◖Data General

Customer Documentation

NetWare® for AViiON® Systems: User Basics

069–000486–01

A V i i O N®
P R O D U C T   L I N E

NetWare® for AViiON® Systems: User Basics

069–000486–01

For the latest enhancements, cautions, documentation changes, and other information on this product, please see the Release Notice (085-series) and / or Update Notice (078-series) supplied with the software.

Notice

NetWare® for AViiON® Systems: User Basics
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DG/UX 5.4.1 or 5.4.2
NetWare® 3.11 for AViiON®
Systems, Rev. 2.00

This manual includes extensive changes from the previous revision; therefore, we have not used change bars.

Table of Contents

How to use this manual

This manual is for beginning network users who are running applications on a NetWare® for AViiON® Systems network. It explains basic NetWare concepts and tasks for working on a network.

You, the network user, should be familiar with the personal computer you will be using. If you have an IBM PC-type workstation, you should also be familiar with basic Disk Operating System (DOS) commands.

The *User Basics* manual is divided into ten sections:

• Introduction to NetWare

• Using menu and command line utilities

• Booting up

• Logging in and out

• Creating your login script

• Mapping your drives

• Sending messages

• Managing files and directories

• Printing

Some troubleshooting hints are covered under "What if ..." at the end of each of module.

The last section lists some common error messages and how to respond to them.

Other Reference Material

This manual does not explain how to perform every network task or how to use every network command. For complete explanations of tasks and commands, refer to the following related manuals.

NetWare® for AViiON® Systems: Utilities (069-000484)

NetWare® for AViiON® Systems: Concepts (069-000483)

Typeface Conventions

In all our examples, we use

THIS TYPEFACE TO INDICATE ENTRIES THAT YOU SHOULD TYPE FROM YOUR KEYBOARD.

This typeface to indicate variable names which you must type in accordance with your system's set up.

`This typeface to indicate system responses and screen displays.`

<Enter> in command lines to indicate when you should press the Enter key (the Newline key on some systems).

<Alt> to indicate a key, or keys, that you should press. This example denotes the Alt key.

End of Chapter

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Introduction to NetWare for AViiON Systems

If your personal computer is part of a NetWare network, it is connected to other computers and peripherals. This lets you share files and resources and communicate with others in your workgroup.

This introduction answers the following questions about using a NetWare network.

- What is a NetWare network?

- How does a network operate?

- How are files stored on a network?

- Who can use the network?

- How is information protected on a network?

What is a NetWare network?

A NetWare network is a group of computers that are linked together so that network users, working on different personal computers, can communicate with each other via the network. The computers on the network can also share the server's resources, such as network data files, common applications software, mass storage on hard disk drives, high-speed communications ports, and a variety of printers.

How does a network operate?

To understand how a NetWare network operates, you should know about the principal components of a network: the workstations, the file server, and the software that runs on each — DOS, OS/2, or the Macintosh operating system on the workstations, and the DG/UX™ operating system on the file server. NetWare for AViiON Systems runs as a set of processes on the AViiON server.

A simple network

DOS Workstation   NetWare File Server   DOS Workstations

Beyond these basic components, a NetWare network can incorporate mainframe computers, backup devices, modem pools, and different types of servers (such as print servers and archive servers).

The network workstations

Workstations are personal computers on which network users do their work. Workstations are used much like ordinary non-networked personal computers. Each workstation processes its own files and uses its own copy of DOS, or whatever operating system it runs.

The network file server and NetWare

NetWare runs as a set of processes on DG/UX within the AViiON server. NetWare coordinates all of the workstations and regulates the way they share network resources by managing the use of printers, controlling access to data files, and making applications software available to all network users.

Network files are stored on the AViiON system, instead of on diskettes or hard disks in individual workstations.

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The NetWare workstation shell

Workstations communicate with the file server with two pieces of software, the shell and a protocol. The shell and protocol must be loaded into a workstation before it can access the network. The NetWare shell and protocol are two DOS executable files:

- NETX shell

- IPX protocol

NETX directs all the commands you enter at your workstation to the proper operating system. The shell decides if the command is a workstation task, to be directed to DOS, or a network task, to be directed to NetWare. If the request is a workstation task, such as using the DOS DIR command to list the files in a local directory, the request is sent to DOS. If the request is a network task, such as printing a job on a network printer or gaining access to a network directory, it is sent to NetWare. The shell sends the request to the appropriate operating system, somewhat like a railroad track switch routes trains to their proper destination.

The protocol part of the workstation software is loaded by the IPX file. IPX controls transmissions between the shell and the network by sending packets of data to the file server and, in some cases, directly to other network workstations. IPX controls the flow of information on the network somewhat like a dispatcher orchestrates the arrival and departure of trains at a railroad yard.

If you are using ODI, your workstation uses two additional files: the Link Support Layer (LSL) file and a driver file. The LSL allows a workstation to communicate using several protocols. The driver communicates directly with the LAN board.

How are files stored on a network?

The AViiON server running NetWare for AViiON Systems stores all network information within its file system. The system for storing network information is called the directory structure.

Information is organized in units called files. For example, a file might be a letter or a list of addresses. When you save information in a file, you give the file a unique name so you can retrieve it later, just as you do when using DOS.

Within the AViiON file system, NetWare files are organized to make them easy to find. From the workstation side, the directory structure looks like a standard DOS directory:

• Volumes, which are divided into

• Directories, which are divided into

• Subdirectories, which contain

• Files.

From the AViiON side, the NetWare volumes will appear as subdirectories within the AViiON server's DG/UX directory structure. This directory structure can be compared to a filing system, where the AViiON file system corresponds to the filing cabinet.

