Avid Unity™ LANshare

Workgroup Setup Guide

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Using This Guide

Congratulations on your purchase of an Avid Unity™ LANshare workgroup. You can connect up to 10 offline or low-resolution Avid® workstations as Ethernet clients, allowing them to cost-effectively share media files over an Ethernet network.

Who Should Use This Guide

This guide is intended for anyone who is installing, configuring, or maintaining a LANshare workgroup. It provides installation and configuration information specific to the standard LANserver hardware and MediaNet software.

About This Guide

This guide provides task-oriented instructions for setting up and configuring a LANshare workgroup.

The Contents provides a complete listing of all the topics in this book:

- Chapter 1, “LANshare Workgroup Overview,” provides an overview of a LANshare workgroup and its components.
- Chapter 2, “Installing the LANserver and Ethernet Switch,” provides step-by-step instructions for connecting the LANserver, the external CD-ROM drive, and the Ethernet switch.
- Chapter 3, “Configuring a LANserver,” provides step-by-step instructions for installing and configuring the MediaNet software on the LANserver.
- Chapter 4, “Setting Up Windows Ethernet Clients,” provides step-by-step instructions for connecting Windows-based Ethernet clients, installing the client software, and configuring the clients.
- Chapter 5, “Setting Up Macintosh Ethernet Clients,” provides step-by-step instructions for connecting Macintosh-based Ethernet clients, installing the client software, and configuring the clients.
- Chapter 6, “Upgrading from MediaShare F/C,” describes how to upgrade a MediaShare F/C workgroup to a LANshare workgroup.
- Chapter 7, “Troubleshooting,” provides information for fixing some problems that might arise while using a LANshare workgroup.
- Appendix A, “Avid Performance Meter,” describes the Performance Meter, an Avid-supplied utility for checking the network connection between the File Manager and the Ethernet clients.
- Appendix B, “LANserver BIOS Settings,” describes the BIOS settings for the LANserver and how to change them.

- Appendix C, “Mounting All Workspaces on a LANserver,” describes how to make the LANserver automatically mount up to 21 workspaces.
- Appendix D, “Using the Product Recovery CD-ROM,” describes how to reinstall the operating system using the recovery CD-ROM.
- Appendix E, “Reinstalling a LANshare Workgroup,” lists the major steps to reinstall a LANshare workgroup if it is moved from one location to another.
- Appendix F, “Regulatory and Safety Notices,” provides regulatory compliance information.

Symbols and Conventions

The material in this document applies to the Windows® 2000 and Macintosh® operating systems. When the text applies to a specific operating system, it is marked as follows:

- (Windows 2000) means the information applies to the Windows 2000 operating system.
- (Macintosh) means the information applies to the Macintosh operating system.

This guide uses the following special symbols and conventions:

1. Numbered lists, when the order of the items is important.
    a. Alphabetical lists, when the order of secondary items is important.
- Bulleted lists, when the order of the items is unimportant.
    - Indented dashed lists, when the order of secondary items is unimportant.
- ▶ One arrow indicates a single-step procedure. Multiple arrows in a list indicate that you perform one of the actions listed.

The ⌘ symbol refers to the Apple or Command key. Press and hold the Command key and another key to perform a keyboard shortcut.

`Courier Bold` font identifies text that you type.

Look here in the margin for tips.

In the margin, you will find tips that help you perform tasks more easily and efficiently.

A note provides important related information, reminders, recommendations, and strong suggestions.

A caution means that a specific action you take could cause harm to your computer or cause you to lose data.

A warning describes an action that could cause you physical harm. Follow the guidelines in this guide or on the unit itself when handling electrical equipment.

If You Need Help

If you are having trouble setting up your LANshare workgroup, you should:

1. Retry the action, carefully following the instructions given for that task in this guide.
2. Check the documentation that came with your hardware for maintenance or hardware-related issues.
3. Check the release notes supplied with your Avid application for information on accessing the Avid Web site and the Avid Knowledge Center.
4. For support services, call Avid Customer Support:
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Related Information

The following documents provide more information about the LANshare workgroup and MediaNet environment:

- *Avid Unity LANshare Site Preparation Guide*
- *Avid Unity Macintosh Ethernet Client Quick Start Card*
- *Avid Unity Windows Ethernet Client Quick Start Card*
- *Avid Unity LANshare Release Notes*
- *Avid Unity MediaNet Management Guide*
- *Avid Products Collaboration Guide*

  The *Avid Products Collaboration Guide* provides step-by-step instructions for transferring project files, audio files, and graphics and effects files between various Avid products.

  The most recent update of the *Avid Products Collaboration Guide* is provided online. Check the release notes supplied with your Avid application for information on accessing online documentation.

CHAPTER 1

LANshare Workgroup Overview

This chapter introduces the Avid Unity LANshare workgroup. LANshare is a low-cost alternative to Avid Unity MediaNet that allows you to connect up to 10 Ethernet clients to a LANserver and its storage. It is designed to provide real-time media editing over an Ethernet network using the MediaNet software.

Topics in this chapter include:

- Introduction to LANshare
- The LANserver
- Installation Prerequisites

Introduction to LANshare

The LANshare workgroup provides clients access to MediaNet workspaces (shared folders) over a fast Ethernet network (see Figure 1-1). The LANserver allows Ethernet clients to mount up to 21 MediaNet workspaces. You can have several LANshare workgroups at your site, each accommodating multiple Ethernet clients.

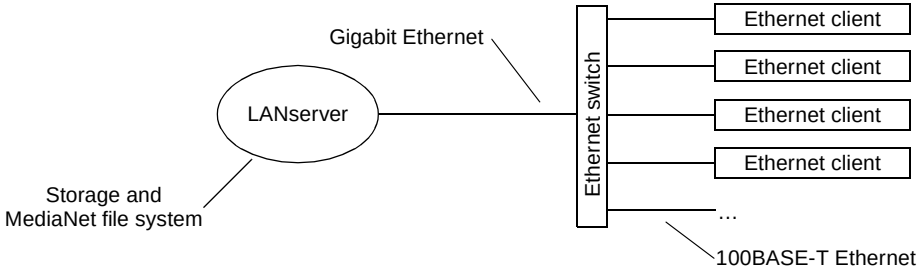


Figure 1-1 LANshare Infrastructure

MediaNet workspaces, exported by the LANserver, can be mounted on Ethernet clients and then accessed in the same manner as local drives. Ethernet clients can then play, record, and edit media on the MediaNet workspaces using a high-performance networking protocol optimized by Avid for real-time media transfer. Real-time media reads and writes are not possible unless the connected clients are running a qualified Avid editing application and have the MediaNet Ethernet client software installed.

Ethernet clients can edit media in one or more of the following video resolutions:

- 4:1s or lower – dual-stream, up to six clients
- 10:1 or lower – dual-stream, up to six clients

- 14:1 or lower – single-stream, up to ten clients
- 10:1m or lower – four streams, up to six clients; nine streams, up to five clients

The LANserver requires an application key (commonly called a *dongle*). Ethernet clients do not require LANshare application keys – their licenses are handled separately by the LANserver. However, the clients do require application keys to run the Avid Composer Products software.

The LANserver

The LANserver is a standalone system that runs the MediaNet software. It is a dual-processor, rack-mount PC system that contains nine hard drives; one for the operating system and eight for storing data.

On the front of the LANserver are two doors that cover the hard drives. The doors contain fans to provide air circulation for the drives and can be locked to prevent the accidental removal of a drive while the LANserver is running.

The front of the LANserver has a block of 12 LEDs. Each hard drive has a green LED to show that the drive is operating. The drives are numbered from left to right and top to bottom. Drive 1 to drive 8 are the data drives. Drive 9 is the operating system drive.

Three other LEDs on the front of the LANserver indicate power (PWR), network connection (LAN), and hard drive use (HDD, the operating system drive). The PWR LED is green when the power is on. The LAN LED is orange when the LANserver is attached to a network. The HDD LED flashes red when data is read from or written to drive 9.

Each of the hard drives has a lock and two green LEDs on the left side of the drive carrier. The lock can be used to secure the drive carrier, preventing its removal from the LANserver. The right LED is on when a drive is receiving power from the LANserver. The left LED flashes when a drive is in use.

Installation Prerequisites

To set up a LANshare workgroup, you need:

- A LANserver.
- An external CD-ROM drive.
- The MediaNet Release 2.2 (or later) CD-ROM.
- A fast Ethernet switch (a nonblocking gigabit Ethernet-to-10/100BASE-T Ethernet switch) that connects the LANshare to the Ethernet clients.
- Up to 10 Ethernet clients (Avid workstations running a qualified Avid Composer Product) with 100BASE-T capable Ethernet connectivity. See the *Avid Unity MediaNet Release Notes* for information on qualified Avid Composer Products.

CHAPTER 2

Installing the LANserver and Ethernet Switch

This chapter describes how to install a LANserver, external CD-ROM drive, and Ethernet switch to create a LANshare workgroup. The workgroup can be standalone or connected to an in-house network.

Topics in this chapter include:

- Before You Begin
- Installing the LANserver Hardware
- Connecting a LANshare Workgroup to an In-House Network
- Turning On the LANserver Hardware
- Configuring the LANserver Using Windows 2000 Setup

Before You Begin

Keep the shipping boxes that come with your LANserver kit. You might need to repackage and ship the components in the future.

Before you begin to install the LANserver hardware, do the following:

- Unpack the LANshare kit (the LANserver, CD-ROM drive, and Ethernet switch).
- Check the contents of the kit against the packing sticker on the outside of each shipping box to confirm you have received all the components.

Standard LANshare Components

The standard LANshare components include:

- A LANserver with nine drives
- A gigabit Ethernet switch and two 25-foot (7.5 meter) optical cables
- An external SCSI CD-ROM drive, SCSI cable, and 68-pin to 50-pin SCSI adapter

Optional LANshare Components

The optional LANshare components include:

- A monitor, keyboard, and mouse
- A keyboard, monitor, and mouse assembly (KMM)
- A keyboard, video, and mouse switch (KVM)

All of these components are available from Avid. You can contact Avid Telesales at 800-949-AVID (2843), your Avid sales representative, or your Avid Reseller to purchase these components.

Installing the LANserver Hardware

Each LANserver ships with a gigabit Ethernet adapter board and a SCSI adapter installed. For fault-tolerence, the LANserver has two autosensing power supplies that set the voltage automatically for either 120 volts or 220 volts at 50 to 60 Hz.

The LANserver hardware can be set on a desktop or mounted in a rack. Select one of the following:

- If you are installing the LANserver on a desktop, continue with"Installing on a Desktop" on page 2-3.
- If you are installing the LANserver in a rack, continue with "Installing in a Rack" on page 2-7.

Installing on a Desktop

The following sections describe how to install the LANserver, Ethernet switch, and CD-ROM drive on a desktop.

Installing the LANserver

To install the LANserver on a desktop:

1. Locate the rubber feet in the LANshare kit.
2. Attach one rubber foot to the bottom of the LANserver at each corner.
3. Place the LANserver on the desktop. Leave adequate room at the front for air circulation and access to the drives, and at the back for cables.
4. Place the monitor, keyboard, and mouse on the desktop next to the LANserver.
5. Attach the 15-pin connector on the monitor cable to the video port on the back of the LANserver. Secure the connector with the thumbscrews on the connector.

6. Attach the connector on the keyboard cable to the keyboard connector on the back of the LANserver. The keyboard connector is at the bottom left of the connectors on the LANserver.
7. Attach the connector on the mouse cable to the mouse connector on the back of the LANserver. The mouse connector is directly above the keyboard connector.

Installing the Ethernet Switch

To install the Ethernet switch on a desktop:

1. Locate the rubber feet in the Ethernet switch kit.
2. Cut the feet apart.
3. Attach one rubber foot to the bottom of the switch at each corner.
4. Place the switch on top of the LANserver. Leave adequate room at the front for cables and at the back for air circulation.
5. Locate a 25-foot (7.5-meter) optical gigabit Ethernet cable in the Ethernet switch kit. Look for an orange cable with a dual plug on each end (see Figure 2-1).

Handle the optical cable carefully. It can be easily damaged if it is pinched or crimped.

6. Remove the protective covers from the connectors on one end of the optical cable.
7. Remove the protective cover from the Ethernet adapter board in the LANserver. The board is located in the top slot.
8. Firmly push the cable connector into the gigabit Ethernet adapter board connector on the LANserver (see Figure 2-1). Make sure the alignment tabs on the cable connector face down.
9. Route the cable to the front of the switch.

10. Remove the protective covers from the connectors on the other end of the optical cable.
11. Remove the protective cover from switch port 17 (the top connector).
12. Firmly push the cable connector into the top gigabit Ethernet port on the switch. Make sure the alignment tabs on the cable connector face up.

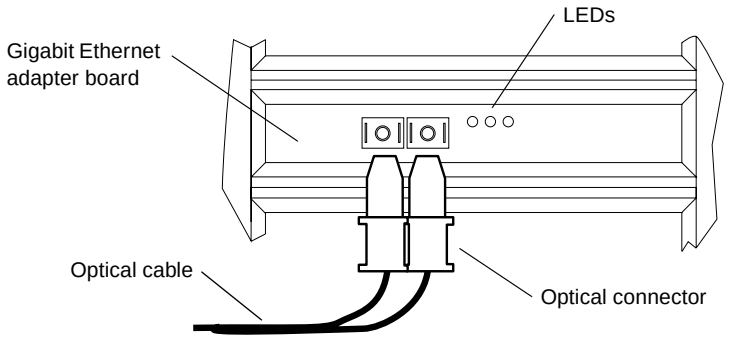


Figure 2-1 Attaching Optical Cable to the Gigabit Ethernet Adapter Board

Installing the CD-ROM Drive

To install the CD-ROM drive:

1. Position the CD-ROM drive on top of the LANserver, near the back of the case. Leave adequate room at the front of the CD-ROM drive for the tray to open and at the back for cables.
2. Locate the Avid-supplied SCSI cable and the 68-pin to 50-pin SCSI adapter.
3. Attach the 68-pin connector on one end of the SCSI cable to the 68-pin connector on the SCSI adapter. Secure the connector with the thumbscrews on the cable connector.

4. Attach the 68-pin connector on the other end of the SCSI cable to the 68-pin connector on the SCSI adapter board in the LANserver. The board is in the bottom slot.
5. Attach the 50-pin connector on the SCSI adapter to the bottom 50-pin connector on the back of the CD-ROM drive. You should hear a click when the connector is secure.

Connecting Power Cords

Before you attach the power cords to the LANshare components, make sure the Power switches on the LANserver and the CD-ROM drive are in the off (O) position.

The Ethernet switch has no Power switch and will turn on when you plug the power cords into a power outlet.

To connect the power cords to the LANserver and other components:

1. Plug one power cord into the right power connector on the back of the LANserver.
2. Plug one power cord into the left power connector on the back of the LANserver.
3. Plug the power cords into power outlets.
4. Plug a power cord into the back of the Ethernet switch.
5. Plug the power cord into a power outlet. You should see some of the LEDs on the front of the switch light and hear the fan when the switch is plugged in.
6. Plug a power cord into the back of the CD-ROM drive.
7. Plug the power cord into a power outlet.
8. Plug the monitor power cord into a power outlet.

You can continue with “Installing the Application Key” on page 2-13.

Installing in a Rack

The following sections describe how to install the LANserver, CD-ROM drive, and Ethernet switch in a rack.

Installing the LANserver Rack-Mount Rails

If you are installing the LANserver in a rack, follow the instructions supplied in the LANserver rail kit to install the rack-mount rails while ensuring that:

- The rails do not interfere with the power strips, power cords, or other cables at the back of the rack.
- The bottom of the LANserver is at the bottom of a U-alignment space.
- The rails span two U-alignment spaces and use the middle two slots for screws (see Figure 2-2).
- The rails allow the LANserver to slide completely into the rack.
- The front edge of the slides are set back approximately 1/2 inch from the rack front channels.
- The rails attach as far forward on the LANserver as possible.

