



Avid[®] ISIS[®] 7000

Client Guide

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Using This Guide

The Avid ISIS® media network provides a high-performance distributed file system that contains high-capacity shared media storage for workgroups of connected Avid® editing workstations. This user’s guide describes how to connect your client system to the media network, mount workspaces, and configure your system for best performance.

Unless noted otherwise, the material in this document applies to the Windows® and Mac OS® X operating systems. The majority of screen shots in this document were captured on a Windows system, but the information applies to both Windows and Mac OS X systems. Where differences exist, both Windows and Mac OS X screen shots are shown.





The documentation describes the features and hardware of all models. Therefore, your system might not contain certain features and hardware that are covered in the documentation.



Who Should Use This Guide

This user’s guide is intended for users who need to access workspaces on the Avid ISIS media network. You should have a basic understanding of how to use and manage the Windows® operating system or the Mac OS® X systems, and you should be familiar with basic workgroup and network concepts.

Symbols and Conventions

Avid documentation uses the following symbols and conventions:

Symbol or Convention	Meaning or Action
	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.

Symbol or Convention	Meaning or Action
	A warning describes an action that could cause you physical harm. Follow the guidelines in this document or on the unit itself when handling electrical equipment.
>	This symbol indicates menu commands (and subcommands) in the order you select them. For example, File > Import means to open the File menu and then select the Import command.
	This symbol indicates a single-step procedure. Multiple arrows in a list indicate that you perform one of the actions listed.
(Windows), (Windows only), (Macintosh), or (Macintosh only)	This text indicates that the information applies only to the specified operating system, either Windows or Macintosh OS X.
Bold font	Bold font is primarily used in task instructions to identify user interface items and keyboard sequences.
<i>Italic font</i>	Italic font is used to emphasize certain words and to indicate variables.
Courier Bold font	Courier Bold font identifies text that you type.
Ctrl+key or mouse action	Press and hold the first key while you press the last key or perform the mouse action. For example, Command+Option+C or Ctrl+drag.

If You Need Help

If you are having trouble using your Avid product:

1. Retry the action, carefully following the instructions given for that task in this guide. It is especially important to check each step of your workflow.
2. Check the latest information that might have become available after the documentation was published.

New information would be found in the ReadMe file supplied on your Avid installation DVD or USB as a PDF document and is also available online.

You should always check online for the most up-to-date release notes or ReadMe because the online version is updated whenever new information becomes available. To view the online versions, visit the Knowledge Base at www.avid.com/US/support.

3. Check the documentation that came with your Avid application or your hardware for maintenance or hardware-related issues.

4. Visit the online Knowledge Base at www.avid.com/US/support. Online services are available 24 hours per day, 7 days per week. Search this online Knowledge Base to find answers, to view error messages, to access troubleshooting tips, to download updates, and to read or join online message-board discussions.

Accessing the Online Documentation

The Avid ISIS online documentation contains all the product documentation in PDF format. You can access the documentation in the top-level AvidUnityISISDocumentation folder on the Avid ISIS installer DVD or USB.



The documentation describes the features and hardware of all models. Therefore, your system might not contain certain features and hardware that are covered in the documentation.

To access the online documentation from the software installer kit:

1. Insert the Avid ISIS installer DVD into the drive or USB into the USB port.
2. Navigate to the `[drive]:\AvidUnityISISDocumentation` folder, and double-click the PDF file for the document you want to view.

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1 Avid ISIS Client Manager Setup and Installation

The following sections provide general information about your Avid ISIS system when you are a client:

- [Intel Pro 1000 1 Gb Board and Driver Installation](#)
- [Macintosh Client Connection](#)
- [Myricom 10-Gb Board and Driver](#)
- [Chelsio 10 Gb Board and Driver](#)
- [Network and Avid ISIS Configuration](#)
- [Client Software Installation](#)
- [Configuring Network Profiles and Firewalls](#)

Intel Pro 1000 1 Gb Board and Driver Installation

The Intel Pro 1000 boards are required in editing systems that connect to the Avid ISIS system. The Intel Pro 1000 PT is a copper interface and the Intel Pro 1000 PF is an optical interface. Depending on the Intel board used in your system, you must load the appropriate driver from the appropriate folder. The Intel drivers qualified in this release are included in the kit and can be found on the Avid ISIS software installer kit in the `\Tools_3rdParty\Drivers_and_Firmware\Intel_Pro1000_14.7` folder. Check the driver version listed in the Windows Control Panel.



All Windows editing clients must use the 1-Gb Intel® Pro 1000 Ethernet board to connect to the Avid ISIS system, even if the clients are connected to an external switch. For the latest supported ethernet boards and driver versions, see the Avid ISIS 7000 ReadMe that corresponds with your software release.

The following sections explain how to install the hardware and software for the Intel Pro 1000 boards:

- [“Intel Pro 1000 Slot Locations” on page 14](#)
- [“Loading or Updating the Intel Pro 1000 Drivers on Windows Clients” on page 14](#)

HP Z400 and HP Z800 Integrated Network Port Not Supported

The integrated Broadcom BCM5764 gigabit Ethernet controller in HP Z400 and HP Z800 Workstation is not supported as an ISIS client connection. The HP Z400 and HP Z800 require the installation of the Intel Pro 1000 PT.

Intel Pro 1000 Slot Locations

The following table lists the slot location of the Intel Pro/1000 boards for client systems qualified with the Avid ISIS. The software for these systems must be approved to run Avid ISIS client software.

Platform	Intel Pro/1000 Board Slot
HP Z800	4
HP Z400	3 – 1 Gb board, 4 – 10 Gb board
HP xw8600	6
HP xw8400	3

Loading or Updating the Intel Pro 1000 Drivers on Windows Clients

If your system has a DVD drive, you can use the Avid ISIS DVD directly from your system. If you do not have a DVD drive on your system, you need to transfer the necessary driver from the Avid ISIS DVD to your system and place it on the desktop.



The transmit and receive descriptors are set to 256 by default the first time you load the software. However, if you are upgrading the software, the descriptors remain as they were previously set. Make sure that the transmit and receive descriptors are set to 1024.

To load the Intel Pro driver on a Windows client:

1. After you install the Intel Pro/1000 network adapter board and restart your system, you might receive a Hardware Wizard message about looking for the Intel Pro 1000 driver. Cancel the message.
2. Copy the folder titled Intel_Pro1000_14.7 to your client system; found on the *Avid ISIS software kit* in the \Tools_3rdParty\Drivers_and_Firmware\Intel_Pro1000_14.7 folder.
3. Double-click the executable file (Auto-run.exe).
4. Accept the default settings to install the driver.