Directory structure
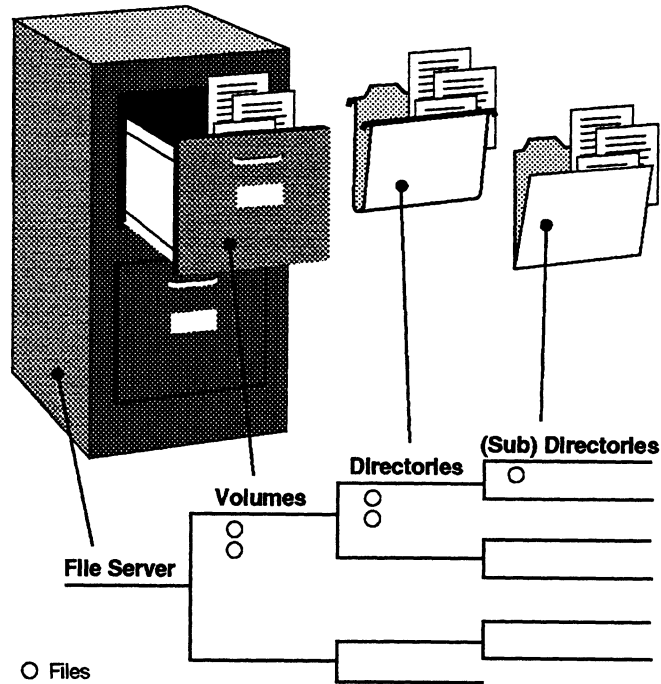
The volumes correspond to the filing cabinet drawers. Each file server has at least one volume, the SYS volume, which is created when the server is installed.

The directories correspond to the hanging folders within the filing cabinet drawers. You can create and delete directories as much as you insert and remove hanging folders in a filing cabinet.

Subdirectories correspond to the manila folders inside the hanging folders, by dividing them into smaller units. Subdirectories contain actual files, just as manila folders contain individual documents.

Who can use the network?

Before you can work on the NetWare network, you must be designated as a network user. The network supervisor assigns each user one of four levels of responsibility on the network:

• Regular network user

• Operator (file server console operator, print queue operator, print server operator)

• Manager (workgroup manager, user account manager)

• Network supervisor

Regular network users can run applications and work with files according to the rights assigned to them.

Operators are regular network users who have been assigned additional privileges. For example, a file server console operator is a network user who is given specific rights to use the FCONSOLE utility.

Managers are users who are responsible for managing other users. Workgroup managers can create and manage user accounts; user account managers can manage, but not create, user accounts. Managers supervise a particular group, but they do not have SUPERVISOR equivalence.

Network supervisors are responsible for the smooth operation of the whole network. Network supervisors maintain the system, restructuring and updating it as needed.

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How is information protected on a network?

All information on a NetWare network is stored in a central location – the AViiON file system. However, all users should not have equal access to all information that may be stored there; this would make privacy impossible. In addition, two users should not be able to access the same data file at the same time; if they could, they may overwrite each other's work. To prevent problems like these, NetWare provides an extensive security system to protect the data on the network.

NetWare security consists of a combination of

- Login security;

- Trustee rights (privileges) assigned to users;

- Attributes assigned to directories and files.

Login security involves the use of usernames and passwords, and the control of such things as which workstations a user can use, at what times, and what features he or she is allowed to use.

Trustee rights control which directories and files a user can access and what the user is allowed to do with those directories and files, such as creating, reading, erasing, or writing to them.

Directory and file attributes determine whether a directory or file can be deleted, copied, viewed, or written to. Among other things, they also mark a file as shareable or non-shareable.

If NetWare users are also DG/UX system users on the AViiON server, the network supervisor can map the users' NetWare and DG/UX system files. Such users are called hybrid users. With proper permissions established by the network supervisor, DG/UX security will not override NetWare security for hybrid users.

The following figure illustrates the three levels of security that work together to prevent unauthorized access.

Network security

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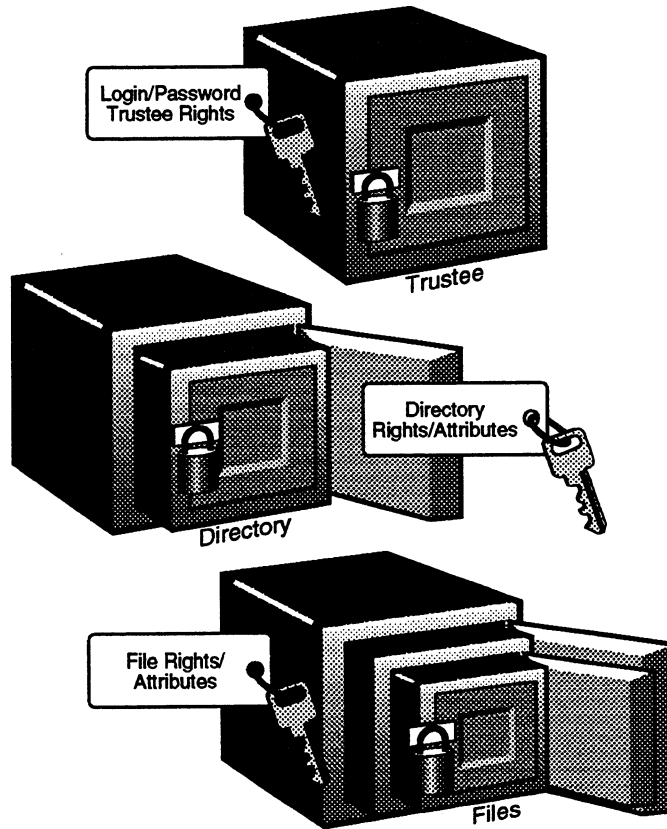
Summary

This introduction explained the following.

- A NetWare network links personal computers so users can communicate and share resources.

- NetWare for AViiON Systems networks have workstations, NetWare Virtual Terminals, and AViiON file servers.

- Workstations are personal computers on which network users do their work. Workstations run their own native operating system (for example, DOS, OS/2, or the Macintosh operating system) and process their own files. They can access files, applications, and resources through the AViiON server.

- AViiON systems run NetWare for AViiON Systems as a set of DG/UX system processes. This set of processes provides file and print services and coordinates network activity.