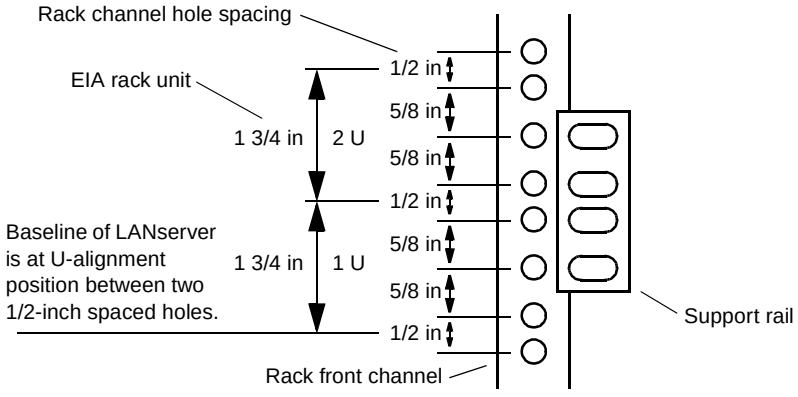


Figure 2-2 Aligning the LANserver Rails to the Rack

Mounting a LANserver

Mounting the LANserver on the rack-mount rails is a two-person task. It is heavy, fits tightly into the rack rails, and the rails might need to be spread slightly to fit the LANserver. If you try to mount the LANserver alone, you might damage the LANserver or injure yourself.

To mount a LANserver on the rack-mount rails:

1. Slide the rack-mount rails out of the rack.
2. Lift the LANserver into position with one person on each side of the rack.
3. Place the rail slides on the LANserver onto the extended rails.
4. Slide the LANserver into the rack. You should hear the slides click onto the rails as you push the LANserver into the rack.
5. Attach the monitor, keyboard, and mouse to the LANserver by selecting one of the following:
   - If you are using a standard monitor, keyboard, and mouse, connect them as described in "Connecting a Standard Keyboard, Monitor, and Mouse" on page 2-8.
   - If you are using a KVM switch with the monitor, keyboard, and mouse, connect them as described in "Connecting to an Optional KVM Switch" on page 2-9.

Connecting a Standard Keyboard, Monitor, and Mouse

To connect the LANserver to a standard keyboard, monitor, and mouse:

1. Place the monitor, keyboard, and mouse on a suitable desktop or table next to the LANserver rack.

   You can also place the monitor on a shelf, and the keyboard and mouse on a sliding tray in the rack. These items are optional. You can supply them yourself or you can purchase them from Avid.

2. Attach the 15-pin connector on the monitor cable to the video port on the back of the LANserver. Secure the connector with the thumbscrews on the connector.
3. Attach the connector on the keyboard cable to the keyboard connector on the back of the LANserver. The keyboard connector is at the bottom left of the connectors on the LANserver.
4. Attach the connector on the mouse cable to the mouse connector on the back of the LANserver. The mouse connector is directly above the keyboard connector.

Connecting to an Optional KVM Switch

This section assumes you already have your keyboard, monitor, and mouse connected to the KVM switch. This switch might be on a desktop or mounted in a rack.

To connect a LANserver to a KVM switch:

1. Locate a KVM cable (customer-supplied).
2. Attach the KVM cable connector to a free connector on the back of the KVM switch. Secure the connector with the thumbscrews on the connector.
3. Attach the 15-pin connector on the monitor cable to the video port on the back of the LANserver. Secure the connector with the thumbscrews on the connector.
4. Push the keyboard cable connector into the keyboard connector on the back of the LANserver. The keyboard connector is at the bottom left of the connectors on the LANserver.
5. Push the mouse cable connector into the mouse connector on the back of the LANserver. The mouse connector is directly above the keyboard connector.

Installing the CD-ROM Drive

To install the CD-ROM drive:

1. Position the CD-ROM drive on the top front of the LANserver, centered between the rack rails.
2. Locate the Avid-supplied SCSI cable and the 68-pin to 50-pin SCSI adapter.
3. Attach the 68-pin connector on one end of the SCSI cable to the 68-pin connector on the SCSI adapter. Secure the connector with the thumbscrews on the cable connector.
4. Attach the 68-pin connector on the other end of the SCSI cable to the 68-pin connector on the SCSI adapter board in the LANserver. The board is in the bottom slot.
5. Attach the 50-pin connector on the SCSI adapter to the bottom 50-pin connector on the back of the CD-ROM drive. You should hear a click when the connector is secure.

Installing the Ethernet Switch Rack-Mount Bracket

Follow the instructions supplied with the Ethernet switch to install the rack-mount bracket and ensure that:

- The bottom of the switch is at the bottom of a U-alignment space.
- The switch is mounted directly above the CD-ROM drive or below the LANserver.
- There is adequate space to run and connect Ethernet cables to the front of the switch.

Mounting the Ethernet Switch

To mount the Ethernet switch on the rack-mount bracket:

1. Position the switch above the CD-ROM drive or below the LANserver.
2. Attach the switch to the rack with the large mounting screws and washers supplied in the Ethernet switch kit.
3. Locate a 25-foot (7.5-meter) optical gigabit Ethernet cable in the Ethernet switch kit. Look for an orange cable with a dual plug on each end (see Figure 2-3).

Handle the optical cable carefully. It can be easily damaged if it is pinched or crimped.

4. Remove the protective covers from the connectors on one end of the optical cable.
5. Remove the protective cover from the Ethernet adapter board in the LANserver. The board is located in the top slot.
6. Firmly push the cable connector into the gigabit Ethernet adapter board connector on the LANserver (see Figure 2-3). Make sure the alignment tabs on the cable connector face down.

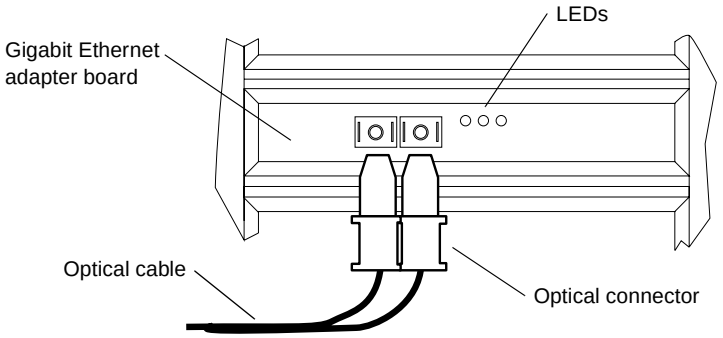


Figure 2-3 Attaching Optical Cable to the Gigabit Ethernet Adapter Board

7. Route the cable to the front of the switch.
8. Remove the protective covers from the connectors on the other end of the optical cable.
9. Remove the protective cover from switch port 17 (the top connector).
10. Firmly push the cable connector into the top gigabit Ethernet port on the switch. Make sure the alignment tabs on the cable connector face up.

Connecting Power Cords

Before you attach the power cords to the LANshare components, make sure the Power switches on the LANserver and the CD-ROM drive are in the off (O) position.

The Ethernet switch has no Power switch and will turn on when you plug the power cords into a power outlet.

To connect the power cords to the LANserver and other components:

1. Plug one power cord into the right power connector on the back of the LANserver.
2. Plug one power cord into the left power connector on the back of the LANserver.
3. Plug the power cords into power outlets.
4. Plug the power cord into the back of the Ethernet switch.
5. Plug the power cord into a power outlet. You should see some of the LEDs on the front of the switch light and hear the fan when the switch is plugged in.
6. Plug the power cord into the back of the CD-ROM drive.
7. Plug the power cord into a power outlet.
8. Plug the monitor power cord into a power outlet.

Installing the Application Key

To install the application key (dongle):

1. Locate the application key in the LANshare kit.
2. Attach the application key to the parallel port on the back of the LANserver. Secure the application key with the thumbscrews on the key.

Connecting a LANshare Workgroup to an In-House Network

To allow the clients in your LANshare workgroup to easily share project information with other Ethernet clients or to use other network services, you can connect the LANshare workgroup to your 10BASE-T or 100BASE-T in-house Ethernet local area network (LAN).

If you have multiple LANshare workgroups, you can connect each Ethernet switch directly to the LAN, or cascade the Ethernet switches and connect only one of them to the LAN.

A connection to a LAN is not a requirement to allow access by Ethernet clients to MediaNet workspaces shared by the LANserver. Avid does not install, configure, or troubleshoot LANs. If you are having trouble with your LAN, consult your Information Services department or your network vendor.

When you are connecting the LANserver to an in-house network, make sure you use only Category 5 or Category 5e Ethernet cables. Using other cable types can cause LANserver performance problems.

Avid recommends you connect the LANserver to an in-house network using only port 16 on the Ethernet switch. Using either of the built-in 10/100BASE-T Ethernet connections can cause an increase in login time.

Making the Connection to the In-House Network

You connect your Ethernet switch to your LAN through port 16, which can be configured to have uplink (MDI) wiring.

If you have multiple LANshare workgroups and would like to cascade the switches to have a single Ethernet connection, skip this section and continue with "Cascading Multiple Ethernet Switches" on page 2-14.

To connect a single Ethernet switch to the site network:

1. Attach an RJ-45 cable to port 16 on the Ethernet switch.
2. Attach the other end of the RJ-45 cable to a suitable LAN jack.
3. Press the Normal/Uplink button so it is pushed in, thus configuring port 16 for uplink wiring. Confirm that the switch is in the appropriate position by checking that the port's connection LED lights up (see Figure 2-4).

Cascading Multiple Ethernet Switches

If you have multiple LANshare workgroups (and, therefore, multiple Ethernet switches), you can attach them all to your LAN using a single network port by cascading the Ethernet switches.

To cascade Ethernet switches:

1. Attach an RJ-45 cable to port 16 on the *first* Ethernet switch.
2. Press the Normal/Uplink button so it is pushed in, thus configuring port 16 for uplink wiring. Confirm that the switch is in the appropriate position by checking that the port's connection LED lights up (see Figure 2-4).

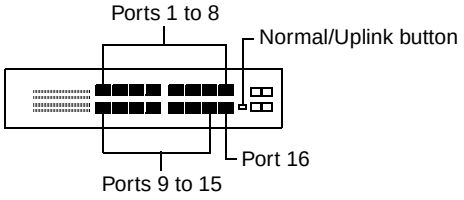


Figure 2-4 Ethernet Switch Ports

3. Attach the other end of the RJ-45 cable to a free port (port 1 to port 15) on the *next* uncascaded Ethernet switch (see Figure 2-5).
4. Attach an RJ-45 cable to port 16 on the Ethernet switch you just cascaded, and then determine whether there are more Ethernet switches to cascade:
   - If there is another Ethernet switch to cascade, repeat steps 2 to 4.
   - If there are no more Ethernet switches to cascade, proceed to step 5.
5. Locate the other end of the RJ-45 cable you connected to port 16 on the *last* Ethernet switch, and attach it to a suitable LAN jack (see Figure 2-5).

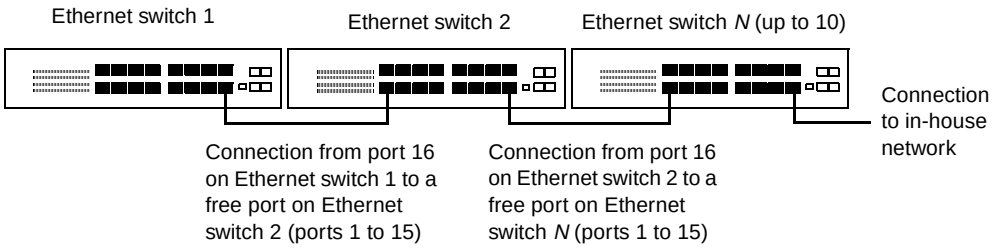


Figure 2-5 Cascading Ethernet Switches

6. Press the Normal/Uplink button so it is pushed in, thus configuring port 16 for uplink wiring. Confirm that the switch is in the appropriate position by checking that the port's connection LED lights up.

Turning On the LANserver Hardware

You can now turn on power to your LANserver hardware. When you turn on the power, it is order-dependent so the LANserver will see all of its connected components.

To turn on the power for each component:

1. The Ethernet switch has no Power switch. It turns on when you plug the power cord into a power outlet.
2. Turn on the Power switch for the monitor.
3. Turn on the Power switch for the external CD-ROM drive.

If the doors on the LANserver are locked, locate one of the keys (supplied in the LANserver) to unlock the front doors.

4. Open the front doors on the LANserver and push the Power switch to |. It is a rocker switch and returns to the O position after you push it.

   Watch the monitor. You should see the LANserver boot sequence begin. Wait for the Windows operating system to load *before* you attempt to use the LANserver.

It takes approximately 3 minutes for the boot sequence to complete and another minute for the Windows operating system to load.

Configuring the LANserver Using Windows 2000 Setup

The first time you boot your LANserver, it runs the Windows 2000 Setup utility to set several Windows operating system parameters. You'll need to have the Windows software kit available when you run the utility. It contains the Windows license number that you need to type as part of the configuration.

To set up the Windows operating system:

1. The Windows 2000 Setup utility starts and the Windows 2000 Server Setup dialog box appears showing the License Agreement screen.
2. Click the Agree radio button to accept the license.
3. Click Next. The Regional Settings screen appears.
   - If you are outside the United States, customize the system and locale settings, and the keyboard for your location.
   - If you are in the United States, continue.
4. Click Next. The Personalize Your Software screen appears.
5. Type the system administrator's name in the Name text box.
6. Type the company name in the Organization text box.
7. Click Next. The Your Product Key screen appears.
8. Type the Product Key from the Certificate of Authenticity in the Product key text box. The certificate might be on the back of the *Windows 2000 Server Getting Started Guide* in the Windows software kit, or it might be affixed to the LANserver.

   If the certificate is not already affixed to the LANserver, remove it from the *Windows 2000 Server Getting Started Guide* and affix it now.
9. Click Next. The License Modes screen appears.

10. Click the Per Server radio button and set the number of concurrent connections to 10.
11. Click Next. The Computer Name and Administrator Password screen appears.
12. Type the name you want to use for the LANserver in the Computer name text box.

Avid recommends you use an administrator password to prevent unauthorized use of the Administrator account.

13. Type the password you want to use for the administrator account in the Administrator Password text box.
14. Confirm the password by retyping the password in the Confirm password text box.
15. Click Next. The Date and Time Settings screen appears. Set the correct date, time, and time zone for the LANserver.
16. Click the "Automatically adjust clock for daylight saving changes" check box if your location observes daylight saving time.
17. Click Next. The Network Settings screen appears.
18. Click the Typical radio button. The network settings are site dependent and will be set later during the LANserver configuration in Chapter 3.
19. Click Next. The Workgroup and Computer Domain screen appears.
20. Click No. The workgroup and domain settings are site dependent and will be set later during the LANserver configuration in Chapter 3. The Performing Final Tasks screen appears, followed by the Complete the Windows 2000 Setup Wizard screen.
21. Click Finish. The Windows 2000 operating system is loaded.

Your LANshare workgroup hardware installation is complete. Continue with Chapter 3 to configure the LANserver and to install the LANshare software.

CHAPTER 3

Configuring a LANserver

This chapter describes how to configure some of the LANserver operating system parameters and install the LANshare software on the LANserver.

Topics in this chapter include:

- Setting Up the LANserver
- Installing the LANserver Software
- Configuring the MediaNet Software
- Sharing MediaNet Workspaces
- Configuring Windows Network Permissions for Workspace Sharing
- Allowing Network Installation of Ethernet Client Software

Setting Up the LANserver

Your LANserver ships with the Windows 2000 Server operating system, Service Pack 2, and all the necessary drivers preinstalled. You do not need to perform any configuration operations on these items.

