3+Share™

User Guide

1694-00

3+Plus™

3Com®

3+Share User's Guide

A member of the 3+ family of products.
For use with DOS 3.1.

1365 Shorebird Way
P.O. Box 7390
Mountain View, CA 94039

Part Number 1694-00
Published January, 1986
Reprinted April, 1986
Printed in the U.S.A.

Trademarks

3Com® is a registered trademark of 3Com Corporation. 3+, 3+Share, 3+Mail, 3+Path, 3+Remote, EtherMac, EtherPrint, EtherSeries, and EtherLink are trademarks of 3Com Corporation.

Ethernet is a registered trademark of Xerox Corporation. Apple and AppleTalk are trademarks of Apple Computer Inc. Macintosh is a trademark of McIntosh Laboratory, Inc. IBM and PC-DOS are trademarks of International Business Machine Corporation. MS-DOS is a trademark of Microsoft Corporation.

Recognition

Manual by Nilda Joven. Software program by the 3+ Engineering team with special mention to Tri Nguyen-Duy, Dave Perkins, Mike Schwartz, Claudia Warner, and Lynn Welge. Page Design by 2D3D, Inc. Production by Adrian Boyer. Sanity provided by Bob Buchanan, Liz Kroha, and John Nauman.

This manual was produced inhouse using EtherMac (3Com), MacWrite (Apple) and PageMaker (Aldus) software with the Apple LaserWriter on an EtherMac Network.

IMPORTANT: Read Before Opening or Using This Product

3Com Workstation Software License Agreement

YOU SHOULD CAREFULLY READ THE FOLLOWING TERMS AND CONDITIONS BEFORE OPENING OR USING THIS PRODUCT. IT CONTAINS SOFTWARE, THE USE OF WHICH IS LICENSED BY 3COM TO ITS CUSTOMERS FOR THEIR USE ONLY AS SET FORTH BELOW. OPENING THIS PACKAGE OR USING ANY PART OF THE SOFTWARE INDICATES THAT YOU ACCEPT THESE TERMS.

LICENSE: 3Com grants you a non-exclusive license to use the accompanying software programs subject to the terms and restrictions set forth in this License Agreement.

These programs are licensed to be used ON A SINGLE NETWORK WORKSTATION in conjunction with 3Com networking hardware products. The programs and supporting documentation may be copied only for backup or archive purposes in support of your use of the programs on a single workstation. You must reproduce and include the copyright notice on any copy.

You may transfer the programs and license to another party if the other party agrees to accept the terms and conditions of this Agreement. If you transfer the program, you must at the same time either transfer all copies to the same party or destroy any copies not transferred.

TERM: The license is effective until terminated. You may terminate it at any time by destroying the programs and documentation together with all copies, modification, and merged portions in any form. It will also terminate if you fail to comply with any term or condition of this License Agreement. You agree upon such termination to destroy the programs and documentation, together with all copies, modifications and merged portions in any form.

3Com Corporation
1365 Shorebird Way, P.O. Box 7390, Mountain View, California 94039, U.S.A.
Telephone (415) 961-9602

Pubs-LA.WS
1/17/86

Limited Warranty

HARDWARE. 3Com warrants 3Com hardware products to be in good working order for the following lengths of time after purchase from 3Com or an authorized 3Com dealer:

EtherLink [3C500X], EtherStart [3C502], Transceivers [3C1XX]	1 year
All other hardware and components listed on the EtherSeries Price List.	90 days

Should the product fail to be in good working order at any time during the applicable warranty period, 3Com will, at its option, repair or replace the product at no additional charge. Repair parts and replacement products will be furnished on an exchange basis and will be either reconditioned or new. All parts that are exchanged or replaced will become the property of 3Com. This warranty does not include service to repair damage to the product resulting from accident, disaster, misuse, abuse or non-3Com modification of the product.

SOFTWARE. The programs and reference material are provided "as is", without warranty as to their performance, merchantability, or fitness for any particular purpose. However, diskette media containing EtherSeries and 3+Software are covered by the 90-day warranty protecting you against failure during that period.

GENERAL. Limited warranty service may be obtained by delivering the product to 3Com or an authorized dealer during the applicable warranty period and providing proof of purchase date. Products returned to 3Com by mail must be sent prepaid and insured (or you must assume the risk of loss or damage in transit), and packaged appropriately for safe shipment.

ALL EXPRESS AND IMPLIED WARRANTIES FOR THIS PRODUCT ARE LIMITED IN DURATION TO THE APPLICABLE PERIOD AS SET FORTH ABOVE, AND NO WARRANTIES WILL APPLY AFTER SUCH PERIOD. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

IF THIS PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, YOUR SOLE REMEDY SHALL BE REPAIR OR REPLACEMENT. IN NO EVENT WILL 3COM BE LIABLE TO YOU FOR ANY DAMAGES, INCLUDING LOST PROFITS, LOST SAVINGS, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH PRODUCT, EVEN IF 3COM OR AN AUTHORIZED 3COM DEALER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC RIGHTS WHICH MAY VARY FROM STATE TO STATE.

PUBS - LW.1
11/15/85

Table of Contents

Chapter 1: Introduction

Part I: Using 3+Share

Chapter 2: Understanding 3+Share

Chapter 3: Getting Started

Chapter 4: Using File Service

Chapter 5: Printing Documents

Part II: Command Reference

Chapter 6: Command Reference Introduction

Chapter 7: 3F User Commands

Chapter 8: 3N User Commands

Chapter 9: 3P User Commands

Chapter 10: Command Summary

Chapter 11: Glossary

Appendix A: Error Messages

Appendix B: EtherPath

Appendix C: Copying Files Using XCopy

Appendix D: Creating Batch Files

Appendix E: Customer Support Information

Chapter 1: Introduction

3+Share overview

3+Share allows computer users on a 3+ network to share directories, application programs such as word processors, databases and spreadsheets, output devices such as printers and plotters, and disk storage space. 3+Share provides the basis for 3+ advanced networking features such as electronic mail (3+Mail), communication with other 3+ networks (3+Route), and access to networks from remote personal computers (3+Remote).

3+Share services

3+Share consists of the following services:

- The Name Service that stores the names of all network users and servers
- The File Service that manages the directories and files stored on the server's hard disk
- The Print Service that manages shared network printers

3+Share Features

3+Share provides you with the following features:

3+Share features

- Lets you control access to your own files
- Gives you access to files and printers associated with any server on the network or any server available through internetwork links
- Runs with IBM Personal Computers and most IBM-compatible personal computers
- Runs most single user applications written for IBM's PC and compatibles
- Runs most multi-user applications designed for DOS 3.1 and the IBM PC Network quickly and efficiently
- Gives you access to EtherSeries servers and commands from a 3+Share workstation when you install EtherPath software

About this Guide

This guide describes how to work with 3+Share user commands. For information on administering the network, refer to the *3+Share Administrator's Guide*.

This guide has eleven chapters, a glossary, and four appendices.

Part I:	Chapters 1-5; provides information on using 3+Share.
Chapter 1:	Provides an overview of 3+Share and the *3+Share User's Guide*.

3+Share User Guide summary

Chapter 2:	Describes concepts and terms that are basic to understanding how 3+Share works and how you will use it.
Chapter 3:	Gets you started using 3+Share through step-by-step instructions for basic procedures.
Chapter 4:	Describes additional procedures for working with files in directories.
Chapter 5:	Describes how to use the 3P program to print documents.
Part II:	Chapters 6-10; provides information on 3+Share user commands. Commands in Chapters 7-9 are listed alphabetically for easy reference.
Chapter 6:	Provides an overview of Part II, defines key terms, and describes the LOGIN and LOGOUT commands.
Chapter 7:	Provides detailed information about each 3F user command.
Chapter 8:	Provides detailed information about each 3N user command.
Chapter 9:	Provides detailed information about each 3P user command.
Chapter 10:	Provides a summary of 3+Share user commands.

Chapter 11: A glossary. Provides brief definitions of the terms used in this guide.

Appendix A: Provides a complete list of error messages and recovery procedures.

Appendix B: Describes how to use EtherPath to work with servers running EtherSeries 2.2 and 2.4 software. Describes the major differences between EtherSeries and 3+ software.

Appendix C: Describes the procedure for copying files using the XCopy utility program.

Appendix D: Describes the procedure for creating batch files.

Appendix E: Gives customer support information.

Other 3+ Documentation

If you need information on other 3+ products, refer to the guides supplied with the particular product.

User's Guides

- 3+Mail User's Guide
- 3+Remote User's Guide
- 3+Backup User's guide

Administrator's Guides

- 3+Share Administrator's Guide
- 3+Mail Administrator's Guide
- 3+Route Administrator's Guide
- 3Com Network Guide: Planning, Installation, and Troubleshooting

Hardware Installation & Operation Guides

- *3Server Guide*
- *3Server Expansion Disk Guide*
- *EtherLink Board Installation Guide*
- *3Server Tape Backup Guide*
- *3Server Memory Expansion Guide*

Conventions Used in this Guide

Key Spellings

Keyboard conventions

[→] for the Cursor right arrow key

[←] for the Cursor left arrow key

[↑] for the Cursor up arrow key

[↓] for the Cursor down arrow key

[⇧] or **[Shift]** for the Shift key

[⇔] or **[Tab]** for the Tab key

↵ or **[Return]** for the Return or Enter key

All other keys are spelled in the guide as they are spelled on your keyboard; however, different computer keyboards will vary in their key designations. We show major examples here for demonstration purposes.

Key Combinations

If two or more keys are to be pressed simultaneously, the keys are linked by "+" sign. For example,

> Press **[Ctrl]**+**[Alt]**+**[Del]** keys to restart or reboot the workstation.

Conventions in Procedures

The following conventions are used in the procedural steps in the guide.

Input you must enter is shown in blue type. For example,

> Type:
>
> **HELP** ↵
>
> means type the command HELP and press the **[Return]** or **[Enter]** key.

Terms shown in italics must be replaced with your specific information. For example,

> Type:
>
> **3MOD *sharename*** ↵
>
> means type 3MOD and the directory sharename, and press the **[Return]** key.

Command Syntax Conventions

Commands are presented using the following notation:

CAPITAL LETTERS are used for key words. You may use upper or lower case when entering key words. However, the spacing between keywords is important; enter spaces exactly as they appear in this guide.

Italics indicate command line parameters where you supply the particular information. For example, *servername* would be a command line parameter indicating that you need to enter the name of a particular server.

Conventions used in command notation

[*parameter*], a command line parameter enclosed in square brackets, indicates an optional parameter. When you supply optional parameters, do not type the brackets.

? indicates a prompted parameter. When prompted, you enter the information requested.

[/*option*] is an optional key word that you can include on the command line to alter the operation of the command. Through the use of optional parameters, a single command can be used in several different ways. When the number of optional keywords and optional parameters is large, the options are stacked one below the other, each enclosed in square brackets ([ ]). You can enter as many of the optional key words as you want in one command line. Do not enter the square brackets.

A vertical bar (|) represents an exclusive choice; you choose one of the items separated by vertical bars. For example, in the expression item1|item2|item3, you would enter one, and only one, of the items in the command line.

Slashes (/), backslashes (\), double backslashes (\\), and colons (:) must be entered as shown in the command line. If the special characters are part of an optional parameter and you omit the parameter, do not type the special characters.

Example:

```
3F DIR  [\\username|\\servername] [\[sharename]] [/LINK]
```

Chapter 2: Understanding 3+Share

This chapter introduces you to 3Com's 3+ network and to the 3+Share network services that are at the heart of the network.

Why Use a Network?

When you work with a stand alone personal computer, your storage space, software, and files are only as far away as your computer system and your diskettes. Paperwork that took hours can be finished in minutes, spruced up with graphics, and printed. Very likely, your personal computer has boosted productivity in your organization. Generally, though, people do not solve business problems alone. And the personal computer has not fostered sharing information.

When your computer is connected to those of your colleagues, new opportunities open up for sharing information, applications, files, and peripherals. You can exchange messages typed on your computers and automatically send them out to each person concerned. Connecting personal computers to a network makes these added resources available to you.

What Is a Network?

A computer network is two or more computers that are connected together to allow communications and sharing of resources. It has both hardware and software components. The hardware includes the personal computers, computer servers, cables, and boards that provide the physical connection . The software includes programs for users and servers that allow actual communication.

Network Hardware

A network has two types of computers attached to it:

Types of network computers

- **Servers:** Personal computers or 3Servers that provide a central storage area for network and application programs as well as user files and other shared network services, such as electronic mail. A 3+Share server must have at least one hard disk.
- **Workstations:** personal computers on the network that have user software running on them. Workstations on a 3+ network can be either IBM Personal Computers or personal computers that are IBM compatible.

Servers can also act as workstations. If a computer has both server and user software installed, it can function as a server and user workstation concurrently, and is known as a **concurrent server**.

Personal computer servers can have up to three printers attached. 3Servers can have up to seven printers attached.

Workstations can also have devices such as a printer or plotter attached. Devices attached to a workstation are not shared on the network.

Network Software

Network software has two functions:

- It provides services, with each service consisting of two parts --

  Server software, a centralized software component that accepts requests through the user software and performs the requested action. For example, when a user gives a command to open a file, the File Service accepts the requests and displays the file on the computer screen.

  User software that resides on any of the workstations in the network. This software consists of application programs, utility programs that configure the network environment, and programs that convert DOS commands to network requests.

Types of network software

- It moves requests through the network. Several software components move requests from user to server, from server to disk, and through network lines to other users and servers.

The 3+ Network

The 3+ network is a computer network in which the hardware is connected with Ethernet cable and the installed software is 3+Share.

3+Share Software

3+Share software is the heart of the 3+ computer networking system. 3+Share allows network users access to each other's files, to applications on the network, and to peripherals, such as hard disks and printers. It also provides the basis for other 3+ services, such as 3+Mail.

Understanding 3+Share Network Services

The 3+Share consists of the following network services :

- The Name Service, is a database of users and servers, which is used by all the 3+ network services. When a name is created, certain properties that define it are assigned to the name.
- The File and Print Services allow users to share directories (user files and application software) and printers.

3+Share services

While you can purchase and run other 3+ services, such as 3+Mail, this guide only discusses the Name, File, and Print Services. For information on other 3+ products, refer to the user's guide supplied with that product.

The Name Service

The Name Service is a database that stores the name of and information about network users and servers. Users and servers have three-part names, with a colon (:) separating each part, as follows:

```
name:domain:organization
```

Users and servers have 3-part names

Name is the user's name. **Domain** is a geographical location or a department within an organization. **Organization** is usually the company name. For example:

```
Linda Young:HQ:3Com
Sam Franklin:Training:3Com
```

Generally, you will share files and applications with users and servers in your work group or department (domain). In this case, you can type only the name of the user or server. You must specify a three-part name only when the item to which you are referring belongs to a different domain.

Aliases

Users can have aliases

Each user may have one or more aliases. An alias is generally a short form of the user's name. The users in the examples above might have the aliases LindaY and SamF.

Passwords

Users and servers can have passwords

Users and servers can have Passwords. Passwords help prevent unauthorized use of the network and its resources. If you add a password to your name, you must provide this password along with your three-part name when you log in to the network. For example, if LindaY in the above example has added the password "Mypass" to her name, she must specify that password when she logs in to the network.

```
LindaY:HQ:3Com /PASS=Mypass
```

The 3N Program

3N is the user software that interfaces with the Name Service. It allows a user to log in for verification as a registered user, list registered users, assign or modify a password, etc.

The File Service

The 3+Share File Service provides controlled access to network directories and to the files and application programs in those directories. The software that lets you work with the File Service from your workstation is the 3F program.

Directory Structure

A directory is a name for a logical grouping that contains entries for other directories and files on a disk.

3+Share uses the 3.1 directory structure

3+Share uses the DOS 3.1 directory structure. This structure is a hierarchal or tree structure. You begin with a root directory and other directories are added under that root as they are created. This structure makes it easy to organize your files.

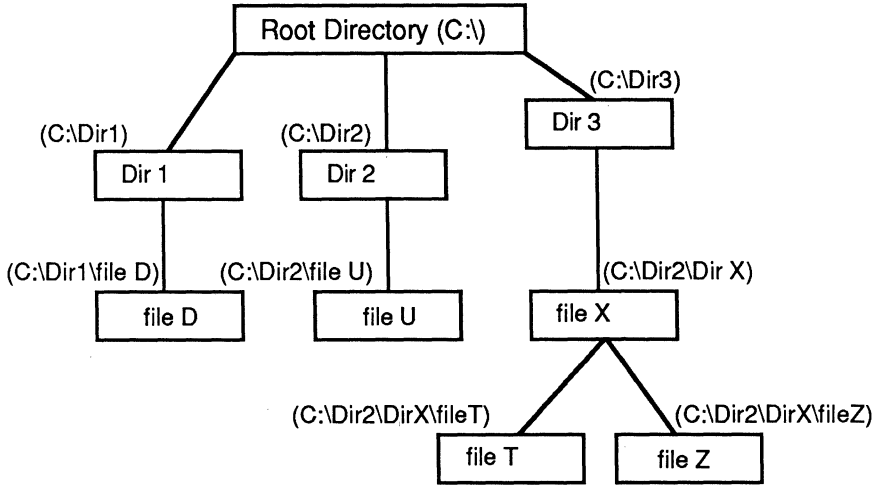

Figure 2-1. Hierarchical Structure of Directories

A directory that is below another directory on the tree is a **subdirectory** to the one above it. In the above example, Directory DirX is a subdirectory to Driver Dir2.