The default Intel transmit and receive descriptors are set to 256 however, when loading the Avid ISIS client software the transmit and receive descriptors are set to 1024. For more information, see “Intel Pro Driver Configuration Settings” on page 15.

5. Continue with setting the IP address, see “Intel Pro Driver Configuration Settings” on page 15.

Intel Pro Driver Configuration Settings

You do not need to select the following settings, these setting are provided for reference. The Receive and Transmit buffers are set when you install the Avid ISIS Client software, the Flow Control and Interrupt settings are the Intel defaults.

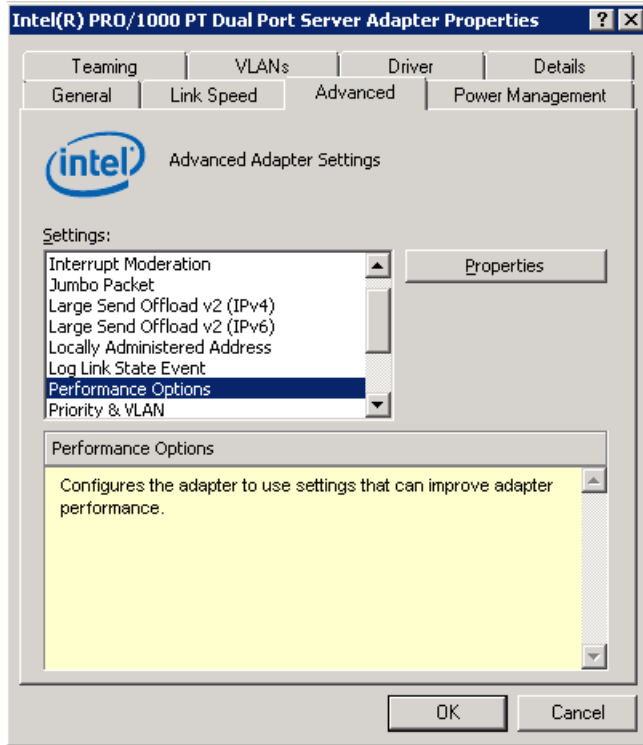
Intel Pro/1000 Client Network Port Settings

Option	Setting
Flow Control	Enabled
Interrupt Moderation	Enabled
Interrupt Throttling Rate	Adaptive
Receive Buffers	1024
Transmit Buffers	1024

To access the network port properties:

1. Right-click the Network icon on the desktop and select Properties.
The Properties dialog window opens.
2. Click Manage Network Connections.
3. Right-click the first Pro 1000 network port and select Properties.
4. In the Properties dialog box select Internet Protocol Version 4 (TCP/IPv4) and click Configure.
5. If ask to confirm any changes, click Yes.
6. Click the Advanced tab.

1 Avid ISIS Client Manager Setup and Installation



7. Click the Performance Options in the Setting list.
8. Click Properties.
9. Click Flow Control and set the Value to Rx&Tx Enabled.
10. Click Interrupt Moderation Rate and set the Value to Enabled.
11. Click Interrupt Throttling Rate and set the Value to Adaptive.
12. Check that the Receive Buffers and set the Value to 1024.
13. Check that the Transmit Buffers and set the Value to 1024.
14. Click OK to close the Performance Options.
15. Click the Power Management tab.
16. Deselect the reduce link speed during standby power saving option.
17. Click OK to close the Server Adapter Properties dialog box.
18. If this is a dual port adapter board, repeat steps 3 through 16 to configure the second Intel Pro 1000 port.
19. Restart the client system.

Dual Port Network Configuration

Dual port Intel Pro network interface boards allow you to use a dual-attached client for redundancy and performance enhancements. Each Intel Pro port is configured separately. Dual port boards can also be used as a single connected client.

Macintosh Client Connection

Avid ISIS supports 1 Gb Macintosh clients on the media network with Zone 1 through Zone 4 connections. You can use any of the onboard Ethernet ports on the Macintosh system to connect to the media network. For a list of supported Macintosh systems, see the *Avid ISIS 7000 ReadMe*.



See the documentation provided with your Macintosh system for the exact location of the Ethernet port.

Some firewall settings on Macintosh clients prevent you from connecting to the Avid ISIS environment when enabled. You might receive an error message informing you that no System Directors were found and that the problem might be the firewall settings.

Myricom 10-Gb Board and Driver

The Myricom® 10-Gb Ethernet adapter is qualified on both the Windows and Macintosh operating systems for Avid editing ultra high resolution clients (UHRC). These 10-Gb clients can connect directly into the ISS2000 10-Gb port on the Avid ISIS Engine. Two 10-Gb clients can connect into one engine; one client to each ISS2000. Engines with v1.x ISS1000 hardware *do not* support 10-Gb clients.

Macintosh clients require the Myricom 10-Gb Ethernet adapter. Initially Avid ISIS qualified the Chelsio 10-Gb Ethernet adapter with Windows clients only.

If your client cannot connect directly to an Avid ISIS Engine, Avid has qualified several switches that provide 10-Gb connections. For information on qualified switches, see the *Avid ISIS 7000 ReadMe*.

The Myricom adapter board has been qualified in the following configurations:

- Slot 2 in the Macintosh Pro Nehalem 2.66 GHz and 2.93 GHz
- Slot 4 in the HP Z800
- Slot 4 in the HP Z400 (local storage is not supported when the Myricom board is installed)

1 Avid ISIS Client Manager Setup and Installation



The HP xw8400 and HP xw8600 were qualified with a 10-Gb Chelsio adapter board, but the 10-Gb Myricom adapter board is not supported on the HP xw8400 or HP xw8600.

Once your Avid ISIS 10-Gb client hardware and software is installed, the following requirements are needed with the UHRC:

- You need to use the Ultra High Resolution setting in the Client Manager Preferences with Avid editing clients
- Your workspace must be set to a 512 KB chunk size
- Your Avid ISIS infrastructure must be using v2.x switches (ISS2000 and IXS2000)

Installing the Myricom Board on Macintosh Clients

The Avid ISIS v2.2 software is available on the Avid Download Center (<http://www.avid.com/US/support/downloads>). Download the files on your Avid editing client and use the following information to setup and Myricom 10-Gb adapter board.

To install the Myricom adapter board in Macintosh clients:

1. Shutdown the Avid editing system.
2. Install the Myricom adapter board in slot 2 of a Macintosh Pro Nehalem system (2.66 GHz or 2.93 GHz). For slot information, search the Avid Knowledge Base for [System Configuration Guidelines and Slot Configurations](#).
3. Double-click the myri10ge-macosx-1.2.0-10_6.tgz file you downloaded to expand the compressed file.

The file (myri10ge-macosx-1.2.0-10_6.tgz) can be found on the Avid ISIS software software installer kit in the Tools_3rdParty/Drivers_and_Firmware/Myricom/ folder.

