Software Installation Guide
for
Xyplex Loader Kits

February, 1993
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420-0392C

Effective Pages

This manual consists of 120 pages, including the following:

Issue Original Date: February 1993

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Caution

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Shielded cables should be used with this unit to insure continued compliance with Class A limits.

The hardware and software described in this document are subject to change without notice.

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Preface

This manual describes several different Xyplex products which load software from local media, such as diskettes or memory cards. It describes how these products can provide software and other services to Xyplex products in the same chassis or on the network. Together, these products are called Xyplex loaders, and the services they provide are called Xyplex Manager services.

This manual assumes that you have installed the Xyplex loader hardware. (See the manuals in the Related Documentation section of this preface for more information about how to install the hardware.) You can use this manual whether you are loading software for the first time, or updating a Xyplex loader with a new version of software.

Organization

This manual contains the following chapters:

Chapter 1	Introduces the different types of Xyplex loaders and the media they use to load software. This chapter also describes the different types of client servers and how the Xyplex manager functions support them.
Chapter 2	Describes how to use the Xyplex MAXman card as a load server. This chapter explains how to load software on the MAXman card from a diskette, and how the MAXman can service load requests from other Xyplex products.
Chapter 3	Describes how to use the Xyplex MAXserver 1800/1820 Terminal Server as a load server. This chapter explains how to load software on the terminal server from a diskette, and how the terminal server can service load requests from other Xyplex products.
Chapter 4	Describes how to load software from a diskette on a MAXserver 6020/6220 Remote Bridge/Routers and MAXserver 3010/3210 Local Bridge/Routers, and update the diskette with a newer version of software.
Chapter 5	Describes how to use the MAXserver 1600 Terminal Server and 1450 Printer Server as load servers. This chapter explains how to load software on these products from a version 1 flash or OTP card, and how these products can service load requests from other Xyplex terminal servers and printer servers.
Chapter 6	Describes how to use Network 9000 modules as load servers. This chapter explains how to load software on Network 9000 modules from version 2 or 3 flash cards, and how these modules can service load requests from other Xyplex products.
Chapter 7	Describes the Xyplex Manager commands.
Appendix A	Xyplex Hardware Types

Syntax

Throughout this manual, the word "Enter" means type something and then press the New Line key, Carriage Return key, or Enter key; for example, "Enter the SHOW MANAGER FILES command" means type the command SHOW MANAGER FILES and then press the New Line, Carriage Return, or Enter key to execute that command.

This manual also uses the following conventions:

COMMAND KEYWORD|*variable* KEYWORD [*variable*]

Where	Means
COMMAND	Enter the command, or its accepted abbreviation, as shown.
KEYWORD	Enter a keyword, or its accepted abbreviation, as shown. Sometimes [KEYWORD] the manual shows [KEYWORD] . This means you have the option of entering this keyword. Do not enter the braces; they only set off what is optional.
variable	Enter a variable such as a host name, file name, character string, or [*variable*] keyword. Sometimes the manual shows a [*variable*] . This means you have the option of entering this variable. If you do not enter a value for the variable, the device uses a default value. Do not enter the braces; they only set off what is optional.

If the command syntax shows KEYWORD|*variable*, you have the option of entering one or the other keyword or variable, but you must enter one of them. The bar separates the choices.

Additionally, this manual uses certain symbols in special ways:

Symbol	Means
□	Press the New Line, Carriage Return <CR>, or Enter key on your terminal's keyboard.
`Xyplex>`	This is the Xyplex prompt at Secure and Nonprivileged ports.
`Xyplex>>`	This is the Xyplex prompt at Privileged ports.
`MAXman>`	This is the MAXman prompt at Secure and Nonprivileged ports.
`MAXman>>`	This is the MAXman prompt at Privileged ports.

In examples, this manual uses

`This typeface to show user entries and system responses .`

Related Documentation

The following manuals describe how to install the hardware for the products described in this manual:

For MAXserver family Products:

420-4232	Hardware Installation and Maintenance Guide for 4500/5000/5500 Chassis
420-4271	Hardware Installation and Maintenance Guide for MX-MAN-F2
420-0219	Hardware Installation and Maintenance Guide for MAXserver 1100/1500/1800 Terminal Servers
420-0581	Getting Started Guide for MAXserver 6220 Remote Router Unit
420-0349	Hardware Installation and Maintenance Guide for MAXserver 6020 Remote Bridge unit/3210 Local Bridge Unit.
420-0590	Hardware Installation and Maintenance Manual for the MAXserver 16 Terminal Server
451-0003	Quick Installation Guide for the Xyplex MAXserver 1450 Printer Serve
451-0006	Installation and Configuration Guide for the Xyplex MAXserver 1450 Printer Server

For Network 9000 family products:

451-0023A	Installing the Network 9000™ Intra-Networking Hub
451-0022A	Installing the MAXserver to Network 9000™ Adapter Card
451-0016A	Getting Started with the Network 9000™ Management Processor 210 Module
451-0017A	Getting Started with the Network 9000™ LAN Bridge/Router
451-0018A	Getting Started with the Network 9000™ WAN Bridge/Router
451-0021A	Getting Started with the Network 9000™ Terminal Server 720

End of Preface

Chapter 1

Introduction to Xyplex Loaders

Xyplex loaders are standalone and chassis-based products which obtain a software load image and possibly a parameter file from local media, such as a diskette or memory card. Xyplex loaders may also offer Xyplex manager functions to other Xyplex standalone and chassis-based products on the network. Xyplex manager functions include load service, parameter service, and dump service. Xyplex loaders include MAXserver® family products and Network 9000™ family products.

This chapter includes the following information about Xyplex loaders:

- About Xyplex Manager Services
- How Xyplex Loaders Provide Services To Clients
- The Different Types of Local Media
- The Client Database
- The Xyplex Manager Commands

Xyplex loaders can provide Xyplex manager services to other Xyplex products on the network called clients. They provide these services through the XMOP protocol, which is a Xyplex proprietary network protocol. Some Xyplex loaders that can function as load servers can also function as parameter servers and dump servers.

A *load server* is a Xyplex loader or network host that stores the executable load image which a client needs when you initialize it. Xyplex loaders that offer load service may or may not also offer parameter service and dump service.

A *parameter server* is Xyplex loader or network host which stores parameters for a client. When you change a permanent parameter with a DEFINE command, the client stores the information on the parameter server.

A *dump server* is a Xyplex loader or network host that accepts a diagnostic file in the event of an abnormal software shutdown of the client.

A client can request Xyplex manager services from several different types of hosts on the network: Xyplex loaders running the XMOP protocol, Digital Equipment Corporation VAX™/VMS hosts running the MOP protocol, and UNIX® hosts, running the BOOTP/RARP and TFTP protocols. By default, Xyplex products load software from local media if it is present. If it is not present, a client first searches for a Xyplex loader running XMOP. If no Xyplex loader is available, it searches for the other types of network hosts.

Your network may have more than one type of load server, parameter server, or dump server. These manuals describe how to install software on other types of network hosts: *Software Installation Guide for VMS Kits* and the *Software Installation Guide for UNIX Kits*.

Xyplex Products That Have Access to NVR or Control Storage

Xyplex products that have access to NonVolatile RAM (NVR) or Control Storage provide a Configuration Menu. The Configuration Menu allows you to enable and disable the protocols that the Xyplex product uses to obtain a load image and parameters. See the hardware installation guide for the Xyplex product for a description of the Configuration menu and how to use it.

How Xyplex Loaders Provide Services To Clients

Two conditions must exist for a Xyplex loader to provide services to a client, if the Manager Load Feature is enabled:

- The load image for the client must exist on the local media.
- The hardware device type, node name, or Ethernet™ address of the client must exist in the client database of the Xyplex loader.

Xyplex includes certain load images on the local media by default. You can update or change the load images on the local media. Xyplex also defines certain hardware types in the client database of the Xyplex loader by default. You can update the client database on most Xyplex loaders.

When a client broadcasts a requests for load service, it first requests a Xyplex loader running XMOP. If the Xyplex loader detects a client which is defined in its client database, it searches the local media for the correct load image for that client. If the correct load image exists on the media, it provides the load image to the client. If no Xyplex loader is available for load service, the client then searches the network for other load hosts using other protocols.

When a client attempts to update parameters in its permanent database with a DEFINE command, it first searches for Xyplex loaders which can function as its parameter server. If one is available, it stores parameters on the local media of the Xyplex loader. The client can also store parameters on some other network host. The client can also use two or more parameter servers for redundancy.

When a client searches for a dump server where it can store a diagnostic file, it first searches for a Xyplex loader which can function as a dump server. If one is available, it sends the diagnostic file to the Xyplex loader. Otherwise, the client searches for another dump server on the network.

The Different Types of Local Media

Xyplex loaders use either diskettes (floppy disks) or memory cards as local media. The following sections describe these types of local media, and the Xyplex loaders that use them. Each section includes a sample Show Manager Files screen, which lists the files on the diskette or memory card.

Table 1-1 lists the Xyplex loaders that obtain software and parameters from diskettes. This table lists the other Xyplex products that can obtain load service from each Xyplex loader.

Table 1-1. Xyplex Loaders that use Diskettes

Xyplex Loader	Can Service these Xyplex products	Provides these services to clients
MAXman Card	MAXserver chassis-based products MAXserver standalone products Network 9000 Type 1 and Type 2 products	Load Service Parameter Service Dump Service (limited to 1.44 Mbyte dump files)
MAXserver 1800/1820 Standalone Terminal Server	MAXserver standalone terminal servers, the standalone TCP/IP-LAT Gateway, and standalone printer server.	Load Service Dump Service (limited to 1.44 Mbyte dump files)
MAXserver 6020, 6220, 3010, 3210 Standalone Bridges and Routers	(These do not load other Xyplex products.)	

The Show Manager Files display lists the files on a diskette. Figure 1-1 is a Show Manager Files display for a MAXman card.

```
 MAXserver V4.4    Rom 430001 HW 00.0  0.00 Lat Protocol V5.1 Uptime: 0
19:17:51

 Network dump files from directory /F1 on drive 1
    0 files , 0 bytes

 Load image files from directory /F1/SYSTEM on drive 1
  TSJ8LT.SYS      V4.4   10 Dec 1992   14:30: 23      309056 bytes
  NPC1LT.SYS.     V4.4   10 Dec 1992   14:47:04       309056 bytes
  TSLJ16L.SYS     V4.4   10 Dec 1992   14:52:19       252068 bytes
    3 files, 870720 bytes.

 Parameter files from directory /F2 on drive 2
 -005042.SYS      ver 23        01 Dec 1992  03:41:40       16586  bytes
 -00504C/.SYS     ver 88        01 Dec 1992 03:44:08        12934 bytes
    2 files, 29250 bytes
           2 files, 325184 bytes.
```

Figure 1-1. A Show Manager Files Display for a MAXman Card

The display in Figure 1-1 shows that the F1/System Directory contains load image files for three products: a terminal server, a printer server and another terminal server. The F0 directory is empty, which indicates that dump files have not been directed from a client to this Xyplex loader. Two parameter files are in the /F2 directory, shown at the bottom of the display.

Xyplex Loaders That Use Memory Cards

Memory cards provide software and parameters for some Xyplex loaders. Several versions of memory cards exist, based on the file structure that the card supports. Each Xyplex loader can use only certain versions of memory cards.

Two types of memory cards are available:

ROM (Read Only Memory) Cards — These memory cards, also known as OTP cards, are read-only and you cannot update them.

Flash Cards — These memory cards are readable and writeable, and you can update them.

Table 1-2 lists the different versions of each card type, and the file structures they support.

Table 1-2. Different Versions of Memory Cards

Memory Card Type	**File Structure**
Version 1 ROM (OTP)	Contains one or two load images. (You cannot update a ROM card.)
Version 1 Flash	Contains a single load image for the local MAXserver unit.
Version 2 Flash	Contains 2 or more partitioned areas for multiple load images, and a parameter directory for clients.
Version 3 Flash	Contains 2 or more partitioned areas for multiple load images and a parameter directory for clients. Also contains a redundant parameter directory, which is not visible to the user, and does not appear on a Show Manager Files display.

Table 1-3 lists the Xyplex loaders that obtain software and parameters from memory cards. This table shows the other Xyplex products that can obtain load service from each Xyplex loader.

Table 1-3. Xyplex Loaders that Use Memory Cards

Xyplex Loader	**Memory Card Type**	**Can Serve these Xyplex products**	**Provides these services to Clients**
MAXserver 1600 Terminal Server	Type 1 Flash or ROM	MAXserver Standalone Terminal Servers	Load Service
MAXserver 1450 Printer Server	Type 1 Flash or ROM	MAXserver 1400a and 1450 Printer Servers	Load Service
Network 9000 Modules	Type 2 or 3 Flash	MAXserver chassis-based products MAXserver standalone products Network 9000 Type 1 and Type 2 products	Load Service Parameter Service

Figure 1-2 shows a sample Show Manager Files display for a Network 9000 Terminal Server 720. This Xyplex loader uses version 2 or 3 flash cards, which can support several different load images, depending on the size of the flash card.

```
 TS/720 V4.4       Rom 430001 HW 00.00.00 Lat Protocol V5.1 Uptime:  0
19:17:51

 Load image files from directory /F1/SYSTEM/ on drive 1

 MCFFS1.SYS      10 June 1992  14:30:23      10345  bytes  Area 1 Size   64888
 Available                                                 Area 2 Size   196513
 Available                                                 Area 3 Size   786157
 XPCSRV20.SYS    10 JUNE 1992  14:47:04      436736 Bytes  Area 4 Size   524288

  Parameter files from directory /F1/PARAM on drive 1
    -00A263.SYS   ver 1 10 October 1992       13:24:53      2543 bytes
    Defaults.sys  ver 0 10 October 1992       13:24:53      1024 bytes
```

Figure 1-2. A Show Manager Files Display for a Version 2 or 3 Flash Card

The display of the flash card in Figure 1-2 shows the loader file (MCFFS1.SYS) in Area 1, the load image for the terminal server (XPCSRV20.SYS) in Area 4, and two other available areas which do not contain load images. The parameter files are at the bottom of the display.

Warning

If you purchase memory cards from sources other than Xyplex, make sure that you purchase cards that are manufactured from 1 megabit memory chips. Many 2 Megabyte flash cards are made with 2 megabit memory chips, and do not work with Xyplex products. 4 Megabyte cards with 2 megabit memory chips are acceptable.

The Client Database

Xyplex loaders maintain a database of clients which can obtain load service from them, and in some cases parameter service and dump service as well. You can enable or disable load service, parameter service, and dump service for clients if the Xyplex loader supports these services. Chapter 7 describes the commands that do this in detail.

Some load servers, such as Network 9000 modules, are configured at Xyplex with many clients in the client database because the media they use can support several load images for any type of Xyplex product. You can delete clients that are unnecessary and add clients as needed. Other Xyplex loaders, such as the MAXserver 1600 Terminal Server or 1450 Printer Server, are configured at Xyplex with only a few clients in the client database because the media they use can support only one or two load images for specific products. You usually do not need to update the client database on these products.

You can define three types of client entries: local clients, global clients, or node clients. While all Xyplex loaders allow you to define Node client entries, not all Xyplex loaders allow you to define both Local and Global client entries. The command descriptions in Chapter 7, and the chapters describing each Xyplex loader, indicate the types of entries you can define in the client database

- Local clients

Local clients are any Xyplex card that resides in the same chassis as the Xyplex loader. A MAXman card, which offers parameter service, automatically creates a parameter file for a Local client after you reinitialize the MAXman. Products that use Version 2 and 3 flash cards, which also offer parameter service, create a parameter file for a Local client after a user issues a DEFINE command on the Local client.

- Global clients

Global clients are all products of a specific device type that reside on the network. These include chassis-based products and standalone products. Xyplex loaders that offer parameter service do not offer this service to global clients. (To provide parameter service to a client on the network, you can define it as a Node client.)

- Node Clients

Node clients are individual products that can reside in the same chassis as the Xyplex loader or on the network. You define each Node client with a unique node name or Ethernet address. Xyplex loaders that offer parameter service automatically create a parameter file for a Node client when you add the Node client to the database.

The Show Manager Clients display lists the contents of the client database on a Xyplex loader. Figure 1-3 is a sample display for a Network 9000 module.

```
TS/720 V4.4    Rom 430001 HW 00.00.00 Lat Protocol V5.1 Uptime:  0
19:17:51

 Address 08-00-87-00-26-81  Name:                        Number:       0

 Ethernet Address       Device     Name   Load File     Diag File  Load
   Dump

 08-00-87-03-5C-03   N/A    Hub1                            Yes No
 08-00-87-04-5D-04   N/A    Hub1                            Yes No
 Local Devices       76                                         Yes No
 Local Devices       80                                         Yes No
 Local Devices       84                                         Yes No
```

Figure 1-3. A Show Manager Clients Display

The display in Figure 1-3 shows local clients by device type and node clients with their unique Ethernet addresses and Node names. The Node clients can exist in the chassis or on the network.

The Xyplex Manager Commands

Xyplex provides a set of commands which enable and disable Xyplex Manager functions to clients, update the client database, and update software on local media. These are the Xyplex manager commands, described in Chapter 7. Each Xyplex loader supports a subset of the Xyplex Manager commands, and each command description indicates which Xyplex loader supports the command.

End of Chapter

Chapter 2

Using MAXman Cards

The MAXserver Manager card (MAXman) is a chassis-based Xyplex loader that can provide Xyplex manager functions to other Xyplex products in the same chassis and on the network. The MAXman card obtains its software and parameters from a system diskette. You add the load images for the other Xyplex products on your network onto the MAXman system diskette from MAXman archive diskettes. The configured system diskette automatically loads software to the clients when you initialize the MAXman card.

A MAXman can provide load service, parameter service, and limited dump service to clients. These clients can be MAXserver family products and Network 9000 family products. MAXman cards require Xyplex MAXman software Release 4.0 or later. This chapter includes the following sections:

- About the File System on MAXman Diskettes
- Loading Software From the MAXman System Diskette
- Upgrading MAXman Software
- Updating Load Images on the MXMAN-E Diskette
- Using the MAXman Card as a Parameter Server
- Using the MAXman Card as a Dump Server
- Updating Entries In the MAXman Client Database

Xyplex, Inc. supplies all software for MAXman cards on 3.5 in (8.9 cm), high density (1.44 megabyte) floppy diskettes. Table 2-1 lists the diskettes in the MAXman distribution kit:

Table 2-1. Diskettes in the MAXman Distribution Kit

Diskette Name	Diskette Contents
MXMAN-E	Contains the MAXman load image, default parameter files, and an event log fil This is the *system* diskette.
MXMAN-F MXMAN-G MXMAN-H MXMAN-I MXMAN-J MXMAN-K MXMAN-L	Contain load images that you can add to the MXMAN-E diskette to create a custom MAXman system diskette. These are the *archive* diskettes. See the *Software Kit Information Sheet* for a complete list of the load images on these diskettes.

About the File System on MAXman Diskettes

The MAXman card uses three types of diskettes: the system diskette, the archive diskettes, and a third diskette which is generally used to store parameters during normal operations. This section describes the file structure of each diskette and the disk drive where it resides.

The MXMAN-E diskette, which always resides in disk drive 1, has three directories: one which accepts dump files if a client requests dump service, the /SYSTEM directory which holds the load image files, and a directory which can hold parameter files for clients. The MAXman card stores parameter files on the diskette in drive 2 by default, but you can change this with the DEFINE MANAGER PARAMETER command. The MAXman card stores dump files on the MXMAN-E diskette in drive 1 by default, but you can change this with the DEFINE MANAGER DUMP command. Chapter 7 describes these commands in detail.

The diskette which resides in disk drive 2 during normal operations contains a single directory which accepts dump files if a client requests dump service and stores parameter files. This diskette stores the parameter files by default.

The archive diskettes, which reside in disk drive 2 during files transfers, have a single directory which contains the load image files.

Loading Software from the MAXman System Diskette

If this is the first time you have used the MAXman card, be sure that you have added the appropriate load images for your network to the MXMAN-E diskette. See the section Updating Load Images on the MXMAN-E Diskette, later in this chapter, for information about how to do this. Also be sure that these products have been defined in the client database. See the section Updating Entries in the MAXman client database for information about how to do this.

To load software on a MAXman card from the diskette, insert the MXMAN-E diskette into disk drive 1. Insert a blank diskette that is formatted to 1.44 megabytes into drive 2 (use DOS 3.1 or later or IBM OS/2). This is the default parameter diskette. Press the Reset switch twice to initialize the MAXman card.

Note: Before you insert a diskette into the disk drive, make sure that the diskette is write enabled. Inserting a write-protected diskette may cause the MAXman to crash or to fail to initialize.

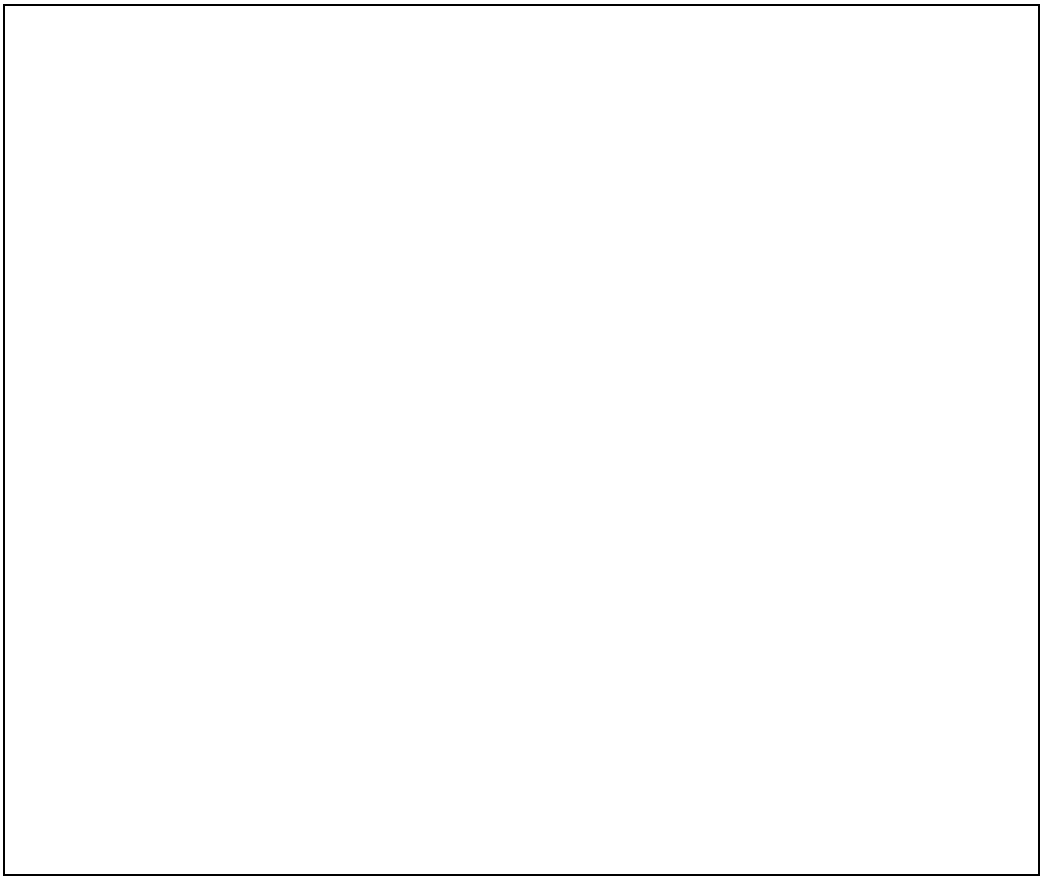

Figure 2-1. Loading and Ejecting Diskettes

After you power on or initialize the MAXman card, it runs a series of self tests. Upon successful completion of the self tests, the MAXman loads software from the system diskette. The MAXman then loads the client servers whose load image files you have added to the MXMAN-E diskette from the archive diskettes.

The MAXman card stores load images in compressed format. Clients that obtain a load image from the MAXman expand that image. This process takes four to five seconds and causes the LEDs on the front of the card to blink.

What to do After You Install Software

After you install the software, store copies of the distribution media, including the system diskette and the parameter diskette, in a safe place for future use. In addition, you might want to do one of the following:

- Update the MXMAN-E diskette with different load images. The section, Updating Load Images on a MXMAN-E diskette explains how to do this.
- Update the client database. The section Updating Entries in the Client Database, later in this chapter, explains how to do this.

