press to start DA when it's memory-resident. See also **memory-resident.**

icon type: A visual file identifier that AppleShare PC creates for display on Macintosh screens.

list pane: Within DA, a pane that contains a list of choices from which you select by using the Up and Down Arrow keys.

LocalTalk connector: A piece of hardware consisting of a connector box, a short cable, and a 25-pin plug that allows a device to be part of a LocalTalk network.

LocalTalk PC Card: The card that you insert in your PC to enable it to communicate on a LocalTalk network.

log off: To disconnect a workstation from a server.

log on: To access a server from a workstation and identify yourself. You can then use a volume on the server.

long name: The name of a file or directory as it appears on a Macintosh. See also **short name.**

Make Changes: The access privilege that gives the right to make changes to a directory's contents.

memory-resident: Residing in RAM, ready to run at a touch of the hot key. When you quit a memory-resident program you return to where you were.

network-aware: Configured to run in a multi-user environment.

network drive: A remote drive, as opposed to a drive that's at your PC.

network path: A path of the form *sessionname**volumename**pathname*.

Options window: Used to change standard DA settings.

Owner: For the purpose of assigning access privileges, the user category that includes only the owner of a directory or volume.

pane: Part of a window. See also **edit pane, list pane,** and **toggle pane.**

password: A unique word or set of characters that must be entered before a registered user at a workstation can access a volume on the server.

primary group: The AppleShare group with whom you'll most often be sharing the files you store on the server. Primary groups are designated by the administrator.

registered user: A user who has been given a user name and password by the AppleShare administrator.

registered user name: The name assigned by the AppleShare administrator.

scrambled: Coded, to avoid detection.

See Directories: The access privilege that gives the right to see directories within a directory.

See Files: The access privilege that gives the right to read and copy files and programs in a directory.

server: See **file server.**

session: A connection between a workstation and a file server.

short name: The name of a file or directory as it appears on a PC. Short names follow DOS naming conventions.

Special window: Used to get information about and manage your workstation's automatic and active connections to devices on the network. Also lets you specify the assignments of icon types.

shutdown: The temporary closing of the file server so it's not available on the network.

startup (boot) disk: The disk containing DOS files that you use to start (or boot) your computer.

toggle pane: Within DA, a pane that contains two choices that you toggle between using the Right and Left Arrow keys.

type: See **icon type.**

user name: Identifies the person using the workstation.

volume: A hard disk that's attached to the file server. A volume has a name and a volume directory with the same name.

window: An defined area that displays information on your screen. Windows contain panes. See also **edit pane, list pane,** and **toggle pane.**

workstation: A PC or Macintosh that you can use to do your work and send or receive information over a network. AppleShare workstations are connected to the AppleTalk network system.

workstation name: Identifies your PC to the AppleTalk network.

zone: A group of one or more AppleTalk networks in a system of interconnected AppleTalk networks.