- Workstations and the file server communicate via the NetWare shell and protocol, which are loaded into each workstation at boot time just like DOS. The NETX shell sends workstation requests to the proper operating system for processing, and the IPX protocol sends data packets to the appoporiate network station.

- Information is stored on the AViiON file server in the DG/UX directory structure. This NetWare directory structure consists of volumes, directories, and files.

- Network users can be assigned four different levels of responsibility on the network: regular network user, network operator, network manager, and network supervisor.

- NetWare's extensive security system prevents users from corrupting data in network files and prevents unauthorized users from accessing restricted files.

- Users of both NetWare and DG/UX on the file server are called hybrid users. DG/UX system security and NetWare security for these users is controlled by the network supervisor.

End of Chapter

What are menu and command line utilities?

You can use NetWare utilities to perform network tasks. Two types of utilities are used most frequently: menu utilities and command line utilities.

Menu utilities let you perform network tasks by choosing options from menus. Command line utilities let you perform tasks by typing commands at the DOS command line. The following sections explain how to execute both types of NetWare utilities.

Work with menu utilities

Access a menu utility

Action	Explanation
Type the utility's name (such as FILER) at the DOS prompt and press <Enter>.	The utility's main menu is displayed, along with a screen header, which shows • The utility's full name; • The current date and time; • The directory path leading up to your current directory (some utilities); • Your username on your file server (some utilities); • Your connection number (some utilities).

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Exit a menu utility

Action	Explanation
Press <Escape> until an exit confirmation box appears. Then highlight Yes and press <Enter>.	Changes you made are saved.
Press the Exit key (usually <Alt><F10>).	Changes you made are NOT saved.

Additional information

Once you have accessed a menu utility and the main menu is displayed, you are ready to work. Menu utilities use certain keys to perform special functions. The utilities also have standard components. The keys, wildcards, and components are described on the following pages.

Keys

The following graphic shows the keys that are used to perform specific functions in the menu utilities.

KEY	FUNCTION
F1 **(Help)**	**Displays help screens.** • If you press F1 once, a help screen that applies to the task you are currently working on appears. • If you press F1 twice, your computer's function key assignments are listed. There are three screens containing function key assignments. Press the <PageDown> key to see subsequent screens.
F5 **(Mark)**	**Allows you to mark multiple items in a list so you can add or delete several items at a time.**
Esc **(Escape)**	**Has three functions:** • If you are on a menu screen, pressing <Escape> allows you to return to a previous menu. • If you are at the main menu, pressing <Escape> causes an exit confirmation box to appear. By highlighting Yes and pressing <Enter>, you exit the menu utility and return to the menu or command line prompt. • If you are performing a process, pressing <Escape> allows you to continue.

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Wildcard characters (* and ?)

DOS and NetWare recognize these characters as universal replacements for any other character or set of characters. You can use wildcards to search for groups of volumes, directories, or files, or to search for a particular file when you are unsure of its complete name.

For example, an asterisk (*) in a filename indicates that any character can occupy that position and all remaining positions in the filename. In the FILER utility, to copy all of a subdirectory's files with the extension .EXE to another directory, you would type "*.EXE" in the menu's entry box and press <Enter>.

In contrast, a question mark (?) in a filename indicates that any character can occupy that position, and that position only. So, if you were to type "ACCOUNT?.NEW", you would copy files like ACCOUNT1.NEW, ACCOUNT2.NEW, and so on.

NetWare's use of wildcard characters differs from that of DOS in one respect. To represent all files in a directory, in DOS you must type "*.*" (for example, "DEL *.*"), whereas in NetWare you need one asterisk (for example, "DEL *"). For more information about wildcard characters (global filename characters), see your DOS manual.

Components

When you first access a menu utility, the main menu is displayed. Menus contain options you can choose from. Options can be selected one of two ways:

Action	Explanation
Use the arrow keys to highlight the option you want. Then press <Enter>.	
Type the first letter of an option to highlight that option. Once the option you want is highlighted, press <Enter>.	If more than one option in the menu starts with the same letters, type enough additional letters to distinguish one option from the others. (For example, if both "Search" and "Select" were options, you would have to type "Sel" to highlight "Select.")

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When you select an option from the main menu, additional menus and displays appear. These displays include lists, entry boxes, insets, forms, and confirmation boxes. Each type of screen display is explained below.

Type	Function
Lists	Similar to menus; items in lists can be selected the same way menu options are. However, you can also add items to and delete items from some lists. Lists may have more than one column, and they may extend below the screen display. Press the Down-arrow key to see additional items. Pressing <Ctrl><PageDown> takes you to the bottom of the list. Pressing <Ctrl><PageUp> takes you to the top of the list.
Entry boxes	Boxes in which you can type information, such as a username or path name. The Delete, Backspace, and arrow keys work in these boxes.
Insets	Display information that cannot be edited (except by the network supervisor). Information cannot be added to or deleted from this window.
Forms	Windows that contain fields. You can move around in a form using the arrow keys or the Enter key. (When you press <Enter>, the cursor moves to the next field in the form.) You can change the information in the field by highlighting the field and pressing <Enter>. What you do next depends on the type of field. Some fields allow you to type in information; others display menu items to select.
Confirmation boxes	Displayed whenever you exit a menu utility or create or delete items (such as directories or files). You can either confirm or cancel the action by selecting Yes or No and pressing <Enter>.

Work with command line utilities

Command format

The command format displays the appropriate syntax for command line utilities. Command line utilities are executed at the DOS prompt.

Examples of the command format for the NPRINT and the TLIST utilities are

NPRINT *path* [*option...*] <Enter>

TLIST [*path* [USERS | GROUPS]] <Enter>

Conventions

The conventions for these example command formats are explained below.

Command format	Explanation
NPRINT <Enter>	Words that appear in all capital letters must be spelled exactly as shown. Although they appear in capital letters, they can be typed in either upper- or lower-case.
path <Enter>	Words that appear in italics are variables. They should be replaced with the information pertinent to your task. In this case, you would replace *path* with the path leading to and including the file you want to indicate, and you would replace *option* with any NPRINT options you want to specify.
[ ] <Enter>	Square brackets indicate that the enclosed item is optional: you can enter a command with or without the enclosed item. In this case, *option* is optional.