Upgrading MAXman Software

Follow these steps to upgrade a MAXman diskette with a newer version of MAXman software, while maintaining current parameters. The commands you use in this procedure require that you be a privileged user. See Chapter 7 for information about how to become a Privileged user and for more details about these commands.

A. Enter the SAVE command. These messages appear on the screen

```
Copying local MAXman parameters to a temporary file.

Insert a writeable saveset disk into drive 1, then enter the command
"SAVE FILES CONFIRM" at the prompt.
```

B. Replace the system diskette in disk drive 1 with a formatted, blank, writeable, saveset diskette and enter the SAVE FILES CONFIRM command. These messages appear on the screen:

```
Saving /F2/-004582.SYS to /F1/-004582.SYS
Saving /F2/PARAM.SAV to /F1/PARAM.SAV
Please remove the saveset disk from drive 1 and reinsert the system disk.
```

C. Replace the saveset disk in drive 1 with the system disk containing the new version of MAXman software.

D. Initialize the MAXman to load it with the new version of MAXman software.

E. Become a Privileged user when initialization is complete.

F. Replace the system diskette in drive 1 with the saveset diskette.

G. Enter either the RESTORE ALL or the RESTORE LOCAL command. The RESTORE ALL command restores the parameters of a MAXman and those of its local clients. The RESTORE LOCAL command restores the parameters of the MAXman only. The MAXman displays the messages " Moving local parameters to a temporary file," and, if you used the RESTORE ALL command, will display the message "Restoring parameter files."

H. Replace the saveset disk with the system disk containing the new version of MAXman software, when the command interface prompts you to do so.

I. Issue the RESTORE LOCAL CONFIRM command. The system will display the message, "Restoring MAXman local parameters from a temporary file."

Updating Load Images On the MXMAN-E Diskette

The MXMAN-E diskette includes only the MAXman load image when you receive it from Xyplex. You add the load images that are appropriate for your network from the archive diskettes included with the MAXman kit. The Software Kit Information sheet lists the load images on each of the MAXman archive diskettes.

You can add load images to and delete load images from the the MXMAN-E diskette in two ways: you can use the Configure feature on the MAXman, or you use Copy and Remove command on a Personal Computer (PC).

Using the Configure Feature to Update the MXMAN-E Diskette

The Configure feature activates a set of Xyplex manager commands which add and delete load images and display the load image files on the MXMAN-E diskette. This feature suspends all Xyplex manager functions, such as loading, dumping, and parameter serving, when you enable it. The command that enables the Configure feature is this:

CONFIGURE ENABLED|DISABLED

This command requires that the privilege level of the port be set to Privileged.

The MAXman command interface supports these with the Configure feature enabled:

Command	**Purpose**
ADD "*filename*"	Adds a load image file to the MXMAN-E diskette.
REMOVE "*filename*"	Deletes a load image file from the MXMAN-E diskette.
DISKCOPY	Copies the entire contents of one archive diskette to the MXMAN-E diskette.
SHOW [MANAGER] FILES	Displays the files on a diskette.

Chapter 7 explains these commands as well as the CONFIGURE command in detail. The examples in this section show how to use the Configure commands to update a MXMAN-E diskette.

Examples

These examples show how to use the MAXman Configure commands to add and delete load images from a MAXman system diskette. Example 1 adds three load images to the MXMAN-E diskette from two different archive diskettes. Example 2 deletes a load image from the MXMAN-E diskette.

1. Adding Load Images To the MXMAN-E Diskette

This example uses the ADD command to move three load images to the MXMAN-E diskette. It assumes that a MAXserver 5000 Communication Server has three different types of MAXserver card options in addition to the MAXman card: MX-TSRVM-J8 Eight Port Terminal Server cards, MX-NPC-P1 Network Printer server cards, and MX-6510 Remote Bridge cards. These products require the following load images on the MXMAN-E diskette: TSJ8LT.SYS, NPC1LT.SYS, and RB1W1.SYS.

A. Enable the Configure feature.

```
MAXman>> configure enabled ↵

Disk management operations enabled.
```

B. Insert the MXMAN-E diskette into drive 1 if it is not already there. Eject the parameter file disk from drive 2, and insert a MAXman archive disk into drive 2. Use the SHOW FILES command to display the current files on the disks in drives 1 and 2.

```
MAXman>> show files ↵
```

```
MAXman V4.4 Rom 500000 HW 02.01.00 Lat Protocol V5.1 Uptime:  0 00:03:11

Address:   08-00-87-00-50-03   Name:   MAXMAN                 Number:     0

Load image files from directory /F2 on drive 2
  TSMJ8LT.SYS  V4.4    08 Oct 1992  11:01:30  298880 bytes
  TSJ8LT.SYS   V4.4    08 Oct 1992  11:00:30  211776 bytes
  NPC1LT.SYS   V4.4    08 Oct 1992  10:59:58  250944 bytes
  TSLJ16L.SYS  V4.4    08 Oct 1992  11:01:04  185216 bytes
  MX1400.SYS   V4.4    08 Oct 1992  10:59:10  256000 bytes
  -005001.SYS  ver 10000009 16 Oct 1992  15:33:46   22062 bytes
   6 files, 1224878 bytes.

Load image files from directory /F1/SYSTEM on drive 1
   0 files, 0 bytes.

1207808 bytes free on drive 1
```

C. Copy the TSJ8LT.SYS load image file to the MXMAN-E diskette :

```
MAXman>> add "tsj8lt" ↵

Copying file /F2/tsj8lt.SYS to /F1/SYSTEM/tsj8lt.SYS
MAXman>>
```

D. When the first copy operation is complete, copy the NPC1LT.SYS load image file to the MXMAN-E diskette:

```
MAXman>> add "npc1lt" ↵

Copying file /F2/npc1lt.SYS to /F1/SYSTEM/npc1lt.SYS
MAXman>>
```

E. When the second copy operation is completed, eject the MAXman archive from Drive 2, and insert another MAXman archive disk into Drive 2.

F. List a directory of the files on the diskettes in Drives 1 and 2:

```
MAXman>> show files
```

```
MAXman V4.4 Rom 500000 HW 02.01.00 Lat Protocol V5.1 Uptime:  0
00:19:39

Address:   08-00-87-00-50-03   Name:   MAXMAN                 Number:
0

Load image files from directory /F2 on drive 2
  TSJ8T2.SYS   V4.4      09 Oct 1992  12:06:40  222272 bytes
  MX1500.SYS   V4.4      09 Oct 1992  12:05:30  357056 bytes
  RB1W1.SYS    V0.0A0    17 Sep 1992  15:38:24  365952 bytes
   3 files, 945280 bytes.

Load image files from directory /F1/SYSTEM on drive 1
  TSJ8LT.SYS   V4.4      16 Oct 1992  15:40:06  211776 bytes
  NPC1LT.SYS   V4.4      16 Oct 1992  15:42:40  250944 bytes
   2 files, 462720 bytes.

744448 bytes free on drive 1
```

G. Copy the RB1W1.SYS load image to the diskette in Drive 1:

```
MAXman>> add "rb1w1"
Copying file /F2/rb1w1.SYS to /F1/SYSTEM/rb1w1.SYS
```

H. Eject the MAXman archive Disk from Drive 2. Insert the parameter file disk into Drive 2.

I. Disable the Configure feature to enable Xyplex manager functions.

```
MAXman>> configure disabled
Normal server ope ration restored.
MAXman>>
```

2. Removing a Load Image From the MXMAN-E Diskette.

This example removes the MX-NPC-P1 load image from the MXMAN-E diskette

A. Enable the Configure feature.

```
MAXman>> configure enabled
Disk management operations enabled.
```

B. Delete the load image using the REMOVE command. This process can take a few seconds after you enter the command.

```
MAXman>> remove "npc1lt"
Deleting file /F1/SYSTEM/npc1lt.SYS
MAXman>>
```

C. Disable the Configure feature to enable Xyplex Manager functions.

```
MAXman>> configure disabled
Normal server operation restored.
MAXman>>
```

Using a Personal Computer to Update the MXMAN-E Diskette

You can use a personal computer (PC) to update the MXMAN-E diskette with MS-DOS commands. The procedure you use to add load image files depends on whether the PC has one disk drive or two disk drives. The procedure you use to delete load image files is the same.

Examples

These examples use the MS/DOS COPY and DELETE commands to add and remove a load image from the MXMAN-E diskette. Refer to the MS-DOS documentation for your PC for more information about these commands.

1. Copying a Load Image File On a PC With Two Disk Drives

This example shows how to copy a load image onto the system diskette on a PC with two disk drives. The command copies the terminal server load image `mx1500.sys` onto the MXMAN-E diskette.

Insert the MXMAN-E diskette into drive A, and the archive diskette into disk drive B. Then enter this command:

```
C: copy b:mx1500.sys a:\system\mx1500.sys
```

2. Copying a Load Image File On a PC With One Disk Drive

This example shows how to copy a load image onto the system diskette on a PC with one disk drive. To do this, you copy the load image from the archive diskette to the hard disk of the PC, and then copy the load image from the hard disk of the PC onto the MXMAN-E diskette. The command copies the terminal server load image mx1500.sys onto the MXMAN-E diskette.

Insert the archive diskette into the disk drive, and enter this command.

```
C: copy a:mx1500.sys
```

Eject the archive diskette. Now, insert the MXMAN-E diskette into the disk drive, and enter this command:

```
C: copy mx1500.sys a:\system
```

You can then delete the load image file from the hard disk on the PC:

```
C: delete mx1500.sys
```

3 Deleting a Load Image File on a PC

This example shows how to delete a load image file from the MXMAN-E diskette on a PC. The number of disk drives does not matter in this case because you use only one of them. The command deletes the terminal server load image mx1500.sys from the MXMAN-E diskette.

Insert the MXMAN-E diskette into drive A, and enter this command:

```
C: delete a:\system\mx1500.sys
```

Using the MAXman Card as a Parameter Server

By default, the MAXman card is enabled as a parameter server for local, global, and node clients. It creates a parameter file for a Local client after you initialize it. It creates a parameter file for a Global client after a user issues a DEFINE command on the global client. It creates a parameter file for a Node client when you add the Node client to the client database. The DEFINE MANAGER PARAMETER command, described in Chapter 7, can enable or disable the MAXman as a parameter server, as well as modify other parameter server characteristics.

Use the SAVE and RESTORE commands to save current parameters while upgrading to a newer version of MAXman software. The section Upgrading MAXman Software, earlier in this chapter, and the command descriptions in chapter 7 explain these commands in detail.

Using the MAXman Card as a Dump Server

By default, the MAXman card is enabled as a dump server for clients in the client database. It accepts small (512-byte) dump files by default on diskette in drive 1. You can change these characteristics with the DEFINE MANAGER DUMP command. This command allows you to enable or disable dump service on the MAXman card, to change the dump file size from small to large, to change the diskette drive where the dump file is sent, and the merit value of the dump server. Xyplex recommends that you do not change the dump size to full, however, because the MAXman diskette cannot accept more than 1.44 megabytes of data. Contact your Xyplex support representative about what to do with dump files.

When a client sends a dump file to a MAXman diskette, the MAXman stores it in the top level (root) directory on whichever disk drive is enabled to accept the dump files. These are the /F1 directory on disk drive 1 and the /F2 directory on disk drive 2. Disk drive 1 is the default. Dump file names have the .dmp extension.

To retrieve the dump file for analysis, make a copy of the dump file from the MAXman diskette. You can use the DISKCOPY command in CONFIGURE mode on the MAXman to copy the dump file to another diskette, or use a PC to copy the dump file to another diskette. See the section, Using the Configure Feature to Update the MXMAN-E Diskette, for information about how to use the DISKCOPY command. See the section, Using a Personal Computer to Update a MXMAN-E Diskette for information about how to copy a file from the MAXman diskette to another diskette on a PC.

When you have made a copy of the dump file, you can delete the dump file on the MAXman diskette. You can use the Xyplex Manager PURGE MANAGER DUMP FILES command while the diskette is in the MAXman card, or the MS-DOS DELETE command while the diskette is in the PC.

Updating Entries In the MAXman Client Database

Xyplex configures the MAXman client database with some hardware device types, but you may need to update this database with hardware types that correspond to the load images you have added to the MXMAN-E diskette. You can delete the hardware types for products that are not in your network. The Show/List Manager Clients display lists the entries in the MAXman client database. Appendix A of this manual and the *Software Kit Information* you received with the product includes a list of Xyplex device types.

You can add or delete three types of client entries in the client database of a MAXman card:

- Global client entries
- Local client entries
- Node client entries

Use the PURGE commands, described in Chapter 7, to delete entries from the client database.

A global client entry services load image requests from all units on the network of the device type you specify.

To define a global client entry, use this command:

```
DEFINE MANAGER  GLOBAL TYPE  device-type LOAD FILE "filename"
```

The *device-type* specifies the Xyplex-assigned hardware type of the unit that will receive its image from the MAXserver unit. You can define more than one global entry.

This example of the command defines device type 74, a standalone terminal server, as a global client entry:

```
Xyplex>> define manager global type 74 load file "mx1500.sys"
```

A Local client entry services load requests from all units in the chassis of the device type you specify.

To define a local client entry, use this command:

```
DEFINE MANAGER  LOCAL TYPE  device-type LOAD FILE "filename"
```

The *device-type* specifies the Xyplex-assigned hardware type of the unit that will receive its image from the MAXserver unit. You can define more than one local entry.

This example of the command defines device type 39, a printer server card, as a local client entry:

```
Xyplex>> define manager local type 39 load file "  npc1lt.sys"
```

A Node client entry services load requests from a specific node. Use this type of entry if you want the MAXserver to service requests from some units but not others.

To define a Node client entry, use a command of the form:

```
Xyplex>> DEFINE MANAGER  NODE ADDRESS  ethernet-address LOAD FILE  "filename"
```

The *ethernet-address* variable represents the unique Ethernet address of the remote unit that will receive its image from the MAXserver unit. Valid values for the *ethernet-address* are in the form of six pairs of hexadecimal numbers which are separated by hyphens, such as 08-00-87-C3-53-F1, or the last six digits of the address, separated by hyphens, such as C3-53-F1.

This example of the command defines the remote bridge card at an Ethernet address as a Node client entry:

```
Xyplex>> define manager node address   C3-53-F1 load file  "rb1w1.sys"
```

End of Chapter

Chapter 3

Using MAXserver 1800/1820 Terminal Servers

The MAXserver 1800/1820 sixteen-port standalone terminal server is a Xyplex loader that can provide Xyplex manager functions to certain other MAXserver standalone products on the network. These include other MAXserver 1500/1520, 1600, 1800/1820, and 1100/1120 standalone terminal servers, the MAXserver 1710 TCP/IP-LAT Gateway, and MAXserver 1400, 1400a, and 1450 printer servers. The MAXserver 1800/1820 can function as a load server and a dump server. It can store its own parameters, but it does not function as a parameter server.

A MAXserver 1800/1820 kit includes three system diskettes. Each diskette contains the `mx1500.sys` load image for MAXserver standalone terminal servers with 1 megabyte of memory, and one or two other load images. Table 3-1 lists the load images on each diskette. MAXserver 1800/1820 Terminal Servers require TCP/IP-LAT software Release 4.0 or later.

Table 3-1. Load Images on MAXserver 1800/1820 System Diskettes

System Diskette	Diskette Contents
MX1000-B1	Contains the `mx1500.sys` MAXserver standalone terminal server load image and the `mx1400.sys` and `mx1400a.sys` MAXserver printer server load images.
MX1000-C1	Contains the `mx1500.sys` MAXserver standalone terminal server load image and the `mx1710.sys` MAXserver TCP/IP-LAT Gateway load image.
MX1000-D1	Contains the `mx1500.sys` MAXserver terminal server load image and the `xpcs00s.sys` enhanced MAXserver terminal server load image for units with 2 or more megabytes of memory.

This chapter explains how to load software from a diskette on a MAXserver 1800/1820 Terminal server, how to update software, and how to update the client database.

- Loading Software From a MAXserver 1800/1820 Diskette
- Upgrading Software On an 1800/1820 Terminal Server
- Using the MAXserver 1800/1820 as a Dump Server
- Updating the MAXserver 1800/1820 Client Database

Xyplex, Inc. supplies all software for MAXserver 1800/1820 terminal servers on 3.5 in (8.9 cm), high density (1.44 megabyte) diskettes.

Loading Software From a MAXserver 1800/1820 Diskette

The MAXserver 1800/1820 Terminal Server loads the software load image and its own parameters from the diskette by default. To install software, insert the appropriate system diskette into the disk drive. After the system diskette is loaded into the drive, initialize the unit by connecting the power cord or by pressing the Reset switch twice. Figure 3-1 shows how to load and eject floppy diskettes.

Note: Before you insert a diskette into the disk drive, make sure that the diskette is write enabled. Inserting a write-protected diskette may cause the MAXserver 1800/1820 to crash or to fail to initialize.

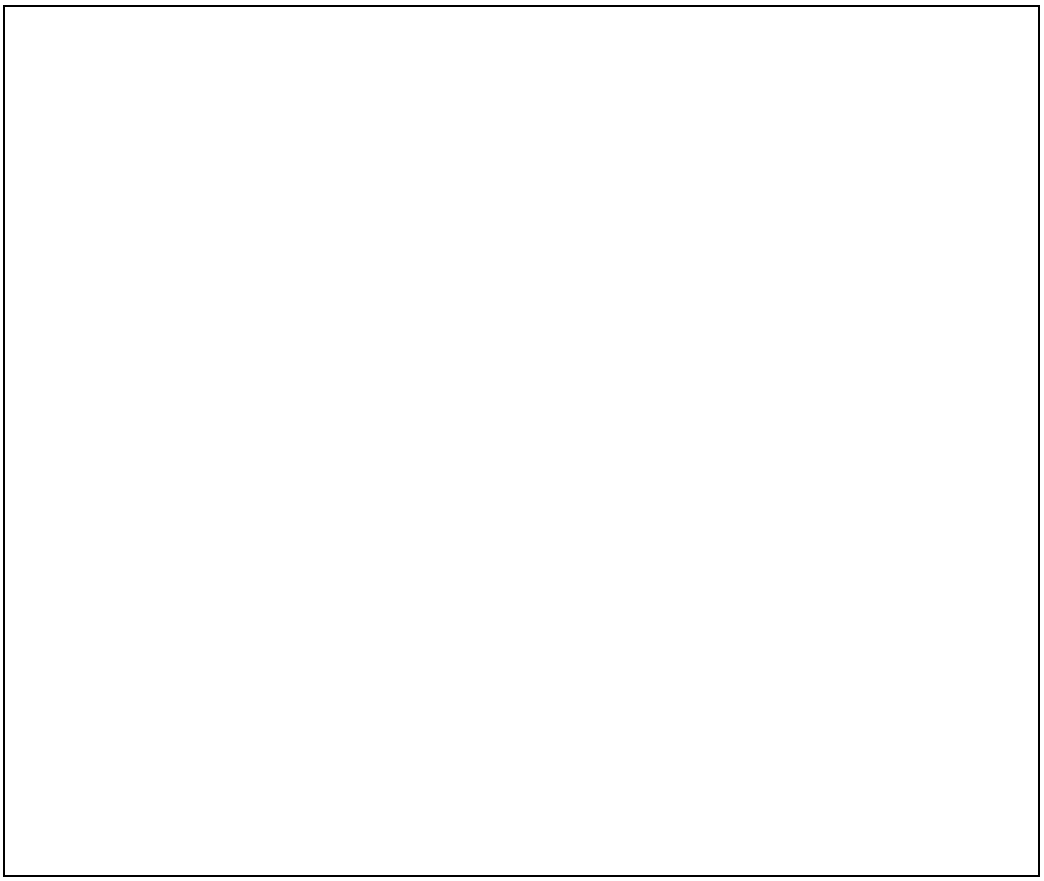

Figure 3-1. Loading and Ejecting Diskettes

After you power on or initialize the MAXserver 1800/1820 Terminal Server, it runs a series of self-tests. Upon successful completion of the self tests, it loads software from the system diskette. Then, the terminal server can load client servers.

What to do After You Install Software

After you install the software, store copies of the system diskette in a safe place for future use. You might also want to update the client database. The section Updating Entries in the client database, later in this chapter, explains how to do this.

Upgrading Software On an 1800/1820 Terminal Server

Follow these steps to upgrade software on a MAXserver 1800/1820 without losing the parameters stored on the diskette.

A. Verify that the parameters on the diskette are current. To do this, use the SHOW PARAMETER SERVER command with the diskette containing the current software version in the drive.

B. Remove the diskette when you verify that the diskette is up-to-date. (Never remove a diskette while the red diskette drive LED is illuminated.) Store the diskette in a safe place.

C. Insert the diskette containing the newer software version.

D. Use the CHECK PARAMETER SERVER command to update the diskette with the current parameters.

E. Use the INITIALIZE command to install the new software with the current parameters.

Follow these steps to revert to a previously saved parameter and software version.

A. Remove the diskette from the drive. (Never remove a diskette while the red diskette drive LED is lit.) Store the diskette in a safe place.

B. Use the INITIALIZE command to initialize the terminal server.

C. Install the diskette containing the previously saved parameters while the terminal server executes its diagnostics, or after the diagnostics are complete. The terminal server will now load with the previously saved parameter and software version.

Note: When loading a previously saved version of the software, never load the diskette before the diagnostics have begun execution. If you do so, the current parameters might be saved onto the diskette with the older software version.

On MAXserver 1800/1820 Terminal Servers, the current permanent parameters are not automatically saved when you change the system software diskette to the backup copy. To make the terminal server save these parameters on the diskette, issue a DEFINE or CHECK PARAMETER SERVER command.

Using the MAXserver 1800/1820 as a Dump Server

By default, the MAXserver 1800/1820 is enabled as a dump server for clients in the client database. It accepts small (512-byte) dump files by default. The DEFINE MANAGER DUMP command allows you to enable or disable dump service on the MAXserver 1800/1820, to change the dump file size from small to large, and the merit value of the dump server. Xyplex recommends that you do not change the dump size to Full, however, because the MAXman diskette cannot accept dump files greater than 1.44 megabytes. Contact your Xyplex support representative about what to do with dump files.

When a client sends a dump file to a MAXserver 1800/1820 diskette, the MAXserver stores it in the top level (root) directory on the diskette. Dump file names have the `.dmp` extension. To retrieve the dump file for analysis, make a copy of the dump file from the MAXserver diskette. You can do this on a personal computer with one or two disk drives. The following examples use the MS-DOS COPY command to copy a dump file from a MAXserver 1800/1820 diskette. Refer to the MS-DOS documentation for your PC for more information about MS-DOS commands.

When you have made a copy of the dump file, you can delete the dump file on the MAXman diskette. You can use the Xyplex Manager PURGE MANAGER DUMP FILES command while the diskette is in the MAXserver 1800/1820 Terminal Server, or the MS-DOS DELETE command while the diskette is in the PC.

1. Copying a Dump File On a PC With Two Disk Drives

This example shows how to copy the dump file `001234.dmp` onto a diskette on a PC with two disk drives.

Insert a formatted diskette into drive A and the MAXserver 1800/1820 diskette with the dump file into drive B. Then enter this command:

```
C: copy b:-001234.dmp a:\-001234.dmp
```

2. Copying a Dump File On a PC With One Disk Drive

This example shows how to copy the dump file `001234.dmp` onto a diskette on a PC with one disk drive. To do this, you copy the dump file from the MAXserver 1800/1820 diskette to the hard disk of the PC, and then copy the dump file from the hard disk of the PC onto another diskette.

Insert the MAXserver 1800/1820 diskette into the disk drive, and enter this command.

```
C: copy a:-001234.dmp
```

Eject the MAXserver diskette. Now, insert a formatted diskette into the disk drive, and enter this command:

```
C: copy -001234.dmp a:\-001234.dmp
```

You can then delete the load image file from the hard disk on the PC:

```
C: delete -001234.dmp
```

Updating the MAXserver 1800/1820 Client Database

Xyplex has defined the hardware types for all possible client servers in the client database of a MAXserver 1800/1820 Terminal Server, so you usually do not have to update the client database. If you do, you can add or delete two types of client entries on the MAXserver 1800/1820:

- Global client entries
- Node client entries

Use the PURGE commands, described in Chapter 7, to delete entries from the client database.