4. Double-click the install package.
5. Install Avid ISIS client software.
6. Restart the client after the installation is complete.
7. Start the Avid ISIS client software and select the following UHRC requirements.
 - Select the Ultra High Resolution setting in the Client Manager Preferences.
 - Mount a 512 KB chunk size workspace.

Installing the Myricom Board on Windows Clients

The Avid ISIS v2.2 software is available on the Avid Download Center (<http://www.avid.com/US/support/downloads>). Download the files on your Avid editing client and use the following information to setup and Myricom 10-Gb adapter board.

To install the Myricom adapter board in Windows clients:

1. Shutdown the Avid editing system.
2. Install Myricom adapter board in the slot and system that has been qualified:

- Slot 4 in the HP Z800
- Slot 4 in the HP Z400

For slot information, search the Avid Knowledge Base for [System Configuration Guidelines and Slot Configurations](#).

3. Double-click the myri10ge-1.1.0.1-x64-wlh.zip (64-bit) or myri10ge-1_1-x86.zip (32-bit) file you downloaded to expand the compressed file.



There are two drivers provided in the Myricom folder; as 32-bit and 64-bit version. The 64-bit is for Windows 7 and Windows Vista 64-bit operating systems. The 32-bit driver is for Windows XP operating system.

The Myricom drivers can be found on the Avid ISIS software software installer kit in the Tools_3rdParty/Drivers_and_Firmware/Myricom/ folder

4. Apply the Myricom driver using the Device Manager.
 - a. Right-click My Computer, and select Manage.
 - b. Click Device Manager in the left pane.
 - c. Double-click the device or adapter category in the right pane to expand the list.

The Myricom adapter board could be listed is listed under one of the following:

- Network Adapters
- Unknown Devices
- Other Devices

- d. Right-click on the Myricom adapter and select Properties.
- e. Click the driver tab.
- f. Click update driver.
- g. Follow the Hardware Wizard prompts. Browse to the location of file you downloaded and expanded, then select the Myricom driver.
- h. Accept the defaults to finish the driver installation.
5. Install Avid ISIS client software.
6. Restart the client after the installation is complete.
7. Start the Avid ISIS client software and select the following UHRC requirements.
 - Select the Ultra High Resolution setting in the Client Manager Preferences.
 - Mount a 512 KB chunk size workspace.

Chelsio 10 Gb Board and Driver

Windows ultra high resolution clients (UHRC) clients support the Chelsio™ 10-Gb Ethernet adapter. Clients with the Chelsio 10-Gb adapter board can connect directly into the ISS2000 10-Gb port on the Avid ISIS Engine. These 10-Gb Ethernet clients support two streams of 1:1 uncompressed HD. Two 10-Gb clients can connect into one engine; one client to each ISS2000. Engines with v1.x ISS1000 hardware *do not* support 10-Gb clients.



The Chelsio 10-Gb adapter board is shipped with a Small Form-factor Pluggable (SFP)+ optical transceiver. The Chelsio 10-Gb adapter board and SFP+ transceiver are tested and qualified to work as a single component. Do not remove or swap the SFP+ optical transceivers. The Chelsio adapter board and SFP+ transceivers are replaced as a single component.

The Chelsio 10-Gb Ethernet PCI-e adapter boards are supported in the HP xw8400 and HPxw8600 editing systems and connect to the Avid ISIS system using a fiber optic cable. If your client cannot connect directly to an Avid ISIS Engine, Avid has qualified several switches that provide 10-Gb connections for more remote locations, see “[Network and Avid ISIS Configuration](#)” on page 23.



Access the Knowledge Base at www.avid.com/US/support to download the Avid ISIS Switch Reference Guide and sample configuration files. This document provides configuration information on the Ethernet switches that are qualified with the Avid ISIS shared storage network.

The Chelsio adapter board has been qualified in the following configurations:

- Slot 4 in the HP Z800
- Slot 4 in the HP Z400 (local storage is not supported when the 10-Gb board is installed)
- Slot 6 in the HP xw8600
- Slot 4 in the HP xw8400 (supported on dual quad-core processor systems only)

Once your Avid ISIS 10-Gb client hardware and software is installed, the following requirements are needed with the UHRC:



See the [Avid Interplay Software Installation and Configuration Guide](#) for instructions on setting up and configuring the Avid Interplay Copy and Move Services.

- You need to use the Ultra High Resolution setting in the Client Manager Preferences with Avid editing clients
- Your workspace must be set to a 512 KB chunk size
- Your Avid ISIS infrastructure must be using v2.x switches (ISS2000 and IXS2000)

Installing the Chelsio Board on Windows Clients

The following information summarizes the 10 Gb adapter board installation.

To install the Chelsio adapter board:

1. Install Avid Client software.
2. Shutdown the Avid editing system.
3. Install 10 Gb adapter board in the qualified slot:
 - ▶ Slot 4 in the HP Z800
 - ▶ Slot 4 in the HP Z400 (local storage is not supported when the 10-Gb board is installed)
 - ▶ Slot 6 in the xw8600
 - ▶ Slot 3 in the xw8400 (supported on dual quad-core processor systems only)
4. Restart the Avid editing system and continue with [“Chelsio 10 Gb Driver Installation” on page 21](#).

Chelsio 10 Gb Driver Installation

After installing the Avid ISIS client software and Chelsio 10 Gb adapter board, you need to install the Chelsio driver. After the editing system has restarted, the Found Hardware Wizard is displayed.

To install the Chelsio driver:

1. In the Found Hardware wizard for the “Ethernet Controller” dialog box, click Cancel and close the Hardware wizard.
2. Navigate to the [DVD drive]:\Tools_3rdParty\Drivers_andFirmware\Chelsio folder, and double click one of the following to launch the Chelsio drivers installer.
 - AvidChelsioDriversx86.exe (for 32 bit systems)
 - AvidChelsioDriversx64.exe (for 64 bit systems)
3. Follow the on-screen prompts and restart the client when finished.



Once the client system has restarted, you must configure Ultra High Resolution settings in the Client Manager preferences. For more information, see “Client Manager 10 Gb Preference Setting” on page 22.

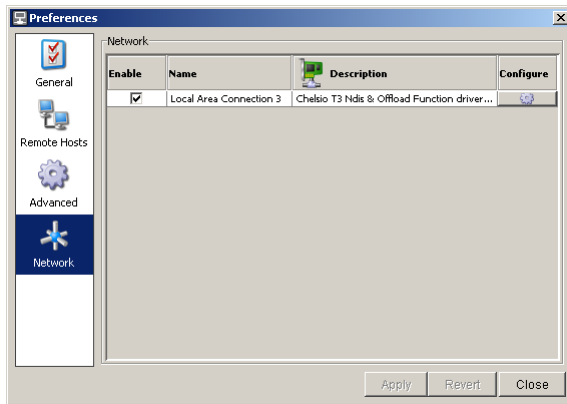
Client Manager 10 Gb Preference Setting

The Avid ISIS client with Chelsio board installed uses the Ultra High Resolution setting in the Client Manager Preferences.