Command format	Explanation
... \<Enter>	Ellipses indicate that more than one *option* can be used with the command. In this case, more than one NPRINT option can be entered in the command.
\<Enter>	The angle brackets indicate that you should press the key whose name appears between them. Always press \<Enter> after typing the command format for command line utilities.
[[ ]]	Nested square brackets indicate that all enclosed items are optional. However, if you use the items within the innermost brackets, you must also use the items within the outer brackets.
| \<Enter>	A vertical bar means "either, or." You can use either the item to the left of the vertical bar or the item to the right, but not both.

Wildcard characters

Wildcard characters (* and ?) are recognized by DOS and NetWare as universal replacements for any other character or set of characters. You can use wildcards to search for groups of volumes, directories, or files, or to search for a particular file when you are unsure of its complete name.

An asterisk (*) in a filename indicates that any character can occupy that position and all remaining positions in the filename. To search for all filenames with the extension .EXE in your default directory, type "NDIR *.EXE" and press \<Enter> to display the list.

A question mark (?) in a filename indicates that any character can occupy that position, and that position only. So, if you were to type "NDIR *.?", you would see a list of all files in your default directory with a single-character extension or no extension at all.

NetWare uses the * wildcard character differently in one respect. In DOS, to represent all files in a directory you type "*.*" (as in "DEL *.*"). In NetWare you type one asterisk (as in "DEL *"). For more information about wildcard characters see your DOS manual.

Get help in NetWare

Use the NetWare HELP utility to view online information about NetWare utilities, NetWare system messages, and NetWare concepts. NetWare HELP allows you to search for and retrieve information from infobases (information databases).

Action
1. To access HELP, type   **HELP** <Enter>
2. Press <Enter> again to bring up the main menu.
3. For more information on how to use NetWare HELP, press <Tab> until you get to "How to use this reference." Then press <Enter>.

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Boot up

To "boot up" your workstation means to turn on your computer, load DOS, then load the workstation shell. You can either boot from a boot diskette, or you can put the necessary boot files on your workstation's hard disk and boot from the hard disk. These boot files start up the workstation operating system, load the NetWare shell, and gain access to the network.

If you are not using ODI, see the WSGEN section of *Utilities*.

If you are using ODI, use the following table to create a boot diskette.

Create a boot diskette

Action	Explanation
1. Format a blank diskette as a boot diskette, using the DOS FORMAT command. Insert a diskette into drive A and type **Format a: /s** \<Enter>	Follow the screen prompts.
2. Copy LSL.COM, the driver file, IPXODI.COM, and NETX.COM from the *DOS ODI WORKSTATION SERVICES* diskette onto the boot diskette or to the root directory of your workstation's hard disk.	If you use burst-made protocol, you need the BNETX.COM shell.

(continued)

Action	Explanation
3. Copy the following additional boot files to the boot diskette or your hard disk, if needed. AUTOEXEC.BAT CONFIG.SYS NET.CFG	Your network supervisor will provide you with these files. If you use burst-made protocol, include the PB buffers parameter in your .CFG file. See *Installation* for .CFG parameters. See also **Burst-made protocol and Boot files** in *Concepts*.

Create an AUTOEXEC.BAT file

You can create an AUTOEXEC.BAT file that automatically loads the shell file each time you boot the workstation. In the example below, the AUTOEXEC.BAT file sets your workstation to the first network drive (F:), connects you (user MARIA) to a file server (WONDER), and sets your DOS prompt to show your current directory (PROMPT PG).

Follow these steps to create your AUTOEXEC.BAT file.

Action	Explanation
1. Insert your boot diskette into drive A and change to drive A.	If you plan to boot from your hard disk, change to your hard disk drive (C or D).
2. Use a text editor to create the following file: **LSL** \<Enter> *Driver file* \<Enter> **IPXODI** \<Enter> **NETX** \<Enter> **F:** \<Enter> **LOGIN WONDER/MARIA** \<Enter> **PROMPT PG** \<Enter>	If you are using burst-made protocol, replace *NETX* with *BNETX*.

Access an AViiON host (optional)

You can use your workstation to access DG/UX applications on the AViiON server by loading the NVT (NetWare Virtual Terminal) service and running a terminal emulator.

Action	Explanation
1. To load NVT, type the following: **NVT** <Enter>	The following message appears: NVT loaded OK
2. Run a terminal emulation program.	Use any terminal emulation program set to int6b (Ungermann-Bass) or int14. See the terminal emulation documentation for more information.
3. To attach to a host, press <Alt> <T>.	Available hosts are listed on the screen.
4. Select a host and press <Enter>.	You can use host applications. For more information on NVT, see *Utilities*.

Log in/log out

When you log in to a network, you establish a connection between your workstation and the file server. When you log out, you terminate that connection.

To log in to the network, you must enter a unique password. If there were no password, unauthorized users could easily access your files.

Log in to your network

Action	Explanation
To log in to your default server, type **LOGIN** *servername/username* <Enter>	Replace *servername* with the name of the file server you want to log in to. Replace *username* with your login name, and (if applicable) type your password when you are prompted for it.

Log out of your network

Action
To log out of all the servers you are connected to, type   **LOGOUT** <Enter>
To log out of a single file server you are attached to, type   **LOGOUT** *servername* <Enter>

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Attach to another file server

Attach to another file server if you want to

- Send messages to users on that file server

- Map a drive to that file server

- Copy a directory to that file server

Action	Explanation

To access another file server while remaining logged in to your default file server, type
 	
    ATTACH *servername/username*
    \<Enter\>
	Replace *servername* with the name of the server you want to attach to. Replace *username* with the username you have been assigned to use on that file server.