You do need to configure the LANserver for the correct date and time, computer name, and network properties so that it will function properly at your site. To set up the LANserver, you should perform all the operations in the following sections.

Quick Summary

- Accurately set the date, time, and time zone.
- Specify a unique Computer Name by which all Ethernet clients will identify the LANserver.
- Configure a static IP address and, if necessary, a gateway IP address for the gigabit Ethernet network adapter.

Setting the Date, Time, and Time Zone

You need to correctly set the date, time, time zone, and daylight saving time option on each LANserver.

To set the date, time, time zone, and daylight saving time option on a LANserver:

1. Double-click the time in the taskbar. The Date/Time Properties dialog box appears.
2. Set the date and time by using the Date & Time tab.
3. Click the Time Zone tab.

4. Set the time zone for the location of the LANserver. By default, Windows 2000 sets the time zone to "(GMT - 8:00) Pacific Time (US & Canada), Tijuana."
5. Make sure the "Automatically adjust clock for daylight saving changes" option is selected if your location observes daylight saving time.
6. Click OK to close the Date/Time Properties dialog box and save the settings.

Specifying a Unique Computer Name

To specify a unique computer name by which clients identify your LANserver:

1. Right-click the My Computer icon on the desktop, and choose Properties from the pop-up menu that appears. The System Properties dialog box appears.
2. Click the Network Identification tab.
3. Click the Properties button. The Identification Changes dialog box appears.
4. Specify the LANserver name by typing it in the Computer name text box.
5. Determine if you need to select the Domain or Workgroup in the "Member of" section at the bottom of the dialog box. Contact your network administrator for assistance.
6. Click OK.
7. Close all open windows and dialog boxes.

IP Addressing Strategies When Connecting to a Network

If your LANserver and Ethernet clients are connected to your in-house network, the LANserver and each client must be properly configured with a unique, valid IP address and subnet mask.

Your site network administrator should determine how best to allocate IP addresses for systems on your in-house network, bearing in mind the following:

- You must assign a static IP address to the gigabit Ethernet adapter on the LANserver — the Ethernet clients are configured to locate the LANserver using this address.
- You can assign static IP addresses to the Ethernet clients or use DHCP to obtain them dynamically if you have a DHCP server on the network.
- However you assign the Ethernet client IP addresses, the LANserver and all clients must have addresses in the same subnet.

Configuring the LANserver Network Properties

You need to configure each LANserver's network properties so that it can communicate with the network. Each LANserver has three possible network connections: a gigabit Ethernet adapter and two built-in 10/100BASE-T adapters. You need to provide a static IP address and subnet mask for the gigabit Ethernet adapter.

To configure Network Properties for the gigabit Ethernet adapter:

1. Right-click the My Network Places icon on the desktop and choose Properties from the pop-up menu that appears. The Network and Dial-up Connections dialog box appears.
2. Click the View menu and choose Details. The window changes to show details about its contents.

3. Locate the Local Area Connection that is identified as Intel(R) Pro/1000 F Server Adapter.
4. Double-click this Local Area Connection's icon. The Local Area Connection Status dialog box appears.
5. Click Properties. The Local Area Connection's Properties dialog box appears.
6. Select the Internet Protocol (TCP/IP) option.
7. Click Properties. The Internet Protocol (TCP/IP) Properties dialog box appears.
8. Select the "Use the following IP address" option.
9. Type a unique IP address in the IP address text box (see "IP Addressing Strategies When Connecting to a Network" on page 3-4), and press Enter. The LANserver should fill in the subnet mask appropriately. If not, type the appropriate subnet mask in the Subnet mask text box.
10. If necessary, type a gateway IP address in the Default gateway text box.
11. If necessary, type a Preferred and Alternate DNS server IP address in the Preferred DNS server and Alternate DNS server text boxes.
12. Click Advanced. The Advanced TCP/IP Settings dialog box appears.
13. Click the DNS tab.
14. If necessary, type a DNS name in the "DNS suffix for the connection" text box.
15. Click OK to close each of the open dialog boxes and save the changes.
16. Close all the remaining open windows and dialog boxes.
17. Click the Start button and then select Shut Down. The Shut Down Windows dialog box appears.
18. Choose Restart from the menu and then click OK. The LANserver reboots.

Installing the LANserver Software

The MediaNet software allows the LANserver to share MediaNet workspaces. This software is supplied on the MediaNet Release CD-ROM in the LANshare installation kit.

To install the MediaNet software on the LANserver:

1. Locate the MediaNet Release 2.2 (or later) CD-ROM.
2. Insert the CD-ROM into the LANserver external CD-ROM drive. The CD-ROM is set to auto-start and opens the Avid Unity Installation window. This takes approximately 30 seconds.

   If the CD-ROM does not auto-start, you can start the installation manually as follows:

   a. Double-click the My Computer icon on the desktop. The My Computer window opens.

   b. Right-click the CD-ROM icon and choose AutoPlay from the pop-up menu that appears. The Avid Unity Installation window opens.
3. Click LANshare. The screen changes to the LANshare options.
4. Click LANserver. The Question dialog box appears noting the prerequisite software that needs to be installed.

   - If all the prerequisite software is installed, click Yes and continue with step 5. The InstallShield Wizard dialog box appears.
   - If some of the software is not installed, click No to quit the installer and install the prerequisite software. Then, begin the LANshare installation again.
5. Accept the default values presented by the InstallShield Wizard.
6. Click Finish to install the LANshare and MediaNet software, and reboot the LANserver.
7. Log in to the LANserver as Administrator.

8. To verify that the MediaNet software is correctly installed:
   a. Right-click the My Computer icon on the desktop, and choose Manage from the pop-up menu that appears. The Computer Management window opens.
   b. Expand Services and Applications.
   c. Click Services. A list of services appears in the right portion of the window.
   d. Locate the Avid Unity PortServer service. It should have a Status of Started and a Startup Type of Automatic.

Configuring the MediaNet Software

You need to configure the MediaNet software to establish a functioning LANshare workgroup. This configuration requires that you:

- Create a drive set
- Create an allocation group
- Create several workspaces
- Create user accounts

While you are performing the configuration, you will need to refer to the *Avid Unity MediaNet Management Guide* for information about the MediaNet configuration tools. You should also read the first two chapters of the guide. They describe the MediaNet software and the tools.

Creating a Drive Set

The drive set defines the drives that the MediaNet software can use to store data. Each MediaNet workgroup can have only one drive set.

To create a drive set for your LANshare workgroup:

1. Start the Setup Manager. See the *Avid Unity MediaNet Management Guide* for additional information about using the Setup Manager.
2. Click Raw Drives in the left portion of the window.
3. Select all eight drives that appear in the right portion of the window.
4. Click the Drive Set menu and choose Create Data Drive Set.
5. Click OK. The drive set is created.
6. Click Data Drive Set in the left portion of the window. All of the drives should move from Raw Drives to Data Drive Set.
7. Quit the Setup Manager.

Creating an Allocation Group

An allocation group defines how the drives in a drive set are partitioned to store data.

To create an allocation group:

1. Open the Administration Tool. See the *Avid Unity MediaNet Management Guide* for additional information about using the Administration Tool.
2. Click the Allocation Groups tab.
3. Click the Partition Disk Set icon in the left portion of the window. All of the drives should appear in the right portion of the window.
4. Select each of the drives by clicking the check box before the drive number.

For best performance, Avid recommends you create a single allocation group using all eight drives. You can then create multiple workspaces within the allocation group.

5. Click the New Group button. A dialog box appears asking if you are sure you want to create the allocation group.
6. Click Yes. The allocation group is created.
7. Leave the Administration Tool running.

Creating Workspaces

Workspaces are locations to store and segregate data. You can allow users to access some or all of the workspaces, and assign permissions for how each user can access the data in a workspace.

All new workspaces are created with protection enabled. Avid recommends you leave your workspaces protected. Protection creates a copy of the files you store in a workspace. The file copy resides on different drives from the original file. When several clients want to play the same file, MediaNet steers clients to either the original or the copy of the file to provide maximum playback performance. Protection also allows you to rebuild the data on a drive, if one of your drives should fail.

To create a workspace:

1. Click the Workspace tab in the Administration Tool. See the *Avid Unity MediaNet Management Guide* for additional information about using the Administration Tool.
2. Click the turn-down arrow before Partition Disk Set. The allocation group appears.
3. Click the Allocation Group icon and then click the New Workspace button. A 1-GB workspace is created.
4. Click the turn-down arrow before the allocation group. The workspace appears.
5. Click the workspace name, type the name you want for the workspace, and press Enter. The workspace name changes.
6. Resize the workspace, to make it larger, by clicking the resize handle and dragging it to the right.

7. Repeat steps 3 to 6 to create as many workspaces as you might need.
8. Leave the Administration Tool running.

You can create as many workspaces as you need to support different projects. Due to the physical restrictions of drive letters, the LANserver can only mount a maximum of 21 workspaces at a time.

Creating User Accounts

User accounts allow individual users, or groups of users, access to the LANshare workgroup. These accounts allow users to mount or map MediaNet workspaces on their Avid workstations.

To create a user account:

1. Click the User tab in the Administration Tool. See the *Avid Unity MediaNet Management Guide* for additional information about using the Administration Tool.
2. Click the turn-down arrow before Partition Disk Set. The allocation group appears.
3. Click the turn-down arrow before the allocation group. The workspaces appear.
4. Click the New User button in the right portion of the window. A new user is created and appears in the column head area.
5. Double-click the user name. The Change User Name dialog box appears.
6. Type the desired user name in the text box and click OK. The user name changes.
7. Click the user name and then click the Set Password button. The Set Password dialog box appears.
8. Type the desired password in the text box and click OK. The user's password is saved.

9. Click the permissions below the user name for each workspace, and set them accordingly to No Access (N), Read (R), or Read/Write (R/W).
10. Repeat steps 4 to 9 for each user.
11. Close the Administration Tool.

Sharing MediaNet Workspaces

The LANserver software includes the Avid Unity PortServer service that automatically mounts and shares MediaNet workspaces. The workspaces are mounted in response to mount requests received from the Connection Manager application on Ethernet clients. The service can mount up to 21 workspaces.

The Avid Unity PortServer service starts automatically when you boot the LANserver. On startup (and every 60 seconds thereafter), the service reads MediaNet configuration information to obtain workspace, user, and access privilege information. It then uses this information to remount and reshare MediaNet workspaces to LANshare clients with the correct access privileges.

Configuring User Accounts and Permissions

This section assumes you are a Windows network administrator with a working knowledge of managing Windows users, groups, and permissions. Windows user accounts and permissions can be local to the LANserver or supplied by a Windows domain (if the LANserver is part of a network). For more information about Windows users, groups, and permissions, contact your network administrator or consult the Windows 2000 Help system

On the LANserver, the Connection Manager matches MediaNet users, and Windows users or groups to validate access to MediaNet workspaces. When the Connection Manager finds a match between a MediaNet user account and a Windows user account or group, it applies the appropriate permissions to each MediaNet workspace to which the user has access. The requested workspaces can then be mounted on the MediaNet client.

When the Connection Manager cannot find a match between a MediaNet user account and a Windows user account or group, it displays a Login dialog box requesting the user to type a valid Windows/MediaNet user account and password. If these are not supplied, the user login request is denied.

The following examples provide information about how and where to create the necessary user accounts for MediaNet and Windows.

Example 1 – Standalone LANshare Workgroup Using Local User Accounts

You are creating a standalone LANshare workgroup and want to allow individual users access to MediaNet workspaces. In this workgroup you need to create three user accounts:

- A MediaNet user account for each Windows and Macintosh user on the LANserver
- A Windows user account for each Windows and Macintosh user on the LANserver
- A Windows user account for each user on the Windows client

No user account is required on a Macintosh client.

The MediaNet user account and the Windows user account (on the LANserver and the Windows client) *must* have the same user name and password to allow user login and permission setting. Users should log in to the client using their client user account and password. Figure 3-1 shows where the Windows and MediaNet user accounts are created.

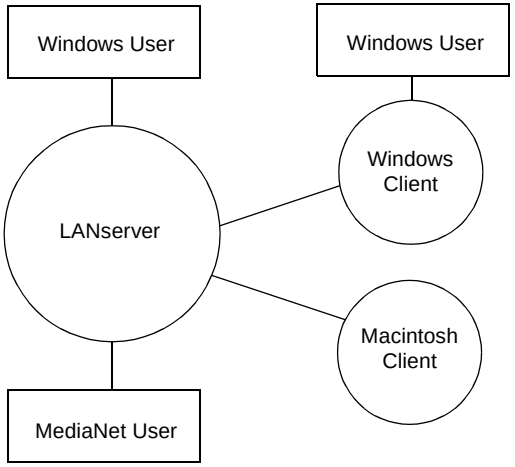


Figure 3-1 Standalone User Accounts

For this example, you have several people working on different projects that need access to different workspaces. You could create all the user accounts in the following manner:

- On the LANserver, create a MediaNet user account “Fred” with a password of “seven.” Assign this account read/write permission to the necessary MediaNet workspaces, and read or no access permission to other workspaces on the LANserver.
- On the LANserver, create a Windows user account “Fred” with a password of “seven.”
- On the client, create a Windows user account “Fred” with a password of “seven.”

Example 2 – Standalone LANshare Workgroup Using Local Groups

You are creating a standalone LANshare workgroup and want to allow a group of users access to MediaNet workspaces. In this workgroup you need to create three user accounts and one Windows group:

- A MediaNet user account for the group on the LANserver
- A Windows group on the LANserver
- A Windows user account for each Windows and Macintosh user on the LANserver
- A Windows user account for each user on the Windows client

No user account is required on a Macintosh client.

The MediaNet user account and the Windows group (on the LANserver and the Windows client) *must* have the same name to allow user login and permission setting. Users should log in to the client using their client user account and password. Figure 3-2 shows where the Windows and MediaNet user accounts and the Windows group are created.

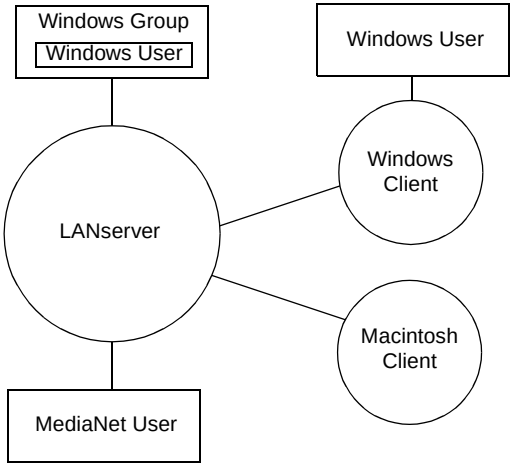


Figure 3-2 Standalone User Accounts and Groups

For this example, you want to give several people working on a project access to the same workspaces with the same permissions. You could create all the user accounts in the following manner:

- On the LANserver, create a MediaNet user account “ProjectA” with a password of” six.” Assign this account read/write permission to the necessary MediaNet workspaces, and read or no access permission to other workspaces on the LANserver.
- On the LANserver, create a Windows user account “Fred” with a password of “seven” and a Windows user account “Jill” with the password “twelve.”
- On the LANserver, create a Windows group “ProjectA.” Add “Fred” and “Jill” to the “ProjectA” group.
- On the client, create a Windows user account “Fred” with a password of “seven” and a Windows user account “Jill” with the password “twelve.”

Example 3 – Network LANshare Workgroup Using Domain User Accounts

You are creating a network LANshare workgroup (the LANserver is part of a Windows domain) and want to allow individual users access to MediaNet workspaces. In this workgroup you need to create two user accounts:

- A MediaNet user account for each Windows and Macintosh user on the LANserver
- A Windows user account for each Windows and Macintosh user on the domain server

No user account is required on a Macintosh client.