To select the Ultra High Resolution:

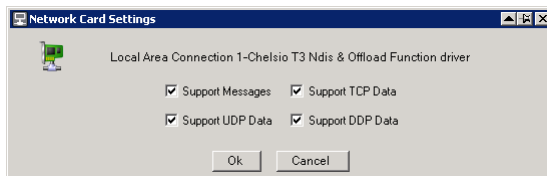
1. Start Client Manager software and open the Preferences window.
The preferences window opens, and the General section is displayed by default.
2. In the client type drop down, select “Ultra High Resolution.”
3. Click Apply.
4. Click the Network icon from the left pane.
5. Verify that the 10 Gb board appears in the network interfaces list and that Enabled is selected.

If you want to have this be the only connection used for ISIS traffic, disable each of the other listed adapters by clicking the checkbox in the Enable column to clear it.



6. Click the Configure button.

The Chelsio Network Card Settings window opens.



7. Verify that all of the options are selected.

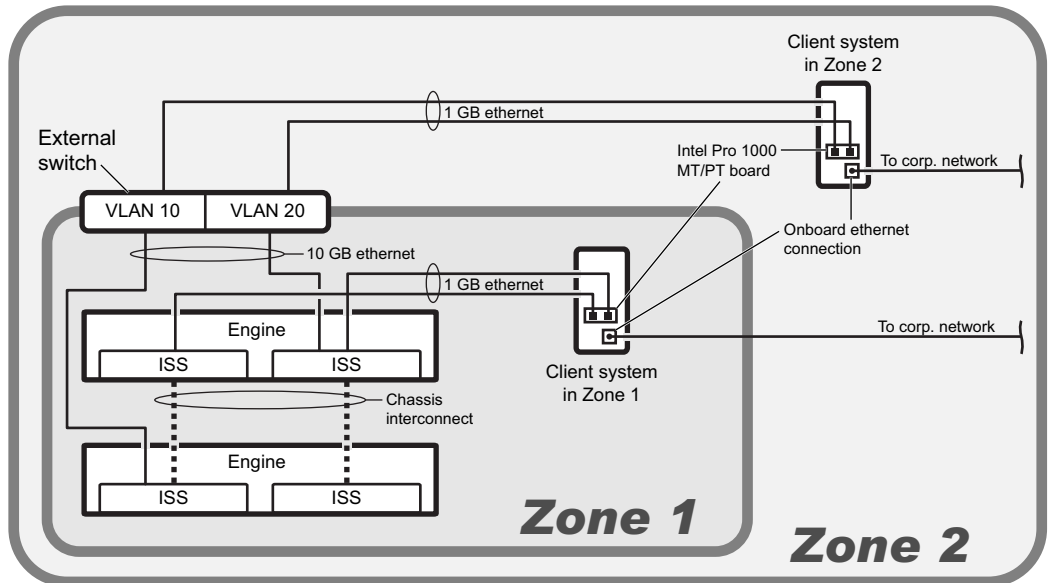
8. Click OK to close the Network Card Settings window.
9. Click the Close button to close the Preferences window.

Network and Avid ISIS Configuration

The Dual port network interface board allows you to use dual-attached redundancy for the client. (You can also configure your network as a single-connect system.) The following illustration shows a sample system connected in Zone 1 and Zone 2 configurations and the onboard Ethernet connection going to the corporate network.



This configuration is not supported in a Zone 3 environment.



Note the following:

- The Zone 1 connection from the client uses two different subnets.
- The Zone 2 connection from the other client uses two different VLANs to connect to two different subnets. You can also connect the client to a single engine.

Client Software Installation

The *Avid ISIS 7000 System Quick Start Card*, located in the top-level AvidUnityISISDocumentation folder on the Avid ISIS software kit, contains instructions for installing Avid ISIS client software. The following sections contain additional information about installing the client software on your system.

- [Saving User Client Manager Settings](#)
- [Java Runtime Environment](#)
- [Loading Client Software](#)
- [Flash Player Software](#)
- [Configuring Client Software](#)
- [Client Licensing](#)

Updating Client Manager Software

Before updating the Avid ISIS Client Manager software on your system, you must unmount any mounted workspaces and exit the Client Manager software.



To get started with the client upgrades, you can manually copy the client installers to a USB flash drive. The installers on the System Director are located on [drive]:\Avid\ISISClientInstallers. You can also log into the Management Console and access the Installers link and download the appropriate client installer.

- For Windows clients, you need to uninstall the ISIS client using Windows Control Panel, restart, install ISIS client, and restart.
- For Macintosh clients, you need to uninstall the ISIS client, restart the client after the install, and install the new client software.

If you use the Safari browser to install the Avid ISIS software on a Macintosh client, note that the disk image is mounted as soon as the download is complete, and the installer starts automatically. Other browser applications do not automatically mount the disk image.

After the software is successfully installed on your client, dismount the installer volume:

To dismount the Avid ISIS installer volume on a Macintosh client:

1. Locate the mounted volumes listed in the left pane of the Finder window.
2. Select the volume that contains “AvidISIS” in the name.
3. Click the eject button that appears to the right of the volume name.

Saving User Client Manager Settings

The Avid ISIS software installer kit includes a utility that saves your Avid ISIS Preferences settings when upgrading from an earlier version or when reinstalling your client application. This utility is run on the Avid ISIS clients and saves the settings file on the client's C:\ drive in the location used by Client Manager software. Depending on the version of your Avid ISIS application, you might have to run this utility to save your client preferences when upgrading software. See the *Avid ISIS 7000 ReadMe* for information on which software versions require you to run the utility.

If you have preferences set (such as Client Type set to High Resolution or a Remote Host setting) and you want them to be automatically preserved in the upgrade, then you must run this utility prior to upgrading to the latest version. If you do not run the utility, you must manually reenter any preference settings after the update completes.

To run the utility:

1. Access the Avid ISIS software installer kit and double-click `SaveISISPreferences.exe` located in the following location.

`[drive:]\AvidISISClientInstallers`

You can also copy this utility to the client and run it from there (for example from the desktop). If your client's computer uses a 64-bit operating system, use the `SaveISISPreferencesx64.exe` utility.

2. After the utility is finished, close all open applications.
3. Uninstall the previous version of the Avid ISIS software.
4. Install the new Avid ISIS software see, "[Client Software Installation](#)" on page 24.