A **path** is how you get from one directory or file on the tree to another directory or file on the tree. You access a directory on the tree by specifying the path to the directory you want. In the example in Figure 2-1, the path from the Root directory <C:> to fileZ is C:\Dir2\DirX\fileZ.

Your Home Directory

Every network user has a home directory

When your network administrator added you as a user to the Name Service and assigned you a File server, 3+Share created a directory for you called a home directory, your personal directory on the network. Any subdirectories you create are added under your home directory. You have automatic access to your home directory and to subdirectories you create within this home directory.

Organization of 3+ Directories

A 3+ directory organizes files in a standard hierarchical order

A 3+ directory organizes files in a standard DOS 3.1 hierarchical order, using directory and subdirectory names. In the following example, HOMEDIR is the directory created by the network administrator at the time a user is registered on the network. Below it, in the hierarchical structure are the subdirectories MEMOS and REPORTS. These are subdirectories created by the user. MEMOS contains the files Meeting, Security, and Deadlines. REPORTS contains the files rep1123, rep1201, and rep1216.

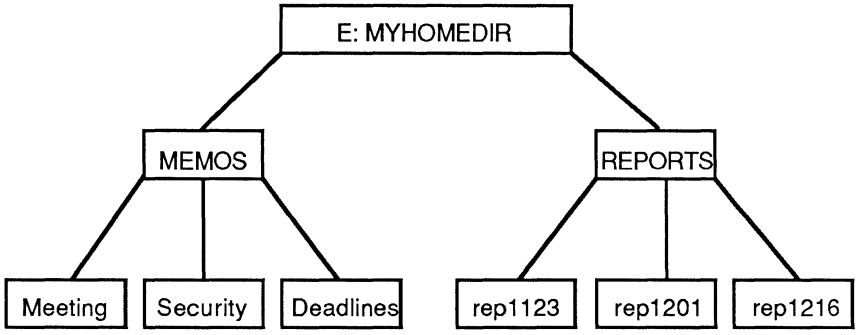

Figure 2-2. Hierarchical Structure of a Home Directory

Administrators and users specify a path beginning with the first directory below their home directory. For example, using the files in Figure 2-2 above, a user or administrator would specify the path to the file Deadlines as Memos\Deadlines.

Creating Directories

Use the DOS MKDIR command to create a directory

You create directories using the DOS MKDIR command. For step-by-step instructions for creating a directory, refer to "Creating a Directory" in Chapter 4.

Network Directories

Network directories can be made accessible to other users

While you have automatic access to your home directory and its subdirectories, no other network user can use any of your directories unless you explicitly make them accessible by giving them a **sharename**. You can access other users' network directories only if sharenames have been assigned to them. This guide refers to directories that are given sharenames as **shared directories**.

Sharing Directories

You can share a directory that you own with other users on the network by telling 3+Share that the directory is available to be shared.

You share directories by assigning sharenames

To make a directory accessible to other users, you give the directory a sharename and specify the path to that directory. Other users specify this sharename when they want to use your directory. A sharename is the name you give to the path that points to the directory you want to share.

You do not have to declare your home directory shareable for your own use; 3+Share automatically shares your home directory for you with Private access rights and no password. Only you, the owner, can access your home directory unless you make it accessible to other users with the 3F SHARE command.

A directory can have more that one sharename

You can assign more than one sharename to a directory. Each sharename can have different access rights. For example, you can assign Read access rights to one sharename and Read/Write access rights to another. For added security, you can also assign a password to a sharename.

Drive Identifiers

You access your network directory by linking to a drive identifier

When you have files or applications on diskette, you access, or make them available for use, by inserting the diskette into a physical drive A: or B: on your personal computer. If you have a hard disk, your files are on drive C: When your files or directories are on a network server, you access them by linking them to a drive identifier. Linking to a drive identifier provides a logical connection to the network. You link to directories with the 3F LINK command.

You can use the letters A: through Z: for drive identifiers and have up to 26 links at one time unless you limit the number of available drive identifiers using the DOS LASTDRIVE option in the CONFIG.SYS file. You can link each drive identifier to a different directory.

When you want to use a directory, you link the sharename for that directory to a drive identifier. When you are using your home directory, you link it to a drive identifier and no sharename is necessary because 3+Share automatically makes your home directory available for your use.

You link directory sharenames to drive identifiers

When you have finished using a directory, you can unlink it from the drive identifier. That drive identifier can then be used to link to another directory.

For instructions on accessing a directory, refer to "Linking Your Home Directory" and "Linking to the Applications Directory" in Chapter 3.

The Print Service

The Print Service is the software that manages the shared printers on your network. To use a printer on the network, the following procedures must take place:

What the Network Administrator Does

- Connects a printer to a printer port on the server; Designates a **port identifier** to the printer when he/she sets up the Print Service on the server
- Makes the printer accessible to users by giving it a **printer sharename**. In this guide, printers with sharenames are referred to as "shared printers."

What You (the User) Do

- Make a logical connection between your workstation and a shared printer by linking a **printer identifier**, PRN: or LPT1, LPT2, or LPT3:, to the printer by specifying the printer's sharename. For instructions on linking to a shared printer, refer to "Linking a Printer" in Chapter 5.

Print Queues

When you send a file to a shared printer for printing, a copy of it is placed in a temporary file on the server where it waits in line to be printed. This temporary file is called a **print spool file**. Information about all the print spool files is kept in an ordered list called the print queue.

You can change the priority of your files in the queue

Files are printed on a first come, first served basis. If four documents are already waiting to be printed, your file will be fifth in the queue and will be printed after the other four.

You can delete a file from the print queue if you change your mind and do not want it to be printed. You can also assign or change the priority of files in the print queue. You can only change the priority of your own files, but you can change your files' priority relative to all other files in the queue. Files with the highest priority will be printed first. Files at the same priority will be printed on a first come, first served basis.

Using the Network Services

This section provides an overview of how to use network services. It also explains the AUTOEXEC.BAT file on your *3+ Share User Diskette*. The AUTOEXEC.BAT file does the routine 3+ startup work needed before you can begin work on your files.

Overview

This overview lists the steps you will go through when using the network. The first three steps can be automatically executed from the AUTOEXEC.BAT file on your *3+Share Workstation Startup* diskette. The AUTOEXEC.BAT file is explained in the next section.

Preliminary Steps

1. The LOGIN command makes the network services available to you by verifying that you are a registered user. For example:

```
A>LOGIN linda young
```

2. The 3F LINK command links the required directories, such as your home directory and a directory with shared applications. For example:

```
A>3F
3F> LINK D: \\OPSERVER\APPS
3F> LINK E:
```
(link the home directory to E:)

3. The 3P LINK command links the required printers.

```
A>3P LINK LPT1: \\OURSERVER\NEWPRINTER
```
(link to Newprinter on server named Ourserver)

Using the Network

4. You run the desired application as you normally would on a stand alone personal computer. That is, you switch to the physical drive (for example, A:) or drive identifier (for example, D:), where the application is and issue the particular command to run it.

5. You print the file, if desired.

Exiting from the Network

6. You then logout with the LOGOUT command.

```
A>LOGOUT
```

The LOGOUT command unlinks you from directories and printers.

NOTE: Once you have linked to the required directories, switch to the desired driver identifier, the way you would if you were using the diskette drives or hard disk in your personal computer system. For example, to switch to drive A: from drive identifier E:, you type:

```
E>A: ↵
```

Issuing a 3+Share Command

You start a service by typing the name of the user interface program -- 3F, 3N, or 3P -- after the DOS prompt. For example:

```
A>3F
```

You can issue a command from within the 3F, 3N, or 3P programs. After the program prompt, type the command, omitting the first part of the command, 3F, 3N, or 3P. For example, to type the 3F LINK command from within 3F, simply type **LINK** after the 3F prompt:

```
3F> LINK G: \\otherserver\APPS
```

You can also issue the command after a DOS prompt. In this case, you type the command after the DOS prompt:

```
A> 3F LINK G: \\otherserver\APPS
```

A command has two parts, the command itself and its parameters. Parameters are the set of items which define the specific action of the command. In the example above, the command is 3F LINK. The parameters are the drive identifier, servername, and the sharename of the directory. Separators, such as blank spaces and backslashes (\\ or \), are part of the command syntax.

User Profile

If you want your name and password to be automatically read by the user software when you log in, you can create a PROFILE.SYS file on your *3+Share Workstation Startup* diskette. Create your PROFILE.SYS with any text editor, as follows:

1. Create a text file, PROFILE.SYS.
2. Specify your user name, using the following format:

   NAME=***yourname***

3. If you want to add a password to your name, specify the password using the following format:

   PASSWORD=***yourpassword***

The AUTOEXEC.BAT File

As a registered user, you may have received a *3+Share Workstation Startup* diskette for use on your personal computer. If you did not, see your network administrator or create one following the instructions in the "Setting Up Users" chapter of the *3+Share Administrator's Guide.* On the diskette, see whether you have a batch file called AUTOEXEC.BAT. This batch file would have been prepared for you by your network administrator. A batch file is one that contains several (a batch of) commands that execute automatically in the order that they appear in the file. In this batch file are some commands that automatically execute the necessary steps to get you to a file or directory.

You can display a directory of the files in your *3+Share Workstation Startup* diskette with the DOS command DIR. To examine the batch file, switch to drive A: and use the DOS **TYPE** command:

```
A:↵
A>type AUTOEXEC.BAT
```

Example AUTOEXEC.BAT file

Compare the files you have with the following sample AUTOEXEC.BAT file:

```
3F LOGIN Linda Young;LINK D:\\OURSERVER\APPS; LINK E:
```
(log in to the network; link the applications directory to D: link home directory to E:)

```
3P LINK LPT1: \\OURSERVER\NEWPRINTER
```
(link to printer named Newprinter on server named Ourserver)

```
D:
```
(change to drive D:)

```
APP1
```
(from drive identifier D:, run application APP1)

If your batch file needs changing, refer to Appendix D, Creating Batch Files.

Summary

This chapter has provided an overview of how to use the network. Chapters 3 through 5 provide step-by-step instructions for getting started on the 3+ network and using the File and Print services. Chapters 6 through 9 provide detailed information about the 3+Share commands.

Chapter 3: Getting Started

This chapter shows you the basic procedures for working with 3+Share. To work through the procedures, you must have an IBM-compatible computer connected to the network and be a registered user on a 3+ network.

From your network administrator, you may have received a *3+Share Workstation Startup* diskette. This diskette contains the files you need to start 3+Share. If you need to create one, see your network administrator or refer to the "User Installation" chapter of the *3+Share Administrator 's Guide*.

In your daily work using the network, you might only use the steps in the procedure "Starting 3+Share" and "Logging Out." This would be the case if your user diskette is set up to automatically bring up the directory you normally work with. However, should you wish to log in (connect to the network as a user) from someone else's computer or work with a different directory, you will need to manually do one or more of the following procedures that are presented in this chapter:

- Starting 3+Share on your personal computer
- Logging in to 3+Share
- Linking to your files
- Working with an application
- Printing a file
- Logging out of 3+Share

Starting 3+Share

The following procedure shows you how to start 3+Share from diskette. For information on installing 3+Share on a fixed disk, see your network administrator or refer to the *3+Share Administrator's Guide*.

1. Insert the *3+Share Workstation Startup* diskette in drive A:.
2. Turn on your personal computer. You see a copyright notice and version number and the DOS prompt (A>, for example) on the screen.

Logging into the 3+ Network

After you start 3+Share and before you use any other commands, you must identify yourself to the network with the LOGIN command.

At the DOS prompt, type the LOGIN command. Type in your user name or alias, as shown in the following example:

```
A>LOGIN LindaY ↵
```

(If you type LOGIN without your name, the program prompts you for your name.)

A message appears, confirming that you are logged in. For example:

```
Linda Young:HQ:3Com logged in.
```

Even if you type only your alias, the Name Service always returns your full three-part name. Colons (:) separate the three parts of a three-part name. If you only include the first part of the three-part name, omit the colon:

```
linda young:hq:3com
linda young
```

NOTE: You can also log in from 3N, 3F, or 3P. See the LOGIN section in Chapter 6 for information about logging in from these programs.

Passwords

The first time you log in to 3+Share, you do not have a login password. If you want a login password to increase the security of your network, you must create one for yourself. For instructions on creating a login password, refer to the 3N MODIFY command in Chapter 8.

Linking Your Home Directory

After logging in to the network, you need to make your files available for your use. If you have files on diskette, you insert the diskette into drive A: or drive B: of your computer. When you have them in a network directory, you link the directory to a drive identifier (D:, E:, G:...etc.). Remember that a drive identifier is always followed by a colon (:). The 3F LINK command links a drive identifier to a directory on the server's hard disk.

CAUTION: If you have two drives in your personal computer and a hard disk, avoid using A:, B:, or C: as drive identifiers. If you do, the logical drives on the network with the same names will override the physical drives in your system. That is, if you link a drive identifier A: on the network, you will temporarily disable your computer physical drive A:. You can re-enable your physical drives by unlinking the drive identifiers. The number of drive identifiers available to you is determined by the CONFIG.SYS file on your user diskette.

To link your home directory:

1. Start the 3F program, which lets you use the File Service, by typing **3F**. The 3F prompt appears:

```
3F>
```

2. At the File Service prompt, type the LINK command, followed by a drive identifier.

```
3F> LINK E: ↵
E: linked to \\LINDA YOUNG:HQ:3COM
```

The message returned confirms that your home directory is linked to drive E:. When you link to your home directory, you do not need to give a directory name; your home directory is automatically linked to the drive identifier you specify.

Once a drive identifier is linked to a directory, you can work with the directory as if it were a diskette. You can store files in the directory and use the files with software applications.

Linking to the Applications Directory

(This section assumes that an applications directory exists on your network. If you are unsure about this directory, ask your network administrator.)

After linking your home directory to a drive identifier, link the applications directory to another drive identifier.

NOTE: The 3F LINK command, as you would type it in full, is shown in Example 1. If you prefer to have the program prompt for the full entry, begin by typing **LINK ?**, then follow the prompts. Example 2 illustrates the prompted form.

Example 1:

After the 3F prompt, type the LINK command, followed by the sharename of the applications directory. If the sharename has a password, type it, preceded by a slash (/), after the sharename.

```
3F> Link D: \\ourserver\app /Pass=secret ↵
```

The directory you want is APP. However, the 3F program must know, not only its name, but exactly where it is located. Hence, you give it the "path" of the sharename. That is to say, you tell 3F on what server the directory resides. Because the server is not on your home server, you must precede it with two backslashes.

NOTE: You must include the spaces between each part of the command, the two backslashes (\\) before the server name, the single backslash before the directory name,and the slash before the password. The two backslashes indicate that you are linking to a server other than the one where your own (home) directory resides.

Example 2:

1. After the 3F prompt, type **LINK ?** to be prompted for all parameters.

```
3F> Link ?
```

2. The 3F program prompts for a drive identifier:

```
Drive id? D: ↵
```

3. The 3F program then asks for the sharename.

```
Sharename ? \\ourserver\app1 ↵
```

4. If the sharename requires a password, the 3F asks for the password. When you type the password, it does not appear on the screen.

```
Password ? SECRET ↵
```

The message confirms that drive D: is linked to the directory with the sharename APP1.

You can now use the two linked drives just as if you had an application software diskette in one physical drive on your personal computer and your files on a diskette in the other.

Printing Your File

You must link the printer you wish to use to a printer identifier, using the 3P LINK command.

1. If you are working within an application, exit from the application.

```
3F> ↵
```

2. Switch to drive A. For example:

```
E>A:
```

3. Check that your *3+Share Workstation Startup* diskette is in drive A:.

4. Link to the printer using the 3P LINK command. For example:

```
A>3P LINK PRN: \\ourserver\laser
```

5. Go back to the directory with the application (linked to drive D:), then give the required print commands.

```
A>D:
D> (run application)
```

For more detailed information on printing documents, see Chapter 5.

Logging Out

After you complete your work, end your connection with 3+Share using the LOGOUT command.

```
A>LOGOUT ↵
```

The message confirms that you are logged out.

Chapter 4: Using File Service

File Service overview

Chapter 3 showed basic procedures for logging in, linking required directories, printing a file, and logging out. This chapter continues with 3F commands and discusses the following procedures:

- Listing 3+Share Directories
- Assigning a Sharename
- Modifying Sharenames
- Creating a Directory
- Managing Shared Directories
- Deleting Sharenames

Listing Share Directories

To effectively use 3+Share directories, you must be able to find out what they are. Use the 3F DIR command to list the directories on your 3+server.

Use 3F DIR to list directories

After the 3F prompt, type the DIR command.

```
3F> DIR \\ourserver
```
(lists the directories on the server)

```
3F> DIR
```
(lists your directories)

You can also use the 3F DIR command to list shared directories on another server, list another user's shared directories or list users linked to a shared directory. For complete information about the 3F DIR command, refer to Chapter 7.

Linking to a Shared Directory

Chapter 3 introduced the procedure for linking a shared directory by linking a directory containing applications. The procedure for linking to any shared directory is essentially the same: you need to indicate the user to whom the directory belongs or the server in which the directory resides. You then have to give the sharename of the directory. In other words, you have to specify the path of the directory.

NOTE: Remember that your home directory is the default for the 3F LINK command. If you don't specify a path, you will automatically be linked to your home directory.

You can identify the shared directories available to you by using the 3F DIR command, for example:

```
3F> DIR
```

Refer to Chapter 7 for detailed information on 3F DIR.