The LANserver and all of its clients must be a part of the same Windows domain.

The MediaNet user account and the Windows user account *must* have the same user name and password to allow user login and permission setting. Users should log in to the client using their Windows domain user account and password. Figure 3-3 shows where the Windows and MediaNet user accounts are created.

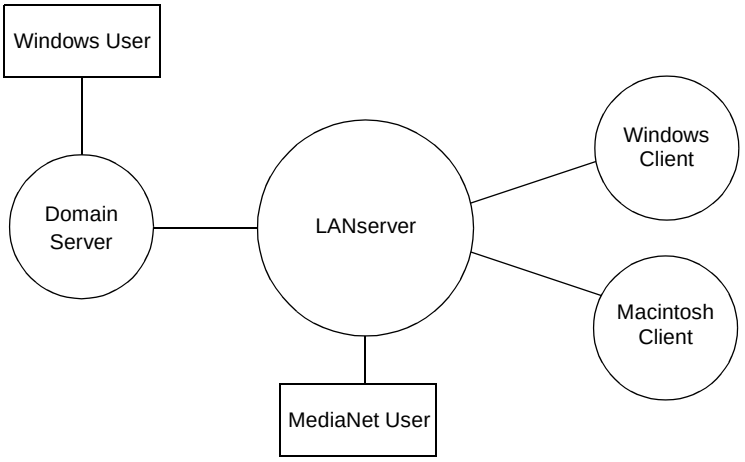


Figure 3-3 Network User Accounts

For this example, you have several people working on different projects that need access to different workspaces. You could create all the user accounts in the following manner:

- On the LANserver, create a MediaNet user account "Fred" with a password of "seven." Assign this account read/write permission to the necessary MediaNet workspaces, and read or no access permission to other workspaces on the LANserver.
- On the Windows domain server, create a Windows user account "Fred" with a password of "seven."

Example 4 – Network LANshare Workgroup Using Domain Groups

You are creating a network LANshare workgroup (the LANserver is part of a Windows domain) and want to allow a group of users access to MediaNet workspaces. In this workgroup you need to create two user accounts and one Windows group:

- A MediaNet user account for the group on the LANserver
- A Windows group on the domain server

- A Windows user account for each Windows and Macintosh user on the domain server

No user account is required on a Macintosh client.

The LANserver and all of its clients must be a part of the same Windows domain.

The MediaNet user account and the Windows group *must* have the same name to allow user login and permission setting. Users should log in to the client using their Windows domain user account and password. Figure 3-4 shows where the Windows and MediaNet user accounts and the Windows group are created.

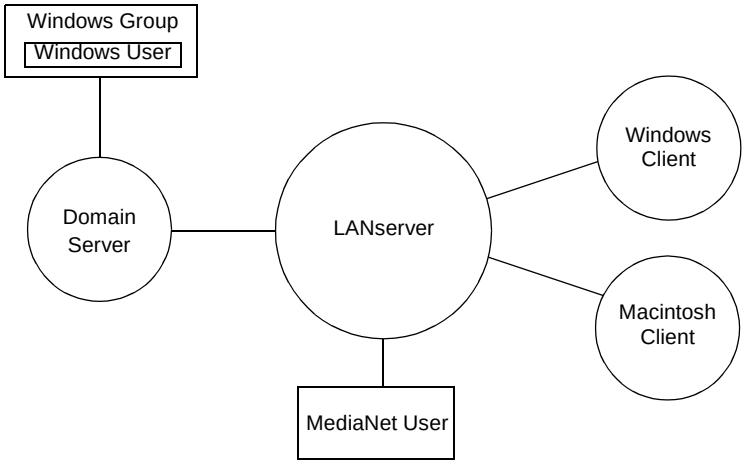


Figure 3-4 Network User Accounts and Groups

For this example, you want to give several people working on a project access to the same workspaces with the same permissions. You could create all the user accounts in the following manner:

- On the LANserver, create a MediaNet user account “ProjectA” with a password of “six.” Assign this account read/write

permission to the necessary MediaNet workspaces, and read or no access permission to other workspaces on the LANserver.

- On the Windows domain server, create a Windows user account "Fred" with a password of "seven" and a Windows user account "Jill" with the password "twelve."
- On the Windows domain server, create a Windows group "ProjectA." Add "Fred" and "Jill" to the "ProjectA" group.

Allowing Network Installation of Ethernet Client Software

The Windows Ethernet client software installer is included as part of the LANserver installation (in D:\Program Files\Avid Technology\AvidUnity\Ethernet Client Setup), if you accepted the defaults during the installation. If you share the Ethernet Client Setup folder you (or other users with the appropriate access permissions) can install the Windows Ethernet client software on any connected Windows Ethernet client over the network without using the MediaNet Release CD-ROM.

To share the Ethernet Client Setup folder to allow network installation of the Windows 2000 Ethernet client software:

1. Open Windows Explorer.
2. Navigate to D:\Program Files\Avid Technology\AvidUnity.
3. Right-click the Ethernet Client Setup folder and choose Sharing from the pop-up menu that appears. The Ethernet Client Setup Properties dialog box appears.
4. Select the "Share this folder" option.
5. Type the name you want to use for the folder in the Share name text box.
6. Click OK. The dialog box closes and the sharing hand appears under the folder.

CHAPTER 4

Setting Up Windows Ethernet Clients

Each Windows Ethernet client needs to be properly configured and have the correct software installed to function properly in the LANshare workgroup.

Topics in this chapter include:

- Installation Prerequisites
- Connecting a Windows Ethernet Client
- Setting the Date, Time, and Time Zone
- Installing the Avid Composer Products Software
- Installing the Windows Ethernet Client Software
- Finishing Up
- Reconfiguring the IP Address of the LANserver

Installation Prerequisites

The MediaNet software requires that several software packages be installed *before* you attempt to perform an installation. Attempting to perform an Ethernet client installation without these prerequisite software packages will cause the Ethernet client installer to quit.

Windows 2000 Ethernet Client Prerequisites

The Ethernet client requires the following software:

- Windows 2000 Service Pack 2
- Windows 2000 hotfixes, if necessary
- Internet Explorer Version 5.5 or later

You should take the time to install Internet Explorer on the Windows Ethernet client now, if you are not running Version 5.5 or later. A copy of Internet Explorer Version 5.5 is provided on the MediaNet Release CD-ROM in the directory \Extras\IE55\.

If necessary, you should take the time to install the Windows 2000 hotfixes on the Windows Ethernet client now. These hotfixes are required. See the *Avid Unity MediaNet Release Notes* for more information on the hotfixes and how to install them.

Failing to install the hotfixes can cause unpredictable results or performance problems when you attempt to use the client.

Connecting a Windows Ethernet Client

You connect a Windows Ethernet client to the LANshare workgroup by connecting its Ethernet 10BASE-T/100BASE-T (RJ-45) port to a 10/100BASE-T port on the Ethernet switch.

The Ethernet path between the LANserver and Ethernet clients must be a direct, full-duplex connection using the Avid-supplied Ethernet switch. Adding other half-duplex devices between the LANserver and its clients, or attempting to connect clients using other switches or hubs, is not supported.

When you are connecting the Ethernet client to the Ethernet switch, make sure you use only Category 5 or Category 5e Ethernet cables. Using other cable types can cause client performance problems.

To connect a Windows Ethernet client's RJ-45 port to the Ethernet switch:

1. Connect the RJ-45 cable to the RJ-45 port on the rear of the client (see Figure 4-1).

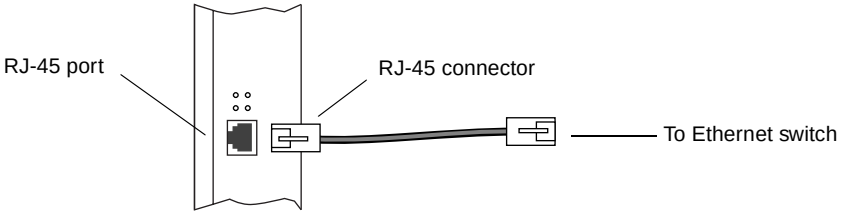


Figure 4-1 Connecting the Ethernet Cable to the Ethernet Client

2. Connect the other end of the RJ-45 cable to an empty 10/100BASE-T port, between port 1 and port 15, on the Ethernet switch (see Figure 4-2).

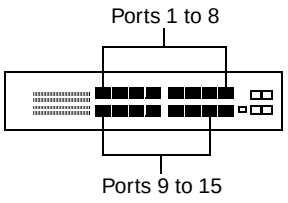


Figure 4-2 Connecting the Ethernet Cable to the Ethernet Switch

Setting the Date, Time, and Time Zone

You need to correctly set the date, time, time zone, and daylight saving time option on the Ethernet client. This allows the "Synchronize the system clock with the PortServer or LANserver" function on the clients to work correctly.

To set the date, time, time zone, and daylight saving time option on the Ethernet client:

1. Double-click the time in the taskbar. The Date/Time Properties dialog box appears.
2. Set the date and time using the Date & Time tab.
3. Click the Time Zone tab.
4. Set the time zone for the location of the Windows Ethernet client. By default, Windows 2000 sets the time zone to "(GMT - 8:00) Pacific Time (US & Canada), Tijuana."
5. Make sure the "Automatically adjust clock for daylight saving changes" option is selected if your location observes daylight saving time.
6. Click OK to close the Date/Time Properties dialog box and save the settings.

After you correctly reset the date, time, and time zone, and activate the daylight saving time option on the Ethernet client, reboot the client. This ensures the Ethernet client software is using the correct time.

Configuring Network Properties

You need to configure each Ethernet client's network properties so it can communicate with the LANserver network.

Before you start to configure your client's network properties:

- Determine whether you should use static or dynamic (DHCP/DNS-based) IP addressing.
- If you are using *static* addressing, obtain an IP address and subnet mask.
- If you are using *dynamic* IP addressing, find out whether you should obtain DNS server addresses automatically or specify them manually.
- If you are specifying DNS server addresses manually, obtain the addresses of the *site preferred* and *alternate* DNS servers.

To configure the network properties:

1. Consult your site network administrator to determine whether you should use static or dynamic (DNS-based) IP addressing.
2. Right-click the My Network Places icon on the desktop and choose Properties from the pop-up menu that appears. The Network and Dial-up Connections dialog box appears.
3. Double-click the Local Area Connection icon. The Local Area Connection Status dialog box appears.
4. Click Properties. The Local Area Connections Properties dialog box appears.
5. Select the Internet Protocol (TCP/IP) option.
6. Click Properties. The Internet Protocol (TCP/IP) Properties dialog box appears.

- **If you are using static addressing, specify the IP address assigned by your network administrator:**

  a. Select the "Use the following IP address" option.

  b. Type a unique IP address in the IP address text box, and press Enter. The subnet mask should fill in appropriately. If not, type the appropriate subnet mask in the Subnet mask text box.

  c. If necessary, type a gateway IP address in the Default gateway text box.

  d. Continue with step 7.

- **If you are using dynamic (DHCP/DNS-based) IP addressing and obtaining the DHCP/DNS server addresses automatically:**

  a. Select the "Obtain an IP address automatically" option.

  b. Select the "Obtain DNS server address automatically" option.

  c. Continue with step 7.

- **If you are using dynamic address allocation and must manually specify the addresses of preferred and alternate DNS servers obtained from the network administrator:**

  a. Select the "Obtain an IP address automatically" option.

  b. Select the "Use the following DNS server addresses" option.

  c. Specify the Preferred and Alternate DNS server IP addresses in the appropriate text boxes.

7. Click OK to set the changes.
8. Close all open windows and dialog boxes.
9. Click the Start button and select Shut Down. The Shut Down Windows dialog box appears.
10. Choose Restart from the menu and click OK to reboot the Ethernet client. The Ethernet client restarts with its new IP address.

Installing the Avid Composer Products Software

Your Windows Ethernet clients require a qualified release of the Avid Composer Products software to allow them to use the LANserver storage when connected to a LANshare workgroup. Install the qualified release of the Avid Composer Products software before you install the Ethernet client software. Check the *Avid Unity MediaNet Release Notes* to determine a qualified release of Avid Composer Products software.

Installing the Windows Ethernet Client Software

Each Ethernet client requires software to allow it to log in to the LANserver, mount accessible workspaces, and to read and write data to those workspaces in real time. The Windows Ethernet client software is supplied on the MediaNet Release CD-ROM and is also available for network installation from the LANserver.

Installing Ethernet Client Software from the CD-ROM

To install the Windows Ethernet client software from the MediaNet Release CD-ROM:

1. Locate the MediaNet Release 2.2 (or later) CD-ROM.
2. Insert the CD-ROM into the Ethernet client CD-ROM drive. The CD-ROM is set to auto-start and opens the Avid Unity Installation window. This takes approximately 1 minute.

   If the CD-ROM does not auto-start, you can start the installation manually as follows:

   a. Double-click the My Computer icon on the desktop. The My Computer window opens.

b. Right-click the CD-ROM icon and choose AutoPlay from the pop-up menu that appears. The Avid Unity Installation window opens.

3. Click LANshare. The screen changes to the LANshare options.
4. Click Ethernet Attached Client. The InstallShield Wizard dialog box appears showing the Welcome screen.
5. Accept the default values presented by the InstallShield Wizard.
6. When prompted, type the IP address of the LANserver to which the client is connected in the IP address text box.
7. Continue by accepting the default values presented by the InstallShield Wizard. The Ethernet client software is installed.
8. Reboot the client.

Installing Ethernet Client Software over the Network

The Windows Ethernet client software installer is available on the LANserver as part of the MediaNet installation.

For security reasons, the LANserver's internal drive is not shared by default. If you want to allow network installation of client software from the LANserver, you must configure sharing of the Ethernet client installer directory. For more information, see "Allowing Network Installation of Ethernet Client Software" on page 3-18.

To install the Windows Ethernet client software from the LANserver over the network:

1. Using My Network Places, navigate to the LANserver D:\Avid Technology\AvidUnity and open the Ethernet Client Setup folder containing the Ethernet client software installer.
2. Double-click Setup. The Ethernet Client Installer window opens showing the Welcome screen.
3. Accept the default values presented by the InstallShield Wizard.

4. When prompted, type the IP address of the LANserver to which the client is connected in the IP address text box.
5. Continue by accepting the default values presented by the InstallShield Wizard. The Ethernet client software is installed.
6. Reboot the client.

Mounting Workspaces on a Windows Client

The LANshare kit contains several *Avid Unity Windows Ethernet Client Quick Start Cards*. These cards describe how to mount and use workspaces on the client.

Finishing Up

You have completed the installation of the Ethernet clients.

Avid recommends you mount a workspace on the client (see the *Avid Unity Windows Ethernet Client Quick Start Card*) and perform a throughput test on it using the Avid Performance Meter utility. This checks that the client connection is properly established and the workgroup is functioning correctly. For more information about using the Avid Performance Meter utility, see Appendix A.

Reconfiguring the Client Connection to a LANserver

You configure the IP address for the LANserver to which a client is connected when you install the Ethernet client software. Normally, you should not need to change this address. (The LANshare software *does not* currently support connecting a client to any LANserver other

than the one to which it is directly connected via the Ethernet switch.) However, it is possible the client could be moved and connected directly to another LANserver.

To reconfigure the IP address of the LANserver to which a client is connected:

1. Click the Connection Manager icon in the Windows taskbar and choose Configure from the pop-up menu that appears. The Configure Connection Manager dialog box appears.