Create or change a password

Action	Explanation

1. To create or change a password on your default server, type
 	
    SETPASS \<Enter\>
	This prompt appears:
	    `Enter your old password:`

2. If you are changing a password, enter the old password. If you are creating a new password, press \<Enter\>.	This prompt appears: `Enter your new password:`
3. Enter the password you want.	This prompt appears: `Retype your new password:`
4. Enter the new password again.	This message appears: `Your password has been changed.`

View who you are on your network

Action	Explanation

Type
 	
     WHOAMI <Enter>
	Information similar to the following is displayed.
	`You are user FRANK attached to server MKTG, connection 1`
	`Server MKTG is running NetWare 386 V3.1.`
	`Login time:  Wednesday January 2, 1991  8:05 am`
	
	`You are user GUEST attached to server ACCT, connection 7`
	`Server ACCT is running NetWare 386 V3.1.`
	`Login time: Wednesday, January 2, 1991  8:05 am`
	
	This screen display indicates that you are attached to both file servers MKTG and ACCT.

View file servers on your network

Action	Explanation

Type
 	
     SLIST <Enter>
	Information similar to the following appears.
	`Known NetWare File    Network    Node Address`
	`Servers`
	`-------------------- -------- ------------`
	`RECORDS             [CED88]    [2608C234732]`
	`SALES               [CED87]    [2608C217651]`
	`MFG                 [CED86]    [2608C293185]`

View current users on your file server

You must be attached to a file server before you can view the list of users for that file server.

Action	Explanation

Type
 	
    USERLIST
    \<Enter\>
	Information similar to the following appears.
	
	``
	User Information for Server BLOOM
	Connection User Name Login Time
	----------- ---------- ---------
	1 JOIE 1-17-1991 8:05 am
	2 *CORRINE 1-17-1991 11:20 am
	3 PAULO 1-17-1991 7:58 am
	4 GUY 1-17-1991 6:01 pm
	``
	An asterisk (*) appears next to your username.

What if ...

I can't log in?

- Your password may be expired and you may have run out of grace logins. Your supervisor or manager has to unlock your account.

- You haven't changed to the network login drive (F:, by default).

- The LOGIN.EXE file is missing.

- Your shell may be outdated. Ask your supervisor.

- Your network board may not be seated correctly.

- Your file server may be down. Type

      SLIST <Enter>

  If your file server is listed, log in by typing

      LOGIN *servername/username* <Enter>

- You may be restricted from logging in during certain times. Ask your supervisor.

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My screen is frozen?

- Your supervisor should run the FCONSOLE utility and clear your connection. This will save the work you were doing. Then complete one of the two following tasks.

  To warm boot, press <CTRL><ALT><DEL> simultaneously.

  To cold boot, turn the computer OFF then turn it ON again.

- Your network cable may not be connected or terminated properly. Notify your supervisor.

- Your node (or station) address may be in conflict with another workstation. See if new workstations have been added to your network.

- You may have the wrong IPX configuration. Ask your supervisor.

- You may have received a message while in graphics mode. Before entering graphics mode next time, disable messages by typing

  CASTOFF <Enter>

  End of Chapter

Create your login script

Your login script is a program that sets up your workstation's environment each time you log in. It performs tasks such as mapping network drives, executing programs and starting applications, and attaching to different file servers.

This section introduces some basic login script commands.

Action
1. To access your login script, type   **SYSCON** <Enter>
2. Select "User Information" from the main menu.
3. Select your username from the list of users that appears.
4. Select "Login Script."
5. Enter the commands you need in your login script. Some common commands are listed in the chart on the following page.
6. Exit and save the login script by pressing <Escape> and answering Yes in the confirmation box.
7. To execute your new login script, log in to the network again.

Common login script commands

The commands in the following chart can be used in your login script. Each command is followed by its purpose and an example of how to use it.

Common Commands

MAP INS S16:=   (Inserts the drive as the next available search drive.)

```
MAP INS S16:=pd3/sys:jan
```

MAP *drive:=*   (Maps the specified drive to the given directory.)

```
MAP G:=pd3/sys:home/jan
```

MAP *1:=   (Maps next available drive to the given directory.)

```
MAP *1:=pd3/sys:home/jan
```

(Runs an executable file—a file with an .EXE or .COM extension.)

```
#SYSCON
```

REMARK or ***** or **;**   (Allows you to insert explanatory text in the login script. The text does not appear on your screen.)

```
REMARK Be sure to update the PROJECTS file.
```
```
* Check for new mail.
```
```
; Assign OS-dependent Search mappings.
```

ATTACH   (Allows you to attach to other file servers while remaining logged in to your current file server.)

```
ATTACH pd3 [/jan]
```

SET   (Allows you to set DOS variables.)

```
SET wp="/u-jlw/"
```
```
SET usr="jwilson"
```

IF...THEN   (Executes certain commands, if a specified condition exists.)

```
IF DAY_OF_WEEK="Monday" THEN WRITE "AARGH..."
```

What if ...

My login script doesn't execute all the way?

- You may have inserted an EXIT command into a batch file in the middle of your login script. Anything after the EXIT command is ignored. Move the EXIT command to the end of your login script.

- An IF...THEN clause in your login script may be incomplete or incorrect. Check the proper command format in Appendix A of *Installation*.

I am unable to map a drive to another file server?

- The file server you want to map a drive to may be down. To check whether the file server is up, type

      SLIST <Enter>

I add some mapped drives to my login script and some I wanted are gone.

- The system login script executes before the user login script. You can overwrite the mapped drives in the system login script with those in your user login script. Instead of using the command "map *drive:*=", use the command "map ins 16:=" or "map *1:=". (Remember: You can have only 26 drive mappings.)

View or create mapped drives

Mapped drives point to particular locations in the directory structure. In NetWare, there are three type of drives: local, network, and search drives.

Local drives are physically attached to a workstation. Network drives allow users to access particular locations in the directory structure. Search drives allow users to execute program files (such as applications or utilities) that are in a directory other than the user's current directory. For more information, see **Drive mappings** in *Concepts*.

This section tells you how to

- View all mappings.

- Map network drives.

- Map search drives.