To link to a shared directory, REPORTS, owned by Linda Young, you type:

```
3F> LINK E: \\Linda Young\Reports ↵
```

If the sharename requires a password, you are prompted for the password. To get the password for a sharename, ask the owner of the shared directory.

Passwords do not appear on the screen

When you type a password after being prompted for it, what you type does not appear on the screen.

```
Password ?        ↵
```

The next message confirms the drive is linked to the shared directory.

Creating a Directory

Use the DOS MKDIR (Make Directory) command to create directories. The first directory you create will be one level below your home directory. When you create a directory, you must specify the path to the directory.

NOTE: For complete information on creating directories and specifying paths, refer to your DOS manual.

To create a directory one level below your home directory:

1. Start from a DOS prompt. From 3F, 3N, or 3P, you return to DOS by pressing **[Return]**.

   3F>↵

2. Use the DOS MKDIR command to create a directory. For example, to create the directory MEMOS under your home directory linked to drive E:, type:

   A> **MKDIR E:Memos** ↵

   The directory is created under your home directory.

NOTE: A directory name can be up to 8 characters long.

Giving a Directory a Sharename

You can make any of your directories available to other users by giving it a sharename and access rights. All subdirectories under a directory are available to users when you give the directory a sharename. For this reason, it is a good idea not to make your home directory available for sharing.

You can assign more than one sharename to a directory. This lets you make a directory available to different users in different ways. For example, if you want some users to be able to read files in the directory, you can assign a sharename and Read access rights to the directory . If you want other users to both read and write to files in the same directory, you can assign it another sharename with Read/Write access rights. You can also assign a password to a sharename for added security. Given the appropriate access rights, several users can use a directory at the same time.

Access Rights

The access rights you can give to a sharename are:

Directory access rights

Private (PRIV)	Only one user at a time can have access to the directory. To give other users access to a private directory, the owner has to assign a password to the directory.
Public (PUB)	Users can read a file in a public directory, but cannot create or write to a file in the directory.
Read (R)	Users can read any files that are in the directory. This access right has the same effect as Public access.
Write (W)	Users can write to the files in the directory.
Read, Write (R,W)	Users can read from and write to the directory.
Write, Create (W,C)	Users can write to, create, and delete files in the directory, but not read them.
Read,Write (R,W,C)	Users can read, write to, create, and delete files in the directory.
Shareable (SHAR)	Other users can create sharenames to the directory, as well as read, write, create, and delete files in the directory.

sharename

You can modify and delete sharenames that you create (and thus own). You can also give more than one sharename to a directory. When a directory has more than one sharename, each sharename can have its own access rights and password assigned to it. This lets you give different kinds of access to the same directory.

NOTE: You can assign a sharename to another user's directory to which you have Share access rights. You can also make it available to other users as long as the directory is on your home server (server where your home directory is). For information on assigning a sharename to another user's directory, refer to the 3F SHARE command in Chapter 7.

To make a directory available to other users:

1. Return to the 3F program by typing:

   3F ↵

2. At the 3F prompt, type the following SHARE command.

   ```
   3F> SHARE Sales=E:\Finance /PASS=secret /RWC ↵
   ```

   If you wish to be prompted for the command, start by typing **SHARE** after the 3F prompt, followed by a question mark (**?**). You can also type **SHARE** without the **?**; in this case, you are prompted for the required parameters, but not for the optional ones. The question mark tells the 3F to prompt you for all the command parameters.

Type the rest of the command as prompted. For example,

```
3F> SHARE ? ↵
Sharename ? SALES ↵
Path ? E:\FINANCE ↵
Password ?          ↵
Access Rights (/PRIV) ? /RWC ↵
```

A sharename's password can be up to eight characters long. When you type it, the password does not appear on the screen. If you do not want to assign a password to the sharename, just press **[Return]**.

Managing Shared Directories

As circumstances change, you might want to change the way you share your directories with other users. 3+Share provides ways for you to do this.

This section describes how to do the following:

- Modify a sharename's password and access rights
- Delete a sharename
- Delete shared directories

Modifying a Sharename

Use the 3F MODIFY command to change the password and/or access rights for a sharename you assigned to a directory.

NOTE: You cannot change the sharename itself. You can change the sharename's password and access rights. Or you can delete the sharename with the 3F UNSHARE command.

You and any other users do not have to unlink from a directory before you modify the sharename with the 3F MODIFY command.

Type the **MODIFY** command, followed by a space, then a **?** to be prompted for all parameters, both required and optional as shown in the following example:

```
3F> MODIFY ? ↵
Sharename ? MEMOS
Password (*****) ?          ↵
Access Rights (/PRIV) ? /R ↵
```

When prompted for an item that you do not want changed, press **[Return]** for the next prompt. The message confirms that the sharename has been modified.

You can also type the command in its unprompted form, for example:

```
3F> MODIFY MEMOS /PASS=secret /R
```

Deleting a Sharename

Use the 3F UNSHARE command to delete a directory's sharename, along with its password and access rights assigned to that sharename. Deleting a sharename does not delete the directory itself unless it is the **last** sharename and the directory is **empty**.

For example: You stored all the sales files for your department in a directory called SALES and you assigned two sharenames to SALES. One sharename , SALESR, has the access rights /Read to let everyone in your department read the sales information. The other sharename, SALESRW, has the access rights Read/Write to let sales personnel update the sales information.

At the end of the sales quarter, when you don't want any new information added to the files, you can delete the sharename SALESRW, with Read/Write access rights. The directory SALES still exists and everyone can still use SALESR to link to SALES and read the files that are stored there. However, there is no longer a SALESRW sharename that allows users to link to SALES and read and write to the files.

You can delete sharenames that you assigned

You cannot delete a sharename that was assigned to a directory by another user. You cannot delete a directory's sharename while the sharename is in use. If you are linked to the directory with the sharename, use the 3F UNLINK command to unlink the directory. Use the 3F DIR command to make sure no other users are linked to the directory.

To delete a sharename, type the UNSHARE command, followed by the name of the directory you are deleting.

```
3F> UNSHARE SALES ↵
```

The message returned tells you that the sharename has been deleted.

Deleting a Shared Directory

You delete a directory with the DOS RMDIR command.

CAUTION: Before using the DOS RMDIR command to delete a directory, delete the directory's sharenames with the 3F UNSHARE command. Otherwise, the sharenames of the deleted (nonexistent) directory will remain on 3+Share list.

Chapter 5: Printing Documents

Print Service overview

The Print Service lets you print documents on any shared printer (a network printer that is made available to users by being assigned a printer sharename.) You can print documents stored in files in 3+Share directories as well as files stored on a diskette or local hard disk. When you send a file to be printed on a shared printer, it is stored in a temporary file, called the **spool file**, and waits in the print queue. After the spool file is created, you can continue your work without waiting for the file to finish printing.

To print documents on a shared printer, you link a printer identifer to the printer. Once the shared printer is linked, you can print any file from within an application program. You print the file by issuing the application's "print" command. After a completion message, such as "Done" appears, type **[Ctrl]+[Alt]+[PrtSc]** to indicate that the application has finished sending the file.

This chapter provides step-by-step instructions for the following procedures:

- Choosing a printer
- Printing a file on a shared printer
- Managing your print jobs
- Linking to a shared printer
- Ending the link to a shared printer

Choosing a Printer

Before you link to a printer and send documents to it for printing, you may need to find out the following information:

- What printers are available. It is also useful to know what kinds of printers are available. You might, for example, have a choice of printing documents on a draft quality printer or on a letter quality printer.
- How long the print queue to a printer is.

Listing Shared Printers

The 3P DIR command lists the printer sharenames and descriptions of shared printers on your home server. You need to know a printer's name before you can link to it and print a document.

1. Start the 3P program.

```
A>3P
```

2. At the 3P prompt, type the DIR command.

```
3P> DIR ↵
```

The list shows the sharename of each printer, the printer's port identifier on the server, and the number of users linked to the printer.

NOTE: The printer identifier is the identifier you designate from your workstation; the port identifier is the identifier that the network administrator designates when connecting a printer to a server's printer port.

Listing a Printer's Queue

The 3P QSTAT command lists the files in a printer's queue and information about each file. You can use it to determine how busy a printer is. For example, when you need to print a file quickly, you do not want to use a printer that has five long documents waiting in the queue.

At the 3P prompt, type the QSTAT command, followed by a space and a question mark (**?**) to tell the File Service to prompt you for all the command's parameters, both required and optional.

```
3P> QSTAT ?
```

You can also type the command in full, without asking for prompts, for example:

```
3P> QSTAT LPT2: /SPOOL=ALL ↵
```

The parameters included in the example above are:

- A printer identifier, LPT2:
- A spool identifier, ALL. A **spool identifier** is an integer between 0 and 32000 (64K-1).

You see a list of the files in the print queue for the printer. The list gives each file's spool identifier, the size of the file, its status, its priority in the print queue (99 prints first and 1 prints last), and the number of copies that will be printed. You can distinguish one file from another file by checking the file's size and the time it was sent to the printer.

NOTE: Queues are often long. To see all the items in the queue, you may have to press **[Ctrl]+[Num]** to stop scrolling. Press **[CtrlL]+[Num]** again to resume scrolling.

Linking to a Printer

Use the 3P LINK command to establish a link between a printer identifier and a shared printer . The printer identifiers you can link to a printer are:

- PRN: (also called LPT1:), LPT2:, or LPT3:

If you do not give a printer identifier with the 3P LINK command, the default printer identifier, PRN: , is assigned.

It does not matter which local printer identifier you use. However, since PRN: is the default printer identifier, if you intend to link to more than one printer, use PRN: for the printer that you use most often.

To link to a printer, type the 3P LINK command.

```
A>3P LINK LPT2: Laser
```

The parameters included in the example above are:

- A printer identifier, LPT2. When not specified, the default, PRN: is assumed.
- A printer name, Laser. If the printer is on your home server, you do not need to type the servername. If it is on another server, type the servername before the printer name, preceded by double backslashes (\\). Refer to Chapter 9 for more detailes information on the 3P Link command.

The message confirms that the printer identifier is linked to the shared printer. As long as you are logged in to the network, you can now use the printer just as you would if it were directly connected to your personal computer.

Printing a Document

The examples in this section show you how to do the following on a network printer:

- Print from a software application
- Use the CPRINT program to print documents created by a text editor
- Copy files to a network printer with the DOS COPY command

The following example shows you how to print from a software application in a directory on a network server.

Printing a document

1. Switch to the driver identifier to which you have linked the applications directory.

   ```
   A>D:↵
   ```

2. Run the software application as you normally would. For example:

   ```
   D>WP ↵
   ```

3. Give print commands from the software application as you normally would.

Your document waits in the printer's queue and will be printed after any other print jobs that are ahead of it in the queue.

CPRINT

CPRINT is a printing program supplied with the Print Service. You can use it to format and print files created with a text editor, such as EDLIN (the DOS editor) or MED (the 3+Mail message editor).

The CPRINT program works differently from other programs in 3+Share. It has one command, the CPRINT command. You type the CPRINT command after the DOS prompt. If you type only the CPRINT command, you are prompted for the name of the file you want to print. You are not prompted for any additional parameters. CPRINT has preset formats that can be overridden with parameters. If you want to include additional parameters with the CPRINT command, you must type them on the command line.

If you type a question mark (**?**) after the CPRINT command, you will see help information about CPRINT.

If you allow CPRINT to prompt you for the file name by typing only the CPRINT command, you cannot enter any further parameter information.

CPRINT's Preset Formats

If you do not include any parameters with the CPRINT command, your file is printed with the following settings:

Top Margin	1 inch
Bottom Margin	1 inch
Page Length	66 lines
Left Margin	8 characters
Right Margin	80 characters from left side of page
Page Numbers	Centered, beginning on page 2
Tabs	8 spaces are inserted between tabs

CPRINT monitors page breaks so that one or two lines of text are not printed by themselves at the top or bottom of a page.

If you do not supply a printer name with the CPRINT command, your file is printed on the printer linked to the default printer identifier , PRN: .

Printing with Preset Formats

To print a document using the preset formats listed above:

1. Following a DOS prompt, type **CPRINT**.

```
A>CPRINT ↵
```

2. CPRINT asks you for the file name.

```
File name ? TEXTFILE ↵
```

As your document is printing (being sent to a spool file) you see the message **Printing Page #** on your screen. When spooling is complete, you see the message **Done**.

Your document then waits in the printer's queue and will be printed after any other print jobs that are ahead of it in the queue.

CPRINT Parameters

If you do not want your document to be printed using CPRINT's preset formats, you must follow the CPRINT command with the name of the file you want to print, and parameters that change the preset formats.

For example, to print a document on a printer that is not linked to the printer identifier PRN:, type:

```
A>CPRINT TEXTFILE /PRINTER=LPT2: ↵
```

You can enter any of the following parameters with the CPRINT command:

CPRINT parameters

/PRINTER=prnid	The name of the printer identifier linked to the printer you want to use--LPT1:, LPT2: or LPT3:.
/LEFT=#	The size of the left margin in characters.
/RIGHT=#	The size of the right margin in characters, measured from the **left side** of the page.
/FORMLEN=#	The length of the form or page in lines.
/TABVALUE=#	The number of spaces inserted between tabs.
/LINENUMS	Prints line numbers in the first four columns of each line. If you include this parameter, your left margin must be 6 characters
/PDATE	Prints the date and time the file was printed at the bottom left of the page.

/MDATE	Prints the date and time the file was last modified at the bottom right of the page.
/NODOT	Include this parameter if you want special instructions that you type in the file for CPRINT, such as **.page** and **.eof**, to appear in the printed copy.

Using Special Instructions

You can type special instructions to CPRINT in your text file that will further determine how the file is printed.

The following list shows the effect of special instructions you can type in a file.

.page	Type this instruction to force the page to eject.
.eof	Type this instruction to stop printing.

These instructions will not appear in your printed copy unless you include the /NODOT parameter with the CPRINT command.

Stopping CPRINT

If you want to stop at any time while your file is being sent to the print queue, press **[Ctrl]+ [Break]**.

Copying Files to Printers

The following example shows how to use the DOS COPY command to copy a file stored in a directory to a shared printer. You can use the same procedure to copy files to a shared printer from a diskette or a hard disk.

When you copy a file to a shared printer, the file waits in the printer's queue and is printed in turn.

To copy a file from a directory to a printer:

1. From the DOS prompt (A>, for example), use the COPY command to copy a file from the directory to the printer. For example, if the directory that contains the file MAY is linked to drive E: and the printer is linked to LPT3:, type the following:

```
A>COPY E:MAY LPT3:↵
```

The file is copied from the 3+Share directory to the printer's queue and will be printed in turn.

NOTE: You cannot use DOS PRINT to print on a shared printer on the network.

Unlinking from a Printer

Use the 3P UNLINK command to end a link between a printer identifier on your personal computer and a shared printer on the network.

To unlink a printer, type the 3P UNLINK command.

```
A>3P UNLINK PRN:↵
```

A message confirms that the printer is unlinked.

Managing Your Print Files

The Print Service helps you manage your print files and lets you set special printing options.

The instructions in this section show you how to do the following:

- Print multiple copies of a file
- Delay the printing of files
- Release delayed files for printing
- Delete files from a print queue

Setting Print Options

Use 3P SET for special options

Use the 3P SET command to set special printing options, such as printing multiple copies of a file, holding files so that they will be batched and printed together, and deferring the printing of a file.

You can also use the 3P SET command to assign a priority status to a file or print files on special forms. For complete information on the 3P SET command, refer to the 3P SET command in Chapter 9.

You can use the 3P SET command to set options for all the files you send to a printer's queue; for files already in the print queue, or you can include a spool identifier with the command so that the options you set are only used for one, specific file.

Before you use the 3P SET command, you must first link to the printer for which you want to set options.

Printing Multiple Copies

When you send a file to a network printer, only one copy of the file is usually printed. You can use the 3P SET command to print up to 99 copies of a file at a time.

Use 3P SET to print multiple copies

Before you use the 3P SET command to indicate the number of copies you want printed, you must first link to the printer.

To print multiple copies of one file:

1. Determine the file's spool identifier with the 3P QSTAT command. For example:

```
3P> QSTAT LPT2: ↵
```

You see a list showing all your own files in the printer's queue and each file's spool identifier. If you have more than one file in the queue, you can distinguish one file from another by checking the file's size and the time it was sent to the printer.

2. At the prompt, type the SET command

```
3P> SET LPT2: /copies=9 /spool=203 ↵
```

The example above includes the following parameters:

- Printer id, LPT2:
- The number of copies, 9. You can print up to 99 copies at a time.
- The file's spool identifier, 203.

The Print Service returns a message confirming that the printer will print multiple copies of your file.

NOTE: If you prefer to have 3P prompt you for the parameters, type **3P SET**, followed by a space and a question mark **(?)** to tell the 3P to prompt you for all the SET command's parameters.

```
3P> SET ? ↵
```

After each prompt, enter the desired information. To use the preset option for a parameter, press **[Return]** in response to the parameter prompt.

Holding Files

Normally, the files you send to a printer are immediately placed in the print queue and are printed in turn. You can use the /HOLD parameter of the 3P SET command to temporarily delay entering each file into the print queue. All the files you send to a printer will be batched (entered into the print queue as one entry) and printed together after you set HOLD to OFF or unlink the printer.

You can releae files held for printing in either of two ways. You can use the 3P UNLINK command to unlink from the printer or use the 3P SET command to set the /HOLD parameter to OFF. When you release held files for printing in either of these two ways, the files are placed at the end of the printer's queue and printed together.