Your new Preferences settings are set as they were in the previous version.

Java Runtime Environment

The Avid ISIS Management Console and Avid ISIS Client Manager requires version 6 (build 1.6) or higher of the Java Runtime Environment (JRE). Avid provides a qualified version of JRE for Windows systems on the Avid ISIS software kit `[drive]: \Tools_3rdParty\Java`.

For clients using a Macintosh system, download the Java software from the Apple® Web site (www.apple.com).

Loading Client Software

You are now ready to load your Avid ISIS client software on the supported Macintosh or Windows clients. You can load the Client software in the following ways:

- You can use the a Browser to reach the ISIS Management Console and load it from the System Director.
- Download the client installers from the Management Console and copy the software to a USB flash drive. You might also copy the Java application from the Avid ISIS software kit [*drive*]:\Tools_3rdParty\Java folder, then install each client separately from the USB flash drive.
- You can store the client software somewhere on the network and allow everyone who needs the software to gain access to it and load it.

When installing Avid ISIS client software on Windows systems, make sure you are up-to-date with your Windows critical updates.

To install the client software using a browser:

1. Start your browser application.
2. Run your Windows Update and accept all “High-priority Updates.”
3. Type `https://IP address of System Director` in your browser.
The ISIS Management Console opens.
4. Type your ISIS user name and password.

- Click the Installers icon.

An Installer Downloads screen opens.

Avid ISIS Installer Downloads		
Category	Installer	File
ISISBlades/	ISISStorageBlade_2.3.0.tgz	download
ISISBlades/	ISSwitchBlade_2.3.0.tgz	download
ISISClient/	AvidISISClient_AirSpeed_2.3.0.iso	download
ISISClient/	AvidISISClient_MacOSX_2.3.0.dmg	download
ISISClient/	AvidISISClient_Win32_2.3.0.msi	download
ISISClient/	AvidISISClient_Win64_2.3.0.msi	download
ISISClient/	AvidUnityISISClient_ILRE_2.3.0.tgz.des	download
flash/	install_flash_player_firefox.exe	download
flash/	install_flash_player_internet_explorer.exe	download
flash/	install_flash_player_osx_ub.dmg	download
flash/	uninstall_flash_player.exe	download
flash/	uninstall_flash_player_osx.dmg	download

- Click the appropriate client installer.

The installer might ask if you want to save or run the installation software; either is acceptable.

- Click the appropriate Flash executable.
- Install the Flash and client software following the on-screen prompts. Accept the defaults when uncertain of any choices.
- Restart the client when prompted.

The client software starts automatically when restarted.

- Your client software also requires Java Runtime Environment (JRE) software, see [“Java Runtime Environment” on page 25](#) for information on where you can get JRE.

Flash Player Software

To use the ISIS Management Console, you need to have the Adobe® Flash® Player (v9.x and later) installed on your system. If you encounter problems with the ISIS Management Console display, you might have an outdated version or multiple versions of the Flash Player installed. Uninstall any previous versions of Flash Player and install the Flash Player included on the Avid ISIS software installer kit. Avid ISIS requires Flash Player v9.x and later.

Configuring Client Software

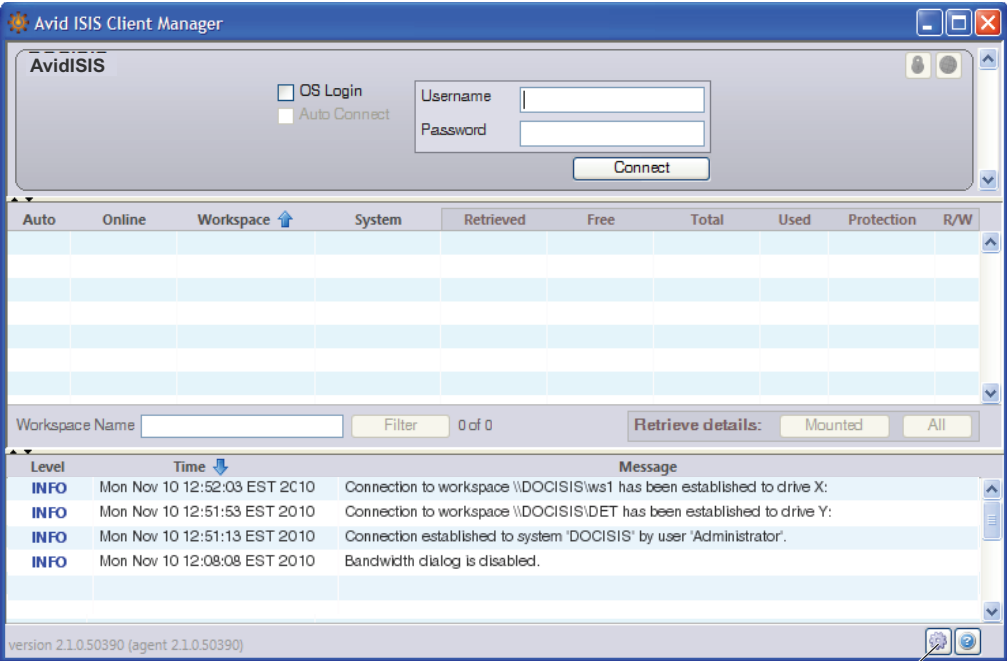
To mount workspaces on the client do the following:

1. Load the client software as explained in “Loading Client Software” on page 26.
2. Do one of the following:
 - ▶ (Windows) If the Client Manager icon is not available in the Windows taskbar, select Start > All Programs > AvidUnityISIS > ClientManager.
 - ▶ (Windows) Click the Client Manager icon in the Windows taskbar.
 - ▶ (Windows) Right-click the Client Manager icon and select Unity ISIS Client Manager.
 - ▶ (Macintosh) Double-click the Client Manager alias icon on the desktop, or double-click the Client Manager alias icon in the dock.
 - ▶ (Macintosh) If the Client Manager alias icon is not available, select Go > Applications, and then double-click the AvidUnityISIS folder. In this folder, double-click the UnityClientManager file.

The ISIS Client Manager opens.

Connections list

Workspaces list



Preferences

3. Log in using the Username and Password assigned to you by the Avid ISIS administrator. Do one of the following:
 - ▶ (Windows) Type your account name in the Username text box, and type your password in the Password text box.
 - ▶ (Windows) If your ISIS system is configured to use the Windows user name and password for your local system, select OS Login. By default, the Username and Password text boxes are inactive when you select this option.
 - ▶ (Macintosh) Type your Avid ISIS account name in the Username text box, and type your password in the Password text box.
4. Click the Connect button.