Index

D

E

T

U

V

W, X, Y

Z

AppleShare™ PC Quick Reference Card

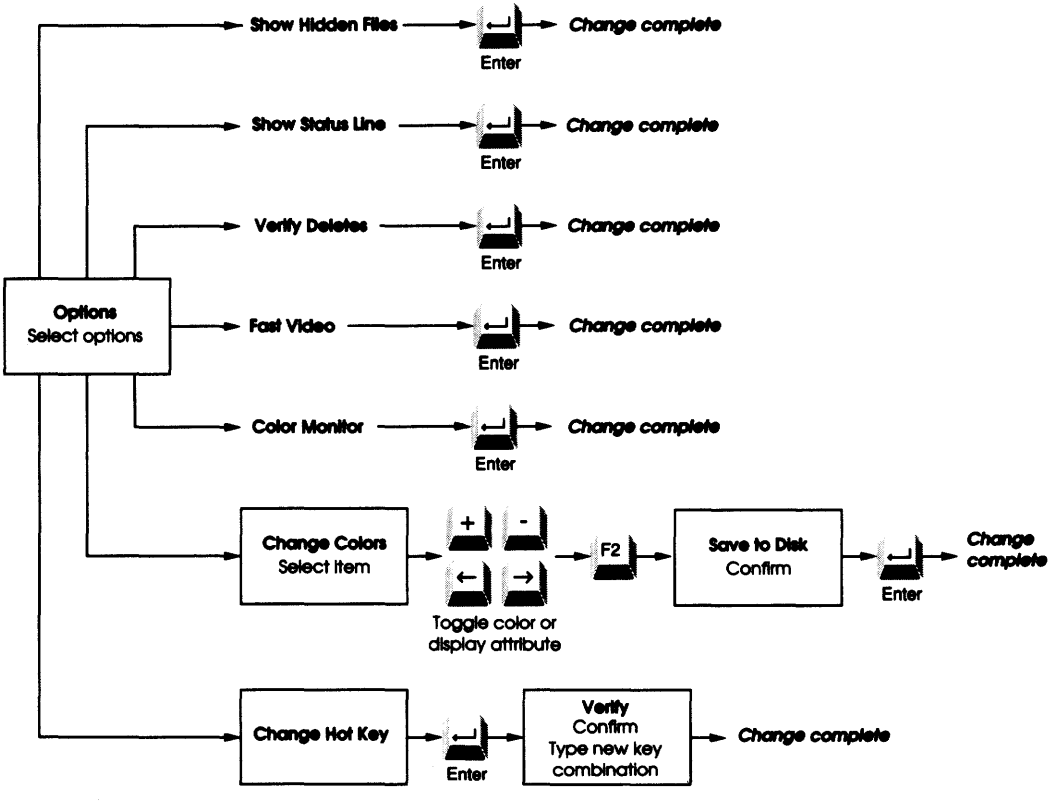
Starting AppleShare PC

- If you made DA memory-resident, press the hot key (usually Alt-Enter).
- If you didn't make DA memory-resident, type DA at the DOS prompt within the appropriate directory.

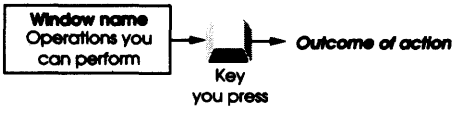
Primary windows in DA

- Chooser window—Use this window to log on to a file server; attach DOS drive letters to file server volumes and subdirectories; and name your workstation.
- Assignments window—Use this window to get information about DOS devices, including local and network drives; get information about files and directories on drives; perform certain DOS housekeeping operations; and perform special functions with directories and files on AppleShare server volumes.
- Special window—Use this window to get information about your workstation's automatic and active connections to network devices; break those connections; and specify the assignment of icon types.
- Options window—Use this window to change standard DA settings, including the hot key.

Map to the Options window



Legend



Navigating in DA

The DA windows may contain panes of three types:

- List panes—provide a list of choices; select your choice with the Up and Down Arrow keys
- Toggle panes—provide two fixed choices; select your choice with the Right and Left Arrow keys
- Edit panes—provide text fields in which you enter information using the keyboard

To move between panes within a window, use Enter or Tab.

To move to a different window, use the Right and Left Arrow keys from the top level of any primary window.

F1 always calls up a Help window.

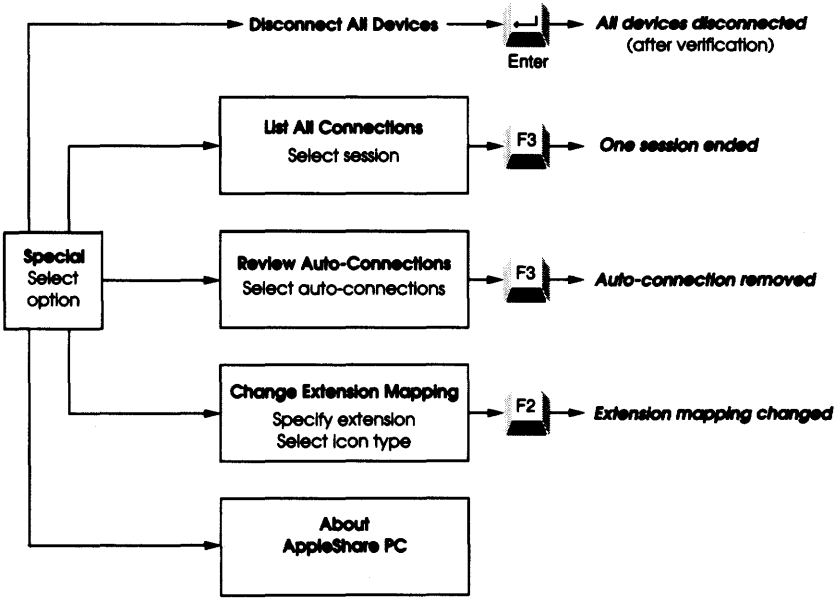
Escape backs you out to the previous window, and eventually out of the program.