2. Type the new IP address of the LANserver to which the client is connected in the PortServer or LANserver text box.
3. Click OK to close the dialog box and save the change.
4. Quit the Connection Manager by clicking the Connection Manager icon and choosing Exit from the pop-up menu that appears.
5. Restart the Connection Manager by clicking the Start button, pointing to Programs, pointing to Startup, and then choosing Connection Manager from the pop-up menu that appears. The Connection Manager starts and its icon reappears in the Windows taskbar.

CHAPTER 5

Setting Up Macintosh Ethernet Clients

Each Macintosh Ethernet client needs to be properly configured and have the correct software installed to function properly in the LANshare workgroup.

Topics in this chapter include:

- Installation Prerequisites
- Connecting a Macintosh Ethernet Client
- Setting the Date, Time, and Time Zone
- Installing the Avid Composer Products Software
- Installing the Macintosh Ethernet Client Software
- Finishing Up
- Reconfiguring the IP Address of the LANserver

Installation Prerequisites

The MediaNet software requires that several software packages be installed *before* you attempt to perform an installation. Attempting to perform an Ethernet client installation without these prerequisite software packages will cause the Ethernet client installer to quit.

Macintosh Ethernet Client Prerequisites

The Ethernet client requires the following software:

- Mac® OS 9.0.4, 9.1, or 9.2.1
- Internet Explorer Version 5.0 or later

You should take the time to install Internet Explorer on the Macintosh Ethernet client now, if you are not running Version 5.0 or later. A copy of Internet Explorer Version 5.0 is provided on the MediaNet Release CD-ROM in the directory Extras:IE50:Mac.

Connecting a Macintosh Ethernet Client

You connect a Macintosh Ethernet client to the LANshare workgroup by connecting its Ethernet 10BASE-T/100BASE-T (RJ-45) port to a 10/100BASE-T port on the Ethernet switch.

The Ethernet path between the LANserver and Ethernet clients must be a direct, full-duplex connection using the Avid-supplied Ethernet switch. Adding other half-duplex devices between the LANserver and its clients, or attempting to connect clients using other switches or hubs, is not supported.

When you are connecting the Ethernet client to the Ethernet switch, make sure you use only Category 5 or Category 5e Ethernet cables. Using other cable types can cause client performance problems.

To connect a Macintosh Ethernet client's RJ-45 port to the Ethernet switch:

1. Connect the RJ-45 cable to the RJ-45 port on the rear of the client (see Figure 5-1).

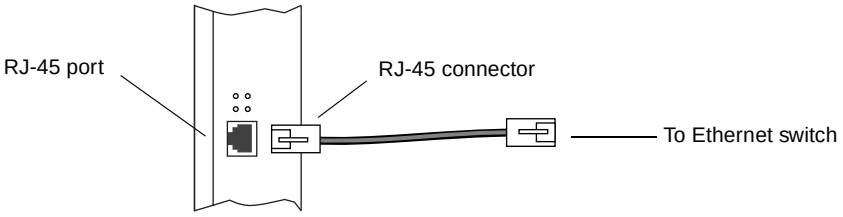


Figure 5-1 Connecting the Ethernet Cable to the Ethernet Client

2. Connect the other end of the RJ-45 cable to an empty 10/100BASE-T port, between port 1 and port 15, on the Ethernet switch (see Figure 5-2).

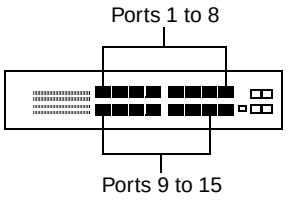


Figure 5-2 Connecting the Ethernet Cable to the Ethernet Switch

Setting the Date, Time, and Time Zone

You need to correctly set the date, time, time zone, and daylight saving time option on the Ethernet client. This allows the "Synchronize the system clock with the server clock" function on the clients to work correctly.

The following procedure is based on Mac OS 9.1. If you are running a different version of Mac OS, the process might vary.

To set the date, time, time zone, and daylight saving time option on the Ethernet client:

1. Choose Date & Time from Control Panels in the Apple menu. The Date & Time Control Panel opens.
2. Set Current Date and Current Time correctly for the Ethernet client location.
3. Make sure the "Set Daylight-Saving Time Automatically" option is selected if your location observes daylight saving time.
4. Click Set Time Zone. A dialog box with a list of cities and countries appears.
5. Select the name of a city and country closest to the Ethernet client location from the list box.
6. Click OK to set the time zone.
7. Click the close box on the Date & Time Control Panel to close it and save the settings.

After you correctly reset the date, time, and time zone, and activate the daylight saving time option on the Ethernet client, reboot the client. This ensures the Ethernet client software is using the correct time.

Configuring Network Properties

You need to configure each Ethernet client's network properties so it can communicate with the LANserver network.

Before you start to configure your client's network properties:

- Determine whether you should use static or dynamic (DHCP/DNS-based) IP addressing.
- If you are using *static* addressing, obtain an IP address and subnet mask.
- If you are using *dynamic* IP addressing, find out whether you should obtain DNS server addresses automatically or specify them manually.
- If you are specifying DNS server addresses manually, obtain the addresses of the *site preferred* and *alternate* DNS servers.

To configure the network properties:

1. Consult your site network administrator to determine whether you should use static or dynamic (DNS-based) IP addressing.
2. Click the Apple menu, point to Control Panels, and then choose TCP/IP from the menu that appears. The TCP/IP dialog box appears.
3. Choose Ethernet from the "Connect via" menu.

▸ **If you are using static addressing, specify the IP addresses assigned by your network administrator:**

   a. Choose Manually from the Configure menu.

   b. Type the workstation IP address in the IP Address text box.

   c. Type the network subnet mask in the Subnet mask text box.

   d. If needed, type the gateway IP address in the Router text box.

e. If needed, type the DNS name server IP address in the "Name server addr" text box. If you have more than one DNS name server, type all the name server IP addresses in the text box in the order you want the servers to be searched.

f. If needed, type the domain name in the Search domains text box.

g. Continue with step 4.

- **If you are using dynamic (DHCP/DNS-based) IP addressing and obtaining DHCP/DNS server addresses automatically:**

  a. Choose Using DHCP Server from the Configure menu.

  b. If needed, type the system name to associate with the IP address in the DHCP Client IP text box.

  c. If needed, type the domain name in the Search domains text box.

  d. Continue with step 4.

- **If you are using dynamic address allocation and must manually specify the addresses of preferred and alternate DNS servers obtained from the network administrator:**

  a. Choose Using DHCP Server from the Configure menu.

  b. Choose User Mode from the Edit menu. The User Mode dialog box appears.

  c. Click Advanced and click OK to save the change.

  d. Type the DNS name server IP address in the "Name server addr" text box. If you have more than one DNS name server, type all the name server IP addresses in the text box in the order you want the servers to be searched.

  e. If needed, type the domain name in the Search domains text box.

4. Close the dialog box. A message appears asking if you want to save the changes.
5. Click Save. The dialog box closes and saves the changes.
6. Click the Apple menu, point to Control Panels, and then choose AppleTalk from the menu that appears. The AppleTalk dialog box appears.
7. Choose Ethernet from the "Connect via" menu.
8. Close the dialog box. A message appears asking if you want to save the changes.
9. Click Save. The dialog box closes and saves the changes.

Installing the Avid Composer Products Software

Your Macintosh Ethernet clients require a qualified release of the Avid Composer Products software to allow them to use the LANserver storage when connected to a LANshare workgroup. Install the qualified release of the Avid Composer Products software before you install the Ethernet client software. Check the *Avid Unity MediaNet Release Notes* to determine a qualified release of Avid Composer Products software.

Installing the Macintosh Ethernet Client Software

Each Ethernet client requires software to allow it to log in to the LANserver, mount accessible workspaces, and to read and write data to those workspaces in real time. The Macintosh Ethernet client software is supplied on the MediaNet Release CD-ROM.

Installing Ethernet Client Software from the CD-ROM

To install the Macintosh Ethernet client software from the MediaNet Release CD-ROM:

1. Locate the MediaNet Release 2.2 (or later) CD-ROM.
2. Insert the CD-ROM into the Ethernet client CD-ROM drive. The MN 2.2 CD-ROM icon appears on the desktop.
3. Double-click the MN 2.2 CD-ROM icon. The MN 2.2 window opens.
4. Double-click the Avid Unity 2.2 Install icon. The Avid splash screen appears.
5. Click Continue.
6. Read the license agreement and click Accept. The Avid Unity 2.2 Install window opens. If you click Decline, you will end the installation.
7. Select the Easy Install option to install all of the necessary software on the Avid drive.
8. Click Install. A dialog box appears asking which client software do you want to install.
9. Click LANshare and then click Continue. The LANshare software is installed in the Avid Unity folder on the Avid drive. After the LANshare software is installed, a dialog box appears stating that DAVE™ is required and asking if you want to install the software now.
10. Click Yes. The DAVE splash screen appears.
11. Click Continue. The License screen appears.
12. Click Accept to acknowledge the license. The Read Me screen appears.
13. Click Continue. The DAVE software is installed.

14. After the DAVE software is installed, a dialog box might appear informing you that you need to install the Macintosh Runtime Java™ library. You *must* complete the steps in the section "Installing the Macintosh Runtime Java Library" after you complete the client software and DAVE configuration.
15. Click OK. A dialog box appears asking if you would like to Continue, Quit, or Restart the Macintosh client. Click Restart.

Configuring DAVE

After rebooting your Macintosh Ethernet client, you need to configure DAVE to function in a LANshare workgroup. The DAVE Setup dialog box appears immediately after you reboot the client.

To configure the DAVE software:

1. Click the right arrow at the bottom of the DAVE Setup Introduction screen. The Entering Your License Code screen appears.
2. Type your name in the Name text box.
3. Type your company name in the Organization text box.
4. Type your license code in the License Code text box. The license code is supplied on a card in the Macintosh Ethernet client kit.
5. Click the right arrow at the bottom of the screen. The Choosing Your Network Type screen appears.
6. Click Yes and click the right arrow at the bottom of the screen. The Configuring WINS screen appears.

7. Do one of the following:
   - If your LANshare workgroup *is not connected* to an in-house network, click the right arrow at the bottom of the screen. The Choosing a NetBIOS Name screen appears.
   - If your LANshare workgroup *is connected* to an in-house network, click the "My Network Uses WINS" check box and type the IP address for the primary and secondary WINS servers on your network in the appropriate text boxes. Click the right arrow at the bottom of the screen. The Choosing a NetBIOS Name screen appears.
8. Type the computer name you want DAVE to use to identify your Macintosh Ethernet client on the network in the Name text box.
9. Click the right arrow at the bottom of the screen. The Setting Your Workgroup screen appears.
10. Do one of the following:
    - If your LANshare workgroup *is not connected* to an in-house network, click the right arrow at the bottom of the screen. The Choosing a Description For Your Computer screen appears.
    - If your LANshare workgroup *is connected* to an in-house network, type the Windows domain name for your network in the Workgroup text box. Click the right arrow at the bottom of the screen. The Choosing a Description For Your Computer screen appears.
11. Type the name you want to appear in the Windows Network Neighborhood in the Description text box. Make sure there are no spaces in the name.
12. Click the right arrow at the bottom of the screen. The Configuring Network Logon screen appears.
13. Click the "I don't want to log on to the network at startup" check box.

14. Click the right arrow at the bottom of the screen. The Review Setting screen appears.
15. Make sure all of the settings are OK before you continue.
    - If you need to make changes to the entries, click the left arrow at the bottom of the screen to back up through the screens and repeat any of steps 5 to 13.
    - If the entries are OK, click the right arrow at the bottom of the screen. The Share Your Local Files screen appears.
16. Do one of the following:
    - If you don't want to share your files with other systems, click the right arrow at the bottom of the screen. The Setup Complete screen appears.
    - If you want to share your files with other systems, click the "I want to set up DAVE to share my local files" option and then click the right arrow at the bottom of the screen. The DAVE Sharing Setup screen appears. See the DAVE user guide for information on setting up DAVE to share your local files.
17. The DAVE configuration is complete. Reboot the Macintosh Ethernet client. After the client reboots, both DAVE and the Connection Manager are running.

Installing the Macintosh Runtime Java Library

To install the Macintosh Runtime Java library:

1. Double-click the Extras folder in the MN 2.2 window. The Extras window opens.
2. Double-click the MRJ 2.2.4 Installer folder. The MRJ 2.2.4 Installer window opens.
3. Double-click the MRJ 2.2.4 Install icon. The license agreement appears.

4. Read the license agreement and click Agree. The MRJ 2.2.4 Install window opens. If you click Decline, you will end the installation.
5. Click Install. The library is installed in the Extensions folder. A message box appears indicating the installation was successful.
6. Click OK. The installation is complete.

Mounting Workspaces on a Macintosh Client

The LANshare kit contains several *Avid Unity Macintosh Ethernet Client Quick Start Cards*. These cards describe how to mount and use workspaces on the client.

Finishing Up

You have completed the installation of the Ethernet clients.

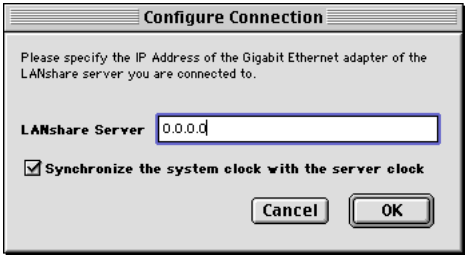
Avid recommends you mount a workspace on the client (see the *Avid Unity Macintosh Ethernet Client Quick Start Card*) and perform a throughput test on it using the Avid Performance Meter utility. This checks that the client connection is properly established and the workgroup is functioning correctly. For more information about using the Avid Performance Meter utility, see Appendix A.

Reconfiguring the Client Connection to a LANserver

You configure the IP address of the LANserver to which a client is connected when you install the Ethernet client software. Normally, you should not need to change this address. (The LANshare software *does not* currently support connecting a client to any LANserver other than the one to which it is directly connected via the Ethernet switch.) However, it is possible the client could be moved and connected directly to another LANserver.

To reconfigure the IP address of the LANserver to which a client is connected:

1. Switch to the Connection Manager using the Application menu in the upper right of the monitor screen. If the Connection Manager is not running, open the Avid Unity folder on the Avid drive and double-click the Connection Manager icon.
2. Click the LANshare menu and choose Configure. The Configure Connection dialog box appears.



3. Type the new IP address of the LANserver to which the client is connected in the LANshare Server text box.
4. Click OK to close the dialog box and save the change.

CHAPTER 6

Upgrading from MediaShare F/C

If you are currently using MediaShare™ F/C as your shared storage solution, you can connect these clients to a LANshare workgroup and copy your existing project and data files to the LANserver storage. When your data is copied, you can disconnect the MediaShare F/C cables and work exclusively from the LANserver storage.

MediaShare F/C supports connecting only Macintosh clients to the MediaShare F/C hub. The following sections apply only to Macintosh clients.

Topics in this chapter include:

- Connecting MediaShare F/C Clients to a LANshare Workgroup
- Copying Data to MediaNet Workspaces
- Disconnecting MediaShare F/C Cables

Connecting MediaShare F/C Clients to a LANshare Workgroup

When you are copying data from a MediaShare F/C workgroup to a LANshare workgroup, you need to have one or more clients connected directly to *both* workgroups. This requires an Ethernet connection to LANshare and a Fibre Channel connection to the MediaShare F/C hub (see Figure 6-1).