When the connection is successful:

 - Workspaces you have been given access to are listed in the workspace list.
 - The Connect button changes to Disconnect when the connection is complete.
 - The Change Password and Launch Management Console buttons become active.
5. (Option — Windows only) If you used the OS Login option, and you want to connect to the network automatically every time you start your system, select the Auto-Connect checkbox.

Client Licensing

Any client that connects to the Avid ISIS system is included Avid ISIS client count stored in the System Director application key. There is no need to order special licenses for each client. If you are not certain about your license status, see the Avid ISIS ReadMe for number of supported clients and your system administrator.

Configuring Network Profiles and Firewalls

Some Firewall settings on Avid ISIS clients prevent you from connecting to the Avid ISIS environment when enabled. the following sections describe where the network profiles setting are located in the Client Manager software.



If you are not sure which Firewall profile to use with Windows clients, enable all three Profiles under Windows Firewall settings. This insures that the ISIS clients work in all Firewall configurations.

Configuring Windows Vista and Windows 7 Network Profiles

Network profiles are used by Windows Vista to distinguish between Public, Private, and Domain network connections. Because each network profile uses its own security settings, you must configure the Client Manager settings so that the appropriate ports are opened for each applicable network profile on your system.



You only need to configure Client Manager settings for the network profiles that are connected to your ISIS system. If you are unsure which network connections are used with your ISIS system, see your network administrator.

To configure the Client Manager settings for Windows Vista network profiles:

1. Verify which network connection profile(s) are used to connect to your ISIS system by doing the following:

- a. Click Start > Control Panel.

The Windows Control Panel opens.

- b. Click “Network and Internet.”

The Network and Internet window opens.

- c. Click “Network and Sharing Center.”

The Network and Sharing Center window opens.

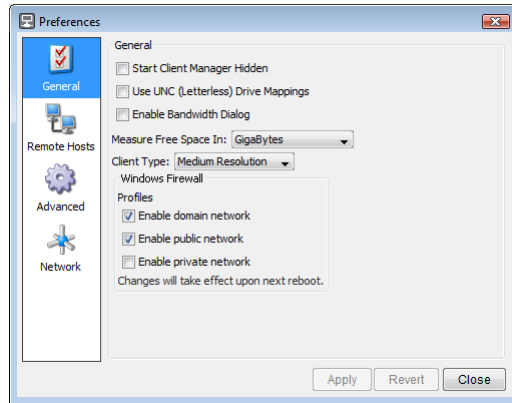
The Network and Sharing Center window lists the network connections present on your system and which network profile has been applied to them. You can find this information in the section, “View your active networks.” The three possible network profiles are the following:

- Domain network
- Public network
- Private network

Once you have determined which network profile has been applied to the connection(s) to your ISIS system, you can go to the next step.

2. Start Client Manager software and open the Preferences window.

The preferences window opens, and the General section is displayed by default.



3. In the Profiles section, click the checkbox next to each applicable network profile type to enable firewall configuration.



You only need to enable firewall configuration for the network profiles that are connected to your ISIS system.

4. Click Apply.
5. Click Close.
6. Restart your Windows Vista system for the firewall configuration to take effect.

Configuring the Windows XP Firewall

If you install Service Pack 2 on your Windows XP system, or Service Pack 1 on your Windows Vista system, the Windows Firewall is set by default. The Windows Firewall is part of the Security Center located in the Windows XP Control Panel. The Client Manager installer will automatically configure the Windows Firewall to open the correct ports, but it is possible to have errors if the “Don’t allow Exceptions” option is selected on the General tab of the Windows Firewall dialog box.

To make sure that the settings are correct when the firewall is enabled:

1. From the Windows Control Panel, open Security Center.
The Windows Security Center window opens.
2. Click Windows Firewall.
The Windows Firewall dialog box opens.

1 Avid ISIS Client Manager Setup and Installation

3. Click the General tab, and select On (recommended). You can select Off (not recommended) if you do not want to enable the firewall.
4. Deselect “Don’t allow exceptions.”
5. Click OK.
6. In the Windows Security Center window, click Automatic Updates.
The Automatic Updates dialog box opens.
7. Select “Turn off Automatic Updates.”
8. Click OK.
9. Close the Windows Security Center window.

Macintosh Avid ISIS Client Connection

You can use any of the onboard Ethernet ports on the Macintosh system to connect to the media network. For a list of supported Macintosh systems, see the *Avid ISIS 7000 ReadMe*.



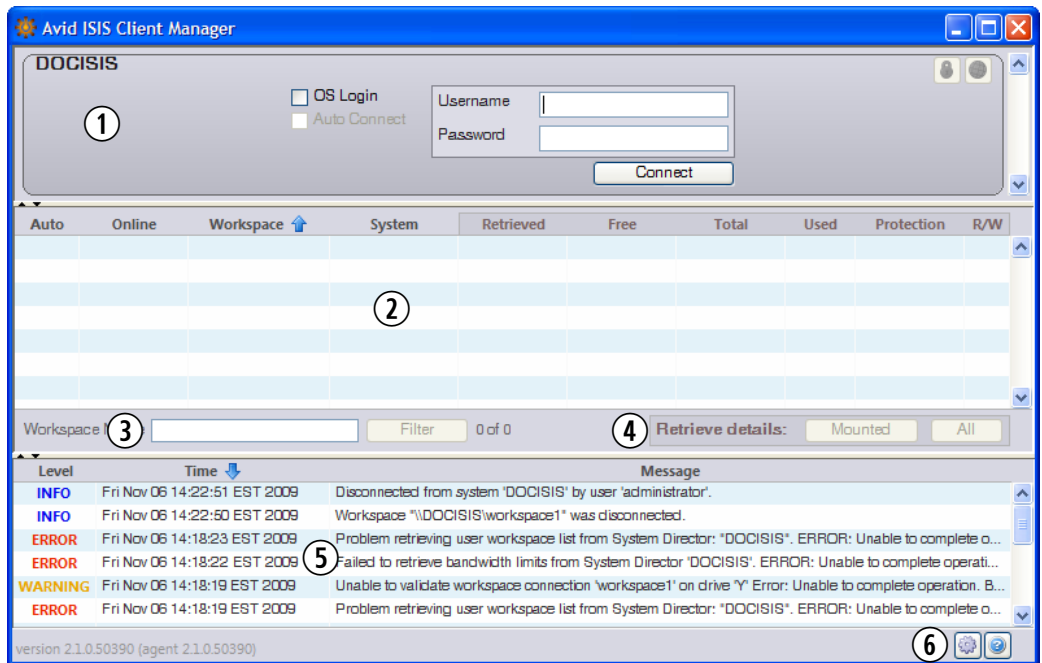
See the documentation provided with your Macintosh system for the exact location of the Ethernet port.