To hold files for later printing, type the SET command as follows:

```
3P> SET /HOLD ↵
```

(Assumes default printer identifier PRN:.)

A message confirms that the /HOLD parameter is set. All files you send to the printer's queue will be held until you enter the 3P UNLINK command or set the /HOLD parameter to OFF.

To set the /HOLD parameter to OFF, type the SET command as follows:

```
3P> SET /HOLD=OFF ↵
```

Deferring Printing

Use DEFER to delay printing the file in the queue.

After you have sent a file to the printer's queue, there may be times when you decide you do not want it printed yet. To prevent it temporarily from printing, use the /DEFER parameter of the 3P SET command.

When you defer a file from printing, the file keeps its place in the print queue. When you release the file for printing with the /RELEASE parameter of the 3P SET command or set /DEFER to OFF, the file is printed in turn, as if it had never been deferred. If the file's place in the queue has already been passed, it is moved to the top of the print queue and printed next.

To defer printing of a file:

1. Determine the file's spool identifier with the 3P QSTAT command. For example:

```
3P> QSTAT LPT2: ↵
```

You see a list showing all your own files in the printer's queue and each file's spool identifier. If you have more than one file in the queue, you can distinguish one file from another by checking the file's size and the time it was sent to the printer.

2. Type the SET command, providing the printer identifier (omit this parameter if you want to use the default PRN:), the DEFER parameter, and the file's spool identifier.

```
3P> SET LPT2: /DEFER=ON /spool=203 ↵
```

The message returned confirms that the file's printing is deferred. It will not be printed until you release it with the /RELEASE parameter or set the /DEFER parameter to OFF.

NOTE: To set the /RELEASE parameter or set the /DEFER parameter to OFF, follow the same basic steps you used to set /DEFER to ON.

Deleting a File from the Print Queue

Use the 3P DELETE command to delete your file(s) from a print queue. You might want to do this if you sent the wrong file to the print queue, or decided that you would rather print the file on a different printer.

1. Determine the file's spool identifier with the 3P QSTAT command.

```
A> 3P QSTAT  \\myserver\Laser↵
```

2. Link a printer identifier to the printer whose queue contains the file you want to delete. For example:

```
3P> LINK LPT2: Laser ↵
```

3. At the Print Service prompt, type the DELETE command (you can type either DELETE or DEL).

```
3P> DEL /spool=245
```

In this example, 245 is the spool identifier.

The message confirms that the file was deleted from the print queue.

Chapter 6: Command Reference Introduction

Part II is a complete reference to 3+Share user commands. The chapter provides the following:

- A 3+Share user command overview
- Definitions of key 3+ network terms, organized alphabetically for easy reference
- Descriptions of the LOGIN and LOGOUT commands

The command syntax notation used throughout this manual is explained in Chapter 1.

User command descriptions for 3F, 3N, and 3P are provided in the following chapters.

For complete information on the 3+Share administrator and commands, see the *3+Share Administrator's Guide.*

Command Overview

Command	Function
LOGIN	Login to the network
LOGOUT	Logout from the network
3F User Commands	
3F	Start Program File
3F DIR	List names of shared directories
3F HELP	Get help with the File Service
3F LINK	Link to a shared directory
3F LOGIN	Login to the network
3F LOGOUT	Logout from the network
3F MODIFY	Modify a shared directory
3F SHARE	Share a directory
3F STAT	Show 3Share server information
3F UNLINK	Unlink from a shared directory
3F UNSHARE	Delete a shared directory
3N User Commands	
3N	Start Program Name
3N ASSIGN	Assign a sharename for 3Share
3N DIR	List 3N names
3N HELP	Display helpful information
3N LOGIN	Login to the network
3N LOGOUT	Logout from the network
3N MODIFY	Modify 3N information
3N SET	Set 3N defaults
3N STAT	Display 3N information

3P User Commands

3P	Start Program Print
3P DELETE	Delete a file from the print queue
3P DIR	List names of shared printers
3P HELP	Display helpful information
3P LINK	Link to a shared printer
3P LOGIN	Login to the network
3P LOGOUT	Logout from the network
3P SET	Set printer options
3P STAT	Show 3Share printer information
3P QSTAT	List a printer queue
3P UNLINK	Unlink from a shared printer

Definitions

Access Rights

Access rights control how much access users have to shared directories. A sharename can have any of the following access rights:

Private (PRIV)	Only one user at a time can have access to the directory. To give other users access to a private directory, the owner has to assign a password to the directory.
Public (PUB)	Users can read a file in a public directory, but cannot create or write to a file in the directory.
Read (R)	Users can read any files that are in the directory. This access right has the same effect as Public access.
Write (W)	Users can write to the files in the directory.

Read, Write (R,W)	Users can read from and write to the files in the directory.
Write, Create (W,C)	Users can write to, create, and delete files in the directory, but not read them.
Read,Write (R,W,C)	Users can read, write to, create, and delete files in the directory.
Shareable (SHAR)	Other users can create sharenames to the directory, as well as read, write, create, and delete files in the directory.

Each sharename can have only one set of access rights. You can give different users different access rights to the same directory by creating several sharenames, each with different passwords and access rights.

Drive Identifier
A drive identifier is a single letter (A: to Z:) used to refer to a logical drive on the network.

Alias
An alias is a short form of the user's name.

Passwords
A password controls access to 3+Share and to 3+Share network directories. Once a password is assigned to the name of a user, directory, or printer, this password must be typed with the name to which it is assigned.

NOTE: 3N (LOGIN) passwords consist of up to 12 characters; 3F and 3P passwords consist of up to 8 characters.

Paths
A path tells where a directory is located in relation to directories above it. The first step in a path is a drive identifier. If you do not specify a drive identifier, the default drive is accessed. Each following step is a directory name preceded by a backslash (\), except that a user or server name is preceded by a double backslash (\\).

Printer Identifier
A printer identifer is a name (following standard DOS terminology) used by a workstation to link to a shared printer. The default printer identifier is PRN:.

Printer sharename
Printer sharename is the name assigned to a printer when it is shared using the 3P SHARE command. Printer sharenames may consist of up to 8 characters.

Sharename
Sharename is the name assigned to a directory when the directory is shared using the 3F SHARE command. Sharenames may consist of up to 8 characters.

Servername
The three-part name of a server on the network. If the server is in your own domain you can omit the domain and organization parts of the name.

Three-part Names
The Name Service stores the name of and information about network users and servers. User and server names are in three-part heirarchical format separated by colons (:). The three parts are limited to 40:20:20 characters.

```
name:domain:organization
```

Name is the user's name. **Domain** is a geographical location or a department within an organization. **Organization** is usually the company name. For example:

```
Linda Young:HQ:3Com
```

Three-part names may consist of up to 58 characters, including the colons (:).

If the user is in your own domain you can omit the domain and organization parts of the name.

Spool Identifier
A number assigned by the Print Service to a temporary file (spool file) on the server.

LOGIN and LOGOUT Commands

To start working on the network, 3+Share must first verify that you are a registered user, by having you log into the network. You do this with the LOGIN command.

To exit from the network, you issue the LOGOUT command.

The LOGIN and LOGOUT commands can be issued from 3F, 3N, 3P, or after a DOS prompt.

LOGIN

Identifies you as a registered 3+Share user and allows you access to your home directory.

Format

LOGIN [[\\]*username*] [/PASS=*password*]

Parameters

username	The three-part name that identifies you as a 3+Share user. In 3N, the \\ preceding a name is optional. If your domain and organization are the same as the the defaults in the Name Service, you do not have to include the domain and organization parts of your name. If you have an alias, you can use your alias to log in to 3+Share. If you have a user profile (refer to Chapter 2) that includes your user name, you can omit this parameter.
PASS=password	If you have a password, you must include your password whenever you log in unless your password is included in your user profile.

Remarks

You must log in before you can use 3+ commands. You can log in from any personal computer in the network.

Examples

Example 1: Logging in if you have a password.

```
A>LOGIN Linda Young /PASS=Secret ↵
```

Example 2: Logging in if you do not have a password.

```
A>LOGIN Linda Young ↵
```

Example 3: Logging in from another domain and organization with a password.

```
A>LOGIN Linda Young:HQ:3COM /PASS=Secret ↵
```

Example 4: Logging in if your user profile includes your user name and login password.

```
A>LOGIN ↵
```

You can issue the LOGIN command from 3F, 3N, 3P, or after a DOS prompt.

LOGOUT

Ends your connection to 3+ network.

Format

LOGOUT

Parameters

none

Remarks

The LOGOUT command ends the connection to 3+Share that you established with the LOGIN command. It also ends all links to 3+Share directories and printers that you established with the 3F LINK and 3P LINK commands.

You can issue the LOGOUT command from 3F, 3N, 3P, or after a DOS prompt.

Examples

Example 1: Logging out of 3+Share.

```
A>LOGOUT ↵
```

Chapter 7: 3F User Commands

This chapter provides a description of 3F user commands. 3F is the user interface for 3+Share's File Service.

For easy reference, the commands are described in alphabetical order. For definitions of key terms used in this chapter, refer to Chapter 6. For information on command syntax notation, see Chapter 1.

3F

Starts the File Service.

Format

3F

Parameters

none

Remarks

3F starts the 3F program and displays a copyright notice and version number. The DOS prompt changes to 3F> . After you start the 3F program, you can enter any 3F command without including the prefix (3F). You return to the 3F program prompt (3F>) after each 3F program command is completed.

You can leave the 3F program and return to DOS and the DOS prompt (A>, for example), by pressing **[Return]** without typing a command.

You can also execute a 3F command by typing the command prefix (**3F**) and the command in one step. However, when the command is completed, you return to DOS and the DOS prompt, instead of remaining in the File Service.

You cannot type a 3F command after the prompt for another service. Do not, for example, type **3N> 3F LINK**.

You can type multiple commands on one line by separating the commands with semi-colons. For example:

```
3F> LINK E:;3P LINK Laser;3N Set/SERVER=myserver
```

Example

Example: Starting the 3F program.

```
A>3F ↵
3File 1.0 - Copyright (c) 3Com Corporation
1985. All rights reserved.

3F>
```

3F DIR

Displays information about shared directories.

Format

3F DIR [*username*|*servername*\] [*sharename*][/LINK]

Parameters

username|servername	The owner of the shared directory or the name of the server about which you want infromation. If you omit this and all other parameters, you see a list and information about your own directories.
sharename	Name of the directory you want to see.
LINK	Displays information about links to shared directories and printers. If you include only this parameter, you see a list of the shared directories currently linked to drive identifiers on your workstation. If you include this parameter and a server name, you see a list of users linked to shared directories and printers on that server.

NOTE: If you are a user on the specified server and you logged in at two different workstations, your name will be listed twice.

Examples

Example 1: Listing all your shared directories.

```
3F> DIR ↵
```

Example 2: Listing all the directories currently linked to drive identifiers on your workstation.

```
3F> DIR /LINK ↵
```

Example 3: Listing another user's shared directories.

```
3F> DIR \\Peter Jones ↵
```

Example 4: Listing all users and shared directories on a server.

```
3F> DIR \\ourserver ↵
```

Example 5: Listing all users linked to a shared directory with a specific sharename.

```
3F> DIR \\ourserver\apps  /LINK ↵
```

Example 6: Listing all users linked to shared directories and printers on a server in another domain and organization.

```
3F> DIR /LINK \\ourserver:SE:3Com ↵
```

3F HELP

Displays information about 3F commands.

Format

3F HELP [*commandname*]

Parameters

commandname	3F command with which you want help.

Remarks

Help information is displayed in three levels. The first level lists all the 3F commands. The second level gives detailed information for one specific 3F command. You can go directly to the second level by including the command name parameter.

The third level gives help information for a specific parameter. You can get help with a specific parameter when you are entering it in the prompted form by typing **HELP** after the parameter prompt.

NOTE: You can type a question mark (**?**) instead of **HELP** for the first and third (but not the second) levels of help information. In 3F, 3N, and 3P, typing **?** at the first level displays just a list of command; typing **Help ?** displays a list of commands and a description of each command.

Typing a question mark instead of HELP at the second level, you are prompted for all the command's parameters.

Examples

Example 1: Listing all 3F commands and a brief description of each.

```
3F> HELP ↵
```

Example 2: Displaying detailed information about one command. In the example below, the command is LINK.

```
3F> HELP LINK ↵
```

Example 3: Displaying information for a parameter.

```
3F> LINK ↵

Drive Id? HELP ↵
Enter drive id such as C:
Drive Id?
```

3F LINK

Links a drive identifier on your workstation to a shared directory on a server's disk.

Format

3F LINK driveid: [*username*|*servername*[\]] [*sharename*]
[/PASS=*password*] [/NP]

Parameter

drive id:	The drive identifier that you you want to link to a shared directory. If the drive id is the only parameter you include, the drive identifier is linked to your home directory.
username|servername	The name of the user or server that you are linking to. If the user or server is in your own domain and organization, you can omit the domain and organization parts of the name.
sharename	The name assigned to the shared directory you want to link to.
password	The password for the sharename, if one is required.
NP	Suppresses prompts, such as "Drive already linked ... OK to unlink [Y/N]?".

Remarks

The 3F LINK establishes a link between a drive identifier on your workstation and a directory on the server's disk. You must establish a link between a drive identifier and a directory before you can use files stored in the directory.

Examples

Example 1: Linking a drive identifier to your home directory.

```
3F> LINK E: ↵
```

Example 2: Linking a drive identifier to another user's shared directory using a sharename that requires a password.

```
3F> LINK E: \\Tom Smith\ourmemos/PASS=Secret ↵
```

3F LOGIN

Verifies that you are a registered 3+Share user and allows you access to your home directory.

Format

3F LOGIN [[\\]*username*] [/PASS=*password*]

NOTE: You can issue the LOGIN command from 3F, 3N, 3P, or after a DOS prompt. For detailed information about the LOGIN command, refer to "The LOGIN and LOGOUT Commands," Chapter 6.

3F LOGOUT

Ends your connection to 3+ network.

Format

3F LOGOUT

NOTE: You can issue the LOGOUT command from 3F, 3N, 3P, or after a DOS prompt. For detailed information about the LOGOUT command, refer to "The LOGIN and LOGOUT Commands," Chapter 6.

3F MODIFY

Changes the password and access rights for a sharename of a shared directory.

Format

3F MOD[IFY] *sharename* [/PASS=*newpass*] [/*newaccess*] [/NP]

Parameters

sharename	The name of the shared directory to be modified.
newpass	The new password you want to assign.
newaccess	The new access rights you want to assign to the sharename. Access rights can be any of the following: /PRIV for Private /PUB for Public /R for Read /RW for Read/Write /RWC for Read/Write/Create /WC for Write/Create /W for Write /SHAR for Read/Write/Create/Share
NP	Suppresses prompts, such as "Drive already linked...OK to unlink [Y/N]?"

Remarks

The 3F MODIFY (you can type either **MODIFY** or **MOD**) lets you change the password and/or access rights for a sharename you assigned to a shared directory with the 3F SHARE.

You can modify the password or the access rights only for your own shared directories.

Users can be linked to a directory using a sharename while you are modifying the sharename. The new password and access rights you assign to a sharename do not affect any current links using the sharename.

The 3F MODIFY does not let you change or delete the sharename itself. Use the 3F SHARE to assign a new sharename to the same directory. Use the 3F UNSHARE to delete a sharename.

Examples

Example 1: Modifying a sharename's password.

```
3F> MOD memos /PASS=secret /NP ↵
```

Example 2: Removing a sharename's password.

```
3F> MOD memos /PASS= ↵
```

Example 3: Modifying a sharename's access rights to Read only.

```
3F> MOD memos /R ↵
```

3F SHARE

Makes a directory on a server available to users.

Format

3F SHARE *sharename=path* [/PASS=*password*] [/*access*]

Parameters

sharename	The sharename you want to assign to the directory followed by an equal sign (=).
path	The path to the directory you are making available for sharing. The first step in the path is a drive identifier to which you are linked. Each following step in the path is a directory name preceded by a backslash (\).
password	The password you can assign to the sharename to control who has access to the directory.

access	The access rights you can assign to the sharename to control the kind of access users have to the directory. Access rights can be any of the following: /PRIV for Private /PUB for Public /R for Read /RW for Read/Write /RWC for Read/Write/Create /WC for Write/Create /W for Write /SHAR for Read/Write/Create/Share If you omit this parameter, the default is Private.

Remarks

The 3F SHARE command lets you make a DOS directory on a server available to other users by assigning a sharename to the directory. When you assign a sharename to a directory, you and other users can use the directory by linking to the sharename you assigned.

You control access to a shared directory by assigning a password and access rights to the sharename. Only users who know the password can use the sharename to link to the directory and use files stored in the directory.

When you make a directory available to other users, keep in mind that all subdirectories under this directory are also available to them with the same access rights.

Each sharename can have only one set of access rights. You can give different users different access rights to the same directory by creating several sharenames, each with different passwords and access rights.

Assigning a Sharename to Another User's Directory

You can assign a sharename to another user's shared directory to make it available for sharing. To do this, the other user must have specified Read/Write/Create/Share access when he assigned a sharename to the directory with the 3F SHARE command. The user's home directory must also be on your home server.

When you create a sharename for another user's directory, you must first link to the user's directory with a sharename. You then supply the drive identifier to which the directory is linked, followed by a colon (:), as the path to the directory. The drive identifier is optional. If you omit it the current default drive is assumed.