Logging on to the server

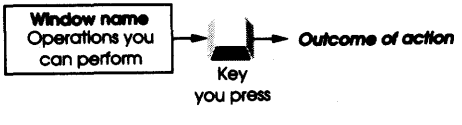
1. In the Chooser window, select AppleShare (in the Type pane), the zone containing the file server you want to use (in the Zone pane), and the file server itself (in the File Server pane). Then press F2 to begin logging on.
2. Choose your log-on option, enter your registered user name and password if necessary, and press F2 again.
3. Select the volume to which you want to attach a drive letter, and press F2 a third time.

You now have a server volume attached as a drive on your PC. Use it just as you would any other DOS drive.

Map to the Special window



Legend



Granting access privileges

When you create a directory, you own it and only you can gain access to its contents. You may choose to share its contents by granting access privileges to other file server users. The types of access privileges are:

- See Directories—allows users to see the subdirectories (if any) in the directory
- See Files—allows users to see the names of files and programs in the directory, as well as read files, copy files, run programs, and copy programs
- Make Changes—allows users to change, rename, or delete the contents of the directory

The types of users are:

- Owner—you
- Group—any group set up by the AppleShare administrator
- Everyone—every user with access to the server

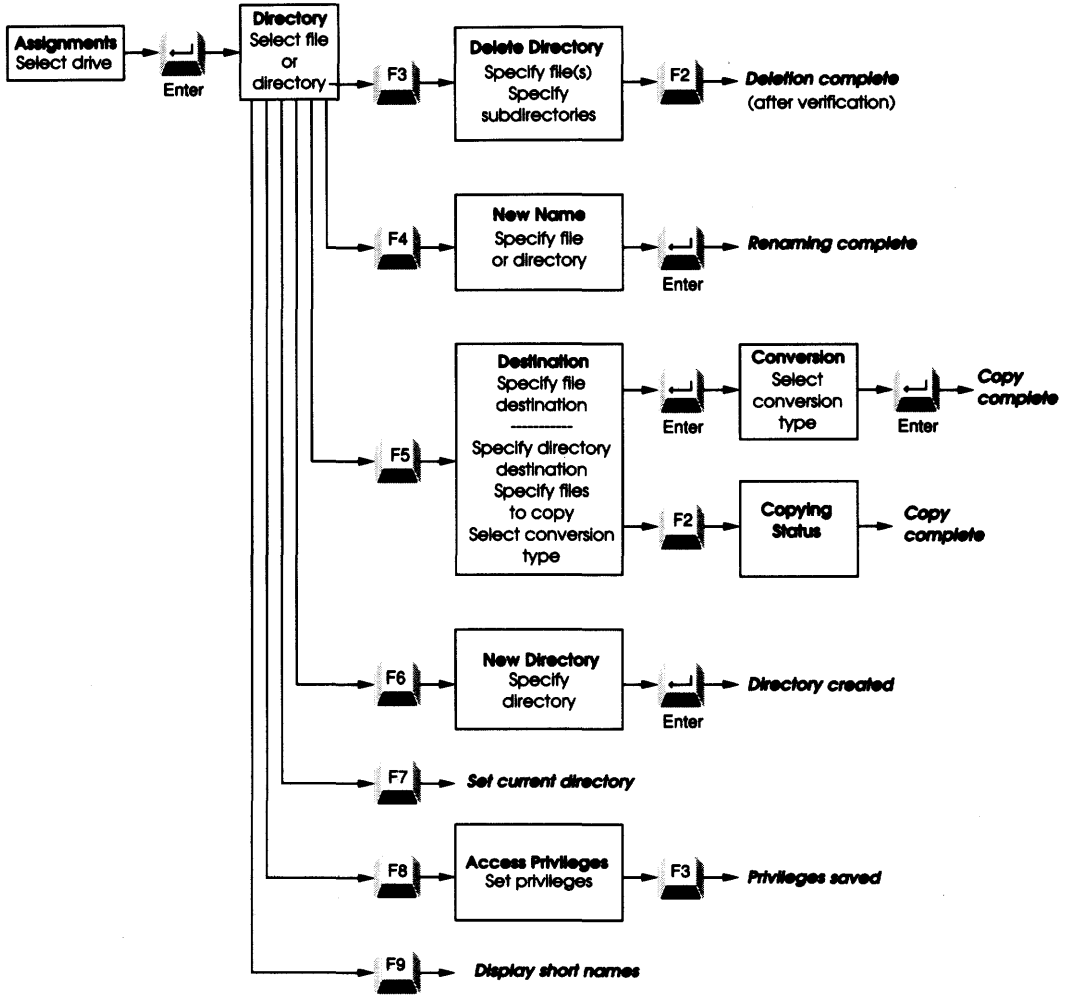
To grant access privileges:

1. Move to the DA Assignments window.
2. Select the AppleShare volume you want to use.
3. Press Enter to see a directory listing of the current directory's contents, and repeat this process until you see the directory you want.
4. Select the directory you want (you must own it to change its access privileges).
5. Press F8 to call up privilege information for that directory.
6. Enter a group name if you want to share information with that group only.
7. Move the cursor to the access privileges check boxes and grant the desired privileges.
8. Press F3 to save the privilege settings.

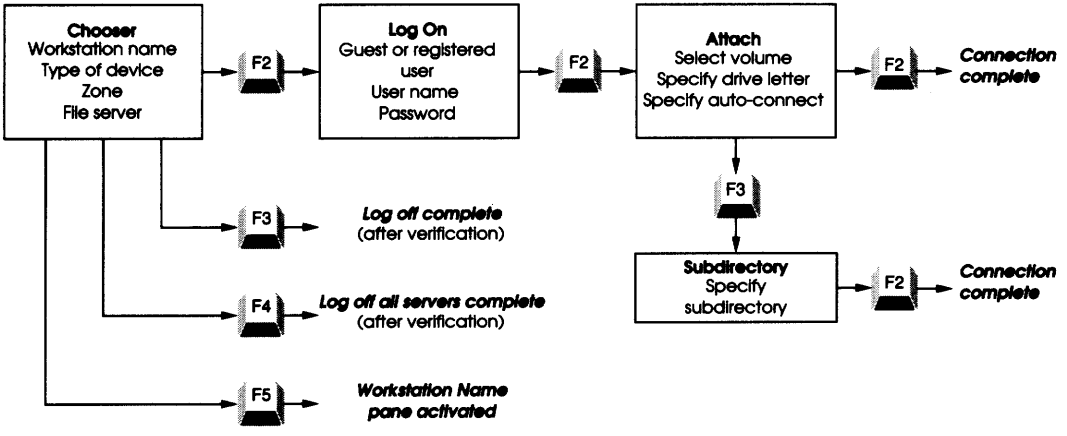
Logging off the server

1. In the Chooser window, select the server from which you want to log off.
2. Press F3.

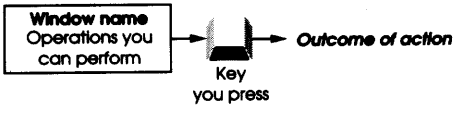
Map to the Assignments window *(continued)*