View all mapped drives

Action	Explanation

Type
 	
    MAP \<Enter\>
	You see information similar to the following.
	`DRIVE A:  maps to a local drive`
	`DRIVE B:  maps to a local drive`
	`DRIVE F:= COUNT/SYS:  /HOME/KAREN`
	`DRIVE G:= COUNT/SYS:  /`
	`DRIVE H:= COUNT/ACCT: /ACCDATA`
	
	`-------`
	
	`SEARCH1:=Z:  [COUNT/SYS:  /PUBLIC]`
	`SEARCH2:=Y:  [COUNT/SYS:  /PUBLIC/WP]`
	`SEARCH3:=X:  [COUNT/ACCT:  /ACCREC]`

Map network drives

Suppose you want to map a network drive to a directory in which you have files.

Action	Explanation
1. Type **MAP** <Enter>	You can see which network drive letters are available.

2. Choose a drive letter that is not being used, such as J. Type
 	
    MAP J:= path
    <Enter>
	Replace *path* with the directory path (including the file server name and the volume name) leading to the directory to which you want to map network drive J.
	
	For example, suppose your username is MARIA and you want to map drive J to your home directory, which is on file server COUNT in volume SYS. Type
	
	    MAP J:= COUNT/SYS:HOME/MARIA <Enter>

Map search drives

Suppose your search drives appear as follows.

```
SEARCH1:=Z:   [COUNT/SYS:  /PUBLIC]
SEARCH2:=Y:   [COUNT/SYS:  /PUBLIC/WP]
```

The next available search drive is SEARCH3 (S3).