A Global client entry services load image requests from all units on the network of the device type you specify. Appendix A of this manual and the Software Kit Information you received with the product includes a list of Xyplex device types.

To define a global client entry, use this command:

```
DEFINE MANAGER  GLOBAL TYPE  device-type LOAD FILE  "filename"
```

The *device-type* specifies the Xyplex-assigned hardware type of the unit that will receive its image from the MAXserver unit. You can define more than one global entry.

This example of the command defines device type 36, a standalone terminal server, as a global client entry:

```
Xyplex>> define manager global type 36 load file "mx1500.sys"
```

Defining a Node Client Entry

A Node client entry services load image requests from a specific node. Defining a Node client entry does not create a default parameter file for that entry on a MAXserver 1800/1820. Use this type of entry if you want the MAXserver to service requests from some units but not others.

To define a Node client entry, use this command:

```
Xyplex>> DEFINE MANAGER  NODE ADDRESS  ethernet-address LOAD FILE
"filename"
```

The *ethernet-address* represents the unique Ethernet address of the remote unit that will receive its image from the MAXserver unit. Valid values for the *ethernet-address* are in the form of six pairs of hexadecimal numbers which are separated by hyphens (08-00-87-C3-53-F1) or the last six digits of the address, separated by hyphens (C3-53-F1).

This example of the command defines the terminal server at an Ethernet address as a Node client entry:

```
Xyplex>> define manager node address  C3-53-F1 load enabled
```

End of Chapter

Chapter 4

Using MAXserver Standalone Bridges and Routers

Xyplex MAXserver Standalone Bridges and Routers load software and parameters from a diskette. These products include the MAXserver 6020 Remote Bridge and 6220 Remote Router, and the MAXserver 3010 Local Bridge and 3210 Local Router. These products do not provide Xyplex manager services to other Xyplex products.

This chapter includes the following sections:

- Loading Software From a MAXserver Diskette
- Upgrading Software On the Standalone Bridge or Router

Because these products do not provide Xyplex manager services to other units, they do not maintain a client database.

Loading Software From a MAXserver Diskette

MAXserver standalone bridges and routers load the software load image and their own parameters from the diskette by default. To install software, insert the appropriate system diskette into the drive. After the system diskette is loaded into the drive, initialize the unit by connecting the power cord or by pressing the Reset switch twice. Figure 4-1 shows how to load and eject floppy diskettes.

Note: Before you insert a diskette into the disk drive, make sure that the diskette is write enabled. Inserting a write-protected diskette may cause the unit to crash or to fail to initialize.

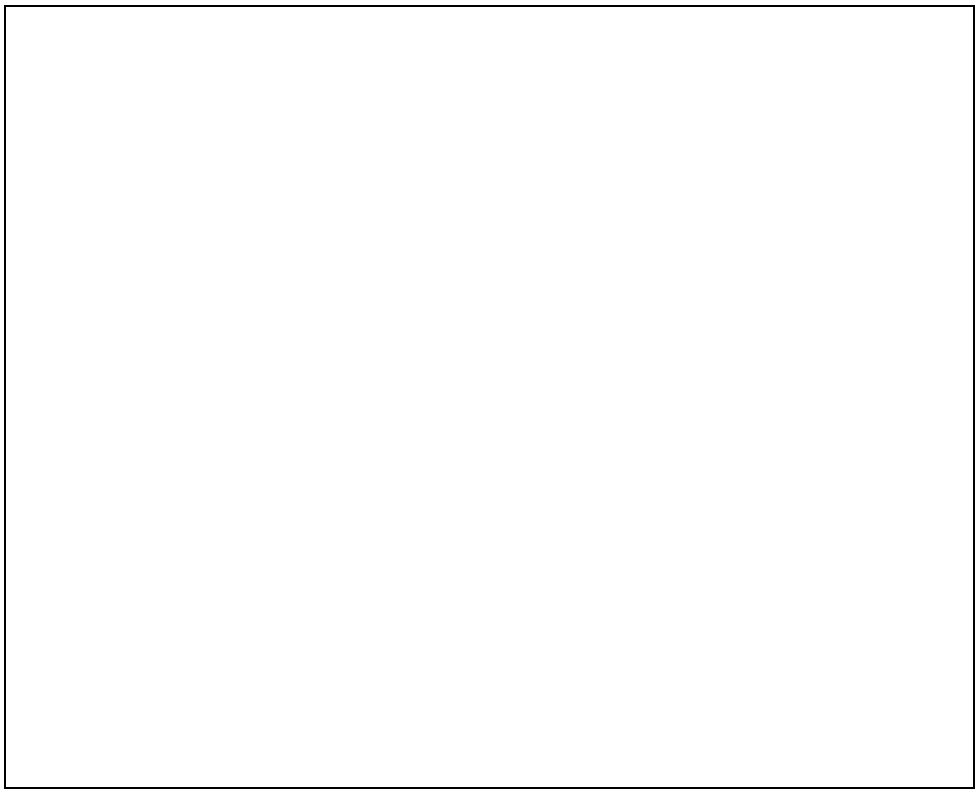

Figure 4-1. Loading and Ejecting Diskettes.

After you power on or initialize the standalone bridge or router, it runs a series of self-tests. Upon successful completion of the self tests, it loads software from the system diskette. Issue a DEFINE command to create the parameter file.

Upgrading Software On a Standalone Bridge or Router

You can upgrade the software on a standalone bridge or router with either of these methods:

- Using the CHECK PARAMETER SERVER Command
- Using the SOFTWARE UPDATE Command

Using the CHECK PARAMETER Server Command

Follow these steps to upgrade software on a MAXserver 1800/1820 without losing the parameters stored on the diskette.

A. Verify that the parameters on the diskette are current. To do this, use the SHOW PARAMETER SERVER command with the diskette containing the current software version in the drive.

B. Remove the diskette after you verify that the diskette is up-to-date. (Never remove a diskette while the red diskette drive LED is illuminated.) Store the diskette in a safe place.

C. Insert the diskette containing the newer software version.

D. Use the CHECK PARAMETER SERVER command to update the diskette with the current parameters.

E. Use the INITIALIZE command to install the new software with the current parameters.

Follow these steps to revert to a previously saved parameter and software version.

A. Remove the diskette from the drive. (Never remove a diskette while the red diskette drive LED is lit.) Store the diskette in a safe place.

B. Use the INITIALIZE command to initialize of the terminal server.

C. Install the diskette containing the previously saved parameters while the terminal server executes its diagnostics, or after the diagnostics are complete. The terminal server will now load with the previously saved parameter and software version.

Note: When loading a previously saved version of the software, never load the diskette before the diagnostics have begun execution. If you do so, the current parameters might be saved onto the diskette with the older software version.

On a MAXserver standalone bridge or router, the current permanent parameters are not automatically saved when you change the system software diskette to the backup copy. To make the server save these parameters on the diskette, issue a DEFINE or CHECK PARAMETER SERVER command.

Using the SOFTWARE UPDATE Command

The *Administrator's Reference Guide for Xyplex Remote Bridge /Router Software* explains the SOFTWARE update command in detail, but this section gives a brief description.

You enter the SOFTWARE UPDATE command from a bridge or router running a version of software that you want to use to upgrade a target bridge or router. The target bridge or router is upgraded to the version of software that is on the diskette of the bridge or router where you entered the command.

A MAXserver router can only upgrade another MAXserver router. A MAXserver bridge can only upgrade another MAXserver bridge.

The command syntax is the following:

SOFTWARE UPDATE [*internet-address*] [FILE "*filename*"] [PASSWORD "*password*"]
[*ethernet-address*]
[*target-name*]

The following example shows how to use this command to update the diskette on a target bridge at a particular Ethernet address from a bridge running a newer version of software:

```
Xyplex>> software update 08-00-97-00-76-D4 password "chris"

Updating 08-00-97-00-76-D4  with 123 of 123456
```

The bridge or router generates a message indicating the number of bytes sent and the total number of bytes of the load image.

Initialize the target unit to run the new software.

End of Chapter

Chapter 5

Using Xyplex Loaders with Type 2 Flash Cards

Xyplex Loaders with type 2 flash cards include Network 9000 modules and MAXserver 1620 and 1640 Access servers. These Xyplex loaders can provide the following manager services to clients:

- Load service
- Parameter service

These Xyplex loaders do not provide dump service.

Xyplex includes the load image for the local product on the flash card. The flash card may also include the load images for other products. You can update the card with additional load images as necessary.

This chapter contains the following information about Xyplex loaders that support type 2 flash cards:

- About the File System on a Type 2 Flash Card
- Loading Software from a Type 2 Flash Card
- Updating a Type 2 Flash Card
- Using Xyplex Type 2 Cards as Parameter Servers
- Updating En tries in the Client Database

NOTE: Xyplex recommends that you use flash cards that can store at least 2 Megabytes of data with Network 9000 modules.

About the File System on Type 2 Flash Cards

The memory on a type 2 flash card is partitioned into areas. The number and size of the areas depends on the size of the card and how you format it. For example, a two megabyte card can have two, three, or four partitioned areas. The presence or absence of a redundant parameter directory also affects the size of the areas.

Area 1 of the flash card always contains the loader file, `mcffs1.sys`. The other areas can each contain a load image for a Xyplex product. The card might contain the load image for an Access Server 720 in Area 2, a 10BASE-T Concentrator in Area 3, and a Local Bridge/Router in Area 4, as well as `mcffs1.sys` in Area 1.

The Redundant Parameter Directory

A type 2 flash card can include a redundant parameter directory. This directory protects the permanent parameter directory in the event of a power failure while a parameter file is being updated. If such a failure occurs, the flash memory card maintains the integrity of the most recent completely saved version of the parameter file. The flash card maintains the redundant parameter directory automatically, and you need not enable any features or characteristics to ensure the redundant functionality.

Network 9000 Access Server 720 modules and MAXserver 1620 and 1640 access servers running V4.4 or greater format flash cards with a redundant parameter directory by default. Network 9000 10BASE-T Concentrators and Bridge/Router modules running V3.1 or greater also format flash cards with a redundant parameter directory by default.

You can specify the NONREDUNDANT keyword with the FORMAT command on 1 and 2 megabyte flash cards to eliminate this directory. However, you will probably want to maintain the redundant parameter directory under most conditions.

Formatting the Card

Xyplex provides several options you can use to format a flash card. Each option partitions memory into specific areas of specific sizes. These options allow you to tailor the areas on the flash card to accommodate the different load images for the products in your network. Four options are available: Option 1, Option 2, Options 3, and Option 4. (Option 4 applies to Network 3000 Routers and Hub/Routers only, not the Xyplex loaders in this chapter.)

Type 2 flash cards that you receive from Xyplex are formatted with Option 1 by default. Table 5-1 lists each option and how it affects the areas on different sized flash cards.

Table 5-1. Flash Card Area Types (in Kbytes) by Option

Card Type	Option 1 Areas i(Default)	Option 2 Areas	Option 3 Areas	Option 4 Areas (Network 3000 units only)
1 MB Flash with Redundant Parameter Storage	Area 1: 64 Areas 2: 197 Area 3: 262	Area 1: 64 Area 2: 459	Area 1: 64 Area 2: 459	Area 1: 64 Area 2: 459
1 MB Flash w/out Redundant Parameter Storage	Area 1: 64 Area 2: 197 Area 3: 524	Area 1: 64 Area 2: 721	Area 1: 64 Area 2: 721	Area 1: 64 Area 2: 721
2 MB Flash with Redundant Parameter Storage	Area 1: 64 Area 2: 197 Area 3: 786 Area 4: 524	Area 1: 64 Area 2: 983 Area 3: 524	Area 1: 64 Area 2: 1507	Area 1: 261 Area 2: 1834 *
2 MB Flash w/out Redundant Parameter Storage	Area 1: 64 Area 2: 197 Area 3: 786 Area 4: 786	Area 1: 64 Area 2: 983 Area 3: 786	Area 1: 64 Area 2: 1769	Area 1: 261 Area 2: 1834 *
4 MB Flash with Redundant Parameter Storage (Access Server, Media)	Area 1: 64 Area 2: 458 Area 3: 1048 Area 4: 1572	Area 1: 64 Area 2: 458 Area 3: 1048 Area 4: 1572	Area 1: 64 Area 2: 458 Area 3: 1048 Area 4: 1572	
4 MB Flash with Redundant Parameter Storage (Internetworking)	Area 1: 64 Area 2: 1507 Area 3: 1572	Area 1: 64 Area 2: 458 Area 3: 1048 Area 4: 1572	Area 1: 64 Area 2: 1507 Area 3: 1572	Area 1: 524 Area 2: 3669 *

* Indicates no parameter area. This option is available only on cards formatted to receive diagnostic files on Network 3000 Routers and Hub/Routers.

If you need to format the flash card use the following Xyplex command:

```
[SET SERVER] FORMAT CARD [OPTION 1 | OPTION 2 | OPTION 3 | OPTION
4] [NONREDUNDANT]
```

When you enter this command, the following messages appear on the screen:

```
xxxxx format.  WARNING: all data will be lost.
Press <RETURN> to start format, any other character to abort
```

-- where xxxxx indicates the vendor of the utility that was last used to format the card. If the flash card is from Xyplex, then Xyplex appears in this field.) After you press <RETURN> this message appears:

```
Format in progress, please wait.  xx% complete
```

If your terminal type is HARDCOPY, you do not see the "%complete" display. Formatting takes about 1 minute for a two Megabyte card. (If you need to abort the formatting process, press the <BREAK> key. Afterwards, the card will be unusable until you format it.) Once the formatting is complete, the "% complete" message is replaced with this message:

```
Format complete
```

Other Messages:

```
Xyplex -792- Card is write protected
Xyplex -794- Card not inserted
Xyplex -764- Format unsuccessful
Card format unrecognized.  Please enter card size (MByte)
```

Loading Software from a Type 2 Flash Card

When you initialize a Network 9000 module or turn on the power to the module, it automatically loads software from a flash card if one is present. After the module loads itself, it loads all clients of the same type requesting load service. It then loads other clients with images on the card and device types in the client database.

NOTE: Xyplex recommends that you wear a grounded wrist strap when you insert the card. If you do not have one, place one hand on the unit or another grounded object to ground yourself before you insert the memory card. Doing so helps prevent discharging static into the Xyplex loader.

After you initialize the Xyplex loader for the first time, it loads the default parameter file from the flash card. After you issue a DEFINE command at a client that is running with default parameters, that client stores parameters at a parameter server. Any DEFINE command will do this. For example, you can assign an Internet address with a DEFINE command. Doing this creates a parameter file for the client. The parameter file is named using the Ethernet address of the client.

By default, parameters are saved to all Network 9000 modules in the chassis that have a flash memory card, up to the number defined by the PARAMETER SERVER LIMIT feature. After a parameter file for a given Network 9000 module has been stored at a parameter server, it will run using the saved parameters when you initialize it. (Whenever possible, Xyplex recommends that you use at least two parameter servers for redundancy.)

Updating a Type 2 Flash Card

Type 2 flash memory cards are readable and writeable, and you can update them with new versions of software. You can update a flash card locally from another flash card, or remotely from a host on the network. Updating the card consists of 3 steps:

1. Format the card, if necessary. (Type 2 flash cards are formatted when you receive them from Xyplex.)

2. Add or replace one or more load images or the `mcffs1.sys` loader file using the appropriate command. (When you copy a new load image onto a type 2 flash card, the loader file is not automatically transferred with it.)

3. Initialize the Network 9000 module or MAXserver unit affected by the updated load image. Do so if you want the product to run using the updated image.

Updating Cards Locally

Three commands update Type 2 flash cards locally: COPY, CARDCOPY, and REMOVE.

Using the COPY Command

The COPY command transfers a file from a flash card to an area on another flash card. You specify the location of the source file and the location where you want the file to reside on the destination card. The source file and the destination file can be on the same card or different cards.

```
COPY "/system/ sourcefile" "/system/ destinationfile" AREA n
```

The pathname and filename can include up to 32 characters. An area can contain only one file, and a load image filename must be unique on the card. The file in Area 2 cannot have the same name as the file in Area 3, for example.

The n variable specifies the area on the card where the file will reside. The area must be large enough to accommodate the new file. (Most load images will not fit in area 2 of a 2-megabyte flash card.) The Show Manager Files display shows the size, in bytes, of each area.

NOTES: 1. If you attempt to copy a file into an area that is not large enough to accommodate the file, the command processor starts to load the file into the area, and then stops when it runs out of space. The command interface then displays the following message:

```
- Error detected in copy process -
```

The Show Manager Files display indicates the size of each area.

2. If you attempt to copy a file into an area that already contains a file, the command processor overwrites the existing file . The Show Manager Files display indicates whether or not an area contains a software load image file.

Area 1 is reserved for the loader file, `mcffs1.sys` . If this file is not already located in area 1, you must copy it into that area. The following example of the COPY command shows how to do this.

```
Xyplex>> copy "/system/mcffs1.sys" "/system/mcffs1.sys" area 1
```

When you enter this command, the interface prompts

```
Insert the destination card and press any key to continue.
```

Insert the destination card. The command processor checks that the card is formatted and can accept the new file. The interface then prompts

```
Insert the source card and press any key to continue.
```

If you are using one card, simply press the <Return> key at this prompt. The system copies the source file onto the destination file on the same card. If you are using two cards, insert the source card at this time. The module reads the file from the source card. It then prompts,

```
Insert the destination card and press any key to continue.
```

Insert the destination card again. The Access Server begins copying the source file onto the destination file. You may be prompted to enter the source and file and the destination file several times until the system copies the entire file. When this process is complete, the following message appears on the screen:

```
File copy completed successfully
```

You can copy load images to Areas 2, 3, and 4. For example, to copy the image file `xpcsrv20.sys` to area 3, you would use this command:

```
Xyplex>> copy "/system/xpcsrv20.sys" "/system/xpcsrv20.sys" area 3
```

When you enter this command, the system prompts you to insert and remove the memory cards as described for the `mcffs1.sys` file.

Using the CARDCOPY Command

The CARDCOPY command transfers the entire contents of one flash card to another flash card. The two cards must be the same size or the command will fail. The syntax for this command is the following:

[SET SERVER] CARDCOPY [NOERASE/ERASE]

If the destination card contains data, you must use the ERASE option. NOERASE is the default, so you need not specify it with a blank destination card.

This example of the CARDCOPY command assumes a blank destination card:

```
Xyplex>> cardcopy □
Insert source card and press any key.
Insert destination card and press any key
Insert source card and press any key
.
.
.
Insert destination card and press any key
Cardcopy completed successfully.

Xyplex>>
```

Using the REMOVE Command

The REMOVE command deletes the file you specify from the flash card.

`REMOVE "/`*`pathname/filename`*`"`

The "/pathname/filename" variable can include up to 32 characters, and you must specify a filename. There is no default for this variable. Enter the command as in the following example:

```
Xyplex>> remove "/system/xpcsrv20.sys"
```

When the file has been removed, the following message appears on the screen.

```
Deleting file "/system/XPCSRV20.SYS"
```

Updating Cards Remotely

The [SET SERVER] GET CARD LOAD FILE command updates a flash card remotely using either the XMOP/MOP protocols or TFTP. You must initialize the Xyplex product that requires the new load image after updating the card if you want it to run with the new software version.

Updating a Card with XMOP/MOP

To update a flash card using the Xyplex proprietary protocol (XMOP), or the Digital Equipment Corporation Maintenance Operations Protocol (MOP), use this command while in privileged mode:

`[SET SERVER] GET CARD LOAD FILE "`*`filename`*`" ADDRESS `*`ethernet-address`*` AREA `*`n`*

The "filename" variable specifies the software load image name on the load host. This name can include up to 63 characters. The filename XPCSRV20 is the default for Access Server 720 modules. In the case of a DEC VAX host running VMS or ULTRIX, the file must be in the MOP loader directory (for example, MOM$LOAD on a VMS host).

The ethernet-address identifies the load host where the newer software version resides. If you enter an Ethernet address with the Xyplex header (08-00-87), the Access Server uses the Xyplex proprietary protocol (XMOP). For other Ethernet addresses, the unit uses MOP.

For type 2 flash cards, the n variable specifies the Area on the card where the image will be placed. The area must be large enough to accommodate the new file. Area 1 is reserved for the loader file, `mcffs1.sys`. Only one file can reside in an area. The SHOW MANAGER FILES command displays the size of each area in bytes.

Updating A Card With TFTP

To update the card using the Trivial File Transfer Protocol (TFTP), use this command while in privileged mode.

`[SET SERVER] GET CARD LOAD FILE " filename" INTERNET ADDRESS internet-address AREA n`

The value " filename" specifies the software load image name and its path on the load host; you can use a maximum of 63 characters. The default filename for Access Servers is XPCSRV20.SYS .

The Internet-address identifies the load host where the newer software version resides.

On type 2 flash cards, the n variable specifies the destination area on the card. The area must be large enough to accommodate the new file. Area 1 is reserved for the loader file, `mcffs1.sys`. Only one file can reside in an area. The SHOW MANAGER FILES command displays the size of each area in bytes.

Monitoring the Update Process

The Xyplex loader makes several attempts to load the files. This might take a few minutes if the files are not present at the host, or if the host does not respond. Use the MONITOR SERVER CARD STATUS command to monitor the progress of the update. Figure 5-1 shows a sample display.

```
MAXserver V5.3 Rom 430001 HW 00.00.00 Lat Protocol V5.1 Uptime:  0 19:17:51

Address:   08-00-87-01-4A-8B   Name:   XPX-TS                 Number:     0


Card Status:    Formatted / Write Enabled
Card Type:      Xyplex / FLASH / 1048576 bytes
Device Type:    Intel / 131072 bytes
Card State:     Idle

Get File Host:
Get File Name:
Get File Current State:    Idle

Get File Previous Status: None
```

Figure 5-1. A Server Card Status Display

The Get File Host field of the Server Card Status display shows the Ethernet address or Internet address of the MAXserver unit when it has loaded its software from a card.

Using Type 2 Flash Cards as Parameter Servers

By default, Xyplex loaders that use type 2 flash cards are enabled as a parameter servers for local and node clients. The loader creates a parameter file for a client when a user issues a DEFINE command on the client. The DEFINE MANAGER PARAMETER command, described in Chapter 6, enables or disables a Xyplex loader as a parameter server. (This command can also modify other parameter server characteristics.)

Using Multiple Parameter Servers

Flash cards can act as parameter servers for clients in most network configurations. Some restrictions apply to the use of flash cards as parameter servers, and these can affect how you use the flash card at your site. The restrictions apply to the number of parameter files the card can support, and the number of updates that the card can process.

Xyplex recommends that you use at least one back-up parameter server if you are using a flash card as a parameter server. This ensures that you will always have another copy of the parameter files and that all clients can save parameters. The back-up parameter server can be a UNIX host, a VAX/VMS host, a MAXserver Manager (MAXman) card, or a another flash card.

Determining the Appropriate Number of Clients

The available area in the parameter directory of a 2 Megabyte flash card is 262,144 bytes (256Kbytes). In most common configurations, a flash card can support one large (15-slot) chassis or several smaller (6-slot or 3-slot) chassis. Table 5-2 shows the average and maximum parameter file sizes for different Xyplex products. These figures can indicate whether or not the parameter directory on the flash card can support the clients in the network.

Table 5-2. Average and Maximum Parameter File Sizes

Product	Average Parameter File Size	Maximum Parameter File Size
Access Servers (average for all types)	6 Kbytes	14 Kbytes
Printer Servers	2 Kbytes	3.5 Kbytes
TCP/IP-LAT Gateways	30 Kbytes (fixed)	30 Kbytes (fixed)
X.25 Gateway	9Kbytes	9Kbytes
Network 9000 210/211 Repeater Management Processor	15 Kbytes	39 Kbytes
Network 9000 401 Bridge/Routers	30 Kbytes	40 Kbytes (512 Kbytes with static routing)
6800 WAN Bridge/Router	14 Kbytes	40 Kbytes (512 Kbytes with static routing)
Network 9000 220/221 Hub/Router	65/80 Kbytes	119 Kbytes
3610 10BASE-T Repeater	2.4 Kbytes	4.2 Kbytes

If a client cannot gain access to the parameter directory of a flash card because of inadequate space on the card, and the client cannot gain access to any other parameter server, the following message appears at the terminal on the client:

```
- Xyplex 198 - Changed configuration has not been saved
```

In addition, the Status field of the Monitor Parameter Server display on the client will show a status of Failed or Behind for the flash card.