Examples

Example 1: Assigning a sharename to a directory under your home directory linked to E:.

```
A>3F SHARE memos=E:\wordpros ↵
```

Example 2: Assigning a sharename, password and access rights to a directory under your home directory.

```
3F> SHARE ourdata=E:\sharedir /PASS=secret /RWC ↵
```

Example 3: Assigning a sharename to a directory that is already shared.

```
3F> SHARE sales=G:↵
```

This example assumes that the user is linked to G.

3F STAT

Displays status information for shared disks on a server.

Format

3F STAT[US] [*servername*]

Parameters

servername	The name of the server about which you want status information. If you omit this parameter, you see status information for your home server.

Remarks

You can type either STAT or STATUS.

Examples

Example 1: Displaying status information for your home server.

```
3F> STAT ↵
```

Example 2: Displaying status information for a server other than your home server.

```
3F> STAT \\otherserver ↵
```

3F UNLINK

Ends a link between a drive identifier on your workstation and a shared directory on the server's disk.

Format

3F UNLINK *driveid:*

Parameters

driveid:	The drive identifier you want to unlink from the shared directory.

Remarks

Unlinking makes a drive identifier available to link to another directory.

NOTE: Logging out of 3+Share automatically ends all links you have established. Restarting your personal computer also ends all your links.

Example

Example: Unlinking a drive identifier.

```
3F> Unlink D: ↵
```

3F UNSHARE

Deletes a sharename.

Format

3F UNSHARE *sharename*

Parameters

sharename	The sharename you want to delete.

Remarks

The 3F UNSHARE command deletes one of a shared directory's sharenames. If this results in an empty directory, the directory itself will be deleted. When a sharename is deleted, you and other users can no longer use it to link to a shared directory. Deleting one sharename does not affect any other sharename.

You can assign several different sharenames to a directory. This lets you assign different passwords and access rights to each sharename so that you can make the directory available to different users in different ways.

Delete a sharename if you no longer want to make a directory available to other users who have the password and access rights associated with that sharename.

Examples

Example: Deleting a sharename.

```
3F> UNSHARE ourdir ↵
```

Requirements

You can delete only those directory sharenames that you assigned.

You can delete sharenames that are not currently linked to a drive identifier. Use the 3F DIR command to make sure no one is currently linked to the sharename.

Chapter 8: 3N User Commands

This chapter provides a description of 3N user commands. 3N is the user interface for 3+Share's Name Service.

For easy reference, the commands are described in alphabetical order. For definitions of key terms used in this chapter, refer to Chapter 6. For information on command syntax notation, see Chapter 1.

3N

Starts the 3N program.

Format

3N

Parameters

none

Remarks

The 3N command starts the 3N program and displays a copyright notice and version number. The DOS prompt (for example, A>) changes to 3N>.

After you start the 3N program, you can enter any 3N command without including the command prefix (3N). You return to the 3N prompt (3N>) after each 3N command is completed.

You can leave the 3N and return to DOS and the DOS prompt (A>, for example), by pressing **[Return]** without typing a command.

You can also execute a 3N command by typing the command prefix (3N) and then the command in one step. However, when the command is completed, you return to DOS and the DOS prompt, instead of remaining in the 3N.

You cannot type a 3N command after the prompt for another service. Do not, for example, type 3F> 3N LOGOUT.

You can type multiple commands on one line by separating the commands with semi-colons. For example:

```
3F> LINK E:;3P LINK Laser;3N Set/SERVER=myserver
```

Example

Example: Starting the 3N program.

```
A>3N ↵
3Name 1.0 - Copyright (c) 3Com Corporation
1985.  All rights reserved.

3N>
```

3N ASSIGN

Assigns an IBM-compatible name to represent the three-part name of a server.

Format

3N ASSIGN *IBMname*=[\\]*name*]

Parameters

IBMname=	The IBM-compatible name you want to assign to a server. An IBM name can be up to 15 characters long.
name	The three-part name of the user or server to which you are assigning an IBM-compatible name. If the user or server is in the 3N's current domain and organization, you can omit the domain and organization parts of the name.

Remarks

You need to assign an IBM-compatible name only when a 3+Share server name does not match IBM rules for names and you want to run an application that is dependent on using an IBMname.

For example, if a 3+Share name is longer than 15 characters or includes blanks, you need to assign it an IBM-compatible name before you can use it with IBM applications.

NOTE: You will rarely encounter a "hard coded" servername in an application.

Example

Example: Assigning an IBM-compatible server name to a three-part name.

```
3N> Assign fileserver=\\myserver:HQ:3Com ↵
```

3N DIR

Lists names of items on the network -- aliases, domains, groups, members, organizations, servers, or users -- or displays detailed information about a specific item.

Format

3N DIR [*itemtype*] [[\\]*name*]

Parameters

itemtype

The type of item for which you want a list. The item can be any of the following parameters:

- alias
- domain
- group
- member
- organization
- server
- user

If you omit this parameter, you see a list of all aliases, groups, servers, and users on the network.

name	The three-part name of the item you want to list. In 3N, the double backslash (\\) preceding a name is optional. Include the item's name to display detailed information about a specific item. If you omit this parameter, 3+Share lists all the items in the default domain and organization. You can use the DOS wildcard character (*) in the name part of the three-part name to list groups of items.

Remarks

The current domain and organization is either the Name Service's default domain and organization or the last domain and organization you specified in a 3N command. You can reset the current default domain and organization explicitly with the 3N SET command.

NOTE: The **current default domain** is in the 3N program and does not effect the Name Service. The **default domain** is set in the Name Server during installation of the Name Service and cannot be changed.

Examples

Example 1: Listing detailed information about a specific network user.

```
3N> DIR Peter Jones ↵
```

Example 2: Listing all servers in the default domain and organization.

```
3N> DIR SERVER ↵
```

Example 3: Listing aliases for all users in another domain in your organization.

```
3N> DIR ALIAS *:SE ↵
```

Example 4: Listing groups in a domain of another organization.

```
3N> DIR GROUP *:SW:3Com ↵
```

3N HELP

Displays help information about 3N commands.

Format

3N HELP [*commandname*]

Parameter

commandname	The 3N command with which you want help. If you omit this parameter, you see a list of all 3N commands and a brief description of their functions.

Remarks

Help information is displayed in three levels. The first level lists all 3N commands and a brief description of each command. The second level gives detailed information for one specific 3N command. You can go directly to the second level by including the command name parameter.

The third level gives help information for a specific parameter. You can get help with a specific parameter when you are entering a command in the unprompted form by typing HELP after the parameter prompt.

NOTE: You can type a question mark (?) instead of HELP for the first and third (but not the second) levels of help information.

If you type a question mark instead of HELP after a command (the second level), you are prompted for all the command's parameters.

Examples

Example 1: Listing all 3N commands and a brief description of each command.

```
3N> HELP ↵
```

Example 2: Displaying detailed information about one specific command.

```
3N> HELP DIR ↵
```

Example 3: Displaying information about a command parameter.

```
3N> LOGIN
Short Name? HELP ↵
Enter name [:domain[:org]].
```

3N LOGIN

Identifies you as a registered 3+Share user and allows you access to your home directory.

Format

3N LOGIN [[\\]*username*] [/PASS=*password*]

NOTE: The LOGIN command can be issued from 3F, 3N, 3P, or after a DOS prompt. For complete information about the LOGIN command, refer to Chapter 6.

3N LOGOUT

Ends your connection to 3+ network.

Format

3N LOGOUT

NOTE: The LOGOUT command can be issued from 3F, 3N, 3P, or after a DOS prompt. For complete information about the LOGOUT command, refer to Chapter 6.

3N MODIFY

Adds, changes or removes your login password.

Format

3N MOD[IFY] /PASS=*password*

Parameters

password	Your password. A login password can be up to 12 characters long.

Remarks

Your password protects the confidentiality of all the information you have stored on the network. If you do not have a login password, anyone who knows your name can log in and use information you have stored in 3+Share directories.

When you use the unprompted form of the 3N MODIFY command to create or change your login password, your new password appears on the screen as you type it. You can type MODIFY or MOD.

Examples

Example 1: Creating a login password.

3N> **MOD /PASS=secret** ↵

Example 2: Changing your login password.

3N> **MOD /PASS=quiet** ↵

Example 3: Removing your password.

3N> **MOD /PASS=** ↵

3N SET

Temporarily resets the 3N's default server, domain, or organization.

Format

3N SET [/SERVER=[\\]*server*] [/DOMAIN=*domain*]
[/ORG=*organization*]

Parameters

server — The three-part name of the server you want to use as the 3N default server.

If the server is in the Name Service's current default domain and organization, you can omit the domain and organization parts of the name.

domain — The name of the domain you want to use as the 3N default domain.

If the new domain is in the the 3N's current default organization, you can omit the organization part of the name.

organization	The name of the organization you want to use as the 3N default organization.

Remarks

3N SET assigns defaults that 3N uses in its parameter prompting. It does not affect 3N's permanent defaults.

Defaults you set with the 3N SET command will change if you enter a 3N command using a new server, domain, or organization. They will also change if you leave the Name Service and return to DOS.

For example, you can reset the default domain and then enter 3N DIR commands for the new default domain without including the domain and organization as a part of the name. However, if you then enter a 3N DIR command for a new domain, the new domain becomes the current default domain.

Examples

Example 1: Temporarily resetting the default server.

```
3N> SET /SERVER=theirserver ↵
```

Example 2: Temporarily resetting the default domain.

```
3N> SET /DOMAIN=HQ ↵
```

Example 3: Temporarily resetting the default organization.

```
3N> SET /ORG=Far Corp ↵
```

3N STAT

Displays the Name Service default domain and organization, as well as your current 3N defaults.

Format

3N STAT[US]

Remarks

For information about another user, use the 3N DIR USER command.

You can type STAT or STATUS.

Example

Example: Displaying your user information.

```
3N> STAT ↵
```

Chapter 9: 3P User Commands

This chapter provides a description of 3P user commands. 3P is the user interface for 3+Share's Print Service.

For easy reference, the commands are described in alphabetical order. For definitions of key terms used in this chapter, refer to Chapter 6. For information on command syntax notation, see Chapter 1.

3P

Starts the 3P program.

Parameters

none

Remarks

The 3P command starts the 3P program and displays a copyright notice and version number. The prompt changes to 3P>.

After you start 3P, you can enter any 3P command without including the command prefix (3P). You return to the 3P prompt (3P>) after each 3P command is completed.

You can leave 3P and return to DOS and the DOS prompt (A>, for example), by pressing **[Return]** without typing a command.

You can also execute a 3P command by typing the command prefix (3P) and then the command in one step. However, when the command is completed, you return to DOS and the DOS prompt, instead of remaining in the 3P program.

You cannot type a 3P command after the prompt for another service. Do not, for example, type **3F> 3P LINK**.

You can type multiple commands on one line by separating the commands with semi-colons. For example:

```
3F> LINK E:;3P LINK Laser;3N  Set/SERVER=myserver
```

Example

Example: Starting the 3P program.

```
A>3P ↵
3Print 1.0 - Copyright (c) 3Com Corporation
1985.  All rights reserved.

3P>
```

3P DELETE

Deletes files from a print queue.

Format

3P DEL[ETE] [*prinid:*] /SPOOL=# [/NP]

Parameters

prnid

The printer identifier linked to the printer whose print queue contains the files you want to delete. The printer identifier is one of the following:

- PRN: or LPT1:
- LPT2:
- LPT3:

The colon (:) is part of the printer identifier (for example, PRN:).

If you omit this parameter, files are deleted from the queue of the printer linked to PRN:.

#	The spool identifier of the file you want to delete from the print queue. A spool identifier is a number that 3P assigns to a file when the file is placed in the print queue. Use the 3P QSTAT command to determine a file's spool identifier. Include an asterisk (*) in place of the spool identifier if you want to delete all your files from the print queue.
NP	Suppresses prompts such as "Are you sure? [Y/N]".

Remarks

When you use the 3P DELETE command, you must be linked to the printer whose queue contains the files you want to delete. You cannot delete another user's files from a print queue.

Examples

Example 1: Deleting a file from the print queue of a printer linked to the printer identifier PRN:.

3P> **DEL /SPOOL=102** ↵

Example 2: Deleting a file from the print queue of a printer linked to a printer identifier other than PRN:.

3P> **DEL LPT2: /SPOOL=102** ↵

Example 3: Deleting all your files from a print queue.

3P> **DEL LPT2: /SPOOL=*** ↵

3P DIR

Lists shared printers or links to shared printers and directories.

Format

3P DIR [*servername*] [\][*printersharename*] [/LINK]

Parameters

servername	The three-part name of the server whose printers you want to list, preceded by a double backslash (\\).
	If the server is in your own domain, you can omit the server's domain and organization.
printersharename	The name of the shared printer for which you want information.
	If the printer is not on your home server, you must precede the printer sharename by the server name.
	If you omit this parameter, you will see a list of shared printers on your home server.

LINK	Lists users linked to a printer. If you omit this parameter, you will see a list of the shared printers on the server specified. If you include only this parameter, you will see a list of all the printers to which you are currently linked. If you include this parameter and a printer sharename, you will see a list of all users linked to the printer. If you include this parameter and just a server name, you will see a list of all users linked to printers and shared directories on the server.

NOTE: If a user on the specified server is logged in at two different workstations, that user name will be listed twice. Even if you are not linked, your name will always be displayed when you include this parameter.

Examples

Example 1: Listing all shared printers on your home server.

```
3P> DIR ↵
```

Example 2: Listing all shared printers on a server.

```
3P> DIR \\yourserver ↵
```

Example 3: Listing printers to which you are currently linked.

```
3P> DIR /LINK ↵
```

Example 4: Listing users linked to a specific printer.

```
3P> DIR \\yourserver\LaserJet /LINK ↵
```

Example 5: Listing all users linked to printers and shared directories on a server.

```
3P> DIR \\yourserver /LINK ↵
```

3P HELP

Displays information about the 3P commands.

Format

3P HELP [*commandname*]

Parameters

commandname	The 3P command with which you want help. If you omit this parameter, you see a list of all 3P commands and a brief description of their functions.

Remarks

Help information is displayed in three levels.

The first level lists all 3P commands and a brief description of each one.

The second level gives the format and describes the parameters for each command. You can go directly to the second level by including the command name parameter.

The third level gives help information for a specific parameter. You can get help with a parameter when you enter a command in the prompted form by typing HELP after the parameter prompt.

NOTE: You can type a question mark (?) instead of HELP for the first and third (but not the second) levels of help information. If you type a question mark instead of HELP after a command (the second level), you are prompted for all the command's parameters.

Examples

Example 1: Displaying a list of 3P commands and a brief description of each command.

```
3P> HELP ↵
```

Example 2: Displaying help information for a Print command.

```
3P> HELP LINK ↵
```

Example 3: Displaying help information for a specific parameter.

```
3P> Link ↵

Printer Sharename? HELP ↵
Enter [\\servername\] printersharename
Printer Sharename?
```

3P LINK

Establishes a link between a printer identifier you designate from your workstation and a shared printer on a network server.

Format

3P LINK [*prnid:*] [\\servername\]*printersharename* [/PASS=*password*] [/NP]

Parameters

prnid

The printer identifier that you use to link to a shared printer on a server. Use one of the following four printer identifiers:

- PRN:or LPT1:
- LPT2:
- LPT3:

The colon (:) is part of the printer identifier (for example, PRN:). If you omit this parameter, the printer you specify is linked to printer identifier PRN:.

servername\printersharename

The name of the shared printer you want to link to a printer identifier.

If you are linking to a printer on your home server, you can omit the server name.

If you are linking to a printer connected to a server in your own domain and/or organization, you can omit the server's domain and organization.

password	The password for the printer, if one is required.
NP	Suppresses prompts, such as "PRN already linked ... OK to unlink [Y/N]?".

Remarks

You can establish up to three printer links at the same time. You can link one printer to the printer identifier PRN: or LPT1:, one printer to LPT2:, and one printer to LPT3:. However, you can link only one printer to a particular printer identifier.

If you do not know what printer will be best for your print job, you can use the 3P DIR and 3P QSTAT commands to find out which printers are available and how busy they are.

Examples

Example 1: Linking a shared printer on your home server to the printer identifier PRN:.

```
3P> LINK Laser ↵
```

Example 2: Linking a shared printer on a server other than your home server to a drive identifier other than PRN:.

```
3P> LINK LPT2: \\yourserver\Laserjet ↵
```

3P LOGIN

Verifies that you are a registered 3+Share user and allows you access to your home directory.

Format

3P LOGIN [[\\]*username*] [/PASS=*password*]

NOTE: You can issue the LOGIN command from 3F, 3N, 3P, or after a DOS prompt. For detailed information about the LOGIN command, refer to Chapter 6.

3P LOGOUT

Ends your connection to 3+ network.

Format

3P LOGOUT

NOTE: You can issue the LOGOUT command from 3F, 3N, 3P, or after a DOS prompt. For detailed information about the LOGOUT command, refer to Chapter 6.

3P QSTAT

Lists files in a printer's queue and provides each file's spool identifier, length, status, priority in the print queue, the number of copies that will be printed, and the form on which the file will be printed.

Format

3P QSTAT [prnid|[*servername*\]*printersharename*] [/SPOOL=*#*]

Parameters

prnid

The printer identifier linked to the printer whose queue you want to list. Use one of the following printer identifiers:

- PRN: or LPT1:
- LPT2:
- LPT3:

You must include the colon (:).

Include this parameter when the printer whose queue you want to list is linked to a printer identifier on your workstation.