Action	Explanation

To map a search drive to directory ACCREC on volume ACCT, type
 	
    MAP S3:=COUNT/ACCT:ACCREC
    <Enter>
	When you type MAP again, the new search drive appears:
	```SEARCH1:=Z: [COUNT/SYS:/ PUBLIC]```
	```SEARCH2:=Y: [COUNT/SYS:/ PUBLIC/WP]```
	```SEARCH3:=X: [COUNT/ACCT:/ ACCREC]```

What if ...

I mapped a drive and rebooted, and now the mapped drive is gone?

- Did you map the drive in your login script? Drives mapped at the command line are temporary — they are deleted when you log out of your file server or turn off your workstation. To map a drive permanently, enter the map command in your login script.

The system won't accept my mapped drives?

- You may not have rights to the directory you want to map to. Change to that directory and type

    RIGHTS <Enter>

  You need at least the Read and File Scan rights. If your rights aren't sufficient, see your supervisor.

- You may have used the wrong command format.

I viewed my mapped drives and some of them seem to be incorrect?

- Did you use the DOS CD command to change directories? Changing directories changes your mapping. However, your original mappings are restored when you log in again.

My search drives are in reverse order?

- Search drives are numbered, but their associated drive letters begin in reverse alphabetical order. For example, the first search drive (Search 1 or S1) appears as network drive Z, the second one appears as network drive Y, and so on. However, in your login script, they should appear in normal alphabetical order.

Send messages to other users

You can communicate with other users on your network by sending messages from your workstation command line.

This section explains how to

• Send a message to one or more users.

• Send a message to all workstations.

• Block/allow messages from other workstations.

Send a message to one or more users

Suppose you want to send the following message to users CINDY and ERIC: "Meeting at 1:30 today." Also suppose that CINDY and ERIC are logged in to your default server.

Action	Explanation

Type
 	
    SEND "MEETING AT 1:30 TODAY"
    CINDY, ERIC <Enter>
	A message appears, indicating whether your message was sent.

Suppose CINDY is logged in to another file server called SALES.

Action	Explanation
1. Attach to the file server Cindy is logged in to.	

2. Type
 	
    SEND "MEETING AT 1:30 TODAY" SALES
    /CINDY <Enter>
	A message appears, indicating whether your message was sent.

Send a message to all workstations

Suppose you want to send the following message to all workstations: "Paychecks are here."

Action	Explanation

Type
 	
    SEND "PAYCHECKS ARE HERE."
    EVERYONE \<Enter>
	A confirmation message appears listing all the users to whom the message was sent.

If you want to send a message to everyone on another file server, you must be attached to that file server and specify the name of the file server in the command.

Action	Explanation
1. Attach to the file server EVERYONE is logged in to (for example, SALES).	

2. Type
 	
    SEND "REMEMBER DIVISION MEETING TODAY"
    SALES/EVERYONE \<Enter>
	A message appears, indicating whether your message was sent.

Block/allow messages from other workstations

Action	Explanation
If you do not want to receive messages sent to you from any network stations, type CASTOFF \<Enter>	The following message appears: `Broadcasts from other stations will now be rejected.`
To allow your workstation to again receive messages from other network users, type CASTON \<Enter>	The following message appears: `Broadcast messages from the console and other stations will now be accepted.`

What if ...

I am unable to send a message to a user?

- Is the user logged in? Type

    USERLIST \<Enter>

- Is the user's message buffer full? Users can receive only up to two messages. The user must clear the messages by pressing \<Ctrl> \<Enter> before receiving others.

- Did you type the SEND command properly?

I am unable to send messages to users on another file server?

- Are you attached to that file server?

- Is the user logged in? Type

    USERLIST \<Enter>

End of Chapter

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Manage files and directories

You can manage your files and directories in a variety of ways. You can copy, delete, rename, view, write to, and share them. NetWare 3.11 for AViiON Systems uses a system of file and directory rights and attributes to make sure that only authorized network users can access and handle network data.

Attributes are assigned to files and directories. They override rights, which are assigned to users. For example, suppose you have the right to rename files (the Modify right). However, the file you want to copy is flagged with the Rename Inhibit attribute. This prevents you from renaming it, even though you have the right to do so.

For more information, see **Attributes** and **Rights** in *Concepts*.

View your rights

Action
To view your rights in your default directory, type   **RIGHTS** \<Enter>

Explanation

If your effective rights include all rights, the following information appears.
<pre>SERVER1\SYS:PUBLIC\UTIL
Your effective rights for this directory are [SRWCEMFA]
    You have Supervisor Rights to Directory. (S)
    *May Read from File.   (R)
    *May Write to File.   (W)
    May Create Subdirectories and Files.   (C)
    May Erase Directory.   (E)
    May Modify Directory.   (M)
    May Scan for Files.   (F)
    May Change Access Control.   (A)
 	
*Has no effect in directory.
 	
Entries in Directory May Inherit [SRWCEMFA] rights.
You have ALL RIGHTS to Directory Entry.</pre>

Copy a file to another network directory

Action
To copy the ACC.DAT file from your default directory to the SALEPROG directory in volume SYS on file server SALES: 1. Make sure you have a drive (for example, G) mapped to SALEPROG as follows: G:=SALES/SYS:SALEPROG
2. Type   **NCOPY F:ACC.DAT TO G:** \<Enter>

Copy a file from another network directory

Action
To copy a file called ACC.DAT from the SALEPROG directory in volume SYS on the file server SALES to your default directory: 1. Make sure drive G is mapped to SALEPROG as follows: G:=SALES/SYS:SALEPROG
2. Type   **NCOPY G:ACC.DAT F:** <Enter>

Copy all of a directory's files to another directory

Action
To copy all the files from the SALEPROG directory in volume SYS on the file server SALES to your default directory: 1. Make sure drive G is mapped to SALEPROG as follows: G:=SALES/SYS:SALEPROG
2. Type   **NCOPY G:*.* F:** <Enter>

Delete a file

Action
1. Type   **FILER** \<Enter>
2. Select "Directory Contents" from the "Available Topics" menu.
3. Highlight the file you want to delete from the "Directory Contents" window and press \<Delete>. Answer Yes in the confirmation box. To delete more than one file, use the Mark key (\<F5>) to highlight multiple files; then press \<Delete>. Answer Yes in the confirmation box.

Find a lost file

Suppose you don't remember the location of a file and

- The file is called FUTURE.DAT;

- You think it may be in the PROGRAMS directory;

- Drive G is mapped to that directory.

Action	Explanation
To find the location of the lost file, type **NDIR G: FUTURE.DAT** \<Enter>	
If you don't know which directory the file is in, change directories back to the volume level. Then type **NDIR** *filename* **/sub** \<Enter>	NDIR searches all those directories you have rights to on the volume for the file.

Rename a directory

Suppose you want to change the name of the ACCT directory to PROGRAMS.

Action
1. Map a network drive (for example, drive G) to ACCT in volume SYS on file server RECORDS as follows: `Drive G: = RECORDS/SYS:ACCT`
2. To rename the directory, type   **RENDIR G: PROGRAMS** <Enter>

What if ...

I can't copy?

- You may not have sufficient rights. Type

    RIGHTS <Enter>

  You must have the Create right to copy files into a directory.

- The file may be flagged Non-shareable and be in use. Type

    FLAG *filename* <Enter>

  If it is flagged Non-shareable, try again later, when the file is not in use.

I can't see a directory?

- You may not have the Read right for that directory. Type

    RIGHTS <Enter>

- The directory attribute may be set to Hidden or System. Type

    FLAG *filename* <Enter>

- The directory may have been deleted. Ask your supervisor.

End of Chapter

Print

Printing from a network workstation is similar to printing from a standalone workstation. When you send a print job to a network printer, however, the job is routed first through the file server and then delivered to the printer by the print server.

When a print job leaves the workstation, it is stored temporarily in a print queue on the file server. This queue, which is a subdirectory on the file server, stores the print job until the print server can deliver it to the printer. When the printer is ready to service the job, the print server moves it from the queue to the printer.

The NetWare printing environment

Licensed Material - Property of the Copyright Holders   **45**
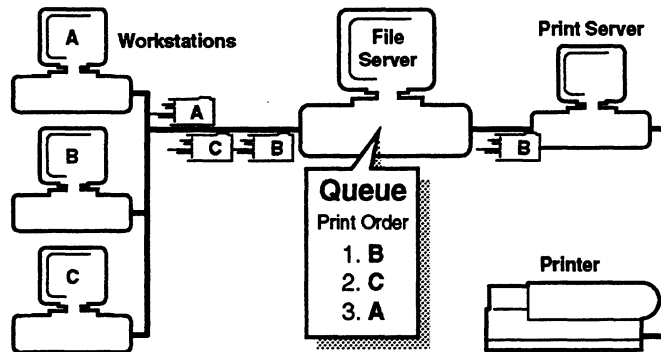
Permanently set up workstation printing

If you want to print from a non-NetWare-compatible application or from the screen, you need to route print files from your local printer port (LPT1) to a file server queue.

Action
1. Type   **SYSCON** <Enter>
2. Select "User Information."
3. Select your username.
4. Select "Login Script."