Some Firewall settings on Macintosh clients prevent you from connecting to the Avid ISIS environment when enabled. You might receive an error message informing you that no System Directors were found and that the problem might be the Firewall settings.

2 Using Avid ISIS Client Manager

Avid ISIS Client Manager allows your client to connect to the Avid ISIS media network. When you install the Avid ISIS Client, the Client Manager runs in the background so you can mount and access your workspaces at any time, as well as manage your workspaces and bandwidth reservations. By default the application remains hidden on Windows clients, with an icon appearing in the taskbar in the lower right corner of your desktop. On Macintosh clients, an icon appears in the dock. When you open the application and log in, the Client Manager displays all available System Directors and all available workspaces.

The Client Manager allows users with the necessary account privileges to resize workspaces, to protect and unprotect workspaces, and to specify client bandwidth reservations, if any.



① Connections list—lists all available and connected ISIS systems

2 Using Avid ISIS Client Manager

- ② Workspaces list—lists all workspaces available on connected ISIS systems
- ③ Workspaces filtering area—filter the workspaces display based on the text you enter
- ④ Retrieve details tool bar—retrieves details about all available and/or mounted workspaces in the workspaces list
- ⑤ Messages area—a log of events, information, and error messages
- ⑥ Tool bar—change preferences or access help

This section covers the following topics:

- [Avid ISIS Shared Storage Network Connection](#)
- [Mounting and Unmounting Workspaces](#)
- [Avid ISIS Connection Tests](#)
- [Administrative Tasks](#)

Workspaces Display

The Workspaces list provides basic information about each mounted workspace, including the following:

- All available workspaces
- Connection status (connected, not connected, automounted)
- Drive letter for the mounted workspace
- Workspace name
- System Director name
- Workspace details retrieval time
- Free space (in gigabytes)
- Workspace capacity (in gigabytes)
- Used space (as a percentage of available capacity)
- Protection status and type
- User privileges for the workspace (read, read/write)

Retrieving Workspace Details

When you connect to an ISIS system, only the workspace names are displayed; you need to retrieve additional workspace details manually. You do not have to mount a workspace to retrieve its details.

To retrieve details for one or more selected workspaces:

1. Do one of the following:
 - ▶ Select a single workspace by clicking on a workspace row.
 - ▶ Select multiple non-contiguous workspaces with Control+click.
 - ▶ Select a range of contiguous workspaces by clicking on the first workspace row in the range, then Shift+clicking on the last.

2. Right-click in the Workspace list, and select “Retrieve details”

Additional details are retrieved for the selected workspaces.

To retrieve details for all mounted workspaces:

- ▶ Do one of the following:
 - In the Retrieve Details area, click Mounted.
 - Right-click in the Workspace list, and select “Retrieve mounted details”.

Additional details are retrieved for all mounted workspaces.

To retrieve details for all workspaces:

- ▶ Do one of the following:
 - In the Retrieve Details area, click All.
 - Right-click in the Workspace list, and select “Retrieve all details”.

Additional details are retrieved for all workspaces.

Sorting the Display

If the Workspaces list contains a large number of workspaces, you might want to sort the items in the list.

To sort the Workspaces list:

1. Click on a field heading that you want to sort.
A blue arrow appears next to the field heading.
2. Click the field heading again to reverse the sort order.

Filtering the Display

If the Workspaces list contains a large number of workspaces, you might want to filter the items in the list.

To filter the Workspaces list:

1. Type part or all of a workspace name in the “Workspace Name” field.
2. Click the Filter button.

The Workspaces list updates to display the workspace names that match the text entered.

To display all Workspaces:

- ▶ Delete the text in the “Workspace Name” field.

The Workspaces list updates to display all available Workspaces.



After you clear the Workspace name filter, you have to manually retrieve details from the selected workspaces.

Accessing the Help

The Client Manager Help provides background information for tasks, windows, and dialog boxes. The Help system is HTML-based and operates in your default Web browser.

To open the Client Manager help:



- ▶ In the Menu panel, click the Help icon.

Avid ISIS Shared Storage Network Connection

The Client Manager automatically checks for all System Directors available in the Avid ISIS shared storage network. You can use the Client Manager to connect to the network, and you can set the Client Manager to reconnect automatically when you restart your system.

If your system is a Zone 3 or a Zone 4 client, you must add a remote server name for your System Director. For more information, see [“Adding a Remote Host” on page 39](#).

For information on Avid ISIS zone descriptions, see [“Avid ISIS Client and Zone Descriptions” on page 37](#).

Avid ISIS Client and Zone Descriptions

All clients in the media network are classified by zones, depending on how they connect to the network. The following list defines the clients in each network layer by its zone classification:

- Zone 1 Client — Connected to ISIS VLANs via an ISS 1 Gb port (direct connect)
- Zone 2 Client — Connected to ISIS VLANs via a 1 Gb port on an Avid qualified layer-3 switch (non-routed)
- Zone 3 Client — Connected to an Avid qualified layer-3 switch (routed) with known Quality of Service (QoS); traffic routed to ISIS (one hop) and load-balanced across ISIS VLANs (~60/40 ratio)
- Zone 4 Client — Connected to the house network using an edge or a core switch with unknown QoS; traffic routed to Avid ISIS (measured by the number of hops) and load-balanced across ISIS VLANs (approximately a 60/40 ratio)



Clients connected in one zone can run in any lower-numbered zone — for example, a Zone 3 client can also run as a Zone 2 or Zone 1 client.

Support for different client and device types vary by zone:

- Zone 1 — AirSpeed playout, Transfer Manager
- Zone 2 — AirSpeed ingest, editors, MediaManager, Interplay
- Zone 3 — MediaManager Select, Instinct, Assist, certain editors (for example, Avid NewsCutter); typical formats include DV25, DV50/IMX-50, MPEG-2 proxy (2 Mb/s)
- Zone 4 — MediaManager Select, Instinct, Assist; typical formats include DV25, MPEG-2 proxy (2 Mb/s)

Selecting Client Types

You can set your client type to the following level, depending on your bandwidth requirements:

- Ultra High Resolution — This setting is for Avid editing systems with 10-Gb Ethernet connections supporting clients editing in Uncompressed HD and multiple DNxHD/SD stream counts. These ultra high-resolution clients (UHRC) must be in Zone 1 or Zone 2.
- High Resolution — This setting is intended for Avid editing systems or Avid Interplay Assist using Avid DNxHD® resolutions like DNxHD 145/120 or DV50/IMX-50. In addition to higher bandwidth allocations, High Resolution clients have shorter time-out values.