If you do not include this parameter or the printer sharename parameter, you see a list of files in the queue of the printer linked to PRN:.

servername\printersharename

The name of the printer whose print queue you want to list.

If the printer is shared on your home server, you can omit the server name.

If the shared printer is on a server in your own domain, you can omit the server's domain and organization.

Include this parameter when you want to list the print queue for a printer that you have not linked to a printer identifier.

SPOOL=#

The numer of the spool file. To list all spool files, type **ALL**.

If you omit this parameter, you see a list of your own files that are waiting in the printer's queue.

Remarks

Files are stored in a print queue and printed on a first come, first served basis. You can delete your own files from a queue with the 3P DELETE command. You can also assign a priority to your own files in a print queue with the /PRI= parameter of the 3P SET command. A network administrator can delete any user's files from a print queue.

Examples

Example 1: Displaying a list of your files in the print queue for a printer linked to PRN:.

```
3P> QSTAT ↵
```

Example 2: Displaying all files in the print queue for a printer linked to a printer identifier.

```
3P> QSTAT LPT2: /SPOOL=ALL ↵
```

Example 3: Displaying all files in the print queue for a printer that is not linked to a printer identifier from your workstation.

```
3P> QSTAT \\myserver\Laser /SPOOL=ALL ↵
```

Uses

There are several circumstances in which you might use 3P QSTAT.

First, you can use the 3P QSTAT command when you choose a printer. Use the command to see how long the print queue is. If it is long, you might want to use a different printer.

Second, when one of your files is waiting in the print queue, the 3P QSTAT command shows you which print jobs are ahead of yours. This gives you an idea of when your job will be printed.

Third, the 3P QSTAT command lists spool identifiers for files in the print queue. A spool identifier is a number the Print Service assigns to a file when the file is placed in the print queue. You need to know the spool identifier of a file in order to delete a file from a print queue or set special print options for a file.

3P SET

Sets special printing options for a printer.

Format

3P SET [*prnid*:] [/HOLD[=OFF]] [/COPIES=#] [/PRI=#]
[/DEFER[=OFF]] [/RELEASE] [/FORM=#] [/SPOOL=#]

Parameters

prnid

The printer identifier that is linked to the printer for which you want to set options. Use one of the following printer identifiers:

- PRN: or LPT1:
- LPT2:
- LPT3:

If you omit this parameter, options are set for the printer linked to the printer identifier PRN:.

HOLD=OFF	HOLD holds the printing of all print jobs you send to a printer until you enter the 3P UNLINK command or /HOLD=OFF. When you release held files for printing, the files are placed at the bottom of the print queue as though they had just been sent to the printer. Use the /HOLD parameter when you want all the files you send to a printer to be batched and printed together. If you omit this parameter, the state of /HOLD remains unchanged.
COPIES=#	Prints multiple copies of a document. Enter /COPIES, followed by an equal sign (=), followed by the number of copies you want printed. You can print up to 99 copies at one time. If you omit this parameter, # copies remains unchanged. The default is *1*.
PRI=#	The priority you can assign to your own files in a print queue. It can be any number from 1 to 99. *1* is the lowest priority and *99* is the highest priority. If you omit this parameter, the priority is unchanged. The default is *50*.

DEFER=OFF	DEFER defers printing of a file until you release the file for printing with the /RELEASE parameter or /DEFER=OFF. When you defer the printing of a file with the /DEFER parameter, the file maintains its place in the print queue. When you release a deferred file for printing, the file is printed in turn. If you release a deferred file after its place in the queue has passed, it is moved to the top of the queue. If you omit this parameter, the /DEFER state is unchanged.
RELEASE	Releases deferred files for printing.
FORM=#	The number of the form on which you want your file to print. The printer will wait until that form is loaded before it prints your file. If you omit this parameter, your file is printed on form number one.

SPOOL=#	The spool identifier of the file for which you are setting options. A spool identifier is a number 3P assigns to a file when the file is placed in the print queue. Include this parameter if you want to set options for one file. If you omit this parameter, the options you set apply to all files you send to the printer.

NOTE: For the /COPIES, /PRI, /DEFER, and /FORM parameters, you must specify the spool number affected, unless you want to set the parameter for all subsequent files. Compare Examples 3 and 4.

Remarks

You can set one or all of the 3P SET command's options.

The RELEASE parameter only releases files whose printing was deferred with the DEFER parameter. It does not release files whose printing was held with the HOLD parameter.

Use 3P STAT to see the current state of your SET settings.

Examples

Example 1: Holding printing of files.

```
3P> SET LPT2: /HOLD ↵
```

Example 2: Releasing held files for printing.

```
3P> SET LPT2: /HOLD=OFF ↵
```

OR

```
3P> UNLINK LPT2: ↵
```

Example 3: Printing multiple copies of all files that you are sending to the printer. This command does not change the characateristics of files that are already in the printer's queue.

```
3P> SET LPT2: /COPIES=10 ↵
```

Example 4: Setting a high priority for a file.

```
3P> SET LPT2: /PRI=99 /SPOOL=105 ↵
```

Example 5: Deferring printing of a file.

```
3P> SET LPT2: /DEFER /SPOOL=105 ↵
```

Example 6: Releasing a deferred file for printing.

```
3P> SET LPT2: /DEFER=OFF /SPOOL=105 ↵
```

OR

```
3P> SET LPT2: /RELEASE /SPOOL=105↵
```

Example 7: Printing all your files in a printer's queue on a specific form.

```
3P> SET LPT2: /FORM=7 ↵
```

3P STAT

Displays status information about the current logged in users and the shared printers on a server.

Format

3P STAT[US] [*servername*|[*servername*\] *printersharename*] *prnid*:]

Parameters

servername

The three-part name of the server about whose shared printers you want to display information.

If the server is in your own domain and organization, you can omit the domain and organization.

If you omit this parameter, you see status information for all printers on your home server.

printersharename

The printer about which you want to display information.

If the printer is connected to a server other than your home server, you must precede the printer sharename with the name of the server followed by a backslash (\).

If you omit this parameter, the command returns information for all printers on your home server.

prnid	The printer identifier linked to a printer for which you want to display status information. Use one of the following printer identifiers: PRN:, LPT1:, LPT2:, or LPT3:. (PRN: is the same as LPT1:.) You must include the colon (:) If you omit this parameter, the command returns information for all printers on your home server.

Remarks

You can type STAT or STATUS. The 3P STAT command displays the status information for all printers shared on a server or one specific printer.

Examples

Example 1: Displaying status information for all printers shared on a server.

```
3P> STAT \\ourserver ↵
```

Example 2: Displaying status information for all printers on your home server.

```
3P> STAT ↵
```

Example 3: Displaying status information for a shared printer linked to your workstation.

```
3P> STAT LPT2: ↵
```

Example 4: Displaying status information for a specific printer.

```
3P> STAT \\theirserver\Laser ↵
```

3P UNLINK

Ends a link between a printer identifier you designate from your workstation and a shared printer on a server.

Format

3P UNLINK [*prnid*:]

Parameters

prnid

The printer identifer from which you want to unlink a printer. Use one of the following printer identifiers:

- PRN: or LPT1:
- LPT2:
- LPT3:

If you want to unlink a printer linked to the printer identifier PRN:, you can omit this parameter.

Remarks

The 3P UNLINK command ends a link between a printer identifier you use from your workstation and a printer connected to a server. Unlinking a printer identifier makes it available to link to another printer.

When you enter the 3P UNLINK command, files held from printing with the /HOLD parameter of the 3P SET command are released for printing.

NOTE: You can end all your links to printers either by logging out of 3+Share or restarting your workstation.

Examples:

Example 1: Ending a link between a printer and the printer identifier PRN:.

```
3P> UNLINK ↵
```

Example 2: Ending a link between a printer and a printer identifier other than PRN:.

```
3P> UNLINK LPT2: ↵
```

Chapter 10: Command Summary

This chapter summarizes LOGIN, LOGOUT, and 3F, 3N, 3P user commands.

LOGIN [[\\]*username*] [/PASS=*password*]	Identifies you as a registered 3+Share user and allows you access to your home directory.
LOGOUT	Ends your connection 3+ network.
3F	Starts the File Service.
3F DIR [*username*|*servername*] [*sharename*] [/LINK]	Displays information about shared directories.
3F HELP [*commandname*]	Displays information about 3F commands.
3F LINK *driveid*: [*username*|*servername* [\]] [*sharename*] [*path*] [\PASS=*password*] [/NP]	Links a drive identifier on your workstation to a shared directory on a server's disk.
3F LOGIN [[\\]*username*] [/PASS=*password*]	Identifies you as a registered 3+Share user and allows you access to your home directory.
3F LOGOUT	Ends your connection 3+ network.
3F MOD[IFY] *sharename* [/PASS=*password*] [/*newaccess*] [/NP]	Changes the password and access rights for the sharename of a shared directory.
3F SHARE *sharename=path* [/PASS=*password*] [/*access*]	Makes a directory on a server available to users.

3F STAT[US] [*servername*]	Displays status information for shared disks on a server.
3F UNLINK [*driveid:*] [/NP]	Ends a link between a drive identifier on your workstation and a shared directory on the server's disk.
3F UNSHARE *sharename*	Deletes a sharename.
3N	Starts the 3N program.
3N ASSIGN *IBMname*=[\\]*name*	Assigns an IBM-compatible name to represent the three-part name of a server.
3N DIR [*itemtype*] [[\\]*name*]	Lists names of network items -- aliases, domains, groups, members, organizations, servers, or users -- or displays detailed information about a specific item.
3N HELP [*commandname*]	Displays information about 3N commands.
3N LOGIN [[\\]*username*] [/PASS=*password*]	Identifies you as a registered user and allows you access to your home directory.
3N LOGOUT	Ends a connection to 3+ network.
3N MOD[IFY] /PASS=*password*	Adds, changes, or removes your login password.
3N SET [/SERVER=*server*] [/DOMAIN=*domain*] [/ORG=*organization*]	Temporarily resets 3N's default server, domain, or organization.
3N STAT[US]	Displays detailed information about your user name.
3P	Starts the Print Service.

3P DEL[ETE] [*prnid:*] /SPOOL=*#* [/NP]	Deletes a file from a print queue.
3P DIR [*servername*[\]] [\[*printersharename*]] [/LINK]	Lists shared printers or links to printers and directories.
3P HELP [*commandname*]	Displays information about Print Service commands.
3P LINK [*prnid:*] [*servername*[\]]*printersharename* [/PASS=*password*] [/NP]	Established a link between a printer identifier on your workstation and a shared printer on a server.
3P LOGIN [[\\]*username*] [PASS=*password*]	Verifies that you are a registered 3+Share user and allows you access to your home directory.
3P LOGOUT	Ends your connecltion 3+ network.
3P QSTAT [*prnid:**servername*] *printersharename*] [/SPOOL=*#*]	Displays a printer's queue.
3P SET [*PRNID:*] [/HOLD [=OFF]] [/COPIES=*#*] [/PRI=*#*] [SPOOL=*#*] [/DEFER [=OFF]] [/RELEASE] [/FORM=*#*]	Sets special options for a printer.
3P STAT[US] [*servername**printersharename**prnid:*]	Displays status information about the current logged shared printers on the server.
3P UNLINK [*prnid:*]	Ends a link between a printer identifier from your workstation and a shared printer on a server.

Chapter 11: Glossary

This glossary is a summary of terms and concepts used in this guide.

Access Rights — Attributes you assign to a sharename to control how other users access the directory through that sharename.

Administrator — A network user who has access to commands that allow him to set up and manage the network.

Alias — Another name for an item named in the Name Service; typically a short form of the user's name. Aliases must be specified as three-part names when three-part names are required.

Directory — A named logical grouping that contains entries for other directories and files. Network users can share directories with other users.

Domain	A category of an organization that is usually a geographical location or a department of an organization.
Drive Identifier	A single letter (A: through Z:) that can be linked to a directory on a server.
File Service	The software that manages the sharing of directories and disk space on the network.
Home Directory	A directory created for each network user by 3+Share when the user is added to the Name Service.
Linking	Establishing a connection between a drive identifier and a shared directory or a printer identifier and a shared printer.
Name Service	The software that stores the names of, and information about, users and servers.
Network	Servers and workstations with installed network software that are connected by cable to allow communication and sharing of resources.
Organization	The largest category to which a user or server on the network belongs, usually the name of a company.
Password	A word assigned to a user name or a sharename to control access to files. Passwords for user names can be up to twelve characters long. Passwords for sharenames can be up to eight characters long.

Path	What you specify to get from your current directory or a drive's root directory in the DOS directory structure to another directory or file.
Printer Identifier	One of the following to which a shared printer can be linked: PRN: or LPT1:, LPT2:, or LPT3:.
Print Queue	An ordered list of files waiting to be printed.
Print Service	The software that manages shared printers on a server.
Printer Sharename	Users specify a printer sharename when they link to a printer.
Server	A personal computer or 3Server with installed 3+Share server software that manages network resources.
Shared Directory	A directory that can be used by other users. Directories are made shareable with the 3F SHARE command.
Sharename	A name assigned to a directory when it is declared shareable, and used to link to a shared directory.
Spool file	A temporary file on the shared printer's server that stores a file sent for printing.
Spool id	A number assigned by the File Service to identify a file in a print queue.

Subdirectory	A directory that is below another directory in the DOS hierarchal file structure.
Three-part name	The name by which the Name Service knows users, servers, groups, and aliases. Three-part names have the form: Name:Domain:Organization.
3+Share	The server and user software for the 3+ network that consists of the Name, File, and Print Services.
3F	The user interface for 3+Share's File Service.
3N	The user interface for 3+Share's Name Service.
3P	The user interface for 3+Share's Print Service.
Unlinking	Breaking a logical connection between a shared directory and a drive identifier, or between a shared printer and a print identifier.
Users	A category of users who use network resources, but do not manage the network.
Workstation	A personal computer connected to the network with installed user software.

Appendix A: Error Messages

The following messages are returned from the 3+Share client user software:

A value is required

Meaning You have not entered a required parameter on a command.

Action Check the command format and supply the required parameters.

Access denied

Meaning You are trying to link to a private directory (access rights /PRIV) that is currently in use.

Action Try again later.

Alias points to an alias

Meaning A Name Service error occured so that the specified alias now points to a name that is also an alias; it is no longer usable.

Action Delete the alias, and recreate it.

Alias' name doesn't exist

Meaning The name for the alias you are trying to create has been deleted.

Action Delete the alias and recreate it for an existing name. Use 3N DIR to get a listing of all names in the Name Service.

Already shared

Meaning You tried to share a directory that is a home directory of another user.

Action None. You cannot share this directory.

Bad device type

Meaning When issuing a LINK command, you tried to a link to an unidentifiable device type.

Action Try the link again.

Bad DOS path name

Meaning A path is expected within the command issued and the path given is unidentifiable.

Action Check the path and try entering it again.

Bad form type

Meaning You specified a form type, using an illegal value.

Action Specify a valid form type in the range of 1 to 99.

Bad homedir

Meaning You specified an illegal homedir for a 3N ADD command.

Action Correct the homedir name, and try the command again. (This error message is extremely unlikely. If you continue to see it, contact your network administrator.)

Bad name

Meaning You have used an illegal character in a Name Service name.

Action Type the name again, correctly.

Bad or closed session

Meaning The internal tables of the net BIOS are confused.

Action Log out and log in again; or reboot.

Bad password

Meaning You have included an incorrect password with a 3F or 3P link.

Action Re-enter the password.

Bad path

Meaning The path name is invalid.

Action Check the path name and supply again.

Bad printer name

Meaning You specified a printer that is not on the server.

Action Use 3P DIR to display the names of the printers on the server.

Bad queue entry (*Number*)

Meaning You gave a spool id that does not exist. The file may already have been printed.

Action Use 3P QSTAT to get a correct spool id.

Bad request

Meaning The message is caused by a disk error on the server.

Action If recurrent, check the hardware on the server.

Bad sharename

Meaning Bad syntax of a sharename.

Action Use a maximum of eight DOS characters.

Bad short name

Meaning You have used an illegal character when trying to ASSIGN a short name to a three part name.

Action Try the command again using a mamimum of 15 DOS characters (no blanks).

Bad state

Meaning An unexpected situation in MINDS has occurred.

Action Log in again, or reboot.

Bad type

Meaning One of the parameters in a 3P or 3F transaction is bad. (This message should never appear.)

Action Contact your network administrator.

Bad user name

Meaning This might appear when you issue a DIR command.

Action Contact your network administrator.

Bad values

Meaning You tried to change the form type and supplied an illegal value.

Action Supply a value in the range of 1 to 99.

BUF not loaded

Meaning BUF.SYS has not been booted.

Action Check that your CONFIG.SYS file has the correct BUF.SYS file, then reboot.

Cache error

Meaning There was some problem getting information froma Name Service (out of the login cache, or information storage). If the error occurs when logging out, there was a problem getting the user name or setting the cache (it is extremely unlikely that this error message should appear.)

Action Make sure you have the correct version of LGL.SYS in your CONFIG.SYS file. Reboot the workstation and try again.

Can only clear another user's password

Meaning When you try to modify another user's password, you can only clear the existing one; you cannot assign a new password.

Action At the prompt, press **[Return]** to indicate no change;or press **[Esc]**, then **[Return]** to clear the old value.

Cancelled

Meaning You have used the **[Esc]** key to cancel a command.

Action Continue with the next command.

Can't change while printing

Meaning You are trying to change the priority or form type of a file while it is being printed.