Flash Card Update Activity

When a flash card acts as a parameter server, clients write to the card when they update their parameters. Each update is a "write cycle" on the card. In most environments, a flash card can support parameter updates for clients over an extended period of time.

Flash cards have limits on the number of write cycles they can process. While these limits are high, you need to be aware of them if you are using a flash card as a parameter server. Flash card vendors guarantee a minimum of 10,000 write cycles, although Xyplex has run flash cards far in excess of 10,000 write cycles. If the Parameter Area Updates field in the SHOW/MONITOR CARD STATUS screen displays a high number of updates, this indicates that the memory card has used a high number of write cycles.

Certain procedures can reduce the number of parameter area updates. For example, limiting SNMP SET commands reduces the number of write cycles to the card. Also, issuing DEFINE commands at one time, rather than at separate times, can reduce the number of updates to the card. This is because the server waits for 15 seconds before it updates the card after you enter a DEFINE command. If you enter another DEFINE command before the 15 seconds has passed, the unit saves both changes for another 15 seconds. It updates the card only after 15 seconds has passed without any changes. It then updates the card with all changes in one write cycle.

Using at least one back-up parameter server ensures that you will always have another copy of the parameter file if the number of write cycles on the flash card becomes very high.

Disabling Parameter Storage

You can disable parameter service on Xyplex loaders that support type 2 flash cards with the following command:

DEFINE [SERVER] MANAGER PARAMETER SERVICE DISABLED

Using this command does not stop the Xyplex loader from storing its own parameters, only of those of the clients in its database.

Updating Entries in the Client Database

Xyplex defines all device types in the client database of Network 9000 modules at the factory. This allows the product to offer Xyplex manager functions to any client with a load image on the flash card. You will probably want to delete those device types that you do not need with PURGE commands. This prevents the command processor from searching for load images that do not exist on the card.

The Show/List Manager Clients display lists the entries in the client database. Appendix A of this manual and the Software Kit Information you received with the product includes a list of Xyplex device types.

You can add or delete two types of client entries in the client database of a Network 9000 module or a MAXserver 1620 or 1640 Access Server:

- Node Client Entries
- Local Client Entries

Defining a Node Client Entry

A Node client entry allows the Xyplex loader to provide a load image to a specific node when the node requests it. Use this type of entry if you want the load server to service requests from some units but not others.

To define a Node client entry, use a command of the form:

```
DEFINE MANAGER  NODE ADDRESS  ethernet-address LOAD FILE  "filename"
```

The ethernet-address represents the unique Ethernet address of the remote unit that will receive its image from the MAXserver unit. Valid values for the ethernet-address are in the form of six pairs of hexadecimal numbers that are separated by hyphens (08-00-87-C3-53-F1) or the last six digits of the address, separated by hyphens (C3-53-F1).

This example of the command defines the managed concentrator at an Ethernet address as a Node client entry:

```
Xyplex>> define manager node address   C3-53-F1 load file
"xphub2ui.sys"
```

Defining a Local Client Entry

A Local client entry services load requests from all products in the chassis of the device type you specify.

To define a global client entry, use this command:

```
DEFINE MANAGER  LOCAL TYPE device-type LOAD FILE "filename"
```

The device-type specifies the Xyplex-assigned device type of the unit that will receive its image from the MAXserver unit. You can define more than one local entry.

This example of the command defines device type 84, a Network 9000 210 Management Processor, as a local client entry:

```
Xyplex>> define manager local type 84 load file "xphub2ui.sys"

Xyplex>>
```

End of Chapter

Chapter 6

Using Xyplex Manager Commands

This chapter includes detailed descriptions of the Xyplex manager commands. These commands update local media, add and delete entries from the client database of the Xyplex loader, and display information about the client database and the local media. Each command description indicates which Xyplex loaders support the command.

These are the commands in this chapter:

CARDCOPY

CONFIGURE

COPY

DEFINE MANAGER DUMP
DEFINE MANAGER GLOBAL
DEFINE MANAGER LOAD
DEFINE MANAGER LOCAL
DEFINE MANAGER LOG
DEFINE MANAGER NODE
DEFINE MANAGER PARAMETER
DEFINE MANAGER PARAMETER SERVICES
DEFINE MANAGER SIMULTANEOUS

FORMAT CARD

GET CARD LOAD FILE ADDRESS

GET CARD LOAD FILE INTERNET ADDRESS

GET CARD STOP

PURGE MANAGER ALL
PURGE MANAGER DUMP FILES
PURGE MANAGER GLOBAL
PURGE MANAGER LOCAL
PURGE MANAGER LOG FILE

PURGE MANAGER NODE
PURGE MANAGER PARAMETERS

REMOVE

RESTORE

SAVE

SHOW/MONITOR CARD STATUS

SHOW/LIST MANAGER CHARACTERISTICS
SHOW/LIST MANAGER CLIENTS
SHOW/LIST MANAGER EVENTS
SHOW/LIST MANAGER FILES
SHOW/LIST MANAGER GLOBAL
SHOW/LIST MANAGER LOCAL
SHOW/LIST MANAGER NODE
SHOW/LIST/MONITOR MANAGER STATUS

EnteringCommands

Most commands in this manual require that the privilege level of the user interface be set to Privileged. If you have not already done so, set the privilege level to Privileged with the SET PRIVILEGE command. On all products except the MAXman, enter the command at the `Xyplex>` prompt:

```
Xyplex> set privilege □
Password>
```

On MAXman cards, you enter the command at the MAXman prompt:

```
MAXman> set privilege
Password>
```

The user interface requests a password. The factory default password is system, but the password you use may be different. When you enter the correct password, the privileged prompt appears:

```
Xyplex>>
```

```
MAXman>>
```

The Privileged prompt includes a double carrot `>>` rather than a single carrot `>`.

NOTE: Xyplex recommends that you change the default Privilege password on all processor modules in the chassis to ensure the security of your network. The Software Management Guide for each product describes how to change the Privilege password.

You enter commands at the Xyplex prompt using this syntax:

`Xyplex>>` COMMAND KEYWORD variable [KEYWORD variable]. . .[[KEYWORD] variable]

Most commands allow you to enter two or more keywords and variables on the command line. If you do this, separate each characteristic with a space, a comma, or a combination of both. You can enter a command line that exceeds the line length of the screen as long as you do not press the Return key until the command line is complete. The maximum length of a command line is 132 characters.

Abbreviating Commands and Keywords

You can abbreviate many chassis management commands and keywords to the shortest unambiguous string of characters that the command interface can interpret. For example, you can abbreviate the command DEFINE MANAGER LOCAL TYPE as DEF MAN LOC TYP.

CARDCOPY
Copy the contents of a source card to a destination card

The [SET SERVER] CARDCOPY command copies the entire contents of one flash card onto another flash card.

Notes

Product support: Product s that use type 2 flash cards

The source card and the destination card must be the same size, or the CARDCOPY command will fail. If the source card is a 2-megabyte card, for example, the destination card must also be a 2-megabyte card. You cannot copy the contents of a 2-megabyte source card onto a 4-megabyte destination card.

The manager copies the data on one card to another card in 256K-byte segments. Because of this, the interface prompts you to insert the source card and then the destination card several times before it copies the entire contents of one card to another card.

Privilege Level

Privileged

Syntax

[SET SERVER] CARDCOPY [NOERASE | ERASE]

Where	Means
NOERASE	Copy the data on the source card onto a blank destination card. This is the default keyword for this command.
ERASE	Erase the current data on the destination card, then copy the contents of the source card onto it. If the destination card contains data, you must use the ERASE keyword, or the command interface does not begin the copy procedure.

Examples

1. This command copies the data on the source card onto a blank destination card. The NOERASE option is the default, so the command line does not include this keyword.

```
Xyplex>> cardcopy ☐
Insert source card and press any key.
Insert destination card and press any key.
Insert source card and press any key.
.
.
.
Insert destination card and press any key
Cardcopy completed successfully.
Xyplex>>
```

2. This command copies the data on the source card to a destination card that already contains data. The command line includes the ERASE keyword, which removes the data currently on the destination card before formatting it. The command interface prompts you to enter the card size in bytes before it erases the card. This example uses a 2-megabyte card.

```
Xyplex>> cardcopy erase ☐
Insert destination card and press any key.
WARNING all data will be lost.
Press <RETURN> to start erase, any other key to abort. ☐
Please enter card size (Mbytes) 2 ☐
Card erase in progress    Erase complete
Insert source card and press any key.
Insert destination card and press any key.
Insert source card and press any key.
.
.
.
Insert destination card and press any key.
Cardcopy completed successfully.
Xyplex>>
```

Enable or Disable configuration commands on a MAXman card

The CONFIGURE command enables a set of disk management commands that add or delete load images on a MAXman disk. When you enable the Configure feature, the MAXman suspends loading, dumping, and parameter serving operations.

Notes

Product support: MAXman cards

The MAXman supports these commands when you enable the Configure feature:

ADD "filename" This command copies the load image you specify from the diskette in drive 2 to the diskette in drive 1. The ADD command overwrites any existing filename with the same name. Do not include the `.sys` suffix. Enclose the filename in quotes.

DISKCOPY This command copies all data on the MA Xman system diskette in Drive 1 to a formatted blank diskette in drive 2, and then verifies the data on the diskette in drive 2.

To prevent accidental loss of data, this command does not copy the data unless the MAXman card detects that you have changed the diskette in Drive 2. You can, for example, remove a parameter file diskette and replace it with a formatted blank diskette.

The blank diskettes you insert into drive 2 must be 1.44 MB, and must be formatted by any version of DOS that supports 1.44 MB diskettes.

REMOVE "filename" This command deletes the load image you specify from the diskette in Drive 1. The Show Files display lists the load image files on the disk. Do not specify the `.sys` suffix on the filename. Enclose the filename in quotes.

SHOW [MANAGER] FILES Displays a screen with directory information including the name, version, and size of any load images on the MAXman system disk and archive disk, and the amount of free space available on the MAXman disk.

Privilege Level Privileged

Syntax

CONFIGURE ENABLED | DISABLED

Where	**Means**
ENABLED	Enable the Configure feature and the client configuration commands on the MAXman card. Enabling this feature disables Xyplex manager activities such as loading, dumping, and parameter serving.
DISABLED	Disable the Configure feature and resume Xyplex manager operations. This is the default state for this feature.

Examples

1. This command enables the Configure feature on a MAXman card.

```
MAXman>> configure enabled ↵
Disk management operations enabled.
MAXman>>
```

Xyplex manager functions are now disabled. Users can enter the ADD, DISKCOPY, REMOVE, and SHOW [MANAGER] FILES commands.

2. This command disables the Configure feature on a MAXman card.

```
MAXman>> configure disabled ↵
Normal Server operations restored.
MAXman>>
```

Xyplex manager functions are now enabled.

Copy a source file onto a destination file

The COPY command copies a source file to a destination file. You can use this command to copy a file from a flash card to a flash card, a floppy disk to a flash card, or a flash card to a floppy disk. (You cannot use this command to copy a file from one floppy disk to another floppy disk.)

Notes

Product Support: Products that use type 1 or 2 flash cards
MAXman cards
MAXserver 1820 Access Servers

If you attempt to copy a file into an area on a flash card that is too small, the unit will begin to copy the file into the area and then stop when it runs out of space. (This destroys the original file.) The command interface then displays this message:

```
- Error detected in copy process -
```

If you attempt to copy a file into an area on a flash card that already contains a file, the manager will overwrite the existing file. You must use the REMOVE command to delete a file from a floppy disk before you can copy another file with the same pathname onto it.

The loader file, `mcffs1.sys` , must always reside in Area 1 on a flash card. Do not copy a load image file into Area 1.

The Show/List Manager Files display shows the files on the media and the name of each file.

Privilege Level

Privileged

Syntax

COPY "source-file" "destination-file"

Where	Means
"source-file"	The pathname of the source file on the flash memory card or floppy disk. This pathname takes the following forms: Flash memory cards: "/mc/directory-name/filename" Floppy disks: "/fd/directory-name/filename"

"destination-file" The pathname of the destination file on the flash memory card or floppy disk. This pathname takes the following forms:

Flash memory cards: "/mc/directory-name/filename" AREA n

Floppy disks: "/fd/directory-name/filename"

AREA n Copy the file you specify to the area you specify in the n variable. Valid values for n depend on the number of areas on the flash card. Two and four megabyte cards have Areas 1, 2, 3, and 4; eight megabyte cards have Areas 1, 2, 3, 4, 5, 6, 7, and 8. (Area 1 must always contains the `mcffs1.sys` file.)

Examples

1. This command copies the loader file from one flash card to Area 1 on another flash card.

```
Xyplex>> copy "/mc/system/mcffs1 .sys" "/mc/system/mcffs1 .sys"
area 1
Insert the destination card and press any key to continue.
```

Insert the destination card and press any key.

```
Insert the source card and press any key to continue.
```

If you were using one card, you would simply press the <Return> key at this point. Otherwise, eject the destination card and insert the source card, and press any key. The system copies the source file onto the destination file

```
Insert the destination card and press any key to continue.
```

Insert the destination card again. The manager begins copying the source file onto the destination file. The interface can prompt you to enter the source card and the destination card several times until the manager copies the entire file. When this process is complete, the interface displays this message:

```
File copy completed successfully.
Xyplex>>
```

2. This command copies a load image file from a floppy disk to Area 2 of a flash memory card. The unit is a Network 3000 Hub/Router with a disk drive and a card drive.

```
Xyplex>> copy "/fd/system/xprr3.sys" "/mc/system/xprr3.sys/"
area 2
File copy completed successfully
Xyplex>>
```

3. These commands delete a parameter file from a floppy disk, then copy another parameter file from a flash card to the floppy disk. (See the information on the REMOVE command, later in this chapter.) The unit is a Network 3000 Hub/Router with a disk drive and a card drive.

```
Xyplex>> remove "/fd/param/-0337c9.sys"
Deleting file "/param/-0337c9.sys"
Xyplex>> copy "/mc/param/-0337c9.sys" "/fd/param/-0337c9.sys"
File copy completed successfully
```

Enable or disable a dump server

The DEFINE [SERVER] MANAGER DUMP command enables or disables a Xyplex loader as a dump server. It also assigns other characteristics, including the merit value, to the dump server.

Notes

Product Support: MAXman ca rds
MAXserver 1820 Access Servers

Privilege Level

Privileged

Syntax

DEFINE [SERVER] MANAGER DUMP[DISABLED | ENABLED]
[DRIVE drive-number]
[MERIT value]
[SIZE SMALL | FULL]

Where	Means
ENABLED	Enable dump service on this Xyplex loader for one or more clients. This is the default.
DISABLED	Disable dump service for clients.
DRIVE drive-number	The number of the MAXman disk drive that will store the dump files. Valid values for drive-number are 1 and 2. The default is 1. (This variable applies to MAXman cards only, not MAXserver 1820 access servers.)
MERIT value	A merit value between 1 and 15. The default is 9. Clients request dump service from the dump server with the highest merit value, given the choice of two or more available dump servers.

Where	Means	
SIZE	The type of dump file that the Xyplex loader attempts to save from a single network device dump. Valid values for SIZE are the following:	A SMALL dump file contains up to 512 bytes of data. This size file is large enough to accept the crash dump header, the client's CPU register contents, a stack fragment, and a fragment of the code that was being executed when the failure occurred. This is the default dump size. FULL A FULL dump file contains all data from the memory of the client.

For both SMALL and FULL dump files, the actual amount of data saved is limited to the available free disk space. If the dump server uses all the available disk space before it can save 512 bytes, the dump will be incomplete.

Examples

1. This command enables dump service on a MAXman card, assigns a drive number, and assigns the highest possible merit value to it.

```
MAXman>> define manager dump enabled drive 2 merit 15
MAXman>>
```

2. This command enables dump service on a MAXserver 1820 and specifies FULL as the dump file size.

```
Xyplex>> define manager dump enabled size full
Xyplex>>
```

Add or change a global client entry

The DEFINE [SERVER] MANAGER GLOBAL command adds or changes a global client entry in the client database.

Notes

Product support: MAXman cards
MAXserver 1820 Access Servers
Products that use type 1 flash and ROM cards

You must specify a hardware device type for the global client. See Appendix A of this manual or the Software Kit Information sheet you received with the product software for a list of Xyplex hardware device types.

Privilege Level

Privileged

Syntax

```
DEFINE [SERVER] MANAGER GLOBAL TYPE    device-type
                                       [[LOAD] FILE " image-name"]
                                       [DIAGNOSTIC FILE " filename"]
                                       [LOAD ENABLED|DISABLED]
                                       [DUMP ENABLED|DISABLED]
```

Where	Means
TYPE device-type	The two-digit Xyplex hardware device type for the global client entry you want to add or change in the client database.
LOAD FILE "image-name"	The name of the load image that the load server sends to the client when the client requests a load image. This variable is optional. You need not specify it if the correct load image exists on the diskette or memory card. The image-name can consist of 1 through 16 ASCII characters. Enclose the name in quotes.
DIAGNOSTIC FILE "filename"	The name of the diagnostic file that the load server sends to the client when the client requests a diagnostic file. The filename can consist of 1 through 16 ASCII characters. Enclose the filename in quotes. (This option is generally used in manufacturing and test environments only; not in normal production environments.)
LOAD ENABLED/ DISABLED	Enable or disable load service for the global client entry that you specify in the device-type variable. The default is ENABLED.
DUMP ENABLED/	Enable or disable dump service for the global client entry that you specify in the device-type variable. The default is DISABLED.

DISABLED

Examples

1. This command specifies device type 76 as a global entry in the client database and enabled this entry for load service.

```
Xyplex>> define manager global type 76 load enabled
Xyplex>>
```

2. This command enables all device types for load service and specifies TSRVMJ8.SYS as the load image file to send to all clients. This command also disables dump service for all device types.

```
Xyplex>> define manager global type all load enabled file
"tsrvmj8.sys" dump disabled □
```

Enable or disable a load server

The DEFINE [SERVER] MANAGER LOAD command enables or disables a Xyplex loader as a load server, and assigns a merit to the load server.

Notes

Product Support: MAXman cards
MAXserver 1820 Access Servers
Products that use type 1 or 2 flash or ROM cards

A client that is requesting load service can usually choose among several available load servers. The client always selects the load server with the highest merit value.

This Manager Load characteristic is enabled by default on MAXman cards, MAXserver 1820 access servers, and Xyplex loaders that use type 2 flash cards. It is disabled by default on Xyplex loaders that use type 1 flash and ROM cards.

Privilege Level

Privileged

Syntax

DEFINE [SERVER] MANAGER LOAD [ENABLED|DISABLED] [[MERIT] value]

Where	Means
ENABLED	This unit or module can operate as a load server for one or more clients. This is the default.
DISABLED	This unit or module cannot operate as a load server.
value	A merit value between 1 and 15. The default is 9. Clients request load service from the load server with the highest merit value, given the choice of two or more available load servers.

Example

This command enables load service on a load server and assigns the merit value 9 to the load server.

```
Xyplex>> define manager load enabled merit 15.
Xyplex>>
```

Add or change a local client entry

The DEFINE [SERVER] MANAGER LOCAL command adds or changes a local client entry in the client database.

Notes

Product support: MAXman cards
Network 9000 Modules

You must specify a hardware device type for the local client. See Appendix A of this manual or the Software Kit Information sheet you received with the product software for a list of Xyplex hardware device types.

Privilege Level

Privileged

Syntax

```
DEFINE [SERVER] MANAGER LOCAL TYPE  device-type
                                    [[LOAD] FILE " image-name"]
                                    [DIAGNOSTIC FILE " filename"]
                                    [LOAD ENABLED|DISABLED]
                                    [DUMP ENABLED|DISABLED]
```

Where	Means
TYPE device-type	Specify the two-digit Xyplex hardware device type for the local client entry you want to add or change in the client database.
LOAD FILE "image-name"	Specify the name of the load image that the load server sends to the client when the client requests a load image. This variable is optional. You need not specify it if the correct load image exists on the diskette or memory card. The image-name can consist of 1 through 16 ASCII characters. Enclose the name in quotes.
DIAGNOSTIC FILE "filename"	Specify the name of the diagnostic file that the load server sends to the client when the client requests a diagnostic file. The filename can consist of 1 through 16 ASCII characters. Enclose the filename in quotes. (This option is generally used in manufacturing and test environments only; not in normal production environments.)
LOAD ENABLED/ DISABLED	Enable load service for the local client entry that you specify in the device-type variable. The default is ENABLED.
DUMP ENABLED/ DISABLED	Enable dump service for the local client entry that you specify in the device-type variable. The default is DISABLED. (This option is only valid for Xyplex loaders that offer dump service, such as the MAXman card and the MAXserver 1820

Access Server.)

Example

This command enables device type 84, a Network 9000 Management Processor 210, for load service and specifies a load image name for this device type.

```
Xyplex>> define manager local type 84 load enabled file
"xphub2ui.sys"
```

Specify the maximum size of the log file

The DEFINE [SERVER] MANAGER LOG FILE command specifies the maximum size of the file where the manager records messages that describe events and activities.

Notes

Product Support: MAXman cards
MAXserver 1820 Access Servers

Privilege Level

Privileged

Syntax

DEFINE [SERVER] MANAGER LOG FILE size

Where	Means
size	The maximum size of the log file in kilobytes. Valid values for this variable on a MAXserver 1820 Access Server are the whole numbers 1 through 100. Valid values for this variable on a MAXman card are the whole numbers 1 through 28. The default for both units is 20.

Example

This command specifies a size of 28 kilobytes for the log file.

```
MAXman>> define manager log file 28
MAXman>>
```

Add or change a specific client entry

The DEFINE [SERVER] MANAGER NODE command adds or changes a specific client entry in the client database.

Notes

Product support: MAXman cards
MAXserver 1820 Access servers
Products that use type 1 or 2 flash or ROM cards

On a MAXman card, this command also creates a default parameter file for the client if one does not already exist.

Privilege Level

Privileged

Syntax

DEFINE [SERVER] MANAGER NODE [[HARDWARE] ADDRESS] [ethernet-address] [NAME] [node-name]

[[LOAD] FILE] [" image-name"] [COUNT n]
[DIAGNOSTIC FILE] [" filename"] [COUNT n]
[LOAD ENABLED|DISABLED] [COUNT n]
[DUMP ENABLED|DISABLED] [COUNT n]

Where	Means
ADDRESS ethernet - address	Specify unique Ethernet address of the client. You can enter the entire Ethernet address, such as 08-00-87-13-53-F1, or the last six hexadecimal digits of the Ethernet address, such as C3-53-F1. (If you enter only the last six digits, the first six digits are assumed to be 08-00-87.)
NAME node-name	Specify unique name of the client . The name you enter identifies a unit or module within the client database only, for use with other manager commands such as PURGE NODE. Use the DEFINE/SET SERVER NAME command to specify a LAT node-name. The node-name can consist of 1 through 16 ASCII characters. (The command processor converts all lower-case letters to upper-case letters.)
LOAD FILE "image-name"	Specify the name of the load image that the load server sends to the client when the client requests a load image. This variable is optional. You need not specify it if the correct load image exists on the diskette or memory card. The image-name can consist of 1 through 16 ASCII characters. Enclose the name in quotes.

Where	Means
DIAGNOSTIC FILE "filename"	Specify the name of the diagnostic file that the load server sends to the client when the client requests a diagnostic file. The filename can consist of 1 through 16 ASCII characters. Enclose the filename in quotes. (This option is generally used in manufacturing and test environments only; not in normal production environments.)
LOAD ENABLED/ DISABLED	Enable or disable load service for this specific client entry. The default is ENABLED.
DUMP ENABLED/ DISABLED	Enable or disable dump service for this specific client entry. The default is DISABLED.
COUNT n	Specify the number of consecutive Ethernet addresses where the options in this command line also take effect. For example, if you specify COUNT 3 for a node with an Ethernet address ending in 02-4D-05, the options in the command line also apply to nodes with Ethernet addresses 02-4D-06, O2-4D-07, and 02-4D-08.