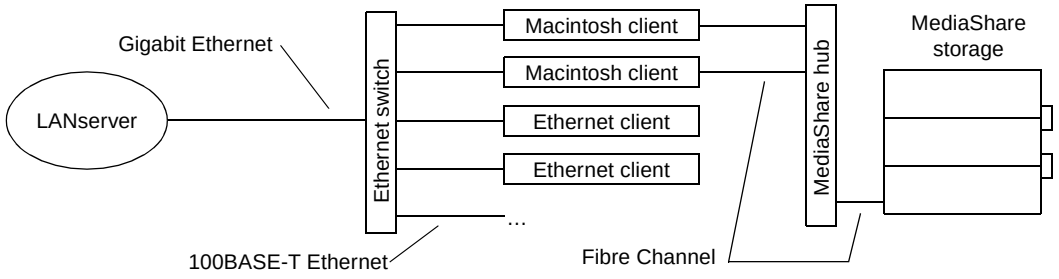


Figure 6-1 LANshare to MediaShare F/C Connection

To connect a MediaShare F/C client to a LANshare workgroup:

1. Leave the MediaShare F/C cable connected to the MediaShare F/C hub (see Figure 6-1).
2. Connect the client to a LANshare workgroup, and install and configure the Macintosh Ethernet client software as described in Chapter 5.

Copying Data to MediaNet Workspaces

To copy data from MediaShare F/C workspaces to MediaNet workspaces:

1. Mount the MediaShare F/C workspace *from* which you want to copy data on the client desktop.
2. Mount the MediaNet workspace *to* which you want to copy data on the client desktop.
3. Open *both* workspace windows.
4. Click the files you need in the MediaShare F/C workspace window, and drag them to the MediaNet workspace window.
5. Repeat steps 1 to 4 until all the data you want is copied to the MediaNet workspace.

Disconnecting MediaShare F/C Cables

To disconnect the MediaShare F/C client:

1. Loosen the thumbscrews holding the MediaShare F/C cable to the adapter board in the client.
2. Remove the cable from the adapter board.

CHAPTER 7

Troubleshooting

This chapter provides information on troubleshooting your LANshare workgroups.

Topics in this chapter include:

- Using ping and tracert
- Troubleshooting a LANshare Workgroup
- Removing and Replacing LANserver Drives
- Resetting the LANserver Power Supplies

Using ping and tracert

Ethernet networking is the backbone for the LANshare workgroup. If your Ethernet network is not performing properly, it will affect your workgroup. The following sections describe how to use two utilities, ping and tracert, to troubleshoot your network.

ping

You can use the ping utility to confirm that the physical and logical aspects of your network are correctly configured. *Physical* aspects include network interface card, cables, and Ethernet switch. *Logical* aspects include IP addresses, subnet masks, and routing.

ping works by sending a packet over the network from an originating host to a destination host. The destination host receives the packet and sends a response packet over the network back to the originating host. If the originating host receives the response packet, it is a good indication the network is correctly configured.

There are many options that can be used with ping. This section discusses two types of ping syntax:

`ping [System Name]`

Where [System Name] is the network name of the remote system to which you are testing connectivity.

or

`ping [IP Address]`

Where [IP Address] is the IP address of the remote system to which you are testing connectivity.

To run the ping command:

1. Open a Command Prompt window.
2. At the command line, type the ping command (for example, **`ping 192.168.10.5`**).

   The ping result should resemble the following:

   ```
   Reply from 192.168.10.5: bytes=32 time<10ms
   TTL=255

   Reply from 192.168.10.5: bytes=32 time<10ms
   TTL=255

   Reply from 192.168.10.5: bytes=32 time<10ms
   TTL=255

   Reply from 192.168.10.5: bytes=32 time<10ms
   TTL=255
   ```

   Four responses of "Reply from…" indicate the network is correctly configured and the originating and destination hosts can see each other on the network.

   If any of the responses in the ping result say:

   ```
   Request timed out.
   ```

   or

   ```
   Destination host unreachable.
   ```

   It is an indication the network is not correctly configured or there are other network problems. Some items that can cause network problems are:

   - Bad, loose, or incorrectly connected cables
   - Incorrectly configured IP address or subnet mask on local or remote system
   - Excessive network traffic

tracert

While ping can test for connectivity between two network hosts, tracert (short for “trace route”) can verify the network path data uses to travel between the two hosts.

Because Avid Composer Products applications are data intensive, it is important that large amounts of data be transferred between the LANserver and its clients in a timely fashion. An incorrectly configured network might get the data to its destination, but be too slow for your application to work effectively.

The tracert command can be used to confirm the data is traveling along an optimal path. In a LANshare workgroup, the LANserver and its clients should send traffic directly to each other. Routers should not be used to direct traffic in between.

It is possible for network traffic to take two different paths going to and coming back from one system to another. Because of this, it is important to run this command on both the LANserver and its clients to test the data path from both directions.

As with ping, there are many options that can be used with tracert. This section discusses two types of tracert syntax:

`tracert [System Name]`

Where [System Name] is the network name of the remote system to which you are testing connectivity.

or

`tracert [IP Address]`

Where [IP Address] is the IP address of the remote system to which you are testing connectivity.

To run the tracert command:

1. Open a Command Prompt window.
2. At the command line, type the tracert command (for example, **`tracert 192.168.10.5`**).

   The tracert result should resemble the following:

```
Tracing route to [remote system name or IP
address]

over a maximum of 30 hops:

1    10 ms   <10 ms   <10 ms [remote system name
or IP address]

Trace complete.
```

One entry indicates an optimal route.

   If your network is correctly configured, the tracert result will show only one entry and then indicate the trace is complete. More than one entry indicates the traffic is going through a router, which significantly impacts performance.

   If your tracert result shows more than one entry, most likely there is an incorrect IP address or subnet mask configuration on the local host.

Troubleshooting a LANshare Workgroup

The following sections describe how to troubleshoot some common LANserver issues.

Avid Composer Products Software Has Performance Issues

Problem: The Avid Composer Products application you are running is performing slowly or, potentially, not running.

Possible Cause: The LANserver and the client with the performance problems are not on the same subnet mask, forcing the data to go through additional routing while being transferred between the two systems. If the data transfer is slow enough, it can cause the Avid Composer Products application to perform poorly or to stop functioning.

Data transfer between the LANserver and its clients must occur directly. You can use the tracert utility to verify whether or not the data transfer uses a direct, optimal path. See “tracert” on page 7-4 for more information.

Workspaces Are Not Available to an Ethernet Client

Problem: No workspaces are available for mounting on an Ethernet client.

Possible Cause: The user account the user has logged in to the Ethernet client with, does not exist either in the MediaNet Administration Tool or the LANserver’s Windows domain. See “Configuring User Accounts and Permissions” on page 3-11 for more information on properly setting up user accounts.

Possible Cause: The user account does not have permissions to mount workspaces.

Macintosh Client Cannot Mount Shared Workspaces

Problem: A Macintosh Ethernet client cannot mount workspaces shared by the LANserver.

Possible Cause: Macintosh clients cannot connect to the LANserver without installing additional software (DAVE) to allow them to see the Windows network. DAVE is included with the MediaNet software and must be correctly configured to function within a LANshare workgroup. See "Configuring DAVE" on page 5-9 for information about configuring the DAVE software.

Each Macintosh client needs to have a separate DAVE license to use the DAVE software. If two clients use the same license, you will have conflicts between these clients when they try to connect to the LANserver.

SGI Client Cannot Mount Shared Workspaces

Problem: An SGI Ethernet client cannot mount workspaces shared by the LANserver.

Possible Cause: SGI clients cannot connect to the LANserver without installing additional software (Samba) to allow them to see the Windows network. Samba *is not* included with the MediaNet software. It is freeware and is available from the Internet. See the Samba application note on the Avid Customer Support Knowledge Center for information about configuring the Samba software.

LANserver Is Whistling

Problem: The LANserver is making a whistling sound.

Possible Cause: One of the power supplies might have failed. Press the red button on the left of the power supplies on the back of the LANserver. The whistling should stop. Contact Avid Customer Support for further assistance and possible power supply replacement.

Checking That the Operating System Is Properly Installed

LANservers run the Windows 2000 Server operating system with Service Pack 2. Avid ships each LANserver with the Windows 2000 Server, Service Pack 2, and any appropriate hotfixes preinstalled. If you are concerned that the operating system might not be appropriately installed, you can check it by following the procedure in this section.

Windows 2000 Service Pack 2 and any hotfixes are provided in the Extras\Win2k\ folder on the MediaNet Release 2.2 (or later) CD-ROM if you need to reinstall them for any reason.

See the Avid Unity MediaNet Release Notes *for a list of appropriate hotfixes.*

To determine that the appropriate Windows 2000 Server operating system, service pack, and hotfix versions are correctly installed on the LANserver:

1. Right-click the My Computer icon on the desktop, and choose Properties from the pop-up menu that appears. The System Properties dialog box appears.
2. Click the General tab. The System section lists the version of the operating system and the service pack that are installed on the LANserver.

If your LANserver *does not* have the Windows 2000 Server operating system, Service Pack 2, or the appropriate hotfixes installed, you should install the Windows 2000 Server operating system, Service Pack 2, the hotfixes, or all of them as required.

If you reinstall the Windows 2000 operating system for any reason, make sure you perform a default installation (accept all the standard installation recommendations) of the Windows 2000 Server operating system. Follow the Windows 2000 installation instructions that came with your LANserver.

You will also need to reinstall drivers for the gigabit Ethernet adapter board, the 3ware™ drive controller board, and the SCSI adapter board. These drivers are provided on the MediaNet Release CD-ROM in the Drivers_Firmware folder. Each driver is in its own folder, labeled by its function.

Setting Virtual Memory

Virtual memory extends the physical memory (RAM) in your LANserver using a portion of the hard drive as a location to move unused data from physical memory. The Windows 2000 operating system uses a swap file (pagefile.sys) to track the size and location of the virtual memory, and to move data from the hard drive to RAM.

Avid ships each LANserver with virtual memory already configured. If you are installing a new LANserver, continue with "Installing the LANserver Software" on page 3-6. If you are rebuilding the LANserver, continue by setting the virtual memory.

The LANserver requires you allocate 1536 MB of virtual memory on the C: partition of each LANserver's internal hard drive, and for the LANserver file location table.

To set virtual memory size:

1. Right-click the My Computer icon on the desktop, and choose Properties from the pop-up menu that appears. The System Properties dialog box appears.
2. Click the Advanced tab. The advanced settings appear.
3. Click the Performance Options button. The Performance Options dialog box appears.
4. Click the Change button. The Virtual Memory dialog box appears.
5. Select C: in the Drive [Volume Label] list.

Make sure you select a drive or partition with sufficient free space for the swap file.

6. Double-click the text box next to Initial Size (MB) and type **1536**.
7. Double-click the text box next to Maximum Size (MB) and type **3072**.
8. Click Set.
9. Click OK to close the Virtual Memory dialog box.
10. Click OK to close the Performance Options dialog box
11. Close the System Properties dialog box.
12. Click the Start button and select Shut Down. The Shut Down Windows dialog box appears.
13. Choose Restart from the menu and click OK. The new virtual memory size takes effect after the restart is complete.

Checking the Gigabit Ethernet Adapter Board Driver

Avid ships each LANserver with the correct gigabit Ethernet adapter board driver installed. If you are concerned that the gigabit Ethernet adapter board driver might not be appropriately installed, you can check it by following the procedure in this section.

To check the gigabit Ethernet adapter board driver version:

1. Right-click the My Computer icon on the desktop, and choose Manage from the pop-up menu that appears. The Computer Management window opens.
2. Select Device Manager in the left column.
3. Expand Network adapters in the right column.
4. Right-click the Intel(R) Pro/1000 F Server Adapter entry and choose Properties from the pop-up menu that appears. The Intel(R) Pro/1000 F Server Adapter Properties dialog box appears.
5. Select the Drivers tab and verify that the Driver Version listed is 2.84.284.0.

If the correct gigabit Ethernet adapter board driver is not present, you should install the correct driver from the MediaNet Release CD-ROM. Contact Avid Customer Support for assistance in installing the driver.

Checking the 3ware Adapter Board Driver

Avid ships each LANserver with the correct 3ware adapter board driver installed. If you are concerned that the 3ware adapter board driver might not be appropriately installed, you can check it by following the procedure in this section.

To check the 3ware adapter board driver version:

1. Right-click the My Computer icon on the desktop, and choose Manage from the pop-up menu that appears. The Computer Management window opens.
2. Select Device Manager in the left column.
3. Expand SCSI and RAID controllers in the right column.
4. Right-click the 3ware ATA-100 Storage Controller entry and choose Properties from the pop-up menu that appears. The 3ware ATA-100 Storage Controller Properties dialog box appears.
5. Select the Drivers tab and verify that the Driver Version listed is 1.10.1.42.

If the correct 3ware adapter board driver is not present, you should install the correct driver from the MediaNet Release CD-ROM. Contact Avid Customer Support for assistance in installing the driver.

Checking the SCSI Adapter Board Driver

Avid ships each LANserver with the correct SCSI adapter board driver installed. If you are concerned that the SCSI adapter board driver might not be appropriately installed, you can check it by following the procedure in this section.

To check the SCSI adapter board driver version:

1. Right-click the My Computer icon on the desktop, and choose Manage from the pop-up menu that appears. The Computer Management window opens.
2. Select Device Manager in the left column.
3. Expand SCSI and RAID controllers in the right column.

4. Right-click the Adaptec™ AIC-7892 Ultra160/m PCI SCSI Card entry and choose Properties from the pop-up menu that appears. The Adaptec AIC-7892 Ultra160/m PCI SCSI Card Properties dialog box appears.
5. Select the Drivers tab and verify that the Driver Version listed is 5.0.2183.1.

If the correct SCSI adapter board driver is not present, you should install the correct driver from the MediaNet Release CD-ROM. Contact Avid Customer Support for assistance in installing the driver.

Removing and Replacing LANserver Drives

You might need to remove and replace a LANserver drive if you have a bad drive in your Data Drive Set. You should only remove drives from the LANserver when asked by Avid Customer Support.

Removing a drive from the LANserver while it is running might cause a loss of data. Make sure you use the following procedure to remove drives from the LANserver.

Removing a Drive

To remove a drive from the LANserver

1. Have all the Ethernet clients stop their work and unmount any LANserver workspaces.
2. Start the Setup Manager and choose Stop File Manager from the File Manager menu. A message appears asking if you are sure you want to stop the File Manager.
3. Click Yes. A dialog box appears while the File Manager is stopping.

4. Click Data Drive Set in the left portion of the window and select the drive you want to remove from the Data Drive Set by clicking it.
5. Choose Identify from the Drives menu. On the front of the LANserver, the LED for the drive flashes. Note the drive location and number.
6. Click the Start button and select Shut Down. The Shut Down Windows dialog box appears.
7. Choose Shutdown from the menu and click OK. The Windows operating system shuts down and turns off the LANserver. This takes approximately 1 minute.
8. Open the doors on the front of the LANserver. The doors are unlocked when the key slot is in the 12-o'clock position. If the doors are locked, locate the key to unlock the doors.
9. Check to make sure the drive you want to remove is unlocked. The drive is locked when the key slot is in the 9-o'clock position.
10. Push down on the left side of the handle (you'll hear a click when it is free) and pull the handle forward. This unlatches the drive and slides it approximately 1/2 inch out of the LANserver.
11. Grasp the drive carrier and slide it out of the LANserver.

Replacing a Drive

To replace a drive in the LANserver:

1. Locate the replacement drive. Make sure the handle on the drive carrier is unlatched and pulled out as far as possible.
2. Slide the drive into the open drive location in the LANserver until it stops moving. Approximately 1/2 inch of the drive carrier should be outside the LANserver.

3. Push the handle into the drive carrier. This seats the drive in the LANserver. You'll hear a click when the drive is fully seated and the handle latches in place.
4. Start the LANserver by pushing the Power (PWR) switch on the front of the LANserver.

Resetting the LANserver Power Supplies

If the LANserver does not start when you press the Power switch, the power supplies might have tripped to prevent them from an over-power condition.

To reset the power supplies:

1. Remove the power cord from both power supplies at the back of the LANserver.
2. Wait 10 seconds.
3. Plug the power cords back into both power supplies.
4. Press the PWR switch on the front of the LANserver. If the LANserver does not start, contact Avid Customer Support for additional help.