5. Insert the following command into the login script.   **#CAPTURE Q=*queuename* TI=5** <Enter> (Replace *queuename* with the name of the queue your print job should be sent to.)
6. Exit SYSCON, saving changes when prompted.
7. Log in again or reboot your workstation to allow the CAPTURE command to take effect.

Print screens using CAPTURE

Before you start printing screens using CAPTURE, set the CAPTURE parameters in your login script (see "Permanently set up workstation printing" on the previous page). Also, your supervisor needs to set up a default queue.

Action	Explanation

1. At the command line, type
 	
    CAPTURE <Enter>
	Include any of the CAPTURE options except SHow. Some of the most common CAPTURE options are the following.
	
	L=n
	  Indicates which of your workstation's LPT ports (local parallel printing ports) to capture. Replace n with 1, 2, or 3. Default: L=LPT1
	
	Q=*queuename*
	  Indicates the queue the print job should be sent to. If multiple queues are mapped to a printer, you must include this option. Replace *queuename* with the name of the queue.
	
	TI=n
	  Include this option if you want to print from an application without exiting the application. Replace n with a number of seconds (1-1000) between the last time the application writes to the file and the time it releases the file to the queue. Default: TI=O (TImeout disabled)

2. Access the application containing the screen you want to print.	

Action	Explanation
3. Press \<Shift>\<Print Screen>.	
4. If you want to print more screens, repeat Steps 2 and 3.	
5. When you have selected the screens you want printed, return to the DOS prompt and type **ENDCAP** \<Enter>	ENDCAP sends your print job to the default print queue of your default file server, and the job is printed. ENDCAP also ends the capture of your LPT port.

NOTE

Your workstation might hang if you press the \<Shift>\<Print Screen> keys when none of your LPT ports are captured and no local printers are attached to your workstation. To prevent this, ask your supervisor to include the following in the SHELL.CFG file on your workstation boot diskette.

LOCAL PRINTERS = 0

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List the jobs in a queue

A queue is a special directory where print files are stored while waiting for printer services. To see which jobs are waiting in a queue to be printed, complete the following steps.

Action
1. Type   **PCONSOLE** <Enter>
2. Select your file server (if other than your current file server).
3. Select "Print Queue Information" from the "Available Options" menu.
4. Select the print queue whose print job you want to view.
5. Select "Current Print Job Entries" from the "Print Queue Information" list. The print job entries are displayed.

Delete your print job in a queue

Cancel your print job by deleting it from the print queue (even after the job has started printing). You can delete a print job only if you are the owner of the job or if you are the print queue operator.

Action	Explanation
1. To delete your print job, type **PCONSOLE** <Enter>	
2. Select "Print Queue Information."	
3. Select the print queue whose entries you want to view.	The "Print Queue Information" list is displayed.
4. Select "Current Print Job Entries."	
5. Select the print job; press <Delete>.	
6. Select Yes at the confirmation box.	

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What if...

I send commands to print a screen, but the screen doesn't print?

Did you include the CAPTURE command in your login script? See "Permanently set up workstation printing" at the beginning of this section.

The application I'm using says that the print job was sent, yet it doesn't print out?

- Did you use CAPTURE to redirect output to a print queue first?

- To find out whether the LPT ports are captured, type

    CAPTURE SH <Enter>

- Check PCONSOLE and find the appropriate queue. If the queue has a long list of jobs and none are marked "active," see your print server operator. If your job isn't in the queue, check with the applications expert. The application is not set up properly.

End of Chapter

Common error messages

Error messages point to a software or hardware error that doesn't allow further processing. Following each message listed below, you'll find an explanation of the message and a recommended course of action.

Access denied

Explanation	Action
You either • Entered your username, your password, or both incorrectly, or • Tried to log in to a file server on which you are not defined as a user.	• Try to log in again and make sure you type the username and password correctly. • Make sure you are logging in to a file server on which you are defined as a user. You can log in to most file servers as GUEST, since user GUEST seldom requires a password.
You tried to modify the file attributes of, delete, rename, or copy a file for which you lack rights.	Find out about your rights to this file by typing **RIGHTS *filename*** <Enter> or by asking your supervisor.

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A file server could not be found

Explanation	Action
The shell tried to build a connection with the network, but no file server responded to the request in the given time limit.	• Check the cable connection with the network and make sure at least one active file server exists on the network. • Ask your supervisor to make sure the IPX file and the network board have the same configuration.

Message NOT sent to *<servername>/<username>* (station number)

Explanation	Action
If a number of messages have been sent to the user or group and have not been cleared, the workstation's buffer for incoming messages may be full.	Send the message later, or try another method of communication.
The user or group used the CASTOFF utility.	Send the message later, or try another method of communication.

Network Error <*cause*> during <*operation*>. File = <*drive*>:<*filename*> Abort, Retry, Fail? or Abort, Retry?

Explanation	Action
The shell called a function call or a DOS interrupt, but the specified operation could not be performed. The <*drive*>:<*filename*> specify the drive and filename on which the error condition occurred.	Press the R key to retry the operation and, if necessary, repeat this several times. If the problem persists, ask your supervisor or look up the specific message in the *NetWare System Messages* manual.
Your file server may be down.	Type "Abort" to abort the operation and try to connect to the file server again. If this fails, contact your supervisor.

Password has expired

Explanation	Action
Your password has expired. The network supervisor can require users to periodically change their passwords on the file server to protect the file server from access by unauthorized persons. The network supervisor can also assign a number of grace logins during which the user can still use their old passwords (after they have expired) before having to create new passwords.	Use the SETPASS command to change your password. If you use the old password during the remaining grace logins, be sure to change it before you run out of grace logins, or your network supervisor will have to change it for you.

Password has expired and grace period has also expired.

Explanation	Action
Your user account is locked because your password has expired and you have used all the grace logins. After your password expires, you may have a number of grace logins during which you can still use your old password. If you do not change your password before your grace logins are used, you are denied access.	Since you have run out of grace logins, you cannot access your account until your network supervisor or manager assigns you a new password.

Server <*servername*> not found

Explanation	Action
You tried to attach to the file server <*servername*>, but the file server did not respond for one of the following reasons. • The file server is not cabled to the network. • The file server has been brought down by the network supervisor for system maintenance. • You mistyped the name of the file server.	• Use the SLIST command to list all the available file servers. • If the file server is down for maintenance, try the command later when the file server has been brought back up. • Make sure you type the servername correctly. If you still have problems, ask your network supervisor for help.

Unable to attach to server *<servername>*

Explanation	Action
You • Mistyped the name of the file server, • Specified a file server not cabled to your network, or • Specified a file server that is down for system maintenance.	• Type the file server name correctly. • Use the SLIST command to see which file servers are on your network. • If the file server is down for maintenance, try the command later when the file server has been brought back up.

User *<fileserver>/<username>* not found

Explanation	Action
You • Mistyped the user's name, or • Specified a user who does not exist on *<fileserver>*.	• Make sure you have typed the user's name correctly. • If you are not certain which users are established on the file server, use the SYSCON utility to view the list of network users. • You can also use the USERLIST command to view a list of currently attached users.

End of Chapter

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NetWare® for
AViiON® Systems:
User Basics

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Cut here and insert in binder spine pocket