Action Let the file print or delete it.

Can't link to someone's homedir

Meaning You are trying to link to a home directory. This is not possible, unless the user has explicitly assigned a sharename to his or her home directory.

Action None. You cannot link to this home directory.

Can't use /HOLD with /SPOOL=num

Meaning Relates to the 3P SET command; /HOLD will not work if you include a spool id.

Action Try the command again, omitting the spool id.

Can't use a pattern

Meaning Wildcard characters are not allowed with the command you issued.

Action Re-issue the command.

Domain already exists

Meaning You are trying to add a domain that is already registered under the specified organization.

Action Use 3N DIR DOMAIN [*organization*] to get a listing of domains for either the specified or default organization.

Domain is remote

Meaning Your domain file has become corrupted.

Action Ask your network administrator to restore your domain.

Domain is remote for alias' name

Meaning Your domain file has become corrupted.

Action Ask your network administrator to restore your domain.

Drive in use

Meaning You tried to link to a drive id that is already linked.

Action Link to another drive id.

Drive not linked

Meaning You are issuing a 3P command using a printer drive identifier that has not been linked.

Action Link the drive identifier.

End of list

Meaning The list is changing at the time you issued a 3P DIR or 3P STAT command.

Action Issue the command again.

Enter printer drive, such as PRN:

Meaning Supply the printer drive id, followed by a colon (:).

Action Supply a printer id, such as PRN: or LPT1:, LPT2:, or LPT3:.

Enter valid DOS id

Meaning A syntax check for DOS drive identifiers.

Action Enter a letter (A through Z) followed by a colon (:).

Enter Yes or No

Meaning You were prompted to answer Y (Yes) or N (No), and entered another value.

Action Answer the prompt with a Y or N.

Error *(Number)*

Meaning Unexpected system error.

Action Call your network administrator.

Error closing connection to Share server

Meaning There was a general failure at the Share server.

Action Make sure the Share server is on-line, and check for general network problems.

Error getting homedir (*specific error message*)

Meaning During login, the Name Service encountered the specific problem while trying to find the user's homedirectory. Look up the specific message for more information.

Action Make sure the Name Service is on line, and make sure the information is correct for the user in question. If possible, follow the recommended action for the specific error. Otherwise, delete the user and recreate them with another homedirectory.

Error getting Mail server address (*specific error message*)

Meaning During login, the Name Service encountered the problem while trying to find the user's homedirectory. Look up the specific message for more information.

Action Make sure the NameService is on line, and make sure the information is correct for the user in question. If possible, follow the recommended action for the specific error. Otherwise, contact your network administrator.

Error getting Mail server name (*Specific error message*)

Meaning During login, the Name Service encountered the specific problem while trying to find the user's Mail server. Look up the specific message for more information.

Action Make sure the Name service is on line, and make sure the information is correct for the user in question. If possible, follow the recommended action for the specific error. Otherwise, contact your network administrator.

Error getting Share server address (*Specific error message*)

Meaning During login, the specified error was encountered while trying to get the Share server address.

Action Look up the specific message and follow the recommended procedure.

Error getting Share server name (*Specific error message*)

Meaning During login, the specified error was encountered while trying to get the Share server name.

Action Look up the specific message and follow the recommended procedure.

Error loading LOGIN.EXE

Meaning The program tried to load LOGIN.EXE and couldn't find it.

Action Make sure that your path is set up so that the program can find LOGIN.EXE.

Error loading LOGOUT.EXE

Meaning The program tried to load LOGOUT.EXE and couldn't find it.

Action Make sure that your path is set up so that the program can find LOGOUT.EXE.

Error transmitting to Share server

Meaning There was a problem when sending a request to the Share server.

Action Check to make sure the Share server is on line, and look for general network problems.

File is being spooled

Meaning You are trying to change information about a file while it is being spooled.

Action Wait until the file has been spooled, then try again.

General failure

Meaning The message is caused by a disk error on the server.

Action If recurrent, check the hardware on the server.

Get machine name filled

Meaning There is some inconsistency between the MS-DOS Redirector and the 3+ software.

Action Logout and reboot.

IDP not loaded

Meaning The IDP driver is required.

Action Check the you have the correct IDP driver in your CONFIG.SYS file .

In use

Meaning You are trying to delete a directory that is linked.

Action Unlink the directory, then try the command again.

Inadequate capability

Meaning You need to be an administrator to perform the operation you are attempting.

Action Ask your network administrator.

Incorrect password

Meaning The password you specified is incorrect.

Action Check your spelling and log in again.

Indirect error

Meaning Unexpected Name Service error. (This error is unlikely to occur.)

Action Contact your network administrator.

Internal Error

Meaning Unexpected inconsistency in the software.

Action Try rebooting; then re-log in.

Invalid domain

Meaning You have used illegal characters when specifying the domain.

Action Check the spelling and retype the domain.

Invalid name

Meaning You have used illegal characters when specifying the name.

Action Check the spelling and retype the name.

Invalid organization

Meaning You have used illegal characters when specifying the organization.

Action Check the spelling and retype the name.

Invalid SMB command

Meaning Unexpected internal error.

Action Contact your network administrator.

LGL not loaded

Meaning In order to run 3N, you must load the MINDS LGL driver (LGL.SYS).

Action Load LGL.SYS according to the instructions in the *3+Share Administrator's Guide.*

Login name not found

Meaning This message indicates that a user has been deleted from the Name Service while still logged in, or the client-side login library has been corrupted.

Action Try logging in. If the login is succesful, all is well. If not, try rebooting, and logging in. If this is not successful, have the network administrator check the Name Service and recreate you as a user.

Mail error (*Number*)

Meaning The mail server returned an unexpected error.

Action Note the error number, and contact your network administrator for help.

Max server links

Meaning The server is handling the maximum number of sessions possible.

Action Unlink a directory or printer that you are not currently using, then try the link again.

Max short name length is 15

Meaning Short names can have up to 15 characters. You tried to ASSIGN a name with more than 15 characters.

Action Try the command agains using a shorter name.

Must be a legal DOS directory name

Meaning The homedir must contain only legal DOS characters (no embedded spaces, etc.)

Action Re-enter a legal DOS name.

Must be a valid DOS drive id, such as C:

Meaning 3N ADD USER prompts you for a homedir and drive id. You can enter any valid letter followed by a colon.

Action Check the CONFIG.SYS file entry "last drive=n" to find out what drive ids are valid. Re-enter the valid id.

Must be Admin

Meaning You have tried to use a command that is restricted to users with admininistrator status.

Action Log in as Admin, or ask a user with administrator status to complete the command for you.

Must be an Admin or a Server user

Meaning To issue this command you must be an administrator or a user logged in as the server.

Action Log in again, as administrator or server user, or ask a user with Admin status to complete the command for you.

Must be Server user

Meaning You must be logged in using the server name.

Action Log out, then log in as the server user, or ask a user with Admin status tp complete the information for you.

Must supply a printer sharename

Meaning The command requires that you include a printer sharename.

Action Supply a printer sharename.

Name error

Meaning Unexpected Name Service error. (This error is unlikely to occur.)

Action Contact your network administrator.

Name not found

Meaning The name included in the command does not exist in the clearinghouse.

Action Check that the name you are entering is correct, then try again with the correct name.

Name server not responding

Meaning Trying to get information about a user or server from the Name server and the server is not responding.

Action Make sure that the Name server is working. Try the command again.

Need \ before sharename

Meaning Some unidentifiable character precedes the sharename.

Action Re-enter the sharename.

Network error

Meaning The network may be unterminated; something may be wrong with the IE ; the drivers may be out of sync.

Action Make sure that the network is intact; then reboot and log in, as needed; or consult your network administrator.

No homedir

Meaning Due to an internal error the Name Service has "lost" the homedir entry for the user.

Action Consult your network administrator.

No share access

Meaning You tried to share a directory that belongs to another user and the access right is not /SHARE.

Action The owner of the directory has to modify the sharename of the directory so that it has /SHARE access.

No such domain

Meaning The domain you typed doesn't exist within the organization you specified.

Action Check your spelling; if it seems to be correct, use 3N DIR DOMAIN to get a listing of domains resgistered in the Name service.

No such domain or organization for alias' name

Meaning The domain and organization for the specified alias have been deleted.

Action Consult your network administrator.

No such name

Meaning The name you typed doesn't exist within the domain you specified.

Action Check your spelling; if it seems to be correct, use 3N DIR to get a listing of names registered in the Name Service.

No such organization

Meaning The organization you typed doesn't exist.

Action Check your spelling; if it seems to be correct, use 3N DIR ORGANIZATION to get a listing of organizations resgistered in the Name service.

No type

Meaning There is a user or server name in the Name Service that has not been assigned the primary property "type".

Action Consult your network administrator.

No user logged in

Meaning You have tried to log out without being logged in.

Action No action is necessary.

Not a server

Meaning The name supplied is not a server name.

Action Try again with the correct server name.

(*Three part name*) not a user or server

Meaning You have tried to login using a name that is incorrect.

Action Try the operation again with a correct login name.

Not enough memory

Meaning Not enough memory to run 3N.

Action Add more memory or cut down on the number of files that load and stay resident.

Not owner

Meaning You are trying to modify or unshare a directory owned by another person.

Action None. You cannot modify or unshare this directory.

Nothing to set

Meaning You have entered a set command with no options.

Action Repeat the command, supplying the options you want to set.

Number of copies must be 1-99

Meaning The priority range is 1-99.

Action Supply a priority within this range.

Object is a homedir

Meaning You cannot unshare a home directory.

Action None.

ON or OFF

Meaning The only options you can supply are either ON or OFF.

Action Supply the desired option.

Password required

Meaning To do the link, you need to supply a password.

Action Supply the password.

Password too large

Meaning The password entered has too many characters. Login passwords can have up to 12 characters, and 3N and 3P passwords can have up to 8 characters.

Action Enter the password again with the correct number of characters.

Path too big

Meaning Path given is too big.

Action Re-enter path.

Pattern not allowed

Meaning The command issued cannot include a wild character (*).

Action Omit the asterisk.

Please log in first

Meaning You must log in to the network before you can issue 3F or 3P commands.

Action Log in.

Please log in first OS error

Meaning The Name Service has returned an unexpected error.

Action Use 3N DIR to make sure the domain has not been corrupted. If it has, restore from a backup. Or consult your network administrator.

Printer not found

Meaning You specified a printername of a printer that is not on the server.

Action Specify a valid printername.

PRO not loaded

Meaning PRO.SYS has not been booted.

Action Check that your CONFIG.SYS file has a PRO.SYS entry.

Queue is empty

Meaning You are trying to move or delete entries on a queue that is empty.

Action Use 3P QSTAT to verify that the entries are in the queue, then retry the operation.

Queues must be on same server

Meaning You are only allowed to move queues that are on the same server.

Action Re-enter the command.

Queue not empty

Meaning You are trying to unshare a printer while some files are still waiting to be printed.

Action Wait till all the files have been printed, or delete the files from the print queue, then try the command again.

Read fault

Meaning The message is caused by a disk error on the server.

Action If recurrent, check the hardware on the server.

Redir error (Number)

Meaning DOS error.

Action Refer to DOS manual.

Redirector not installed

Meaning You must have the MS-DOS Redirector loaded in order to 3N ADD, DEL, or MOD a user. These commands must talk to the Share server, and need to Redirector to do so.

Action Load the MS-DOS Redirector, following the instructions in the *3+Share Administrator's Guide.* Try the command again.

Redirector not loaded

Meaning The Microsoft redirector has to be fully loaded to run 3F or 3P.

Action Load the Redirector (DOS 3.1), following the instructions in the *3+Share Administrator's Guide.* Try the command again.

Secondary property (*Number*) not found

Meaning When you add or modify a primary property, you can include a secondary property. This messge indicates that you added a secondary property cannot be found.

Action Modify the primary property to include correct secondary property. Use DIR PROP (Return) to list all possible properties and their numbers.

Sector not found

Meaning The message is caused by a disk error on the server.

Action If recurrent, check the hardware on the server.

Seek error

Meaning The message is caused by a disk error on the server.

Action If recurrent, check the hardware on the server.

Server error

Meaning An unexpected error has occured in the server.

Action Call your network administrator.

Server not responding

Meaning There is a timeout in the Name server.

Action Check that the Name server is running, then try the command again. Log in again, if necessary.

Share server not responding

Meaning Indicates a variety of possible problems with Share server.

Action Make sure the Share server is on line, and that there is no problem with the network in general.

Sharename already in use

Meaning The sharename you chose is already in use.

Action Choose another name.

Sharename missing

Meaning Syntax error.

Action Refer to the *3+ Share User or Administrator's Guide* for correct syntax.

Sharename not found

Meaning You are trying to modify or share a directory that does not exist.

Action Check that you are using the correct sharename and try the command again.

Sharename too big

Meaning The sharename you are assigning has more than the maximum 8 characters allowed.

Action Re-enter a smaller sharename.

Short name already in use

Meaning You have tried to ASSIGN a short name that has already been assigned or is already in use.

Action Try the command again, using another short name.

Source and dest queue the same

Meaning You are asking to move one queue from one printer to the same printer.

Action Re-enter the command.

Spool id must be 0 to 32000

Meaning Syntax check for the /Spool= parameter.

Action Provide a spool id within the range 0 to 32000.

Too busy

Meaning The Name server has too many simultaneous requests.

Action Wait 30 seconds and try the operation again.

Too many redirections

Meaning The NET BIOS configuration limits the number of links you can do.

Action Consult your network administrator.

Too many sessions

Meaning The NET BIOS session limit has been exceeded.

Action Consult your network administrator.

Transmission failed

Meaning The network is down.

Action Check with the network administrator.

Type is /PRIV, /R, /W, /RW, /RWC, /WC, or /SHAR

Meaning You should supply one of the type listed above, including the slash (/).

Action Re-enter the correct type.

Unknown command

Meaning Message is caused by a disk error on the server.

Action If recurrent, check the hardware on the server.

Unknown command *(Specific string)*

Meaning The command issued was not a defined command.

Action Re-issue the command.

Unknown media type

Meaning Message is caused by a disk error on the server.

Action If recurrent, check the hardware on the server.

Unknown type

Meaning You have specified a type other than user or server; those are the only correct choices.

Action Try the command again with one of the correct types.

Unknown unit

Meaning The message is caused by a disk error on the server.

Action If recurrent, check the hardware on the server.

Unknown value

Meaning Unidentifiable syntax or field in a command line prompt.

Action Refer to the *3+ Share User or Administrator's Guide* for the correct syntax.

Use drive id

Meaning If you linked using a drive id, you need to unlink with a drive id.

Action Issue the UNLINK command again, using a drive id.

User name required

Meaning You must supply a user name for this command.

Action Supply a user name.

User not on server

Meaning The path name you specified is on a server that does not contain your home directory.

Action Share the directory on a server that contains your home directory.

Value entered is too big

Meaning The value entered at the prompt was larger than expected or allowed.

Action Re-enter the correct value.

Value is required

Meaning You must include a value.

Action Enter the correct value and press **[Return]**. Press **[Esc]** to cancel the command.

Write fault

Meaning The message is caused by a disk error on the server.

Action If recurrent, check the hardware on the server.

Write protected

Meaning The message is caused by a disk error on the server.

Action If recurrent, check the hardware on the server.

Appendix B: EtherPath

EtherPath lets you access EtherSeries volumes stored on 2.2 and 2.4 EtherSeries servers from a 3+ workstation. This allows EtherSeries and 3+ to coexist on the same Ethernet and a user to concurrently access EtherSeries volumes and 3+ directories .

With EtherPath, you can use 3+ servers and services with 3+ software commands. You can also use EtherSeries servers and services with EtherSeries software commands. However, you *cannot* mix and match the two software programs and commands. However, you can, for example, include both EtherSeries and 3+ commands in the same BAT file, such as on AUTOEXEC.BAT.

NOTE: Do not mix EtherSeries and 3+ commands. Use EtherSeries commands when you work with EtherSeries servers and 3+ commands when you work with 3+ servers.

EtherPath is an important migration aid because it gives you access to both 3+ and EtherSeries programs, files and features. You can run EtherSeries applications until an appropriate cutover time and then copy the files from an EtherSeries volume to a 3+ directory. All the while you can use 3+ for new applications and for previously converted applications.

If your network has servers that are running on 2.2 or 2.4 software, your network administrator will modify your startup diskette or your startup file on your hard disk so that you can use EtherPath to access both EtherSeries and 3+ software programs.

Why EtherPath is Needed

EtherSeries network protocols are imbedded in the network application and a network driver called ENET.SYS. 3+ uses a standard set of protocols called MINDS. The two protocols are mutually exclusive since each thinks it has total control of the Ethernet connection. Therefore, to run EtherSeries software with 3+ some adaptation must take place. EtherPath provides that adaptation through the driver, ENET.SYS, which is added to the MINDS protocol interface on a 3+ workstation or concurrent server.

Installing EtherPath

To use the EtherPath program to access both EtherSeries and 3+ servers and services, your workstation startup diskette must contain the file ENET.SYS. The CONFIG .SYS file on your startup diskette must contain a line that loads the ENET.SYS during the bootup sequence, for example: device = ENET.SYS. MINDSDRV must also be specified in the RUN MINDS line of the AUTOEXEC.BAT file.