APPENDIX A

Avid Performance Meter

Avid Performance Meter is a utility that allows you to validate your LANshare workgroup. It can quantify the throughput that might be achieved by your Windows or Macintosh editing applications accessing MediaNet workspaces shared through an Ethernet switch. The Avid Performance Meter can also test the throughput available from local disks and any other shared storage to which a client has access.

Topics in this appendix include:

- Starting the Avid Performance Meter
- User Interface Overview
- Setting Up Your Test
- Starting and Stopping a Test
- Interpreting the Test Results

Starting the Avid Performance Meter

To start the Windows Avid Performance Meter:

1. In Windows Explorer, navigate to the install directory (C:\Program Files\Avid Technology\Avid Ethernet Attached Client, by default).
2. Double-click IOTester.exe. The Avid Performance Meter application window opens.

To start the Macintosh Avid Performance Meter:

1. Navigate to the install directory (Aviddrive:Avid Unity, by default).
2. Double-click IOTester. The Avid Performance Meter application window opens.

User Interface Overview

The Avid Performance Meter's primary user interface is presented in a single window that allows you to select the test to be performed, start and stop the selected test, and view the test results as the test is in progress (see Figure A-1). Auxiliary controls are accessed through dialog boxes.

Test Selection and Settings Area

The test selection and settings area in the main application window displays the name of the currently selected test, the test duration, and the path to the storage that will be tested.

The Setup button allows you to change the currently selected test settings. See "Setting Up Your Test" on page A-6.

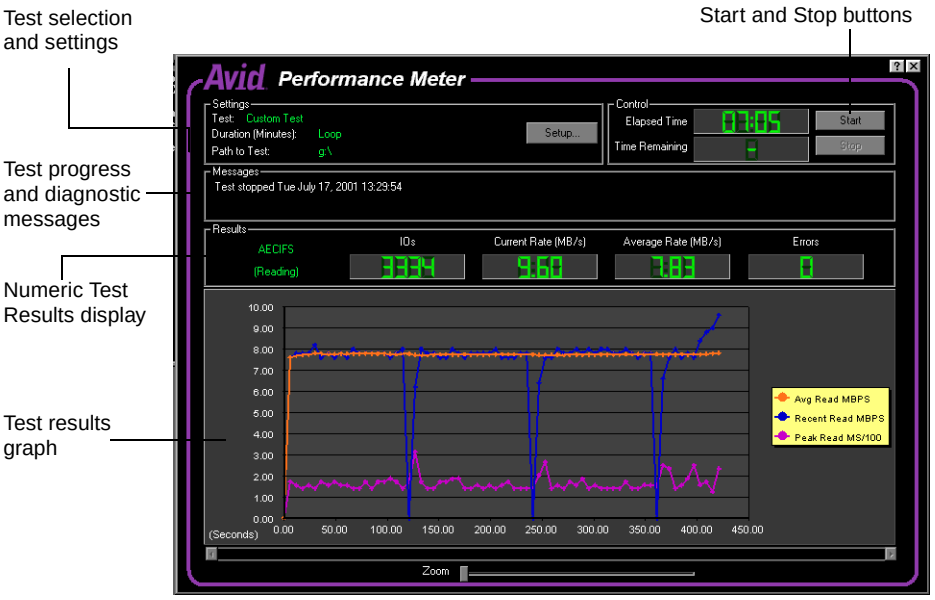


Figure A-1 Avid Performance Meter

Test Progress and Diagnostic Messages Area

The test progress and diagnostic messages area provides supplemental information that is usually not critical to the operation of the utility. If troubleshooting becomes necessary, the detailed text information in these messages might be helpful.

Start and Stop Buttons

The control group in the main application window offers Start and Stop buttons along with test timing information. See “Starting and Stopping a Test” on page A-11.

Numeric Test Results Display

The Numeric Test Results display provides the following numeric test results:

IOs	Displays the number of I/O operations that have been completed so far during the test.
Current Rate (MB/s)	Displays the calculated throughput or bandwidth (in megabytes per second) for recent I/O operations that have been completed.
Average Rate (MB/s)	Displays the average throughput or bandwidth (in megabytes per second) for the duration of the test.
Errors	Displays a count of errors encountered during testing. This is an aggregate of all errors generated for either read or write operations and might include errors dealing with: • Opening or closing data files • The validity of the specified file system path • User access privileges • The read or write operation itself

At the left of the Numeric Test Results display are text indicators that show the file access protocol being used, and the operation being performed in the current phase of testing.

The File Access Protocol indicator shows one of the following:

Win32 File API	Indicates the Win32 file access API is being used; this might be displayed for local disks, MediaNet storage that has been mounted, or network file shares.
AECIFS	Indicates the performance monitor has detected that AECIFS is present and the storage specified by the Path to Test setting is supported by AECIFS.

The I/O Operation indicator shows one of the following:

(Reading)	The current mode of testing is Read operations.
(Writing)	The current mode of testing is Write operations.

Test Results Graph

The test results graph plots results measured over time. It can be particularly useful when attempting to observe trends or patterns in performance.

For example, if another process is running that creates a periodic high demand on the storage subsystem being tested, this might be seen as a periodic drop in observed throughput in the test results graph.

The test results graph shows the following:

Average Read or Average Write	The average throughput or bandwidth (in megabytes per second), plotted over time.
Recent Read or Recent Write	The calculated throughput or bandwidth (in megabytes per second) for recent I/O operations, plotted over time.
Peak Read or Peak Write MS	The peak latency for individual I/O operations (either reads or writes) that have been completed over a small period of time. A higher measurement indicates a greater amount of time was needed for the operation to complete. Because only the highest (peak) measurement over a small period of time is displayed, it is possible that a single high peak could be accompanied by many low-latency operations that do not appear in the graph.

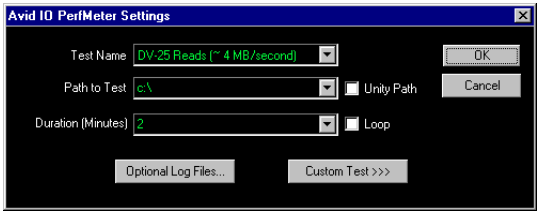
Setting Up Your Test

The currently specified test parameters are displayed in the test selection and settings area of the Avid Performance Meter window. You must mount at least one MediaNet workspace before running the test.

Setting Up a Standard Test

To change the standard test settings:

1. Click the Setup button. The Avid IO PerfMeter Settings dialog box appears.



2. Adjust the test parameters, as required:

Test Name Specify which of four standard, predefined tests you want to run by choosing one from the menu.

- DV-25 Reads
- DV-25 Writes
- DV-50 Reads
- DV-50 Writes

These tests offer either read or write testing at a bandwidth similar to that required for DV 25 or DV 50 operation.

Path to Test Specify the path to the workspace you want to test by typing it in the text box.

This can be a UNC Path (for example, *myMachine*\ *myShareFolder**subfolder*) or, if the Unity Path option is set, a MediaNet path supported by LANserver.

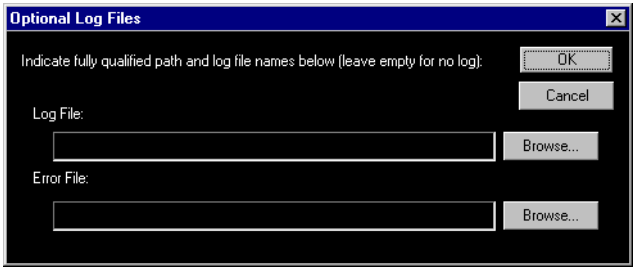
Unity Path Set the Unity Path option to have the Avid Performance Meter convert the specified MediaNet path to a standard path.

Duration Specify the test duration (in minutes) by choosing one of the suggested test durations from the menu, or by typing it in the text box. The minimum test duration is 1 minute.

Loop Set the Loop option to have the test loop indefinitely; that is, instead of stopping automatically after the specified duration, the test proceeds until you manually press the Stop button in the main application window.

The Loop option causes true loop behavior – at the end of the specified duration, the test stops, intermediate test files that have been created are cleaned up, and then the test is restarted using new intermediate test files.

3. If required, specify paths and file names for optional test and error log files:
   a. Click the Optional Log Files button. The Optional Log Files dialog box appears.



b. If you want to log information about the test and its results, specify a path/file name in the Log File text box.

c. If you want to log error information, specify a path/file name in the Error File text box.

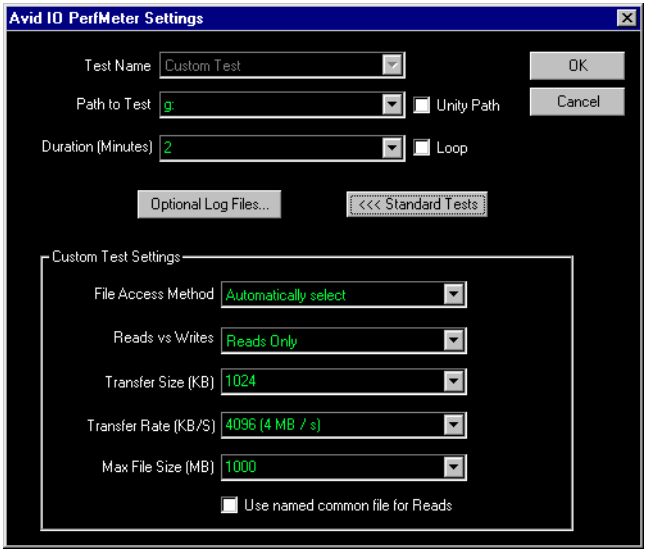
Specify a blank path/file name in the Log File and/or Error File text box(es) if you want no log file(s).

Setting Up a Custom Test

In addition to the standard, predefined tests offered, the Avid Performance Meter also allows you to configure custom tests.

To access and adjust the custom test settings:

1. Click the Custom Test button in the Avid IO PerfMeter Settings dialog box. The dialog box expands downward to display the Custom Test Settings area.



2. Adjust the custom test parameters, as required:

File Access Method

The Avid Performance Meter can support more than one interface or protocol for accessing data. This option allows you to control which interface is used. The available settings are:

- **Automatically select** — This option causes the Avid Performance Meter to automatically select a protocol for testing the selected path. Generally, the utility selects AECIFS if it is supported, or Win32 File API if AECIFS is not supported for the specified path.
- **Win32 File API** — This option causes the Avid Performance Meter to use the Win32 File API exclusively for its data file access. Even if AECIFS is available, it is not used.
- **AECIFS** — This option causes the Avid Performance Meter to use the AECIFS interface for its data file access. If AECIFS is not supported, the utility does not automatically perform file I/O using the Win32 File API; instead, one or more errors are displayed in the test error counts.

Reads vs Writes

The Avid Performance Meter can support testing that is focused on reads, focused on writes, or that alternates between reads and writes. This setting allows you to select one of these modes of testing:

- **Writes Only** — The utility writes test data files and measures the throughput obtained during write operations.
- **Reads Only** — The utility reads test data files and measures the throughput obtained during read operations. (One or more test data files are written as sample data for testing; however, the writes required to set up the test are not included in the throughput measurements.)
- **Reads and Writes** — The utility alternates between read and write tests. Approximately half of the test duration is allocated to reading and the other half is allocated to writing.

Transfer Size This option controls the amount of data the test utility attempts to read or write during a single I/O.

Transfer Rate The utility can attempt to perform I/O at a variety of fixed transfer rates. This is useful for simulating behavior of applications that have a known data rate.

A special Unlimited transfer rate setting is also available. When the Unlimited transfer rate is selected, the Avid Performance Meter performs I/O operations as fast as possible, as influenced by all aspects of the total system being exercised.

Max File Size This setting controls the maximum size of test data files that are created for reading or writing. This setting might be important to throughput measurements. For example, at any given data rate, a smaller file is opened and closed more often than a larger file (thus creating more overhead from opens and closes).

Use named common file for Reads This option causes a change in the way that the Path to Test parameter is used, and is intended for *advanced users only.* When this option is set, the Path to Test parameter must specify a full path *including a file name*. The test utility uses the named file for its read tests.

The file is created if it does not exist and is deleted at the end of testing. For this reason, *the named file should not already exist unless you want it to be deleted when the test completes*. With this option set, the Avid Performance Meter can be run simultaneously on multiple clients and supplied with the *same* file name.

This allows the Avid Performance Meter applications running on multiple clients to read a common file. (The file is created as needed and the last Performance Meter application to be shut down removes the file.)

To revert to the choice of standard tests, click the Standard Tests button.

Starting and Stopping a Test

You start and stop the currently configured test using the Start and Stop buttons.

To start the currently configured test:

- Click the Start button.

  The test runs for the specified duration and then stops automatically. The elapsed time a test has been running and the remaining time are both displayed in the Control Panel. Tests can be run indefinitely if the Loop option is set. In this case, the word LOOP appears in the Time Remaining display.

To stop the currently running test:

- Click the Stop button.

Interpreting the Test Results

This section contains information that will help you interpret your test results.

Average Rate Calculation

The average data rate is calculated over the duration of the test. This calculation includes the time required to open and close the test files used by the utility, so the test file size (which can be configured for custom tests) might have an impact on the overall measured throughput.

Also, if throughput is initially slower as the test is starting, this might be reflected in the average rate. For example, if the target bandwidth is 4.0 MB/second, the actual average rate calculated at the conclusion of the test might be 3.98 or 3.99 MB/second.

Performance Graph

The graph of results over time might be used by experienced users to obtain helpful information about system performance.

A few interesting things to look for are:

- **Trends** — Does the system perform at a consistent rate over time? Is there an upward or downward trend in performance measured over time? If a trend *is* noticed it might sometimes be helpful to perform testing over a longer period of time to determine if the trend continues over longer durations or if a recurring pattern emerges.
- **Patterns** — Is there a momentary drop in performance that occurs at consistent or varied intervals? Patterns might emerge as a result of implementation details and the configuration of a particular system (caching strategies, physical memory, and so on), or they might be indicative of a load on a system that is occurring periodically.
- **Changes in performance as load varies** — What occurs when a subsystem is placed under a load by other users (or the Avid Performance Meter being run on another client)? It might be easier to observe these interactions by inspecting the plot of performance results over time.

Measurement Strategy

Throughput measurements are plotted periodically (every *n* seconds) and represent a snapshot of the state of performance at the time of the plot. This is done in order to limit the amount of data that is plotted, which could otherwise be a very large number of data points. This means that the performance graph could miss a momentary drop or increase, or a peak in performance that occurs between plot points (although, the average rate calculation is expected to reflect the impact of such a dip or spike).

APPENDIX B

LANserver BIOS Settings

The LANserver has several BIOS settings that need to be set for the CD-ROM and network connections to behave correctly. The following sections explain how to check the BIOS settings and adjust them when necessary.

You only need to adjust the BIOS settings if you have reinstalled the operating system from scratch or if you cannot boot the LANserver from the CD-ROM.

Using the BIOS Setup Utility

To start the BIOS settings:

1. Make sure the LANserver is shut down.
2. Make sure the CD-ROM drive is properly connected to the LANserver and turned on (see Chapter 2).
3. Push the Power button on the front of the LANserver to boot it.
4. Press the Delete key, while the memory check is in progress, to enter the BIOS Setup utility. Wait for the BIOS Setup Utility screen to appear. This takes approximately 1 minute.