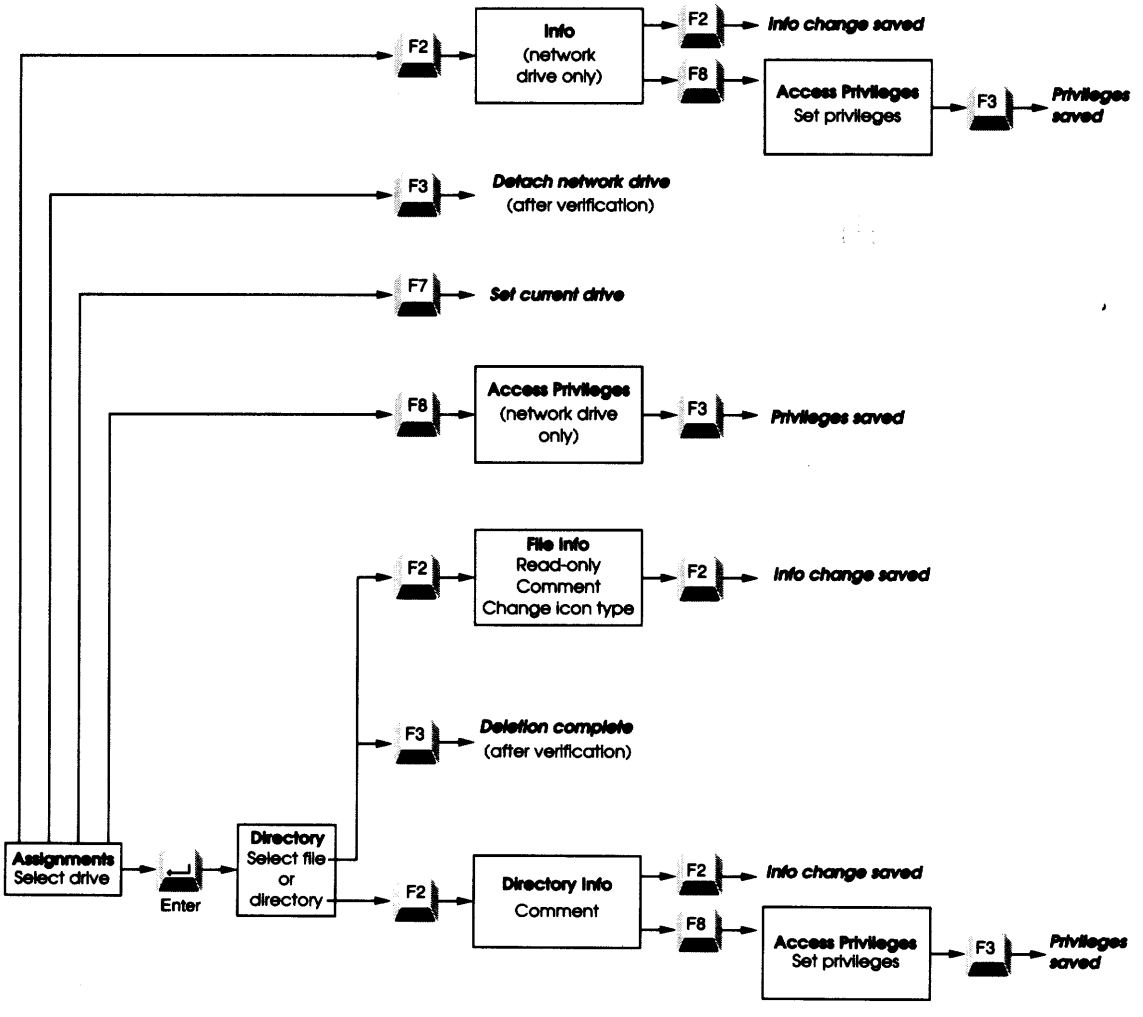
Map to the Chooser window



Legend



Map to the Assignments window



Apple Computer, Inc.
20525 Mariani Avenue
Cupertino, CA 95014
(408) 996-1010
TLX 171-576

030-2136-A
Printed in U.S.A.