Examples

1. This command adds a node client entry for the access server at Ethernet address 08-00-87-03-5C-03, and specifies a load image for that entry.

```
Xyplex>>.define manager node hardware address 03-5C-03 file
"xpcs00s.sys"
```

2. This command is similar to the command in Example 1, except that it includes the COUNT feature, with a value of 3. This causes the command processor to update the nodes that have the next three Ethernet addresses: 03-5C-04, 03-5C-05, and 03-5C-06. For each of these nodes, the load image file will be XPCS00S.SYS. Other values will revert to defaults.

```
Xyplex>>.define manager node hardware address 03-5C-03 file
"xpcs00s.sys" count 3
```

3. This command adds a node client entry with a node name.

```
Xyplex>> define manager node name tsrv20 load enabled

Xyplex>>
```

Enable or disable a parameter server

The DEFINE [SERVER] MANAGER PARAMETER command enables or disables a Xyplex loader as a parameter server.

Notes

Product Support: MAXman cards
Products that use type 2 flash cards

Privilege Level

Privileged

Syntax

```
DEFINE [SERVER] MANAGER PARAMETER SERVICE
        [ENABLED | DISABLED]
                [[DRIVE] drive-number ]
                [DEFAULT SERVICE  ENABLED | DISABLED]
```

Where	Means
SERVICE ENABLED/ DISABLED	Enable or disable this Xyplex loader as a parameter server for one or more clients. The default is enabled. Disabling parameter service does not stop the Xyplex loader from storing its own parameters, only those of the clients.
DRIVE drive-number	Specify the disk drive number on a MAXman card that contains the diskette that stores the parameter files. Valid values are 1 or 2. The default is 2.
DEFAULT SERVICE ENABLED/ DISABLED	Determines whether or not the Xyplex loader can provide a default parameter files to clients that do not have an existing stored parameter files. Such clients are usually defined with the DEFINE MANAGER GLOBAL command.

Example

The following commands enable parameter service and disable default parameter service on a Xyplex loader.

```
Xyplex>> define manager parameter server enabled □
Xyplex>> define manager parameter default service disabled □
Xyplex>>
```

Define how many operations the Xyplex manager can process at once

The DEFINE [SERVER] MANAGER SIMULTANEOUS command defines the maximum number of service operations that the Xyplex manager can process at the same time. These operations include servicing load image file requests, accepting dump files, and storing parameters.

Notes

Product Support: MAXman cards
MAXserver 1820 Access Servers
Products that use Type 1, or 2 flash or ROM cards

Not all products process all service operations. Products that support ROM and flash cards, for example, do not accept dump files.

The default value for this characteristic is 32, and this value is appropriate in most situations.

Privilege Level

Privileged

Syntax

DEFINE [SERVER] MANAGER SIMULTANEOUS value

Where	Means
value	The maximum number of service operations the Xyplex manager can process simultaneously. Valid values are the whole numbers 0 through 32. The default is 32.

Example

This command specifies 20 as the simultaneous value.

```
Xyplex>> define manager simultaneous 20
Xyplex>>
```

Format a memory card

The [SET SERVER] FORMAT CARD command formats a flash memory card to include areas for different software load images and a parameter file. See Chapter 5 for complete information about how the four formatting options affect the number and size of the areas on the flash card.

Notes

Product support: Products that use type 1 or 2 flash cards

You need to format type 1 flash cards before you update them. Type 2 flash cards that you receive from Xyplex are correctly formatted, so you do not need to format them before you update them.

You can eliminate this directory on 1- or 2-megabyte flash cards by formatting them with the NONREDUNDANT keyword. This releases an additional 256K-bytes of memory in Area 4 of the flash card, but eliminates the redundant parameter directory. Xyplex recommends that you do not format the card this way under most conditions, because parameters can be lost. You cannot eliminate the redundant parameter directory from a 4 megabyte flash card. The redundant parameter directory does not appear on a Show Manager Files display.

Privilege Level

Privileged

Syntax

[SET SERVER] FORMAT CARD [OPTION 1 | OPTION 2| OPTION 3 | OPTION 4] [REDUNDANT | NONREDUNDANT]

Table 6-1 in Chapter 6 of this manual includes the number of bytes allocated to each area according to the formatting option.

Where	Means
OPTION 1	Allocate space to areas on the card according to Option 1. This is the default option for all sizes of flash cards.
OPTION 2	Allocate space to areas on the card according to Option 2
OPTION 3	Allocate space to areas on the card according to Option 3.
OPTION 4	Allocate space to areas on the card according to Option 4. This option applies to Network 3000 Routers and Hub/Routers only. It eliminates the area for storing parameters, so that the card can receive a diagnostic file in the event of an abnormal system shutdown on a Network 3000 unit.

[NON-REDUNDANT]

Eliminate the redundant parameter directory on a one or two-megabyte flash card.

Example

This command formats a flash card for use on a Xyplex loader.

```
Xyplex>> format card ☐
Xyplex format.  WARNING all data will be lost.
Press <RETURN> to start format, any other character to abort ☐
Format in progress, please wait.  Format complete.

Xyplex>>
```

The [SET SERVER] GET CARD LOAD FILE ADDRESS command retrieves a load image file from an Ethernet address, using either the XMOP or MOP protocol.

Notes

Product Support: Products that use type 1 or 2 flash cards

This command retrieves the loader file, `mcffs1.sys` , with the load image on products that support type 1 flash cards.

This command retrieves only the file you specify on products that use type 2 flash cards. The loader file, `mcffs1.sys` , must always exist in Area 1 on a type 2 flash card. Do not copy a load image file into Area 1. If you want to keep two versions of the same load image on the card, you must rename one of them.

Privilege Level

Privileged

Syntax

[SET SERVER] GET CARD LOAD FILE " filename" ADDRESS ethernet-address

[SET SERVER] GET CARD LOAD FILE " filename" ADDRESS ethernet-address AREA n

Where	Means
"filename"	The name of the load image file on the network host. Enclose the filename in quotes.
ethernet-address	The Ethernet address of the network host.
AREA n	The area on the type 2 flash card where you want to copy the load image. The possible values for n depend on the size of the flash card. For example, 1, 2, and 4 megabyte flash cards have four areas; 8 megabyte flash cards have eight areas. You must specify an Area in this command for products that use type 2 flash cards. (The memory on type 1 flash cards is not partitioned into areas.)

Examples

1. This command retrieves a load image and `mcffs1.sys` from an Ethernet address and copies it onto a type 1 flash card.

```
Xyplex>> get card load file "mx1500.sys" 08-00-77-4B-CD □
Xyplex>>
```

2. This command retrieves a load image from an Ethernet address and copies it to Area 2 of a type 2 flash card.

```
Xyplex>> get card load file "xpcsrv20.sys" 08-00-77-4B-CD area 2□
Xyplex>>
```

To monitor the progress of the file transfer, use the MONITOR CARD STATUS command to display a screen that reflects the current status of the file transfer. The Card State field indicates this status.

The [SET SERVER] GET CARD LOAD FILE INTERNET ADDRESS command retrieves a load image file from an Internet address, using the TFTP protocol.

Notes

Product Support: Products that use type 1 or 2 flash cards

This command retrieves the loader file, `mcffs1.sys` , with the load image on products that support type 1 flash cards (MAXserver 1600 and 1450).

This command retrieves only the file you specify on products that use type 2 flash cards. The loader file, `mcffs1.sys` , must always exist in Area 1 on a type 2 flash card. Do not copy a load image file into Area 1. Each load image file must have a unique name on the card. If you want to keep two versions of the same load image on the card, you must rename one of them.

Privilege Level

Privileged

Syntax

[SET SERVER] GET CARD LOAD FILE "/ pathname/filename" INTERNET ADDRESS internet-address

[SET SERVER] GET CARD LOAD FILE "/ pathname/filename" INTERNET ADDRESS internet-address AREA n

Where	Means
"/pathname /filename"	The pathname and file name of the load image file on the host. Enclose the /pathname/filename in quotes.
internet - address	The Internet address of the host where the load image file resides.
AREA n	The area on the type 2 flash card where you want to copy the load image. The possible values for n depend on the size of the flash card. For example, 2, and 4 megabyte flash cards have four areas; 8 megabyte flash cards have eight areas. You must specify an area in this command for products that use type 2 flash cards. (The memory on type 1 flash cards is not partitioned into areas.)

Examples

1. This command retrieves a load image and `mcffs1.sys` from an Internet address and copies it to a type 1 flash card.

```
Xyplex>> get card load file " /1400a.sys" 182.179.70.76 □
Xyplex>>
```

2. This command retrieves a load image from an Internet address and copies it to Area 2 of a type 2 flash card.

```
Xyplex>> get card load file " /xpcsrv20.sys" 182.179.70.76 area 2 □
Xyplex>>
```

To monitor the progress of the file transfer, use the MONITOR CARD STATUS command to display a screen that reflects the current status of the file transfer. The Card State field indicates this status.

Interrupt a GET CARD LOAD FILE request

The [SET SERVER] GET CARD STOP command interrupts the processing of a GET CARD LOAD FILE ADDRESS or GET CARD LOAD FILE INTERNET ADDRESS command.

Notes

Product Support: Products that use type 1 or 2 flash cards

This command is particularly useful if you request a file from a host and the file does not exist on the host. You can use this command to free up the command processor immediately, rather than waiting for the request to time out.

If you interrupt an actual file transfer, the command processor does not display a messages describing this condition. The Show Card Status display does show the message Get File User Abort in the Get File Current State field.

Privilege Level

Privileged

Syntax

[SET SERVER] GET CARD STOP

Example

This command interrupts a GET CARD LOAD FILE command.

```
Xyplex>> get card stop □
Xyplex>>
```

Delete all client entries

The PURGE MANAGER ALL command deletes all Local, Global, and Node client entries in the client database. For Xyplex loaders that function as parameter servers, this commands also deletes all parameter files associated with the deleted entries.

Notes

Product Support: MAXman card
MAXserver 1820 Access Server
Products that use type 1 or 2 flash or ROM cards

Privilege Level

Privileged

Syntax

PURGE MANAGER ALL

Where	Means
ALL	Delete all local, global, and node client entries in the client database.

Example

This command deletes all client entries on a Network 9000 module, which uses type 2 flash cards. Because type 2 flash cards function as parameter servers, the command interface displays the parameter directory that it deletes with the client entries.

```
Xyplex>> purge manager all ☐
deleting file /F1/PARAM/-004582.SYS

Xyplex>>
```

Delete all dump files

The PURGE MANAGER DUMP FILES command deletes all dump files

Notes

Product Support: MAXman card
MAXserver 1820 Access Servers

Privilege Level

Privileged

Syntax

PURGE MANAGER DUMP FILES

Example

The following command deletes all dump files.

```
Xyplex>> purge manager dump files
Xyplex>>
```

Delete one or more global client entries

The PURGE MANAGER GLOBAL command deletes one or more global client entries.

Notes

Product Support: MAXman card
MAXserver 1820 Access Servers
Products that use type 1 flash or ROM cards

Privilege Level

Privileged

Syntax

PURGE MANAGER GLOBAL TYPE device-type/ALL

Where	Means
TYPE device-type	Delete global client entries for a specific hardware device type. Appendix A of this manual and the Software Kit Information sheet list Xyplex hardware device types.
ALL	Delete all global entries in the client database.

Example

This command deletes the global entry for device type 36, a standalone access server, from the client database.

```
Xyplex>> purge manager global type 36
Xyplex>>
```

Delete one or more local entries from the client table

Delete one or more Local client entries in the client database.

Notes

Product Support: MAXman cards
Type 2 flash cards

Privilege Level

Privileged

Syntax

PURGE MANAGER LOCAL TYPE device-type/ALL

Where	Means
TYPE device-type	Remove local client entries for a specific hardware device type. Appendix A of this manual and the Software Kit Information sheet list Xyplex hardware device types.
ALL	Remove all local client entries.

Example

This command deletes device type 84, a Network 9000 210 Management processor, from the local client database.

```
Xyplex>> purge manager local type 84
Xyplex>>
```

Delete all entries in the log file

The PURGE MANAGER LOG FILE command deletes all entries in the file where the Xyplex manager records messages that describe events and activities.

Notes

Product Support: MAXman cards
MAXserver 1820 Access Servers

Privilege Level

Privileged

Syntax

PURGE MANAGER LOG FILE

Example

This command deletes the log file.

```
Xyplex>> purge manager log file
Xyplex>>
```

Delete one or more node client entries

The PURGE MANAGER NODE command deletes one or more client entries for the individual clients you specify. You can use a node name or an Ethernet address to identify a client.

Notes

Product support: MAXman Cards
MAXserver 1820 Access Servers
Products that use Type 1 or 2 flash or ROM cards

Privilege Level

Privileged

Syntax

PURGE MANAGER NODE node-name [HARDWARE] ADDRESS ethernet-address

Where	Means
node-name	The node name of the client you want to delete from the client database. A node name can consist of 1 through 16 ASCII characters.
ethernet-address	The Ethernet address of the client you want to delete from the client database.

Example

This command deletes a client entry with an Ethernet address.

```
Xyplex>> purge manager node address 08-00-87-C3-53-F1
Xyplex>>
```

This command deletes a node client entry with a node name.

```
Xyplex>> purge manager node tsrv52
Xyplex>>
```

Delete parameter files that do not correspond to defined clients

The PURGE MANAGER PARAMETERS command deletes all stored parameter files that do not correspond to currently defined clients. This command applies only to Xyplex loaders that function as parameter servers.

Notes

Product Support: MAXman cards
Products that use type 2 flash cards

Privilege Level

Privileged

Syntax

PURGE MANAGER PARAMETERS

Example

This command deletes all stored parameter files that do not correspond to currently defined clients.

```
Xyplex>> purge manager parameters
Xyplex>>
```

Delete a file from a flash card

The REMOVE command deletes the file you specify from a type 2 flash card.

Notes

Product support: MAXman cards in Configure mode
Products that use type 2 flash cards.

See the description of the CONFIGURE command for information about how to enable the Configure feature on a MAXman card.

Privilege Level

Privileged

Syntax

REMOVE "/ pathname/filename"

Where	Means
"/pathname /filename"	The pathname and name of the file you want to delete. Enclose this variable in quotes.

Example

This command removes a load image file named `xprr2.sys` .

```
Xyplex>> remove "/system/xprr2.sys"
Deleting file "/system/XPRR2.SYS"
Xyplex>>
```

Retrieve parameter files from a MAXman diskette

The RESTORE command retrieves saved parameter files, including the client parameter files, from a MAXman diskette. You can retrieve the MAXman parameter file, the client parameter files, or both. To store parameters on a diskette, use the SAVE command described in this chapter.

Notes

Product Support: MAXman cards

Insert the saveset diskette, which contains the saved parameter files, before you enter the command. After the MAXman retrieves the parameter files, the interface prompts you to eject the saveset diskette and insert the system diskette.

While it retrieves the parameter files, the MAXman suspends Xyplex manager operations. It resumes these operations when you reinsert the system diskette.

Privilege Level

Privileged

Syntax

RESTORE ALL/LOCAL/PARAMETERS

Where	Means
ALL	Retrieve all saved client parameter files and the parameter file for the MAXman card. Overwrite the parameter files currently in the MAXman parameter directory, and reinitialize the MAXman using the retrieved parameter file.
LOCAL	Retrieve the MAXman parameter file only. Overwrite the current parameter file, and reinitialize the MAXman using the retrieved parameter file. (Note that the parameter file for the MAXman is not in the current MAXman parameter directory, but in the ROOT directory of disk drive 1.)
PARAMETERS	Retrieve the saved client parameter files only. Overwrite the parameter files currently in the MAXman parameter directory.

Examples

1. This command restores both the MAXman parameter file and the client parameter files. (The entries and responses for restoring the MAXman file only is the same.) Before you enter the command, remove the system disk and insert the saveset disk.

```
MAXman>> restore all □   -- Restoring parameter files:
      Restoring /F1/-004582.SYS to /F2/-004582.SYS
      Moving local MAXman parameters to temporary file.

Please reinsert the system disk in drive 1 and enter the command
"RESTORE LOCAL CONFIRM" at the command prompt.

This will cause the MAXman to restart, using its restored parameters.
MAXman>> restore local confirm □
Restoring MAXman local parameters from temporary file.
MAXman will restart in one minute; type 'INIT CANCEL" to abort.
MAXman>>

Welcome to the Xyplex MAXman MAXserver Configuration Manager

Enter Username:
```

2. This example restores the client parameter files only. Before you enter the command, remove the system disk and insert the saveset disk.

```
MAXman>> restore parameters □  -- Restoring parameter files:
      Restoring /F1/-004582.SYS to /F2/-004582.SYS

Please reinsert the system disk in drive 1.
MAXman>>
```

Copy parameter files to a MAXman diskette

The SAVE command copies all client parameter files and the MAXman parameter file onto a formatted diskette. You can restore these parameter files to the database of the MAXman card with the RESTORE command, described in this chapter.

Notes

Product Support: MAXman cards

When you issue this command, the MAXman copies the parameter files to a temporary storage area, then prompts you to remove the system disk and to insert a formatted, writeable diskette. The MAXman overwrites any saved files on the diskette with the parameter files in the temporary storage area. After it saves the parameter files, the MAXman interface prompts you to eject the backup, or saveset diskette, and insert the system diskette.

The MAXman suspends Xyplex manager functions while it writes the parameter files to the diskette. It resumes these functions when you reinsert the system diskette.

Privilege Level

Privileged

Syntax

SAVE

Example

This command saves the MAXman parameter file and client parameter files on a diskette. The MAXman prompts you to insert the "saveset disk" when it is ready to write the saved parameters.

```
MAXman>> save ☐
   Copying local MAXman parameters to temporary file.

Insert a writeable saveset disk into drive 1, then enter the command
"SAVE FILES CONFIRM" at the prompt.
MAXman>> save files confirm ☐
     Saving /F2/-004582.SYS to /F1/-004582.SYS
     Saving /F2/PARAM.SAV to /F1/PARAM.SAV
Please remove the saveset disk from drive 1 and reinsert the system
disk.

MAXman>>
```

Display information about the Xyplex loader

The SHOW/LIST MANAGER CHARACTERISTICS command displays information about the Xyplex manager services offered by the Xyplex loader.

Notes

Product support: MAXman cards
MAXserver 1820 Access Servers
Products that use type 1 or 2 flash or ROM cards

Not all fields on this display appear for all Xyplex loaders. Xyplex loaders that use type 2 flash cards, for example, do not function as dump servers, so the Dump Size, Dump Merit, Dump Drive, and Dump fields do not appear on the display for these products.

Privilege Level

SHOW/Nonprivileged LIST/Privileged

```
Xyplex>> show manager characteristics
```

```
MAXserver V5.3  Rom 430001 HW 01.01.00 Lat Protocol V5.1 Uptime: 1 02:49:51

Address:   08-00-87-00-27-71   Name:   MAX5000                  Number:     0

Maximum simultaneous requests:       33             Log file size:        20

Load Merit:                           9             Load:            Enabled

Dump Size:                        Small             Dump Drive:           1
Dump Merit:                           9             Dump:            Enabled

Parameter Default Service:      Enabled             Parameter Drive:      1
Parameter Service:              Enabled
```

Field	Means
Vx.y	The Xyplex product family, either MAXserver or Network 9000, and the version of the Xyplex Manager software running on this Xyplex loader. The variables x.y indicate the major and minor software release level.
Rom xxxxxx	The version, xxxxxx, of the ROM software.
HW xx.yy.zz	The version of the Xyplex hardware, where xx indicates the version of the Xyplex product, yy indicates the type of the chassis, and zz indicates the version of the chassis.
Lat Protocol Vx.y	The version of the LAT protocol running on the Xyplex manager, where x.y indicates the major and minor protocol release level.

Field	Means
Uptime	The amount of time that the Xyplex manager has been running since it was last initialized. The time is in the following form: days hours:minutes:seconds
Address	The Ethernet address of the Xyplex manager.
Ethernet x	On Network 9000 modules, this field shows which Ethernet segment is active in the Link Map. Valid Ethernet segments are A, B, and C.
Name	The node name of the Xyplex manager.
Number	The number of the Xyplex manager.
Maximum simultaneous requests	The maximum number of service operations that the MAXserver manager can process simultaneously.
Log file size	The maximum size of the log file, in kilobytes. The Xyplex manager uses the log file to record messages that describe events and activities.
Load Merit	The merit value for this Xyplex loader when it functions as a load server. Clients choose the Xyplex loader wit h the highest merit value when searching for a load server.
Load	The status of this Xyplex loader as a load server. "Enabled" indicates that it is functioning as a load server. "Disabled" indicates that it is not functioning as a load server.
Dump Size	The size of the dump file that the Xyplex loader attempts to save when a client sends a diagnostic file after an abnormal software shutdown. Xyplex loaders can support one of two sizes of dump files, Full and The Xyplex loader attempts to store a 512 bytes of data from the client. This is the default dump size. Full The Xyplex loader attempts to store all data from the client's memory.

Small. (The actual amount of data the Xyplex loader saves is either all data from the client or all available free disk space, which ever is smaller.)

Dump File Size

This field appears on MAXman cards and MAXserver 1820 Access Servers only, which are the Xyplex loaders that can function as dump servers.

Dump Drive — The number of the disk drive where a MAXman card will store dump files. Valid values are 1 and 2.

Field	Means
Dump Merit	The merit value for this Xyplex loader when it functions as a dump server. Clients choose the Xyplex loader with the highest merit value when searching for a dump server. This field appears on MAXman cards and MAXserver 1820 Access Servers only, which are the Xyplex loaders that can function as dump servers.
Dump	The status of this Xyplex loader as a dump server. "Enabled" indicates that it is functioning as a dump server. "Disabled" indicates that it is not functioning as a dump server. This field appears on MAXman cards and MAXserver 1820 Access Servers only, which are the Xyplex loaders that can function as dump servers.
Parameter Default Service	Indicates whether or not the Xyplex loader automatically transmits a default parameter file for a client that was added to the client database with the DEFINE MANAGER GLOBAL command. This field appears on MAXman cards and MAXserver 1820 Access Servers only, which are the Xyplex loaders that can function as dump servers.
Parameter Drive	The number of the disk drive where a MAXman card will store parameter files. Valid values are 1 and 2.
Parameter Service	The status of this Xyplex loader as a parameter server. "Enabled" indicates that it is functioning as a parameter server. "Disabled" indicates that it is not functioning as a parameter server. This field appears on MAXman cards, and Xyplex loaders which use type 2 flash cards, which are the Xyplex loaders that can function as parameter servers.

Display the status of a memory card

The SHOW/LIST/MONITOR [SERVER] CARD status command displays information about a flash or ROM memory card.

Notes

Product Support: Products that use type 1 or 2 flash or ROM cards

Privilege Level

SHOW/Nonprivileged MONITOR/Privileged

```
Xyplex> show server cards status
```

```
Address:   08-00-87-01-4A-8B   Name:   XPX-TS            Number:    0

Card Status:    Formatted / Write Enabled
Card Type:      Xyplex / FLASH / 2097152 bytes
Device Type:    Intel / 131072 bytes
Card State:     Idle

Get File Host:
Get File Name:
Get file Area:

Get File Current State:    Idle
Get File Previous Status: None
```

Field	Means
Card Status	Formatted or Unformatted / Write Protected or Write Enabled.
Card Type	The vendor of the format utility that was last used to format the card, and type of Memory card, which is one of the following values. This field also indicates the storage capacity of the card, in bytes. ROM (this type of card is also referred to as "OTP") FLASH
Device Type	The vendor of the Memory card's components, and the size of the components, in bytes.

Field	Means
Card State	While the Memory card is getting a software image from a network load host, this field shows the status of the operation: Idle Open Network Open File System Read Network Write File System Close Network Close File System Cleanup Done Error If the card is not getting a software image, this field shows the card's state: Read Write Format Idle
Get File Host	The host that is providing the module with a software load image. This field is blank if the module is not receiving a load image.
Get File Name	The name of the software image file, and its path on the load host; blank if a network software load is not in progress.
Get File Area	The area on the memory card currently being updated because a user issued the GET CARD LOAD FILE command. This field is blank if a load is not taking place. The field applies to Network 9000 modules only. This field is blank for type 1 memory cards.

Field	Means
Get Card Current State	The status of the most recent GET CARD LOAD FILE operation: File Error: Too Large File Error: Not a Load File File Error: Not Executable File Error: Corrupted Data Card Write Protected Get File Timeout Get File User Abort TFTP Protocol Error: File Not Found TFTP Protocol Error: Access Violation TFTP Protocol Error: Other File System Error Temporary Resource Conflict Get File Completed Successfully If no GET CARD LOAD FILE operation has occurred, or if the Memory card has been replaced or formatted since the last update, "None" appears.
Get Card Previous State	The status of the previous GET CARD LOAD FILE operation. (Refer to Card State, above.)