Setting the Peripheral Device Configuration

To set the peripheral device configuration:

1. Press the Right Arrow key to move the menu selection to Advanced. The Advanced menu screen appears.
2. Press the Down Arrow key to select Peripheral Device Configuration.
3. Press Enter. The Peripheral Device Configuration screen appears.
4. Press the Down Arrow key to select Onboard LAN1 Option ROM.
5. Press Enter. The Options dialog box appears.
6. Press the Up Arrow key to select Disable.
7. Press Enter. Onboard LAN1 Option ROM appears as Disabled.
8. Press the Down Arrow key to select Onboard LAN2 Option ROM.
9. Press Enter. The Options dialog box appears.
10. Press the Up Arrow key to select Disable.
11. Press Enter. Onboard LAN2 Option ROM appears as Disabled.
12. Press the Esc key to return to the Advanced menu.

Setting the Floppy Drive

The LANserver has no floppy drive. Avid recommends you disable the Floppy A.

To disable the floppy drive:

1. Press the Up Arrow key to select Floppy Configuration.
2. Press Enter. The Floppy Configuration screen appears.
3. Press the Up Arrow or Down Arrow key to select Floppy A.
4. Press Enter. The Options dialog box appears.

5. Press the Up Arrow key to select Disable.
6. Press Enter. Floppy A appears as Disabled.
7. Press the Esc key to return to the Advanced menu.

Setting the Boot Device Priority

To set the boot device priority:

1. Press the Right Arrow key to move to the Boot menu.
2. Press the Down Arrow key to select Boot Device Priority.
3. Press Enter. The Boot Device Priority screen appears.
4. Press the Down Arrow key to select 1st Boot Device.
5. Press Enter. The Options dialog box appears.
6. Press the Down Arrow key to select AIC-7892 SCSI CD-R.
7. Press Enter. 1st Boot Device appears as AIC-7892 SCSI CD-R.
8. Press the Down Arrow key to select 2nd Boot Device.
9. Press Enter. The Options dialog box appears.
10. Press the Down Arrow key to select Hard Drive.
11. Press Enter. 2nd Boot Device appears as Hard Drive.
12. Press the Esc key to return to the Boot menu.

Saving the Changes and Closing the BIOS Setup Utility

To save the changes and close the BIOS Setup utility:

1. Press the F10 key to save the changes and quit setup. A dialog box appears.
2. Press the Right Arrow key to select OK.
3. Press Enter to confirm the selection. The LANserver reboots using the new BIOS settings.

APPENDIX C

Mounting All Workspaces on a LANserver

It is possible to make a LANserver mount up to 21 workspaces automatically and alphabetically. This appendix provides instructions for enabling this feature.

To configure a LANserver to mount all workspaces, automatically and alphabetically, you must add a new key to the registry on the LANserver. After adding this key, the LANserver automatically mounts the first 21 workspaces it finds in the Administration Tool's workspaces list.

Currently, the maximum number of workspaces that can be shared is 21 (limited by the number of available drive letters on the LANserver). If a workspace you need to mount does not appear in the first 21 entries in the workspaces list, you can rename it to move it to a new location in the list.

You might need to rename your workspaces, using the following methods, to establish the workspaces that are mounted:

- Add the numbers 01 to 21 to the beginning of the workspace names you want to share.
- Add a dash (-) to the beginning of the workspace names you want to share.

Avid recommends, as a precaution, you save your registry before adding the new registry key.

To save the LANserver registry:

1. Click the Start button and then select Run. The Run dialog box appears.
2. Type **`regedit`** in the Open text box and click OK. The Registry Editor window opens.
3. Choose Export Registry File from the Registry menu. The Export Registry File dialog box appears.
4. Type a name for the registry file in the File name text box.
5. Make sure All is selected under the Export Range options.
6. Click Save.
7. Leave the Registry Editor window open and continue with the next procedure to add the new registry key.

To edit the registry key for automatic workspace mounting:

1. In the left pane, expand My Computer.
2. Expand HKEY_LOCAL_MACHINE.
3. Expand SOFTWARE.
4. Expand Avid Technology.
5. If an AECIFS key does not exist, create it as follows:
   a. Right-click Avid Technology, point to New, and then select Key. A new key is added to the bottom of the Avid Technology list. It is selected and highlighted, ready for you to type its name.
   b. Type **`AECIFS`** and press Enter. The key name changes to AECIFS.
6. Right-click AECIFS, point to New, and then select DWORD Value. A new value is added to the list in the right pane. It is selected and highlighted, ready for you to type its name.

7. Type **`MountAllWorkspaces`** to name the new value and press Enter to apply the name.
8. Double-click MountAllWorkspaces. The Edit DWORD Value dialog box appears.
9. Type **`1`** in the Value Data text box and click OK.
10. Choose Exit from the Registry menu.

APPENDIX D

Using the Product Recovery CD-ROM

You might need to reinstall the Windows 2000 operating system on your LANserver if you are directed to do so by Avid Customer Support, or if you are initializing your LANserver to start a new workgroup. The reinstallation offers you two options:

- Perform a Windows 2000 installation to the entire drive (C: and D:). This replaces all of the data from all the available partitions on your LANserver. You can perform this operation if you are initializing your LANserver.
- Perform a Windows 2000 installation to the 1st partition (C:). This removes the data in the C: partition only; the D: partition is not changed. You can perform this operation to replace only the operating system on your LANserver.

Topics in this appendix include:

- Reinstalling the Windows 2000 Operating System
- Configuring the LANserver Using Windows 2000 Setup

Reinstalling the Windows 2000 Operating System

To reinstall the Windows 2000 operating system from the Avid Product Recovery CD-ROM:

1. Make sure all clients unmount any workspaces they have mounted and quit the Connection Manager.
2. Click the Start button and choose Shut down from the menu. The Windows 2000 operating system shuts down and the LANserver is turned off.
3. Insert the Avid Product Recovery CD-ROM into the external CD-ROM drive.
4. Press the PWR switch on the front of the LANserver. The system starts to boot normally and then presents the LANserver Product Recovery CD screen. This takes approximately 2 minutes.
5. Select one of the available options:
   - 1. Perform a Windows 2000 installation to the entire drive (C: and D:).
   - 2. Perform a Windows 2000 installation to the 1st partition (C:).
   - 3. Exit from the process without doing a recovery.
6. Type the number of the operation you want to perform at the prompt.
   - If you type 1 or 2, a warning screen appears informing you that you are about to recover the Windows 2000 operating system. Continue with step 7.
   - If you type 3, the recovery quits and displays the DOS prompt A:.
7. A caution message appears informing you again that you are about to recover the Windows 2000 operating system.
   - Press any key and continue with step 8.
   - Press Ctrl+C to quit the recovery.

8. A final caution message appears informing you again that you are about to recover the Windows 2000 operating system.
   - Press Y to continue. The Norton Ghost® screen appears showing the progress of the operating system recovery. This takes approximately 10 minutes. Continue with step 9.
   - Press N to quit the recovery.
9. A message appears informing you the recovery is complete. Remove the Avid Product Recovery CD-ROM from the CD-ROM drive.
10. Press the PWR switch on the front of the LANserver and hold it for several seconds to turn the LANserver off.
11. Press the PWR switch again to boot the LANserver and start the *new* Windows 2000 operating system.

The Windows 2000 operating system recovery is complete. You need to configure the operating system as described in the following section.

Configuring the LANserver Using Windows 2000 Setup

After you recover the Windows 2000 operating system, it runs the Windows 2000 Setup utility to set several Windows operating system parameters. You'll need to have the Windows software kit available when you run the utility. It contains the Windows license number that you need to type as part of the configuration.

To set up the Windows operating system:

1. The Windows 2000 Setup utility starts and the Windows 2000 Server Setup dialog box appears showing the License Agreement screen.
2. Click the Agree radio button to accept the license.

3. Click Next. The Regional Settings screen appears.
   - If you are outside the United States, customize the system and locale settings, and the keyboard for your location.
   - If you are in the United States, continue.
4. Click Next. The Personalize Your Software screen appears.
5. Type the system administrator's name in the Name text box.
6. Type the company name in the Organization text box.
7. Click Next. The Your Product Key screen appears.
8. Type the Product Key from the Certificate of Authenticity in the Product key text box. The certificate might be on the back of the *Windows 2000 Server Getting Started Guide* in the Windows software kit, or it might be affixed to the LANserver.

   If the certificate is not already affixed to the LANserver, remove it from the *Windows 2000 Server Getting Started Guide* and affix it now.
9. Click Next. The License Modes screen appears.
10. Click the Per Server radio button and set the number of concurrent connections to 10.
11. Click Next. The Computer Name and Administrator Password screen appears.
12. Type the name you want to use for the LANserver in the Computer name text box.

Avid recommends you use an administrator password to prevent unauthorized use of the Administrator account.

13. Type the password you want to use for the administrator account in the Administrator Password text box.
14. Confirm the password by retyping the password in the Confirm password text box.

15. Click Next. The Date and Time Settings screen appears. Set the correct date, time, and time zone for the LANserver.
16. Click the "Automatically adjust clock for daylight saving changes" check box if your location observes daylight saving time.
17. Click Next. The Network Settings screen appears.
18. Click the Typical radio button. The network settings are site dependent and will be set later during the LANserver configuration.
19. Click Next. The Workgroup and Computer Domain screen appears.
20. Click No. The workgroup and domain settings are site dependent and will be set later during the LANserver configuration. The Performing Final Tasks screen appears, followed by the Complete the Windows 2000 Setup Wizard screen.
21. Click Finish. The Windows 2000 operating system is loaded.

Continue with Chapter 3 to configure the LANserver and to install the LANshare software.

APPENDIX E

Reinstalling a LANshare Workgroup

If you move your LANshare workgroup from one location to another, you'll need to reinstall all the LANshare components and reconnect all of the clients. The following sections provide an overview of the procedures you'll need to use to reinstall the LANshare workgroup and clients. This appendix assumes you are familiar with LANshare workgroup installation.

Topics in this appendix include:

- Installing the LANshare Hardware
- Configuring a LANserver
- Setting Up Windows Ethernet Clients
- Setting Up Macintosh Ethernet Clients

Installing the LANshare Hardware

To reinstall the LANserver, CD-ROM drive, and the Ethernet switch:

1. Unpack and check the hardware as described in "Before You Begin" on page 2-2.
2. Set up the hardware as described in "Installing the LANserver Hardware" on page 2-3.
   - If you are not rack-mounting the hardware, follow the instructions in "Installing on a Desktop" on page 2-3.
   - If you are rack-mounting the hardware, follow the instructions in "Installing in a Rack" on page 2-7.
3. Make sure you attach the application key as described in "Installing the Application Key" on page 2-13.
4. To connect the LANshare workgroup to a network, follow the instructions in "Connecting a LANshare Workgroup to an In-House Network" on page 2-13.
5. Turn on the hardware as described in "Turning On the LANserver Hardware" on page 2-16.

Configuring a LANserver

To reconfigure the LANserver:

1. Adjust the LANserver settings as described in "Setting Up the LANserver" on page 3-2.
   - Check the date, time, and time zone as described in "Setting the Date, Time, and Time Zone" on page 3-2.
   - Set the LANserver computer name as described in "Specifying a Unique Computer Name" on page 3-3.

- Adjust the LANserver IP address as described in "IP Addressing Strategies When Connecting to a Network" on page 3-4.
- Reset the LANserver network properties as described in "Configuring the LANserver Network Properties" on page 3-4.

2. Reinstall the LANserver software as described in "Installing the LANserver Software" on page 3-6.
3. Reconfigure the MediaNet software as described in "Configuring the MediaNet Software" on page 3-7.
   - Create a new drive set as described in "Creating a Drive Set" on page 3-7.
   - Create a new allocation group as described in "Creating an Allocation Group" on page 3-8.
   - Create new workspaces as described in "Creating Workspaces" on page 3-9.
   - Create new user accounts as described in "Creating User Accounts" on page 3-10.
4. Set up workspace sharing as described in "Sharing MediaNet Workspaces" on page 3-11.
5. If needed, set up network client software installation as described in "Allowing Network Installation of Ethernet Client Software" on page 3-18.

Setting Up Windows Ethernet Clients

To reinstall a Windows Ethernet client:

1. Make sure the prerequisite software is installed as described in "Installation Prerequisites" on page 4-2.
2. Connect the client to the workgroup as described in "Connecting a Windows Ethernet Client" on page 4-2.
3. Check the date, time, and time zone as described in "Setting the Date, Time, and Time Zone" on page 4-4.
4. Check the Avid Composer Products software installation as described in "Installing the Avid Composer Products Software" on page 4-7.
5. Reinstall the Windows Ethernet client software as described in "Installing the Windows Ethernet Client Software" on page 4-7.
6. Reset the client network properties as described in "Configuring Network Properties" on page 4-5.
7. Test the client connection to the workgroup as described in "Finishing Up" on page 4-9.
8. Reset the connection to the LANserver as described in "Reconfiguring the Client Connection to a LANserver" on page 4-9.

Setting Up Macintosh Ethernet Clients

To reinstall a Macintosh Ethernet client:

1. Make sure the prerequisite software is installed as described in "Installation Prerequisites" on page 5-2.
2. Connect the client to the workgroup as described in "Connecting a Macintosh Ethernet Client" on page 5-2.

3. Check the date, time, and time zone as described in "Setting the Date, Time, and Time Zone" on page 5-4.
4. Check the Avid Composer Products software installation as described in "Installing the Avid Composer Products Software" on page 5-7.
5. Reinstall the Macintosh Ethernet client software as described in "Installing the Macintosh Ethernet Client Software" on page 5-7.
6. Reset the client network properties as described in "Configuring Network Properties" on page 5-5.
7. Test the client connection to the workgroup as described in "Finishing Up" on page 5-12.
8. Reset the connection to the LANserver as described in "Reconfiguring the Client Connection to a LANserver" on page 5-13.

APPENDIX F

Regulatory and Safety Notices

FCC Notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

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

Canadian ICES-003

This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European Union Notice

Declaration of Conformity
(According to ISO/IEC Guide 22 and EN 45014)

Application of Council Directives:	73/23/EEC, 89/336/EEC.
Standards to which Conformity is Declared:	EN60950:1992 + A1 + A2 + A3 + A4 + A11 CISPR 22:1985 / EN55022:1988 Class A EN55024:1998 / EN61000 – 3-2, 4-2, 4-3, 4-4, 4-5, 4-6, 4-8, 4-11
Manufacturer's Name:	Avid Technology, Inc. 1925 Andover Street Tewksbury, MA 01876, USA
European Contact:	Nearest Avid Sales and Service Office or Avid Technology International B.V. Sandyford Business Center Unit 3, Dublin 18, Ireland
Type of Equipment:	Information Technology Equipment

Product Name:	Products for the Windows NT or Windows 2000 Operating System: Media Composer, Film Composer, Avid Xpress, Avid Xpress DV, Avid Unity, Avid | DS, NewsCutter, NewsCutter XP, NewsCutter DV, Symphony Products for the Macintosh Operating System: Media Composer, Film Composer, Avid Xpress, Avid Unity Products for the UNIX Operating System: AirPlay, VideoSPACE
Base Model Numbers:	None
Product Options:	All
Year of Manufacture:	2001

(1) Products for the Windows NT or Windows 2000 Operating System: products were tested in a typical Media Composer, Film Composer, Avid Xpress, Avid Xpress DV, Avid Unity, Avid | DS, NewsCutter, NewsCutter XP, NewsCutter DV, or Symphony configuration.

(2) Products for the Macintosh Operating System: products were tested in a typical Media Composer, Film Composer, Avid Xpress, or Avid Unity configuration.

(3) Products for the UNIX Operating System: products were tested in an AirPlay or VideoSPACE configuration.

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directives and Standards.

George R. Smith, Director of Hardware Engineering.

Australia and New Zealand EMC Regulations

N1709

John Kells, Australian Operations Manager
Avid Technology (Australia)
Unit B
5 Skyline Place
French Forest NSW 2086
Australia
Phone: 61-2-8977-4800

Taiwan EMC Regulations

Taiwan EMC Regulations BSMI Class A EMC Warning

Place sticker here.