In most cases, your network administrator will set up your startup diskette and tailor the files on the startup diskette accordingly. If you wish to create or modify your own startup diskette or volume, refer to the chapter "Setting Up Users" in the *3+Share Administrators Guide.*

EtherSeries versus 3+

There are several important distinctions between 3+ and EtherSeries software, and it is important to know and understand these differences to take advantage of EtherPath to make use of both programs. The major differences, listed below, are described in the following paragraphs.

- Number of drive indentifiers
- EtherSeries and 3+ program organization
- Volumes versus directories
- How things are named
- New commands in 3+

Drive Identifiers

EtherSeries only provides four DOS drive identifiers in addition to the physical drives on your personal computer. 3+ can provide up to 26 drive identifiers (A -Z). The actual number of drive identifiers available to you is dependent upon the LAST DRIVE parameter specification in your CONFIG.SYS file. The CONFIG.SYS file is located on your workstation startup diskette or hard disk startup volume, and is set up by your network administrator.

NOTE: If a conflict on disk drive designations occurs, the 3+ designation takes precedence over the EtherSeries' designation. In other words, if the same driveid is assigned via both 3+ and EtherSeries, the 3+ use will override until it is unlinked, at which time the EtherSeries assignment is in effect.

EtherSeries and 3+ Software Programs

EtherSeries 2.4 is divided into two required software programs: EtherShare which manages file access and names of users, servers, and volumes; and a separate program, EtherPrint, which manages printer access and printing operations. 3+Share is divided into three services: the Name Service, the File Service, and the Print Service. The print program has been incorporated into the 3+Share product. EtherShare features, such as creating users and linking to network drivers have been greatly expanded and divided between the two services, Name and File.

Volumes versus Directories

EtherShare stores information in volumes. 3+Share File Service stores information in directories. A directory is not a one-for-one replacement for a volume, however. A volume is a fixed amount of storage space on an EtherSeries network server hard disk; not so for a 3+ directory. There is no defined space for 3+ directory files; storage space is not allocated or limited in advance. Directory files are dynamically stored and retrieved as needed from the available pool of hard disk storage space on a 3+ network server.

Although volumes do not equal directories, you may find it useful initially to equate the two if you are used to working with a 2.4 EtherSeries network. In EtherSeries, you store your files in volumes. In 3+, you store your files in a hierarchy of directories starting at your home directory. Your network administrator can exchange the contents of volumes with the contents of directories on a one-for-one basis.

A directory managed by the 3+Share File Service is a DOS directory and a part of the hierarchial file structure of the disk where it resides. A directory does not have a password or an access type as do volumes in EtherShare. In the File Service, passwords and access rights are assigned to the sharenames of shared directories. Thus, the closest approximation to an EtherSeries volume in the 3+ File Service is a directory and one of its sharenames.

Naming Conventions

The naming scheme is different between EtherSeries 2.4 and 3+ software. In EtherSeries software, each network server keeps track of its own users. In 3+Share software, the Name Service keeps track of all users known to the network.

Names of network components like users, servers, printers, and volumes/directories are set up differently in the two software programs. EtherSeries names are local to EtherSeries (there is no central registry for names). Server names and printer names are created using EtherShare and EtherPrint adminstrative software programs. User names are created using the ES UCREATE command. Volume names are created using the ES CREATE command.

3+ user and server names are created, registered in, and maintained by the Name Service using 3N program commands. Printer names are created, registered in, and maintained by the Print Service using 3P. Directory names are created using the DOS MKDIR command, and are registered, maintained and assigned shareable (access) by the File Service using 3F.

Names in the 3+Share Name Service are composed of three standard parts: name, domain, and organization. This is a change from single-part names in EtherShare. The 3+Share Name Service 's three level hierarchy takes advantage of the 3+ capability to communicate between networks and to support remote personal computer users. Typically, this means organizing names into domains (departments or locations of an organization) and domains into organizations (a network location). With the new rules for forming names in 3+, you can use your complete name as well as a shortened version of your name , or even an alias.

New Commands

In addition to the differences already noted, 3+Share has many new commands that were not available in EtherShare. For information on all 3+Share commands, refer to Chapters 6-9 of this guide.

Appendix C: Copying Files Using XCOPY

XCOPY is a general purpose file copy utility. It is similar to the DOS COPY command, but provides added flexibility. You can request date-sensitive copy, configuration prompts, and dry-runs. You can copy files from many directories in a directory tree, and you can copy entire directory trees.

XCOPY runs on an IBM PC or compatible computer with 256K memory and DOS version 2.1 or higher.

You can run XCOPY from the distribution disk or from a backup copy. You can also install XCOPY on a fixed disk or on a network volume or directory. To install XCOPY, copy the XCOPY.EXE program file onto the desired location using the DOS COPY command.

XCOPY Command Format

XCOPY fromspec [tospec] [/s] [/c] [/n] [/d] [/h] [/f=file]

Parameters

fromspec	Source file specification of files to copy. You can include drive and path or allow them to default to the current drive and path. You can include "*" and "?" wildcards. For more information on DOS filespecs, please refer to your DOS manual.
tospec	Destination drive and path. Do not include a file name and extension; XCOPY does not rename files as it copies. If you omit this parameter, XCOPY will copy to the current default drive and directory.
/s	Include files in subdirectories below fromspec.
/c	Ask for confirmation of each file to copy.
/n	No copy -- XCOPY just displays what it would do in a normal case ("dry run").
/d	Check dates and only copy if source file datetime is newer than the destination file datetime or if the file does not exist in the destination directory. If the source file datetime is older than the destination file datetime, the file will not be copied. (Multiple diskette output disabled with this option).
/h	Display help -- don't process anything.
/f=file	Route output to a report file as well as display onscreen. Character device designators such as /prn work as expected. If the report file is in the source file path, it will be incorrectly copied.

Remarks

The parameters /s, /c, /d, /n, /h, and /f=file can be concatenated (linked together) or separated. The /f=file parameter must be the last or only parameter in a group. For example, the following are all valid and work as expected:

```
XCOPY *.* a: /s/d
XCOPY *.* a: /sd
XCOPY *.* a: /s/d/n
XCOPY *.* a: /s/f=report
XCOPY *.* a: /sf=report /d
```

Copying Directory Structures

When you use the /s parameter, you create or overwrite files in a directory structure which mirrors the "from" directory structure. The starting point of the target structure may have a different name than that of the source structure, but the subdirectory names will be identical. XCOPY will create subdirectories in the target structure if they do not already exist. For example, assume you have a working disk drive C: and a finance department archive disk drive D: and the directory structures look like this:

```
C:\money\models
C:\money\models\eng
C:\money\models\mfg
C:\money\models\fin

D:\fin
D:\fin\pvt
D:\fin\mfg
```

If you used the following command:

```
XCOPY C:\money\models\*.wks D:\fin /s
```

then XCOPY would create the following new directories on D:

```
D:\fin\eng
D:\fin\fin
```

The file C:\money\models\summ.wks would be copied to D:\fin\summ.wks. The file C:\money\models\eng\proj.wks would be copied to D:\fin\eng\proj.wks.

To Cancel a Copy

XCOPY scans for the Escape character entered from the keyboard during copy operations. If you enter **[Esc],** XCOPY will cancel the copy operation at the end of the current file. You may also cancel a copy by typing **[Esc]** in response to the prompt **Copy [filename]? (Y/N) >.**

Multiple Diskette Output

If your output volume is a diskette, you do not use the /d option, and your output volume fills up, XCOPY will give you the option to insert another diskette and continue copying. When you do this, the directory structures on the multiple output diskettes may appear to be incomplete. For example, assume your source directory is DIRA and contains subdirectories DIRA\SUB1, DIRA\SUB2, and DIRA\SUB3. If it takes two output diskettes to hold all the files, then you could end up with \SUB1 and \SUB21 on the first diskette and \SUB2 and \SUB3 on the second diskette. The files from DIRA\SUB2 end up split between the two output diskettes. When you restore from multiple diskettes, you can use the same command for each one and reestablish the original directory structure on a large output fixed disk.

Restrictions

1. XCOPY clears the DOS "F1" and "F3" memory. After running XCOPY,these function keys do not recall commands issued prior to the XCOPY command.

2. XCOPY does not enable output verification. If you want verification,use the DOS VERIFY command. For example:

```
C> verify on
C> XCOPYc:\mypath\*.datd:\yourpath/s
C> verify off
```

3. XCOPY creates subdirectories beneath the target directory, as necessary, to mirror the source directory tree structure. Selective copies with wildcard characters and multiple diskette output sequences can result in the creation of empty subdirectories to provide the appropriate directory structure. If you try to copy to a very full diskette or network volume, XCOPY might create one or more subdirectories before discovering that the next file it needs to copy will not fit. When this happens, XCOPY does not remove the subdirectories that it created. You can remove them with the DOS RMDIR command.

4. Typing commands "ahead" of XCOPY while it is running can cause unpredictable results. You can, however, execute several XCOPY commands from within a .BAT batch file.

Appendix D: Creating Batch Files

Batch files are special DOS files that contain DOS commands. Batch files are identified by their extension, ".BAT". When you enter the name of a batch file at a DOS prompt, DOS reads each command from the named batch file and performs it. Batch files let you perform a long series of commands with a single command, the name of the batch file.

The following discussion tells you how to set up batch files. For a complete discussion of batch files in general, see your DOS manual.

Creating and Editing

A batch file is a text file. You create a batch file in the same way you would create any other text file using the editor of your choice. If you have an existing batch file, you can edit it with your editor just as you would edit any other text file.

The Prototype Batch File

The following describes the contents of a prototype batch file. This prototype performs all the required commands to log in, link to directories, link to a printer, and then run an application program. You can tailor the prototype to meet your specific requirements.

The tasks that the prototype batch file perform are outlined below. Following that, each step and the commands required to perform it are explained in more detail.

1. Log in to the network.
2. Link to the required directories.
3. Link to a printer.
4. Run the application program.
5. Finish up.

Step 1: Log in to the Network

You use the LOGIN command to log in to the network. If you omit the /PASS=password parameter from the LOGIN command, you are prompted for the password when the batch file is used. This avoids the problem of revealing passwords in batch files. For example, the following LOGIN command logs in the user Fred Jones (assuming that Fred's domain and organization are the same as the Name Service default domain and organization):

```
LOGIN Fred Jones
```

You must substitute your name for "Fred Jones" in the above command. There is no prompt for the name since it is supplied. You can also use the prompted form of the LOGIN command and not supply your name, in which case you will be prompted for both name and password. For more information on the 3N LOGIN command, see Chapter 8.

NOTE: The login step may be omitted if you are already logged in to the network.

Step 2: Link to Directories as Required

This step links drive identifiers to the directories required to run the application program and is included in almost every batch file designed for use with 3+Share. You use the 3F LINK command to perform this step. Additionally, you may need to use the DOS PATH and CHDIR commands to set up a particular program.

The following 3F LINK commands link to the APPS directory and home directory:

```
3F LINK D: \\SERVER1\APPS
3F LINK E:
```

For more information on the 3F LINK command, see Chapter 7. For information on the DOS PATH and CHDIR commands, see your DOS manual.

Step 3: Link to a Printer

This step is required only if you need to print on a network printer. You use the 3P LINK command to link to a printer.

For example, the following 3P LINK command links a network managed printer, PRINTER, with your local printer identifier LPT1:

```
3P LINK LPT1: \\SERVER1\PRINTER
```

You can link to as many as three printers at once if required. For more information on using the 3P LINK command, see Chapter 9.

Step 4: Run an Application Program

This step is included in almost every batch file designed for use with 3+Share.

For example, suppose the APPS directory linked to drive D: contains an application program called **P**. You can run the P program by entering the following command in the batch file:

```
D:P
```

As in normal DOS operations, simply enter the program's name, preceded by a drive identifier if the program is on a drive other than the current drive. For instructions on running programs in general, see your DOS manual. For instructions on running a particular application program, see the documentation supplied with that application.

Step 5: Finish Up

After you stop using the application program started in Step 4, any remaining commands in the batch file are performed. You can place commands here that ensure an orderly exit from the network. For example, with the following commands you can unlink from the directories and the printer, and then log out of the network.

```
3P UNLINK LPT1:
3F UNLINK E:
3F UNLINK D:
3N LOGOUT
```

NOTE: Logout may be omitted if you normally remain logged in to the network.

Prototype Batch File Example

The prototype batch file is shown below:

```
LOGIN Fred Jones
3F LINK D: \\SERVER1\APPS
3F LINK E:
3P LINK LPT1: \\SERVER1\PRINTER
D:P
3P UNLINK LPT1:
3F UNLINK E:;UNLINK D:
LOGOUT
```

By creating variations of the prototype batch file, you can create a batch file to start almost any application program. The advantage of batch files is that DOS automatically peforms the routine tasks required for an application to run successfully. By recording the required procedure in the batch file, you do not need to repeat the same set of commands every time you want to log into the network and run a particular application.

You can use batch files to perform tasks other than running application programs. Whenever you need to enter the same set of commands more than once, you might want to place the commands in a batch file. Thereafter, you only need to enter the batch file name. For example, if your regular backup procedure requires more than one or two commands, you could enter the commands in a batch file and then run the batch file when you want to backup. See your DOS manual for a complete description fo the capabilities of batch file processing.

Appendix E: Customer Support Information

This section tells you how to do the following:

- Confirm that a problem exists before you call your Dealer
- Repair service procedures
- Call your Dealer
- Obtain support services from 3Com

Before You Call Your Dealer

Follow the suggestions below before you call your Dealer.

1. If you are having trouble installing hardware or software on your network, see the guide supplied with the hardware or software, and repeat the installation procedures. Run any tests that are described to verify the current installation.

2. Check the *3Com Compatibility and Support Guide* to assure that the various components of your network are compatible and you have a supported configuration.

3. Check the cables and connectors to see that they have been attached correctly.

4. If the problem occurs on a single workstation, switch it with a known working unit and see if the problem persists.

5. If the problem continues, call your Dealer or the person who sold you the network for assistance.

Calling Your Dealer

You should have the following information at hand before you talk to your Dealer or manufacturer's representative.

- A complete description of the problem, including the following: the nature of the problem, duration of the problem, when the problem occurs, the components with which the problem occurs, and whether the problem still occurs if the application is used off the network.

- An accurate list of the 3Com equipment model and serial numbers, and 3Com software product part numbers including the software revision levels. Include the date you purchased the products.

- An accurate list of your equipment types and model numbers for personal computers, monitors, fixed disks, printers, and so on; and a list of the third party software you are using, including DOS level and software revision level.

- A list of any changes that have been made to your system configuration prior to your problem, including hardware changes, operating system software or application software changes, or system administration procedures.

If your Dealer is unable to answer your questions, he or she will call 3Com directly for further assistance.

Repair Service (RMA) Procedure

All returns for repair must receive an RMA (Return Materials Authorization) number. To obtain this number and to inquire about service charges, call (415) 960-9330. When you call, please have the following information:

- Company name
- Product name
- Name and phone number of technical contact
- Shipping address
- Serial number
- Failure symptoms with diagnostic error messages

Warranty repairs must be accompanied by dated proof of purchase.

Payment is by COD. Before shipping completed repairs, 3Com will call with the date of delivery and exact amount due. Terms are available only if special authorization has been arranged.

Incoming items are tested carefully. Occasionally, when a hardware error cannot be duplicated, the unit will be returned "No Problem Found." You will be charged for the testing and handling in this case. This charge also applies to warranty items.

Shipping Information

When you return an item for repair, ship the item as follows:

1. Package carefully. Use the original container if possible, especially for large units such as 3Server. EtherLink and EtherLink Plus boards should be wrapped in an anti-static bag. Do not pack them directly in popcorn. Do not return connectors, manuals, or cables.

2. Mark the RMA number clearly on the *outside* of the shipping container.

3. Ship to:
   3Com Corporation
   1365 Shorebird Way
   Mountain View, CA 94043

Turnaround Time

Factory repairs take five working days and are returned by second day air mail. With weekends and combined shipping time, you can expect your equipment to be gone for two weeks. A 24-hour turnaround option is available for an expedite charge.

Authorized Service Centers

Local Authorized Service Centers (ASC) are a good source of quality repair and spare parts. Often, they are able to respond more quickly than the factory and can provide on-site services. If your dealer is not a 3Com Authorized Service Center, contact 3Com Customer Relations Department at (415) 960-9330 to locate the ASC nearest you.

How To Secure Support Service

Your Authorized 3Com Dealer is qualified to provide network planning, installation, hardware maintenance, applications training, and support services. Your dealer is uniquely qualified to provide on-site services for products from multiple vendors.

However, should you wish to augment your dealer services with in-depth expertise on the 3Com components in your network, 3Com offers a variety of support services for purchase. These services include the following:

- Technical Bulletin Subscription Service
- On-Line Bulletin Board Service
- Software Update Services
- Technical Assistance via Telephone (Annual contract or per incident)
- Annual Contract covering all the above services
- Consulting Services to assist in Programmatic Interface to 3Com products
- Return to Factory Repair Services
- Spare Parts and Kits for large installations performing in-house repairs

Information about these programs and services is available from your Authorized 3Com Dealer or direct from 3Com. Should your Dealer be unable to assist you, please contact 3Com Customer Relations Department at (415) 960-9330 for information.

3Com is committed to assuring your satisfaction with our products and assisting our dealers. If, for any reason, you are dissatisfied with the support programs available to you, please write to us at the following address:

3Com Corporation
Customer Services
1365 Shorebird Way
Mt. View, CA 94043
Attn: Customer Relations

Index

D

E

O

P

R

S

3Com Corporation
1365 Shorebird Way
P.O. Box 7390
Mountain View, CA 94039

Printed in USA