Display information about the files on a memory card

The SHOW/LIST MANAGER FILES command displays the load image files, parameter files, and dump files on a diskette or memory card. (Not all types of media support parameter and dump files.)

Notes

Product support: MAXman cards
MAXserver 1820 Access Servers
Products that use type 1 or 2 flash or ROM cards

This display varies, depending on the media and the type of Xyplex loader. This command description gives several examples of the display.

Privilege Level SHOW/Nonprivileged LIST/Privileged

```
Xyplex> show manager files
```

```
 TS/720 V5.3    Rom  430001  HW  00.00.00  Lat  Protocol  V5.1  Uptime:    0
19:17:51

 Load image files from directory /F1/SYSTEM/ on drive 1

 MCFFS1.SYS   10 May 1995   14:30:23   10345  bytes  Area 1 Size   64888
 Available                                          Area 2 Size   196513
 Available                                          Area 3 Size   786157
 XPCSRV20.SYS    10 May 1995   14:47:04   436736 Bytes  Area 4 Size   524288

  Parameter files from directory /F1/PARAM on drive 1
    -00A263.SYS   ver 1 10 October 1994   13:24:53   2543 bytes
    Defaults.sys  ver 0 10 October 1994   13:24:53   1024 bytes
```

SHOW/LIST MANAGER FILES Display for a type 2 Flash Card

```
Xyplex> show manager files
```

```
MAXserver V5.3     Rom 430001 HW 00.00.00 Lat Protocol V5.1 Uptime:   0
19:17:51

 Address: 08-00-87-01-4E-CD                      Name X014ECD

 Load image files from directory /F1/SYSTEM/ on drive 1
    MCFFS1.SYS    10 October 1994  14:30:23  19968  bytes
    MX1500.SYS    10 October 1994  14:47:04  305216 bytes
       2 files, 325184 bytes.
```

SHOW/LIST MANAGER FILES Display for a Type 1 Flash or ROM card

```
MAXman> show manager files
```

```
MAXserver V5.3     Rom 430001 HW 00.00.00 Lat Protocol V5.1 Uptime:   0
19:17:51

 Network dump files from directory /F0
   0 files, 0 bytes

 Load image files from directory /F1/SYSTEM
  TSJ8LT.SYS  V4.4   10 Dec 1994   14:30:23  309056     bytes
  NPC1LT.SYS.     V4.4   10 Dec 1994   14:47:04  309056     bytes
  TSLJ16L.SYS     V4.4   10 Dec 1994   14:52:19  252068     bytes
    3 files, 870720 bytes.

 Parameter files from directory /F2
 -005042.SYS  ver 23     01 Dec 1994 03:41:40     16586      bytes
 -00504C/.SYS     ver 88     01 Dec 1994 03:44:08     12934      bytes
    2 files, 29250 bytes
       2 files, 325184 bytes.
```

SHOW/LIST MANAGER FILES Display for a MAXman Diskette

```
Xyplex> show manager files
```

```
 MAXserver V5.3    Rom 430001 HW 00.00.00 Lat Protocol V5.1 Uptime:   0
19:17:51

 Network dump files from directory /F0
   0 files, 0 bytes

 Load image files from directory /F1/SYSTEM
  MCFFS1.SYS  V4.4   10 Dec 1994   14:30:23  19968      bytes
  NPC1LT.SYS.     V4.4   10 Dec 1994   14:47:04  309056     bytes
  TSLJ16L.SYS     V4.4   10 Dec 1994   14:52:19  252068     bytes
    3 files, 870720 bytes.

 617984 bytes free on drive 1
```

SHOW/LIST MANAGER FILES Display for a MAXserver 1820 Diskette

Field	Means
Vx.y	The Xyplex product family, either MAXserver or Network 9000, and the version of the Xyplex Manager software. The variables x.y indicate the major and minor software release level.
ROM xxxxxx	The version of ROM firmware in this Xyplex loader.
HW xx.yy.zz	The version of the Xyplex hardware, where xx indicates the version of the Xyplex product, yy indicates the type of the chassis, and zz indicates the version of the chassis.
LAT Protocol Vx.y	The version of the LAT protocol running on this Xyplex loader, where x.y indicates the major and minor protocol release level.

Field	Means
Network Dump Files from Directory /F0	The number of dump files stored on the card, if any, and the amount of storage space they require, in bytes. (MAXman cards and MAXserver 1820 Access Servers)
Load Image Files	The load image files from directory /F1/SYSTEM. These fields list the load images on the diskette or memory card. The number of load images on the media varies, depending on the media. Type 2 flash cards are partitioned into areas. The display for these flash cards lists the area number, and the load image in the area if one exists there.
Parameter files	The parameter files from directory /F2 on a MAXman card and from directory /F1/PARAM on drive 1 on a type 2 flash card. These fields list the parameter files on the diskette or flash card. Type 2 flash cards with a redundant parameter directory do not list this directory in this display.

Display entries in the client database

The SHOW/LIST MANAGER CLIENTS command displays information about the entries in the client database of the load server.

Notes

Product support: MAXman cards
MAXserver 1820 Access Servers
Products that use type 1 or 2 flash or ROM cards

Privilege Level Nonprivileged

```
Xyplex> show manager clients
```

```
 TS/720 V5.3    Rom  430001  HW  00.00.00  Lat  Protocol  V5.1  Uptime:    0
19:17:51

 Address 08-00-87-0026-81   Name:                        Number:       0

 Ethernet Address       Device    Name   Load File     Diag File  Load
   Dump

 08-00-87-03-5C-03   N/A    Hub1                           Yes No
 08-00-87-04-5D-04   N/A    Hub1                           Yes No
 Local Devices                                                 Yes No
 Local Devices                                                 Yes No
 Local Devices                                                 Yes No
```

Field	Means
Vx.y	The Xyplex product family, either MAXserver or Network 9000, and the version of the Xyplex Manager software. The variables x.y indicate the major and minor software release level.
ROM xxxxxx	The version of ROM firmware in this Xyplex loader.
HW xx.yy.zz	The version of the Xyplex hardware, where xx indicates the version of the Xyplex product, yy indicates the type of the chassis, and zz indicates the version of the chassis.
LAT Protocol Vx.y	The version of the LAT protocol running on this Xyplex loader, where x.y indicates the major and minor protocol release level.
Name	The node name of this Xyplex Loader.
Number	The number of this Xyplex Loader.

Field	Means
Ethernet Address	The unique Ethernet address of a Node client in the database of the Xyplex loader, or the Local or Global designation for the client. (The Xyplex loader identifies Local and Global clients by device type rather than Ethernet address.)
Device	The hardware device type of a Local or Global client. (The Xyplex loader identifies Node clients by node name or Ethernet address). Appendix A lists the Xyplex hardware device types for all Xyplex products.
Name	The node name of a Node client in the client database.
Load file	The name of the load image associated with a client entry.
Diag File	The name of the image that the Xyplex loader supplies to the client when the client requests a diagnostic file.
Load	Indicates whether or not the Xyplex loader can provide load service to the client. Yes indicates that load service is enabled for the client and No indicates that load service is disabled for the client.
Dump	Indicates whether or not the Xyplex loader can provide dump service to the client. Yes indicates that dump service is enabled for the client and No indicates that dump service is disabled for the client.

Display global entries in the client database

The SHOW/LIST MANAGER GLOBAL display lists all global entries in the client database.

Notes

Product support: MAXman cards
MAXserver 1820 Access Servers
Products that use type 1 flash or ROM cards

Privilege Level SHOW/Nonprivileged LIST/Privileged

```
Xyplex> show manager global
```

```
 MAXman V5.3    Rom  430001  HW  00.00.00  Lat  Protocol  V5.1  Uptime:    0
19:17:51

 Address 08-00-87-00-26-81  Name:                        Number:       0

 Ethernet Address       Device    Name   Load File     Diag File  Load
   Dump

 Global Devices                                              Yes No
 Global Devices                                              Yes No
 Global Devices                                              Yes No
```

Field	Means
Vx.y	The Xyplex product family, and the version of the Xyplex Manager software. The variables x.y indicate the major and minor software release level.
ROM xxxxxx	The version of ROM firmware in this Xyplex loader.
HW xx.yy.zz	The version of the Xyplex hardware, where xx indicates the version of the Xyplex product, yy indicates the type of the chassis, and zz indicates the version of the chassis.
LAT Protocol Vx.y	The version of the LAT protocol running on this Xyplex loader, where x.y indicates the major and minor protocol release level.
Name	(This field is blank for Global clients.)
Number	The number of this Xyplex Loader.

Field	Means
Ethernet Address	The Global designation for the client. (The Xyplex loader identifies Global clients by device type rather than Ethernet address.)
Device	The hardware device type of the Global client. Appendix A lists the Xyplex device types for all Xyplex products.
Name	The node name of a Node client in the client database.
Load file	The name of the load image associated with a client entry.
Diag File	The name of the image that the Xyplex loader supplies to the client when the client requests a diagnostic file.
Load	Indicates whether or not the Xyplex loader can provide load service to the client. Yes indicates that load service is enabled for the client and No indicates that load service is disabled for the client.
Dump	Indicates whether or not the Xyplex loader can provide dump service to the client. Yes indicates that dump service is enabled for the client and No indicates that dump service is disabled for the client.

Display local entries in the client database

The SHOW/LIST MANAGER LOCAL display lists all local entries in the client database.

Notes

Product support: MAXman cards
Network 9000 modules

Privilege Level SHOW/Nonprivileged LIST/Privileged

```
Xyplex> show manager local
```

```
 TS/720 V5.3    Rom  430001  HW  00.00.00  Lat  Protocol  V5.1  Uptime:    0
19:17:51

 Address 08-00-87-00-26-81  Name:                        Number:       0

 Ethernet Address       Device     Name   Load File     Diag File  Load
   Dump

 Local Devices       42                                      Yes No
 Local Devices       51                                      Yes No
 Local Devices       57                                      Yes No
```

Field	Means
Vx.y	The Xyplex product family, either MAXserver or Network 9000, and the version of the Xyplex Manager software. The variables x.y indicate the major and minor software release level.
ROM xxxxxx	The version of ROM firmware in this Xyplex loader.
HW xx.yy.zz	The version of the Xyplex hardware, where xx indicates the version of the Xyplex product, yy indicates the type of the chassis, and zz indicates the version of the chassis.
LAT Protocol Vx.y	The version of the LAT protocol running on this Xyplex loader, where x.y indicates the major and minor protocol release level.
Name	The node name of this Xyplex Loader.
Number	The number of this Xyplex Loader.

Field	Means
Ethernet Address	The Local designation for the client. (The Xyplex loader identifies Local clients by device type rather than Ethernet address.)
Device	The hardware device type of the Local client. Appendix A lists the Xyplex device types for all Xyplex products.
Name	(This field is blank for Local clients.)
Load file	The name of the load image associated with a client entry.
Diag File	The name of the image that the Xyplex loader supplies to the client when the client requests a diagnostic file.
Load	Indicates whether or not the Xyplex loader can provide load service to the client. Yes indicates that load service is enabled for the client and No indicates that load service is disabled for the client.
Dump	Indicates whether or not the Xyplex loader can provide dump service to the client. Yes indicates that dump service is enabled for the client and No

Display node entries in the client database

The SHOW/LIST MANAGER NODE display lists all Node entries in the client database.

Notes

Product support: MAXman cards
MAXserver 1820 Access Servers
Products that use type 1 or 2 flash or ROM cards

Privilege Level SHOW/Nonprivileged LIST/Privileged

```
Xyplex> show manager node
```

```
 TS/720 V5.3    Rom  430001  HW  00.00.00  Lat  Protocol  V5.1  Uptime:    0
19:17:51

 Address 08-00-87-0026-81   Name:                        Number:       0

 Ethernet Address       Device    Name   Load File     Diag File  Load
   Dump

 08-00-87-03-5C-03   N/A                                   Yes No
 08-00-87-03-4C-02   N/A                                   Yes No
 08-00-87-03-5C-03   N/A                                   Yes No
```

Field	Means
Vx.y	The Xyplex product family, either MAXserver or Network 9000, and the version of the Xyplex Manager software. The variables x.y indicate the major and minor software release level.
ROM xxxxxx	The version of ROM firmware in this Xyplex loader.
HW xx.yy.zz	The version of the Xyplex hardware, where xx indicates the version of the Xyplex product, yy indicates the type of the chassis, and zz indicates the version of the chassis.
LAT Protocol Vx.y	The version of the LAT protocol running on this Xyplex loader, where x.y indicates the major and minor protocol release level.
Name	The node name of this Xyplex Loader.
Number	The number of this Xyplex Loader.

Field	Means
Ethernet Address	The Ethernet address of the Node client.
Device	(Node entries have N/A in this column.)
Name	The node name of this client
Load file	The name of the load image associated with a client entry.
Diag File	The name of the file that the Xyplex loader supplies to the client when the client requests a diagnostic file.
Load	Indicates whether or not the Xyplex loader can provide load service to the client. Yes indicates that load service is enabled for the client and No indicates that load service is disabled for the client.
Dump	Indicates whether or not the Xyplex loader can provide dump service to the client. Yes indicates that dump service is enabled for the client and No indicates that dump service is disabled for the client.

End of Chapter

Chapter 7

Using Xyplex Manager Commands

This chapter includes detailed descriptions of the Xyplex manager commands. These commands update local media, add and delete entries from the client database of the Xyplex loader, and display information about the client database and the local media. Each command description indicates which Xyplex loaders support the command.

These are the commands in this chapter:

CARDCOPY

CONFIGURE

COPY

DEFINE MANAGER DUMP
DEFINE MANAGER GLOBAL
DEFINE MANAGER LOAD
DEFINE MANAGER LOCAL
DEFINE MANAGER LOG
DEFINE MANAGER NODE
DEFINE MANAGER PARAMETER
DEFINE MANAGER SIMULTANEOUS

FORMAT CARD

GET CARD LOAD FILE ADDRESS

GET CARD LOAD FILE INTERNET ADDRESS

GET CARD STOP

PURGE MANAGER ALL
PURGE MANAGER DUMP FILES
PURGE MANAGER GLOBAL
PURGE MANAGER LOCAL
PURGE MANAGER LOG FILE
PURGE MANAGER NODE
PURGE MANAGER PARAMETERS

REMOVE

RESTORE

SAVE

SHOW/MONITOR CARD STATUS

SHOW/LIST MANAGER CHARACTERISTICS
SHOW/LIST MANAGER CLIENTS
SHOW/LIST MANAGER EVENTS
SHOW/LIST MANAGER FILES
SHOW/LIST MANAGER GLOBAL
SHOW/LIST MANAGER LOCAL
SHOW/LIST MANAGER NODE
SHOW/LIST/MONITOR MANAGER STATUS

EnteringCommands

Most commands in this manual require that the privilege level of the user interface be set to Privileged. If you have not already done so, set the privilege level to Privileged with the SET PRIVILEGE command. On MAXserver products and Network 9000 modules, you enter the command at the Xyplex prompt:

```
Xyplex>  set privilege
Password>
```

On MAXman cards, you enter the command at the MAXman prompt:

```
MAXman> set privilege
Password>
```

The user interface requests a password. The factory default password is *system*, but the password you use may be different. When you enter the correct password, the privileged prompt appears:

```
Xyplex>>
MAXman>>
```

The Privileged prompt includes a double carrot (>>) rather than a single carrot (>).

Note: Xyplex recommends that you change the default Privilege password on all processor modules in the chassis to ensure the security of your network. The *Software Management Guide* for each product describes how to change the Privilege password.

You enter commands at the Xyplex prompt using this syntax:

Xyplex>> COMMAND KEYWORD*variable* [KEYWORD*variable*]. . .[[KEYWORD]*variable*]

Most commands allow you to enter two or more keywords and variables on the command line. If you do this, separate each characteristic with a space, a comma, or a combination of both. You can enter a command line that exceeds the line length of the screen as long as you do not press the Return key until the command line is complete. The maximum length of a command line is 132 characters.

Abbreviating Commands and Keywords

You can abbreviate many chassis management commands and keywords to the shortest unambiguous string of characters that the command interface can interpret. For example, you can abbreviate the command DEFINE MANAGER LOCAL TYPE as DEF MAN LOC TYP.

Copy the contents of a source card to a destination card

The [SET SERVER] CARDCOPY command copies the entire contents of one flash card onto another flash card.

Notes

Product support: Products that use version 2 or 3 flash cards

The source card and the destination card *must* be the same size, or the CARDCOPY command will fail. For example, if the source card is a 2-megabyte card, the destination card must also be a 2-megabyte card. You cannot copy the contents of a 4-megabyte source card onto a 2-megabyte destination card.

The command processor copies the contents of one card to another in 256K-byte segments, not all at once. Because of this, the interface prompts you to insert the source card and then the destination card several times before it copies the entire contents of one card to another.

Privilege Level

Privileged

Syntax

[SET SERVER] CARDCOPY [NOERASE|ERASE]

Where	Means
NOERASE	Copy the contents of the source card onto a blank destination card. This is the default keyword for this command.
ERASE	Erase the current data on the destination card, then copy the contents of the source car onto it. If the destination card contains data, you must use the ERASE keyword, or the command interface does not begin the copy procedure.

Examples

1. This command copies the contents of the source card onto a blank destination card. The NOERASE option is the default, so the command line does not include this keyword.

```
Xyplex>> cardcopy ↵
Insert source card and press any key.
Insert destination card and press any key.
Insert source card and press any key.
.
.
.
Insert destination card and press any key
Cardcopy completed successfully.

Xyplex>>
```

2. This command copies the contents of the source card onto a destination card that already contains data. The command line includes the ERASE keyword, which removes the data currently on the card before formatting it. The command processor prompts you to enter the card size, in bytes, before it erases the card. This example uses a 2-megabyte card.

```
Xyplex>> cardcopy erase ↵
Insert destination card and press any key.
WARNING all data will be lost.
Press <RETURN> to start erase, any other key to abort. ↵
Please enter card size (Mbytes) 2 ↵
Card erase in progress    Erase complete
Insert source card and press any key.
Insert destination card and press any key.
Insert source card and press any key.
.
.
.
Insert destination card and press any key.
Cardcopy completed successfully.

Xyplex>>
```

Enable or Disable configuration commands on a MAXman card

The CONFIGURE command enables a set of disk management commands which add or delete load images on a MAXman disk. When you enable the Configure feature, the MAXman suspends loading, dumping, and parameter serving operations.

Notes

Product support: MAXman cards

The commands that you can use on a MAXman when you have enabled the Configure feature are the following:

ADD "*filename*" Copies the load image you specify from a diskette in Drive 2 of the MAXman to the diskette in drive 1. The ADD command overwrites any existing filename with the same name. Do not include the `.sys` suffix. Enclose the filename in quotes.

DISKCOPY Copies all data on the MAXman system diskette in Drive 1 to a formatted blank diskette in drive 2, and then verifies the data on the diskette in drive 2.

To prevent accidental loss of data, this command does not copy the data unless the MAXman card detects that you have changed the diskette in Drive 2. You can, for example, remove a parameter file diskette and replace it with a formatted blank diskette.

Blank disks to be inserted into drive 2 must be 1.44 MB, and must be formatted by any version of DOS that supports 1.44 MB diskettes.

REMOVE "*filename*" Deletes the load image you specify from the diskette in Drive 1. The Show Files display lists the load image files on the disk. Do not specify the `.sys` suffix on the filename. Enclose the filename in quotes.

SHOW [MANAGER] FILES Displays a screen with directory information including the name, version, and size of any load images on the MAXman system disk and archive disk, and the amount of free space available on the MAXman disk.

Privilege Level

Privileged

Syntax

CONFIGURE ENABLED|DISABLED

Where Means

ENABLED — Enable the Configure feature, and the client configuration commands, on the MAXman card. Enabling this feature disables Xyplex manager activities such as loading, dumpin and parameter serving.

DISABLED — Disable the the Configure feature and resume Xyplex manager operations. This is the default state for this feature.

Examples

1. This command enables the Configure feature on a MAXman card.

```
MAXman>> configure enabled ☐

Disk management operations enabled.
MAXman>>
```

Xyplex manager functions are now disabled. Users can enter the ADD, DISKCOPY, REMOVE, and SHOW [MANAGER] FILES commands.

2. This command disabled the Configure feature on a MAXman card.

```
MAXman>> configure disabled ☐

Normal Server operations restored.
MAXman>>
```

Xyplex manager functions are now enabled.

Copy a source file onto a destination file

The COPY copy command copies a source file on a flash card to a destination file on another flash card.

Notes

Product Support: Products that use version 2 or 3 flash cards

If you attempt to copy a file into an area which is too small, the manager will begin to copy the file into the area and then stop when it runs out of space. The command interface then displays this message:

```
- Error detected in copy process -
```

If you attempt to copy a file into an area which already contains a file, the manager will overwrite the existing file.

The loader file, `mcffs1.sys` , must always exist in Area 1. Do not copy a load image file into Area 1.

The Show/List Manager Files display includes the size and contents of each area.

Privilege Level

Privileged

Syntax

COPY "*source-file*" "*destination-file*" AREA *n*

Where	Means
"*source-file*"	The name of the file on the source card that you want transfer to another card.
"*destination-file*"	The name of the file on the destination card.
AREA *n*	Copy the file you specify to the area you specify in the *n* variable. Valid values for *n* depend on the number of areas on the flash card. Two and four megabyte cards have Areas 1, 2, 3, and 4; eight megabyte cards have Areas 1, 2, 3, 4, 5, 6, 7, and 8. (Area 1 must always contains the `mcffs1.sys` file.)

Example

First enter the copy command, with no card in the drive.

```
Xyplex>> copy "/system/mcffs1.sys"  "/system/mcffs1.sys"  area 1
Insert the destination card and press any key to continue.
```

Insert the destination card and press any key.

```
Insert the source card and press any key to continue.
```

If you are using one card, simply press the <Return> key at this point. Otherwise, eject the destination card and insert the source card, and press any key. The system copies the source file onto the destination file

```
Insert the destination card and press any key to continue.
```

Insert the destination card again. The manager begins copying the source file onto the destination file. The interface can prompt you to enter the source card and the destination card several times until the manager copies the entire file. When this process is complete, the interface displays this message:

```
File copy completed successfully.

Xyplex>>
```

Enable or disable a dump server

The DEFINE [SERVER] MANAGER DUMP command enables or disables a Xyplex loader as a dump server. It also assigns other characteristics, including the merit value, to the dump server.

Notes

Product Support: MAXman cards
MAXserver 1800/1820 Terminal Servers

Privilege Level

Privileged

Syntax

DEFINE [SERVER] MANAGER DUMP [DISABLED|ENABLED]
[DRIVE *drive-number*]
[MERIT *value*]
[SIZE SMALL|FULL]

Where	Means
ENABLED	Enable dump service on this Xyplex loader for one or more clients. This is the default.
DISABLED	Disable dump service for clients.
DRIVE *drive-number*	The number of the MAXman disk drive that will store the dump files. Valid values for *drive-number* are 1 and 2. The default is 1. (This variable applies to MAXman cards only, not MAXserver 1800/1820 terminal servers.)
MERIT *value*	A merit value between 1 and 15. The default is 9. Clients request dump service from t dump server with the highest merit value, given the choice of two or more available dum servers.

Where	Means
SIZE	The type of dump file that the Xyplex loader attempts to save from a single network dev dump. Valid values for SIZE are the following:
	SMALL A SMALL dump file contains up to 512 bytes of data. This size is large enough to include the crash dump header, the client's CPU register contents, a stack fragment, and a fragment of the code that was being executed when the dump occurred. This is the default dump size.
	FULL A FULL dump file contains all data from the memory of the client.
	For both SMALL and FULL dump files, the actual amount of data saved is limited to the available free disk space. If the dump server uses all the available disk space before it save 512 bytes, the dump will be incomplete.

Examples

1. This command enables dump service on a MAXman card, assigns a drive number, and assigns the highest possible merit value to it.

```
MAXman>> define manager dump enabled drive 2 merit 15
MAXman>>
```

2. This command enables dump service on a MAXserver 1800/1820 and specifies FULL as the dump file size.

```
Xyplex>> define manager dump enabled size full
Xyplex>>
```

Add or change a global client entry

The DEFINE [SERVER] MANAGER GLOBAL command adds or changes a global client entry in the client database.

Notes

Product support: MAXman cards
MAXserver 1800/1820 Terminal Servers
Products that use version 1 flash and ROM cards

You must specify a hardware device type for the local client. See Appendix A of this manual or the *Software Kit Information* sheet you received with the product software for a list of Xyplex hardware device types.

Privilege Level

Privileged

Syntax

DEFINE [SERVER] MANAGER GLOBAL TYPE *device-type*]
[[LOAD] FILE "*image-name*"]
[DIAGNOSTIC FILE "*filename*"]
[LOAD ENABLED|DISABLED]
[DUMP ENABLED|DISABLED]

Where	Means
TYPE *device-type*	The two-digit Xyplex hardware device type for the global client entry you want to add or change in the client database.
LOAD FILE "*image-name*"	The name of the load image that the load server sends to the client when the client requests a load image. This variable is optional. You need not specify it if the correct lo image exists on the diskette or memory card. The *image-name* can consist of 1 through 16 ASCII characters. Enclose the name in quotes.
DIAGNOSTIC FILE "*filename*"	The name of the diagnostic file that the load server sends to the client when the client requests a diagnostic file. The filename can consist of 1 through 16 ASCII characters. Enclose the filename in quotes. (This option is generally used in manufacturing and test environments only; not in normal production environments.)
LOAD ENABLED/ DISABLED	Enable or disable load service for the global client entry that you specify in the *device-type* variable. The default is ENABLED.
DUMP ENABLED/ DISABLED	Enable or disable dump service for the global client entry that you specify in the *device-type* variable. The default is DISABLED.

Examples

1. This command specifies device type 76 as a global entry in the client database and enabled this entry for load service.

```
Xyplex>> define manager global type 76 load enabled

Xyplex>>
```

2. This command enables all hardware types for load service and specifies TSRVMJ8.SYS as the load image file to send to all clients. This command also disables dump service for all hardware types.

```
Xyplex>> define manager global type all load enabled file
"tsrvmj8.sys" dump disabled □
```

Enable or disable a load server

The DEFINE [SERVER] MANAGER LOAD command enables or disables a Xyplex loader as a load server, and assigns a merit to the load server.

Notes

Product Support: MAXman cards
MAXserver 1800/1820 Terminal Servers
Products that use version 1, 2, or 3 flash or ROM cards

A client that is requesting load service can usually choose among several available load servers. The client always selects the load server with the highest merit value.

This Manager Load characteristic is enabled by default on MAXman cards, MAXserver 1800/1820 terminal servers, and Xyplex loaders that use version 2 and 3 flash cards. It is disabled by default on Xyplex loaders that use version 1 flash and ROM cards.

Privilege Level

Privileged

Syntax

DEFINE [SERVER] MANAGER LOAD [ENABLED|DISABLED] [[MERIT] *value*]

Where	Means
ENABLED	This unit or module can operate as a load server for one or more clients. This is the default.
DISABLED	This unit or module cannot operate as a load server.
value	A merit value between 1 and 15. The default is 9. Clients request load service from th load server with the highest merit value, given the choice of two or more available load servers.

Example

This command enables load service on a load server and assigns the merit value 9 to the load server.

```
Xyplex>> define manager load enabled merit 15.
Xyplex>>
```

Add or change a local client entry

The DEFINE [SERVER] MANAGER LOCAL command adds or changes a local client entry in the client database.

Notes

Product support: MAXman cards
Network 9000 Modules

You must specify a hardware device type for the local client. See Appendix A of this manual or the *Software Kit Information* sheet you received with the product software for a list of Xyplex hardware device types.

Privilege Level

Privileged

Syntax

DEFINE [SERVER] MANAGER LOCAL TYPE *device-type*
[[LOAD] FILE "*image-name*"]
[DIAGNOSTIC FILE "*filename*"]
[LOAD ENABLED|DISABLED]
[DUMP ENABLED|DISABLED]

Where	Means
TYPE *device-type*	Specify the two-digit Xyplex hardware device type for the local client entry you want to a or change in the client database.
LOAD FILE "*image-name*"	Specify the name of the load image that the load server sends to the client when the cli requests a load image. This variable is optional. You need not specify it if the correct lo image exists on the diskette or memory card. The *image-name* can consist of 1 through 16 ASCII characters. Enclose the name in quotes.
DIAGNOSTIC FILE "*filename*"	Specify the name of the diagnostic file that the load server sends to the client when the client requests a diagnostic file. The filename can consist of 1 through 16 ASCII characters. Enclose the filename in quotes. (This option is generally used in manufacturing and test environments only; not in normal production environments.)
LOAD ENABLED/ DISABLED	Enable load service for the local client entry that you specify in the *device-type* variable. The default is ENABLED.
DUMP ENABLED/ DISABLED	Enable dump service for the local client entry that you specify in the *device-type* variable. The default is DISABLED. (This option is only valid for Xyplex loaders that offer dump service, such as the MAXman card and the MAXserver 1800/1820 Terminal Server.)

Example

This command enables device type 84, a Network 9000 Management Processor 210, for load service and specifies a load image name for this device type.

```
Xyplex>> define manager local type 84 load enabled file
"xphub2ui.sys"
```

Specify the maximum size of the log file

The DEFINE [SERVER] MANAGER LOG FILE command specifies the maximum size of the file where the manager records messages that describe events and activities.

Notes

Product Support: MAXman cards
MAXserver 1800/1820 Terminal Servers

Privilege Level

Privileged

Syntax

DEFINE [SERVER] MANAGER LOG FILE *size*

Where	Means
size	The maximum size of the log file in kilobytes. Valid values for this variable on a MAXse 1800/1820 Terminal Server are the whole numbers 1 through 100. Valid values for this variable on a MAXman card are the whole numbers 1 through 28. The default for both units is 20.

Example

This command specifies a size of 28 kilobytes for the log file.

```
MAXman>> define manager log file 28
MAXman>>
```

Add or change a specific client entry

The DEFINE [SERVER] MANAGER NODE command adds or changes a specific client entry in the client database.

Notes

Product support: MAXman cards
MAXserver 1800/1820 terminal servers
Products that use Version 1, 2, or 3 flash or ROM cards

On a MAXman card, this command also creates a default parameter file for the client if one does not already exist.

Privilege Level

Privileged

Syntax

DEFINE [SERVER] MANAGER NODE [[HARDWARE] ADDRESS] [*ethernet-address*] [NAME] [*node-name*]

[[LOAD] FILE] ["*image-name*"] [COUNT *n*]
[DIAGNOSTIC FILE] ["*filename*"] [COUNT *n*]
[LOAD ENABLED|DISABLED] [COUNT *n*]
[DUMP ENABLED|DISABLED] [COUNT *n*]

Where	Means
ADDRESS *ethernet -address*	Specify unique Ethernet address of the client. You can enter the entire Ethernet addres such as 08-00-87-13-53-F1, or the last six hexadecimal digits of the Ethernet address, such as C3-53-F1. (If you enter only the last six digits, the first six digits are assumed t 08-00-87.)
NAME *node-name*	Specify unique name of the client . The name you enter identifies a unit or module with the client database only, for use with other manager commands such as PURGE NODE Use the DEFINE/SET SERVER NAME command to specify a LAT node-name. The node-name can consist of 1 through 16 ASCII characters. (The command processor converts all lower-case letters to upper-case letters.)
LOAD FILE "*image-name*"	Specify the name of the load image that the load server sends to the client when the cli requests a load image. This variable is optional. You need not specify it if the correct lo image exists on the diskette or memory card. The *image-name* can consist of 1 through 16 ASCII characters. Enclose the name in quotes.

Where	Means
DIAGNOSTIC FILE "*filename*"	Specify the name of the diagnostic file that the load server sends to the client when the client requests a diagnostic file. The filename can consist of 1 through 16 ASCII characters. Enclose the filename in quotes. (This option is generally used in manufacturing and test environments only; not in normal production environments.)
LOAD ENABLED/ DISABLED	Enable or disable load service for this specific client entry. The default is ENABLED.
DUMP ENABLED/ DISABLED	Enable or disable dump service for this specific client entry. The default is DISABLED.
COUNT *n*	Specify the number of consecutive Ethernet addresses where the options in this command line also take effect. For example, if you specify COUNT 3 for a node with ar Ethernet address ending in 02-4D-05, the options in the command line also apply to nodes with Ethernet addresses 02-4D-06, O2-4D-07, and 02-4D-08.

Examples

1. This command adds a node client entry for the terminal server at Ethernet address 08-00-87-03-5C-03, and specifies a load image for that entry.

```
Xyplex>>.define manager node hardware address 03-5C-03
file "xpcs00s.sys"
```

2. This command is similar to the command in Example 1, except that it includes the COUNT feature, with a value of 3. This causes the command processor to update the nodes which have the next three Ethernet addresses: 03-5C-04, 03-5C-05, and 03-5C-06. For each of these nodes nodes, the load image file will be XPCS00S.SYS. Other values will revert to defaults.

```
Xyplex>>.define manager node hardware address 03-5C-03
file "xpcs00s.sys" count 3
```

3. This command adds a node client entry with a node name.

```
Xyplex>> define manager node name tsrv20 load enabled

Xyplex>>
```

Enable or disable a parameter server

The DEFINE [SERVER] MANAGER PARAMETER command enables or disables a Xyplex loader as a parameter server.

Notes

Product Support: MAXman cards
Products that use version 2 or 3 flash cards

Privilege Level

Privileged

Syntax

DEFINE [SERVER] MANAGER PARAMETER SERVICE [ENABLED|DISABLED]
[[DRIVE]*drive-number*]
[DEFAULT SERVICE ENABLED | DISABLED

Where	Means
SERVICE ENABLED/ DISABLED	Enable or disable this Xyplex loader as a parameter server for one or more clients. The default is enabled.
DRIVE*drive-number*	Specify the disk drive number on a MAXman card which contains the diskette that store the parameter files. Valid values are 1 or 2. The default is 2.
DEFAULT SERVICE ENABLED/ DISABLED	Determines whether or not the Xyplex loader can provide a default parameter files to clients that do not have an existing stored parameter files. Such clients are usually defi with the DEFINE MANAGER GLOBAL command.

Example

The following commands enable parameter service and disable default parameter service on a Xyplex loader.

```
Xyplex>> define manager parameter server enabled □
Xyplex>> define manager parameter default service disabled □
Xyplex>>
```

Define how many operations the Xyplex manager can process at once

The DEFINE [SERVER] MANAGER SIMULTANEOUS command defines the maximum number of service operations that the Xyplex manager can process at the same time. These operations include servicing load image file requests, accepting dump files, and storing parameters.

Notes

Product Support: MAXman cards
MAXserver 1800/1820 Terminal Servers
Products that use version 1, 2, or 3 flash or ROM cards

Not all products process all service operations. Products that support ROM and flash cards, for example, do not accept dump files.

The default value for this characteristic is 32, and this value is appropriate in most situations.

Privilege Level

Privileged

Syntax

DEFINE [SERVER] MANAGER SIMULTANEOUS *value*

Where	Means
value	The maximum number of service operations the Xyplex manager can process simultaneously. Valid values are the whole numbers 0 through 32. The default is 32.

Example

This command specifies 20 as the simultaneous value.

```
Xyplex>> define manager simultaneous 20
Xyplex>>
```

Format a memory card

The [SET SERVER] FORMAT CARD command formats a flash memory card to include areas for different software load images and a parameter file.

Notes

Product support: Products that use version 1, 2, or 3 flash cards

You need to format version 1 flash cards before you update them. Version 2 flash cards that you receive from Xyplex are correctly formatted, so you do not need to format them before you update them.

Version 3 flash cards are correctly formatted with a redundant parameter directory by default. You can eliminate this directory on 1- or 2-megabyte flash cards by formatting them with the NONREDUNDANT keyword. This releases an additional 256K-bytes of memory in Area 4 of the flash card, but eliminates the redundant parameter directory. Xyplex recommends that you do not format the card this way under most conditions, because parameters can be lost.

The redundant parameter directory does not appear on a Show Manager Files display. This directory is invisible to the user.

Privilege Level

Privileged

Syntax

[SET SERVER] FORMAT CARD [NONREDUNDANT]

Where	Means
[NON-REDUNDANT]	Eliminate the redundant parameter directory on a one or two-megabyte Version 3 flash card.

Example

This command formats a flash card for use on a Xyplex loader. A version 3 flash card will be formatted with a redundant parameter directory by default.

```
Xyplex>> format card ↵

Xyplex format.  WARNING all data will be lost.
Press <RETURN> to start format, any other character to abort
↵
Format in progress, please wait.  Format complete.

Xyplex>>
```

Update a flash card using XMOP/MOP

The [SET SERVER] GET CARD LOAD FILE ADDRESS command retrieves a load image file from an Ethernet address, using either the XMOP or MOP protocol.

Notes

Product Support: Products that use version 1, 2, or 3 flash cards

This command retrieves the loader file, `mcffs1.sys`, with the load image on products that support version 1 flash cards.

This command retrieves only the file you specify on products that use version 2 or 3 flash cards. The loader file, `mcffs1.sys`, must always exist in Area 1 on a version 2 or 3 flash card. Do not copy a load image file into Area 1. If you want to keep two versions of the same load image on the card, you must rename one of them.

Privilege Level

Privileged

Syntax

[SET SERVER] GET CARD LOAD FILE "*filename*" ADDRESS *ethernet-address*

[SET SERVER] GET CARD LOAD FILE "*filename*" ADDRESS *ethernet-address* AREA *n*

Where	Means
"*filename*"	The name of the load image file on the network host. Enclose the filename in quotes.
ethernet-address	The Ethernet address of the network host.
AREA *n*	The area on the version 2 or 3 flash card where you want to copy the load image. The possible values for *n* depend on the size of the flash card. For example, 1, 2, and 4 megabyte flash cards have four areas; 8 megabyte flash cards have eight areas. You must specify an Area in this command for products that use version 2 and 3 flash cards (The memory on version 1 flash cards is not partitioned into areas.)

Examples

1. This command retrieves a load image and `mcffs1.sys` from an Ethernet address and copies it onto a version 1 flash card.

```
Xyplex>> get card load file "mx1500.sys" 08-00-77-4B-CD
Xyplex>>
```

2. This command retrieves a load image from an Ethernet address and copies it to Area 2 of a version 2 or 3 flash card.

```
Xyplex>> get card load file "xpcsrv20.sys" 08-00-77-4B-CD area 2
Xyplex>>
```

To monitor the progress of the file transfer, use the MONITOR CARD STATUS command to display a screen which reflects the current status of the file transfer. The Card State field indicates this status.

Update a flash card using TFTP

The [SET SERVER] GET CARD LOAD FILE INTERNET ADDRESS command retrieves a load image file from an Internet address, using the TFTP protocol.

Notes

Product Support: Products that use version 1, 2, or 3 flash cards

This command retrieves the loader file, `mcffs1.sys` , with the load image on products that support version 1 flash cards (MAXserver 1600 and 1450).

This command retrieves only the file you specify on products that use version 2 or 3 flash cards. The loader file, `mcffs1.sys` , must always exist in Area 1 on a version 2 or 3 flash card. Do not copy a load image file into Area 1. Each load image file must have a unique name on the card. If you want to keep two versions of the same load image on the card, you must rename one of them.

Privilege Level

Privileged

Syntax

[SET SERVER] GET CARD LOAD FILE "*/pathname/filename*" INTERNET ADDRESS *internet-address*

[SET SERVER] GET CARD LOAD FILE "*/pathname/filename*" INTERNET ADDRESS *internet-address* AREA*n*

Where	Means
"*/pathname /filename*"	The pathname and file name of the load image file on the host. Enclose the */pathname/filename* in quotes.
internet -address	The Internet address of the host where the load image file resides.
AREA*n*	The area on the version 2 or 3 flash card where you want to copy the load image. The possible values for *n* depend on the size of the flash card. For example, 2, and 4 megabyte flash cards have four areas; 8 megabyte flash cards have eight areas. You must specify an area in this command for products that use version 2 and 3 flash cards. (The memory on version 1 flash cards is not partitioned into areas.)

Examples

1. This command retrieves a load image and `mcffs1.sys` from an Internet address and copies it to a version 1 flash card.

```
Xyplex>> get card load file " /1400a.sys" 182.179.70.76 □
Xyplex>>
```

2. This command retrieves a load image from an Internet address and copies it to Area 2 of a version 2 or 3 flash card.

```
Xyplex>> get card load file " /xpcsrv20.sys" 182.179.70.76 area 2 □
Xyplex>>
```

To monitor the progress of the file transfer, use the MONITOR CARD STATUS command to display a screen which reflects the current status of the file transfer. The Card State field indicates this status.

Interrupt a GET CARD LOAD FILE request

The [SET SERVER] GET CARD STOP command interrupts the processing of a GET CARD LOAD FILE ADDRESS or GET CARD LOAD FILE INTERNET ADDRESS command.

Notes

Product Support: Products that use version 1, 2, or 3 flash cards

This command is particularly useful if you request a file from a host and the file does not exist on the host. You can use this command to free up the command processor immediately, rather than waiting for the request to time out.

If you interrupt an actual file transfer, the command processor does not display a messages describing this condition. The Show Card Status display does show the message Get File User Abort in the Get File Current State field.

Privilege Level

Privileged

Syntax

[SET SERVER] GET CARD STOP

Example

This command interrupts a GET CARD LOAD FILE command.

```
Xyplex>> get card stop ☐
Xyplex>>
```

Delete all client entries

The PURGE MANAGER ALL command deletes all Local, Global, and Node client entries in the client database. For Xyplex loaders that function as parameter servers, this commands also deletes all parameter files associated with the deleted entries.

Notes

Product Support: MAXman card
MAXserver 1800/1820 Terminal Server
Products that use version 1, 2, or 3 flash or ROM cards

Privilege Level

Privileged

Syntax

PURGE MANAGER ALL

Where	Means
ALL	Delete all local, global, and node client entries in the client database.

Example

This command deletes all client entries on a Network 9000 module, which uses version 2 or 3 flash cards. Because version 2 or 3 flash cards function as parameter servers, the command interface displays the parameter directory that it deletes with the client entries.

```
Xyplex>> purge manager all
deleting file /F1/PARAM/-004582.SYS

Xyplex>>
```

Delete all dump files

The PURGE MANAGER DUMP FILES command deletes all dump files

Notes

Product Support: MAXman card
MAXserver 1800/1820 Terminal Servers

Privilege Level

Privileged

Syntax

PURGE MANAGER DUMP FILES

Example

The following command deletes all dump files.

```
Xyplex>> purge manager dump files
Xyplex>>
```

Delete one or more global client entries

The PURGE MANAGER GLOBAL command deletes one or more global client entries.

Notes

Product Support: MAXman card
MAXserver 1800/1820 Terminal Servers
Products that use version 1 flash or ROM cards

Privilege Level

Privileged

Syntax

PURGE MANAGER GLOBAL TYPE *device-type*/ALL

Where	Means
TYPE *device-type*	Delete global client entries for a specific hardware device type. Appendix A of this man and the *Software Kit Information* sheet list Xyplex hardware device types.
ALL	Delete all global entries in the client database.

Example

This command deletes the global entry for device type 36, a standalone terminal server, from the client database.

```
Xyplex>> purge manager global type 36
Xyplex>>
```

Delete one or more local entries from the client table

Delete one or more Local client entries in the client database.

Notes

Product Support: MAXman cards
Network 9000 Modules (version 2 and 3 flash cards)

Privilege Level

Privileged

Syntax

PURGE MANAGER LOCAL TYPE *device-type*/ALL

Where	Means
TYPE *device-type*	Remove local client entries for a specific hardware device type. Appendix A of this mar and the *Software Kit Information* sheet list Xyplex hardware device types.
ALL	Remove all local client entries.

Example

This command deletes device type 84, a Network 9000 210 Management processor, from the local client database.

```
Xyplex>> purge manager local type 84 □

Xyplex>>
```

Delete all entries in the log file

The PURGE MANAGER LOG FILE command deletes all entries in the file where the Xyplex manager records messages that describe events and activities.

Notes

Product Support: MAXman cards
MAXserver 1800/1820 Terminal Servers

Privilege Level

Privileged

Syntax

PURGE MANAGER LOG FILE

Example

This command deletes the log file.

```
Xyplex>> purge manager log file
Xyplex>>
```

Delete one or more node client entries

The PURGE MANAGER NODE command deletes one or more client entries for the individual clients you specify. You can use a node name or an Ethernet address to identify a client.

Notes

Product support: MAXman Cards
MAXserver 1800/1820 Terminal Servers
Products that use Version 1, 2, or 3 flash or ROM cards

Privilege Level

Privileged

Syntax

PURGE MANAGER NODE *node-name* [HARDWARE] ADDRESS *ethernet-address*

Where	Means
node-name	The node name of the client you want to delete from the client database. A node name can consist of 1 through 16 ASCII characters.
ethernet-address	The Ethernet address of the client you want to delete from the client database.

Example

This command deletes a client entry with an Ethernet address.

```
Xyplex>> purge manager node address 08-00-87-C3-53-F1
Xyplex>>
```

This command deletes a node client entry with a node name.

```
Xyplex>> purge manager node tsrv52
Xyplex>>
```

Delete parameter files that do not correspond to to defined clients

The PURGE MANAGER PARAMETERS command deletes all stored parameter files that do not correspond to currently defined clients. This command applies only to Xyplex loaders that function as parameter servers.

Notes

Product Support: MAXman cards
Products that use version 2 or 3 flash cards

Privilege Level

Privileged

Syntax

PURGE MANAGER PARAMETERS

Example

This command deletes all stored parameter files that do not correspond to currently defined clients.

```
Xyplex>> purge manager parameters

Xyplex>>
```

Delete a file from a flash card

The REMOVE command deletes the file you specify from a version 2 or 3 flash card.

Notes

Product support: MAXman cards in Configure mode
Products that use Version 2 or 3 flash cards.

See the description of the CONFIGURE command for information about how to enable the Configure feature on a MAXman card.

Privilege Level

Privileged

Syntax

REMOVE "*/pathname/filename*"

Where	Means
"*/pathname /filename*"	The pathname and name of the file you want to delete. Enclose this variable in quotes.

Example

This command removes a load image file named `xprr2.sys`.

```
Xyplex>> remove"/system/xprr2.sys"
Deleting file "/system/XPRR2.SYS"
Xyplex>>
```

Retrieve parameter files from a MAXman diskette

The RESTORE command retrieves saved parameter files, including the client parameter files, from a MAXman diskette. You can retrieve the MAXman parameter file, the client parameter files, or both. To store parameters on a diskette, use the SAVE command described in this chapter.

Notes

Product Support: MAXman cards

Insert the *saveset* diskette, which contains the saved parameter files, before you enter the command. After the MAXman retrieves the parameter files, the interface prompts you to eject the saveset diskette and insert the system diskette.

While it retrieves the parameter files, the MAXman suspends Xyplex manager operations. It resumes these operations when you reinsert the system diskette.

Privilege Level

Privileged

Syntax

RESTORE ALL/LOCAL/PARAMETERS

Where	Means
ALL	Retrieve all saved client parameter files and the parameter file for the MAXman card. Overwrite the parameter files currently in the MAXman parameter directory, and reinitia the MAXman using the retrieved parameter file.
LOCAL	Retrieve the MAXman parameter file only. Overwrite the current parameter file, and reinitialize the MAXman using the retrieved parameter file. (Note that the parameter file the MAXman is not in the current MAXman parameter directory, but in the ROOT direct of disk drive 1.)
PARAMETERS	Retrieve the saved client parameter files only. Overwrite the parameter files currently in MAXman parameter directory.

Examples

1. This command restores both the MAXman parameter file and the client parameter files. (The entries and responses for restoring the MAXman file only is the same.) Before you enter the command, remove the system disk and insert the saveset disk.

```
MAXman>> restore all □   -- Restoring parameter files:
      Restoring /F1/-004582.SYS to /F2/-004582.SYS
      Moving local MAXman parameters to temporary file.

Please reinsert the system disk in drive 1 and enter the command
"RESTORE LOCAL CONFIRM" at the command prompt.

This will cause the MAXman to restart, using its restored parameters.
MAXman>> restore local confirm □
Restoring MAXman local parameters from temporary file.
MAXman will restart in one minute; type 'INIT CANCEL" to abort.
MAXman>>

      Welcome to the Xyplex MAXman MAXserver Configuration Manager

Enter Username:
```

2. This example restores the client parameter files only. Before you enter the command, remove the disk and insert the saveset disk.

```
MAXman>> restore parameters □  -- Restoring parameter files:
      Restoring /F1/-004582.SYS to /F2/-004582.SYS

Please reinsert the system disk in drive 1.
MAXman>>
```

Copy parameter files to a MAXman diskette

The SAVE command copies all client parameter files and the MAXman parameter file to a formatted diskette. You can restore these parameter files to the database of the MAXman card with the RESTORE command, described in this chapter.

Notes

Product Support: MAXman cards

When you issue this command, the MAXman copies the parameter files to a temporary storage area, then prompts you to remove the system disk and to insert a formatted, writeable diskette. The MAXman overwrites any saved files on the diskette with the parameter files in the temporary storage area. After it saves the parameter files, the MAXman interface prompts you to eject the backup, or *saveset* diskette, and insert the system diskette.

While it writes the parameter files to the diskette, the MAXman suspends Xyplex manager operations. It resumes these operations when you reinsert the system diskette.

Privilege Level

Privileged

Syntax

SAVE

Example

This command saves the MAXman parameter file and client parameter files on a diskette. The MAXman prompts you to insert the "saveset disk" when it is ready to write the saved parameters.

```
MAXman>> save
   Copying local MAXman parameters to temporary file.

Insert a writeable saveset disk into drive 1, then enter the command
"SAVE FILES CONFIRM" at the prompt.
MAXman>> save files confirm
     Saving /F2/-004582.SYS to /F1/-004582.SYS
     Saving /F2/PARAM.SAV to /F1/PARAM.SAV
Please remove the saveset disk from drive 1 and reinsert the system disk.

MAXman>>
```

Display information about the Xyplex loader

The SHOW/LIST MANAGER CHARACTERISTICS command displays information about the Xyplex manager services offered by the Xyplex loader.

Notes

Product support: MAXman cards
MAXserver 1800/1820 Terminal Servers
Products that use version 1, 2, or 3 Flash or ROM cards

Not all fields on this display appear for all Xyplex loaders. Xyplex loaders which use version 2 or 3 flash cards, for example, do not function as dump servers, so the Dump Size, Dump Merit, Dump Drive, and Dump fields do not appear on the display for these products.

Privilege Level

SHOW/Nonprivileged LIST/Privileged

```
Xyplex>> show manager characteristics
```

```
 MAXserver V4.4  Rom 430001 HW 01.01.00 Lat Protocol V5.1 Uptime: 1
02:49:51

 Address:   08-00-87-00-27-71   Name:   MAX5000
Number:     0

 Maximum simultaneous requests:       33             Log file size:
20

 Load Merit:                           9             Load:
Enabled

 Dump Size:                         Small            Dump Drive:
1
 Dump Merit:                           9             Dump:
Enabled

 Parameter Default Service:      Enabled             Parameter Drive:
1
 Parameter Service:              Enabled
```

Field	Means
V*x.y*	The Xyplex product family, either MAXserver or Network 9000, and the version of the Xyplex Manager software running on this Xyplex loader. The variables *x* and *y* indicate the major and minor software release level.
Rom *xxxxxx*	The version, *xxxxxx*, of the ROM software.
HW *xx.yy.zz*	The version of the Xyplex hardware, where *xx* indicates the version of the Xyplex product, *yy* indicates the type of the chassis, and *zz* indicates the version of the chassis.
Lat Protocol V*x.y*	The version of the LAT protocol running on the Xyplex manager, where *x.y* indicates the

major and minor protocol release level.

Field	Means
Uptime	The amount of time that the Xyplex manager has been running since it was last initialize The time is in the following form: days hours:minutes:seconds
Address	The Ethernet address of the Xyplex manager.
Ethernet*x*	On Network 9000 modules, this field shows which Ethernet segment is active in the Linl Map. Valid Ethernet segments are A, B, and C.
Name	The node name of the Xyplex manager.
Number	The number of the Xyplex manager.
Maximum simultaneous requests	The maximum number of service operations that the MAXserver manager can process simultaneously.
Log file size	The maximum size of the log file, in kilobytes. The Xyplex manager uses the log file to record messages that describe events and activities.
Load Merit	The merit value for this Xyplex loader when it functions as a load server. Clients choos the Xyplex loader wit h the highest merit value when searching for a load server.
Load	The status of this Xyplex loader as a load server. "Enabled" indicates that it is functioni as a load server. "Disabled" indicates that it is not functioning as a load server.
Dump Size	The size of the dump file that the Xyplex loader attempts to save when a client sends a diagnostic file after an abnormal software shutdown. Xyplex loaders can support one of two sizes of dump files, Full and Small. (The actual amount of data the Xyplex loader saves is either all data from the client or all available free disk space, which ever is sma Dump File Size Small The Xyplex loader attempts to store a 512 bytes of data from the client. This is the default dump size. Full The Xyplex loader attempts to store all data from the client's memory. This field appears on MAXman cards and MAXserver 1800/1820 Terminal Servers only which are the Xyplex loaders which can function as dump servers.
Dump Drive	The number of the disk drive where a MAXman card will store dump files. Valid values 1 and 2.

Field	Means
Dump Merit	The merit value for this Xyplex loader when it functions as a dump server. Clients choo the Xyplex loader with the highest merit value when searching for a dump server. This field appears on MAXman cards and MAXserver 1800/1820 Terminal Servers only, whi are the Xyplex loaders which can function as dump servers.
Dump	The status of this Xyplex loader as a dump server. "Enabled" indicates that it is functio as a dump server. "Disabled" indicates that it is not functioning as a dump server. This field appears on MAXman cards and MAXserver 1800/1820 Terminal Servers only, whi are the Xyplex loaders which can function as dump servers.
Parameter Default Service	Indicates whether or not the Xyplex loader automatically transmits a default parameter f for a client which was added to the client database with the DEFINE MANAGER GLOB command. This field appears on MAXman cards and MAXserver 1800/1820 Terminal Servers only, which are the Xyplex loaders which can function as dump servers.
Parameter Drive	The number of the disk drive where a MAXman card will store parameter files. Valid values are 1 and 2.
Parameter Service	The status of this Xyplex loader as a parameter server. "Enabled" indicates that it is functioning as a parameter server. "Disabled" indicates that it is not functioning as a parameter server. This field appears on MAXman cards, and Xyplex loaders which use version 2 and 3 flash cards, which are the Xyplex loaders which can function as parame servers.

Display the status of a memory card

The SHOW/LIST/MONITOR [SERVER] CARD status command displays information about a flash or ROM memory card.

Notes

Product Support: Products that use version 1, 2, or 3, flash or ROM cards

Privilege Level

SHOW/Nonprivileged MONITOR/Privileged

```
Xyplex> show server cards status
```

```
Address:   08-00-87-01-4A-8B   Name:   XPX-TS            Number:    0

Card Status:    Formatted / Write Enabled
Card Type:      Xyplex / FLASH / 2097152 bytes
Device Type:    Intel / 131072 bytes
Card State:     Idle

Get File Host:
Get File Name:
Get file Area:

Get File Current State:    Idle
Get File Previous Status: None
```

Field	Means
Card Status	Formatted or Unformatted / Write Protected or Write Enabled.
Card Type	The vendor of the format utility that was last used to format the card, and type of Memo card, which is one of the following values. This field also indicates the storage capacity the card, in bytes. ROM (this type of card is also referred to as "OTP") FLASH
Device Type	The vendor of the Memory card's components, and the size of the components, in bytes

Field	Means
Card State	While the Memory card is getting a software image from a network load host, this field shows the status of the operation: Idle Open Network Open File System Read Network Write File System Close Network Close File System Cleanup Done Error If the card is not getting a software image, this field shows the card's state: Read Write Format Idle
Get File Host	The host which is providing the module with a software load image. This field is blank i the module is not receiving a load image.
Get File Name	The name of the software image file, and its path on the load host; blank if a network software load is not in progress.
Get File Area	The area on the memory card currently being updated because a user issued the GET CARD LOAD FILE command. This field is blank if a load is not taking place. The field applies to Network 9000 modules only. This field is blank for Version 1 memory cards.

Field	Means
Get Card Current State	The status of the most recent GET CARD LOAD FILE operation: File Error: Too Large File Error: Not a Load File File Error: Not Executable File Error: Corrupted Data Card Write Protected Get File Timeout Get File User Abort TFTP Protocol Error: File Not Found TFTP Protocol Error: Access Violation TFTP Protocol Error: Other File System Error Temporary Resource Conflict Get File Completed Successfully If no GET CARD LOAD FILE operation has occurred, or if the Memory card has been replaced or formatted since the last update, "None" appears.
Get Card Previous State	The status of the previous GET CARD LOAD FILE operation. (Refer to Card State, above.)

Display information about the files on a memory card

The SHOW/LIST MANAGER FILES command displays the load image files, parameter files, and dump files on a diskette or memory card. (Not all types of media support parameter and dump files.)

Notes

Product support: MAXman cards
MAXserver 1800/1820 Terminal Servers
Products that use version 1, 2, or 3 Flash or ROM cards

This display varies, depending on the media and the type of Xyplex loader. This command description gives several examples of the display.

Privilege Level

SHOW/Nonprivileged LIST/Privileged

```
Xyplex> show manager files
```

```
 TS/720 V4.4    Rom  430001  HW  00.00.00  Lat  Protocol  V5.1  Uptime:    0
19:17:51

 Load image files from directory /F1/SYSTEM/ on drive 1

 MCFFS1.SYS   10 June 1992  14:30:23   10345  bytes  Area 1 Size   64888
 Available                                          Area 2 Size   196513
 Available                                          Area 3 Size   786157
 XPCSRV20.SYS    10 JUNE 1992  14:47:04   436736 Bytes  Area 4 Size   524288

  Parameter files from directory /F1/PARAM on drive 1
    -00A263.SYS   ver 1 10 October 1992   13:24:53  2543 bytes
    Defaults.sys  ver 0 10 October 1992   13:24:53  1024 bytes
```

SHOW/LIST MANAGER FILES Display for a Version 2 or 3 Flash Card

```
Xyplex> show manager files
```

```
MAXserver V4.4     Rom 430001 HW 00. 00.00 Lat Protocol V5.1 Uptime:   0
19:17:51

 Address: 08-00-87-01-4E-CD                      Name X014ECD

 Load image files from directory /F1/SYSTEM/ on drive 1
    MCFFS1.SYS    10 October 1992  14:30:23  19968  bytes
    MX1500.SYS    10 October 1992  14:47:04  305216 bytes
       2 files, 325184 bytes.
```

SHOW/LIST MANAGER FILES Display for a Version 1 Flash or ROM card

```
MAXman> show manager files
```

```
MAXserver V4.4     Rom 430001 HW 00.00.00 Lat Protocol V5.1 Uptime:   0
19:17:51

 Network dump files from directory /F0
   0 files, 0 bytes

 Load image files from directory /F1/SYSTEM
  TSJ8LT.SYS  V4.4   10 Dec 1992   14:30:23   309056     bytes
  NPC1LT.SYS.     V4.4   10 Dec 1992   14:47:04   309056     bytes
  TSLJ16L.SYS     V4.4   10 Dec 1992   14:52:19   252068     bytes
    3 files, 870720 bytes.

 Parameter files from directory /F2
 -005042.SYS  ver 23     01 Dec 1992 03:41:40     16586      bytes
 -00504C/.SYS     ver 88     01 Dec 1992 03:44:08     12934      bytes
   2 files, 29250 bytes
      2 files, 325184 bytes.
```

SHOW/LIST MANAGER FILES Display for a MAXman Diskette

```
Xyplex> show manager files
```

```
 MAXserver V4.4    Rom 430001 HW 00.00.00 Lat Protocol V5.1 Uptime:   0
19:17:51

 Network dump files from directory /F0
   0 files, 0 bytes

 Load image files from directory /F1/SYSTEM
  MCFFS1.SYS  V4.4   10 Dec 1992   14:30:23  19968      bytes
  NPC1LT.SYS.     V4.4   10 Dec 1992   14:47:04   309056     bytes
  TSLJ16L.SYS     V4.4   10 Dec 1992   14:52:19   252068     bytes
    3 files, 870720 bytes.

 617984 bytes free on drive 1
```

SHOW/LIST MANAGER FILES Display for a MAXserver 1800 Diskette

Where	Means
V*x.y*	The Xyplex product family, either MAXserver or Network 9000, and the version of the Xyplex Manager software. The variables *x.y* indicate the major and minor software release level.
ROM *xxxxxx*	The version of ROM firmware in this Xyplex loader.
HW *xx.yy.zz*	The version of the Xyplex hardware, where *xx* indicates the version of the Xyplex product, *yy* indicates the type of the chassis, and *zz* indicates the version of the chassis.
LAT Protocol Vx.y	The version of the LAT protocol running on this Xyplex loader, where *x.y* indicates the major and minor protocol release level.

Field	Means
Network Dump Files from Directory /F0	The number of dump files stored on the card, if any, and the amount of storage space they require, in bytes. (MAXman cards and MAXserver 1800/1820 Terminal Servers)
Load Image Files	The load image files from directory /F1/SYSTEM. These fields list the load images on t diskette or memory card. The number of load images on the media varies, depending o the media. Version 2 and 3 flash cards are partitioned into areas. The display for these flash cards lists the area number, and the load image in the area if one exists there.
Parameter files	The parameter files from directory /F2 on a MAXman card and from directory /F1/PARA on drive 1 on a version 2 or 3 flash card. These fields list the parameter files on the diskette or flash card. Version 3 flash cards with a redundant parameter directory do no list this directory in this display.

Display entries in the client database

The SHOW/LIST MANAGER CLIENTS command displays information about the entries in the client database of the load server.

Notes

Product support: MAXman cards
MAXserver 1800/1820 Terminal Servers
Products that use version 1, 2, or 3 Flash or ROM cards

Privilege Level

Nonprivileged

```
Xyplex> show manager clients
```

```
 TS/720 V4.4    Rom  430001  HW  00.00.00  Lat  Protocol  V5.1  Uptime:    0
19:17:51

 Address 08-00-87-0026-81   Name:                        Number:       0

 Ethernet Address        Device     Name   Load File     Diag File  Load
   Dump

 08-00-87-03-5C-03   N/A    Hub1                            Yes No
 08-00-87-04-5D-04   N/A    Hub1                            Yes No
 Local Devices                                                  Yes No
 Local Devices                                                  Yes No
 Local Devices                                                  Yes No
```

Field	Means
V*x.y*	The Xyplex product family, either MAXserver or Network 9000, and the version of the Xyplex Manager software. The variables *x.y* indicate the major and minor software release level.
ROM *xxxxxx*	The version of ROM firmware in this Xyplex loader.
HW *xx.yy.zz*	The version of the Xyplex hardware, where *xx* indicates the version of the Xyplex product, *yy* indicates the type of the chassis, and *zz* indicates the version of the chassis.
LAT Protocol Vx.y	The version of the LAT protocol running on this Xyplex loader, where *x.y* indicates the major and minor protocol release level.
Name	The node name of this Xyplex Loader.
Number	The number of this Xyplex Loader.

Field	Means
Ethernet Address	The unique Ethernet address of a Node client in the database of the Xyplex loader, or the Local or Global designation for the client. (The Xyplex loader identifies Local and Globa clients by hardware type rather than Ethernet address.)
Device	The hardware device type of a Local or Global client. (The Xyplex loader identifies Nod clients by node name or Ethernet address). Appendix A lists the Xyplex hardware devic types for all Xyplex products.
Name	The node name of a Node client in the client database.
Load file	The name of the load image associated with a client entry.
Diag File	The name of the image that the Xyplex loader supplies to the client when the client requests a diagnostic file.
Load	Indicates whether or not the Xyplex loader can provide load service to the client. Yes indicates that load service is enabled for the client and No indicates that load service is disabled for the client.
Dump	Indicates whether or not the Xyplex loader can provide dump service to the client. Yes indicates that dump service is enabled for the client and No indicates that dump service disabled for the client.

Display global entries in the client database

The SHOW/LIST MANAGER GLOBAL display lists all global entries in the client database.

Notes

Product support: MAXman cards
MAXserver 1800/1820 Terminal Servers
Products that use version 1 flash or ROM cards

Privilege Level

SHOW/Nonprivileged LIST/Privileged

```
Xyplex> show manager global
```

```
 TS/720 V4.4    Rom  430001  HW  00.00.00  Lat  Protocol  V5.1  Uptime:    0
19:17:51

 Address 08-00-87-00-26-81  Name:                        Number:       0

 Ethernet Address       Device     Name   Load File     Diag File Load
   Dump

 Global Devices                                                Yes No
 Global Devices                                                Yes No
 Global Devices                                                Yes No
```

Field	Means
V*x.y*	The Xyplex product family, either MAXserver or Network 9000, and the version of the Xyplex Manager software. The variables *x.y* indicate the major and minor software release level.
ROM *xxxxxx*	The version of ROM firmware in this Xyplex loader.
HW *xx.yy.zz*	The version of the Xyplex hardware, where *xx* indicates the version of the Xyplex product, *yy* indicates the type of the chassis, and *zz* indicates the version of the chassis.
LAT Protocol Vx.y	The version of the LAT protocol running on this Xyplex loader, where *x.y* indicates the major and minor protocol release level.
Name	(This field is blank for Global clients.)
Number	The number of this Xyplex Loader.

Field	Means
Ethernet Address	The Global designation for the client. (The Xyplex loader identifies Global clients by hardware type rather than Ethernet address.)
Device	The hardware device type of the Global client. Appendix A lists the Xyplex hardware ty for all Xyplex products.
Name	The node name of a Node client in the client database.
Load file	The name of the load image associated with a client entry.
Diag File	The name of the image that the Xyplex loader supplies to the client when the client requests a diagnostic file.
Load	Indicates whether or not the Xyplex loader can provide load service to the client. Yes indicates that load service is enabled for the client and No indicates that load service is disabled for the client.
Dump	Indicates whether or not the Xyplex loader can provide dump service to the client. Yes indicates that dump service is enabled for the client and No indicates that dump service is disabled for the client.

Display local entries in the client database

The SHOW/LIST MANAGER LOCAL display lists all local entries in the client database.

Notes

Product support: MAXman cards
Network 9000 modules

Privilege Level

SHOW/Nonprivileged LIST/Privileged

```
Xyplex> show manager local
```

```
 TS/720 V4.4    Rom  430001  HW  00.00.00  Lat  Protocol  V5.1  Uptime:    0
19:17:51

 Address 08-00-87-00-26-81  Name:                        Number:       0

 Ethernet Address       Device     Name   Load File     Diag File  Load
   Dump

 Local Devices       42                                        Yes No
 Local Devices       51                                        Yes No
 Local Devices       57                                        Yes No
```

Field	Means
V*x.y*	The Xyplex product family, either MAXserver or Network 9000, and the version of the Xyplex Manager software. The variables *x.y* indicate the major and minor software release level.
ROM *xxxxxx*	The version of ROM firmware in this Xyplex loader.
HW *xx.yy.zz*	The version of the Xyplex hardware, where *xx* indicates the version of the Xyplex product, *yy* indicates the type of the chassis, and *zz* indicates the version of the chassis.
LAT Protocol Vx.y	The version of the LAT protocol running on this Xyplex loader, where *x.y* indicates the major and minor protocol release level.
Name	The node name of this Xyplex Loader.
Number	The number of this Xyplex Loader.

Field	Means
Ethernet Address	The Local designation for the client. (The Xyplex loader identifies Local clients by hardware type rather than Ethernet address.)
Device	The hardware device type of the Local client. Appendix A lists the Xyplex device types all Xyplex products.
Name	(This field is blank for Local clients.)
Load file	The name of the load image associated with a client entry.
Diag File	The name of the image that the Xyplex loader supplies to the client when the client requests a diagnostic file.
Load	Indicates whether or not the Xyplex loader can provide load service to the client. Yes indicates that load service is enabled for the client and No indicates that load service is disabled for the client.
Dump	Indicates whether or not the Xyplex loader can provide dump service to the client. Yes indicates that dump service is enabled for the client and No

Display node entries in the client database

The SHOW/LIST MANAGER NODE display lists all Node entries in the client database.

Notes

Product support: MAXman cards
MAXserver 1800/1820 Terminal Servers
Products that use version 1, 2, or 3 Flash or ROM cards

Privilege Level

SHOW/Nonprivileged LIST/Privileged

```
Xyplex> show manager node
```

```
 TS/720 V4.4    Rom  430001  HW  00.00.00  Lat  Protocol  V5.1  Uptime:    0
19:17:51

 Address 08-00-87-0026-81   Name:                        Number:       0

 Ethernet Address       Device     Name   Load File     Diag File  Load
   Dump

 08-00-87-03-5C-03   N/A                                    Yes No
 08-00-87-03-4C-02   N/A                                    Yes No
 08-00-87-03-5C-03   N/A                                    Yes No
```

Field	Means
V*x.y*	The Xyplex product family, either MAXserver or Network 9000, and the version of the Xyplex Manager software. The variables *x.y* indicate the major and minor software release level.
ROM *xxxxxx*	The version of ROM firmware in this Xyplex loader.
HW *xx.yy.zz*	The version of the Xyplex hardware, where *xx* indicates the version of the Xyplex product, *yy* indicates the type of the chassis, and *zz* indicates the version of the chassis.
LAT Protocol Vx.y	The version of the LAT protocol running on this Xyplex loader, where *x.y* indicates the major and minor protocol release level.
Name	The node name of this Xyplex Loader.
Number	The number of this Xyplex Loader.

Field	Means
Ethernet Address	The Ethernet address of the Node client.
Device	(Node entries have N/A in this column.)
Name	The node name of this client
Load file	The name of the load image associated with a client entry.
Diag File	The name of the file that the Xyplex loader supplies to the client when the client request diagnostic file.
Load	Indicates whether or not the Xyplex loader can provide load service to the client. Yes indicates that load service is enabled for the client and No indicates that load service is disabled for the client.
Dump	Indicates whether or not the Xyplex loader can provide dump service to the client. Yes indicates that dump service is enabled for the client and No indicates that dump service disabled for the client.

End of Chapter

Appendix A

Xyplex Hardware Device Types

The following list of Xyplex device types was current at the time this manual was published. For the most current list of Xyplex device types, see the *Software Kit Information*, which you recieved with the software.

Product Family	Unit Type	Device Code
Network 9000 Type 1 Options	6800 WAN loaders	81
Network 9000 Type 2 Options	720 Terminal Server	76
	401 Bridge/Router	80
	210 Management Processor	84
	101 Unmanaged Repeater I/O	83
MAXserver LANBUS Cards:	MX-TSERV-J8 8-port terminal server card	33
	MX-TSERV-J16 16-port terminal server card	34
	MX-NPC-P1 Network Printer server card	39
	MX-TSRVL-J16 16-port LAT terminal server card	40
	MX-TSRVM-J8 8-port terminal server card	42
	MAXserver 6510 Remote Bridge card	46
	MAXserver 2710 TCP/IP-LAT Gateway card	51
	MAXserver 3510 Local Bridge card	57
	MAXserver 6625 X.25 Gateway card	58
	MX-2120 8-port terminal server card	59
	MX-3610 10BASE-T Hub card	61
	MX-6710 Remote Router card	70
	MX-2210A 16-port LAT terminal server card	79
	MX-2210B 16-port LAT terminal server card	96
	MX-2220 16-port terminal server card	56
Stand-Alone Units:	MAXserver 1500 Terminal Server	36
	MAXserver 1100 Terminal Server	37
	MAXserver 1800 Terminal Server	38
	MAXserver 1400 Network Printer Server	45
	MAXserver 1710 TCP/IP-LAT Gateway	50

continues)

Stand-Alone Units	MAXserver 1520 Terminal Server	54
	MAXserver 1120 Terminal Server	53
	MAXserver 1820 Terminal Server	55
	MAXserver 6020 Remote Bridge	60
	MAXserver 3010 Local Bridge	63
	MAXserver 6025 X.25 Gateway	64
	MAXserver 6220 Remote Router	71
	MAXserver 1600 Terminal Server (with 1 megabyte of RAM	74
	MAXserver 1600 Terminal Server (with >1 megabyte of RAM	97
	MAXserver 1450 Printer Server	75

End of Appendix