2 Using Avid ISIS Client Manager

- Medium Resolution — This setting is intended for Avid editing systems using DV25/IMX30 in Zone 1 to Zone 3. This is the default client type setting.
- Low Resolution — This setting is intended for Avid editing systems using MPEG-2 in Zone 4. The Avid ISIS system assigns this client type an oversubscription shut off and smaller read/write sizes.

To set a client type:

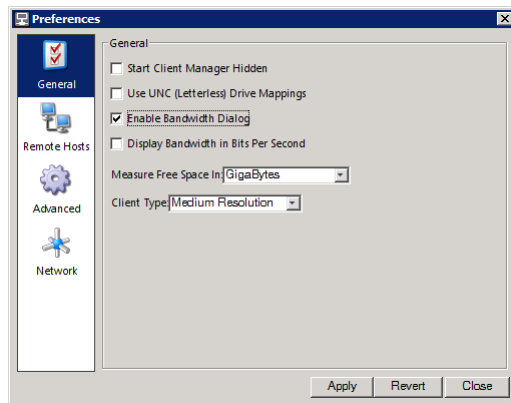
1. Open the Client Manager. (For information on opening the Client Manager, see [“Avid ISIS Shared Storage Network Connection” on page 36.](#))

The Client Manager opens.



2. Click the Preferences button.

The Preferences dialog box opens.



3. Click General.
4. In the General area, click the Client Type menu, and select the appropriate client type:
 - Ultra High Resolution
 - High Resolution
 - Medium Resolution
 - Low Resolution
5. Click Apply.
6. Click Close.

Adding a Remote Host

If your system connects to the Avid ISIS media network as a Zone 3 or a Zone 4 client, you need to add the server name of your System Director in order for the Client Manager to connect to it. If your system does not use a DNS server to configure your network connections, you can also type the IP addresses of the remote host, but you cannot use the virtual server name or virtual IP addresses.



You need to add the name of all primary and failover System Directors in your network. For System Directors that are dually-connected to the network, you need to add both subnet addresses.

To add a remote host:

1. Open the Client Manager (see [“Avid ISIS Shared Storage Network Connection” on page 36](#)).

The Client Manager opens.



2. Click the Preferences button.

The Preferences dialog box opens.

3. In the Navigation panel, click Remote Hosts.

The Remote Hosts panel opens.



4. Click the Add button.

The Input dialog box opens.

5. In the text box, type the actual server name or IP address of the Avid ISIS System Director to which you want to connect, and then click OK. You cannot use the virtual server name or the virtual IP address of the remote host.

6. Click Apply, and then click Close.

You can use the Remove button to remove a server from the Remote Hosts list, and you can use the Clear button to remove all names from the list.

Logging in to the Avid ISIS Media Network

If your system is connected to an Avid ISIS media network, you can use the Client Manager to mount a workspace before you begin your work session.

To connect to the Avid ISIS network:

1. Do one of the following:
 - (Windows) If the Client Manager icon is not available in the Windows taskbar, select Start > All Programs > AvidUnityISIS > ClientManager.

2 Using Avid ISIS Client Manager



- ▶ (Windows) Click the Client Manager icon in the Windows taskbar.
- ▶ (Windows) Right-click the Client Manager icon and select Unity ISIS Client Manager.



- ▶ (Macintosh) Double-click the Client Manager alias icon on the desktop, or double-click the Client Manager alias icon in the dock.
- ▶ (Macintosh) If the Client Manager alias icon is not available, select Go > Applications, and then double-click the AvidUnityISIS folder. In this folder, double-click the UnityClientManager file.

The ISIS Client Manager opens.

2. Select the System Director you want to connect to from the Connections list.
3. Do one of the following:
 - ▶ (Windows) Type your account name in the Username text box, and type your password in the Password text box.
 - ▶ (Windows) If your ISIS system is configured to use the Windows user name and password for your local system, select OS Login. By default, the Username and Password text boxes are inactive when you select this option.
 - ▶ (Macintosh) Type your Avid ISIS account name in the Username text box, and type your password in the Password text box.
4. Click the Connect button.

When the connection is successful:





- The Connect button changes to Disconnect when the connection is complete.
 - The Change Password and Launch Management Console buttons become active.
5. (Option — Windows only) If you used the OS Login option, and you want to connect to the network automatically every time you start your system, select the Auto-Connect box.

For more information about connecting to the media network, see the following topics:

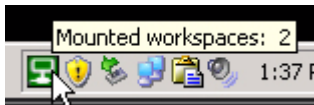
- [Adding a Remote Host](#)
- [Changing Your Password](#)

The Client Manager Tray Icon (Windows Only)

When the Client Manager is running, an icon appears in the Windows system tray. The tray icon color indicates the client connection status:

Icon	Status
	Client Manager is running, but there are no active ISIS connections.
	Client is connected to one or more ISIS systems, but there are no mounted workspaces.
	Client is connected to one or more ISIS systems, and there are one or more mounted workspaces.
	Indicates a connection error.

If you hover the mouse cursor over the tray icon, a tooltip containing additional information appears.



Changing Your Password

You can use the Client Manager to change the password you use to log on to your Avid ISIS user account.



If your user name and password are different for your client system and your Avid ISIS account, your system cannot automatically reconnect to the media network when you restart your system.

To change your Avid ISIS account password:

1. Open the Client Manager (see [“Avid ISIS Shared Storage Network Connection” on page 36](#)).
The Client Manager opens.
2. Log into the ISIS system for which you want to change your password, if you are not already.

2 Using Avid ISIS Client Manager



3. Click the Change Password icon.

The Change Password dialog opens.



4. Type your existing password in the Old Password text box.
5. Type your new password in the New Password text box.
6. For confirmation, type the password again in the Confirm New Password text box.
7. Click OK.

Opening the ISIS Management Console from the Client Manager

You can open the ISIS Management Console from the Client Manager window after you have connected to an ISIS system. From the Management Console login screen you can access the complete Management Console documentation using the Help link.

To open the ISIS Management Console:

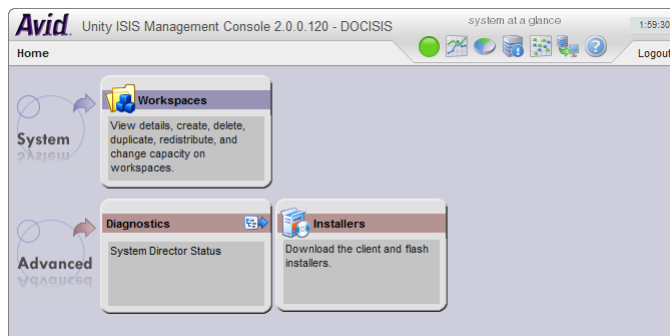


- Click the Launch Management Console icon from the login window.

Your default web browser opens to the ISIS Management Console login window.



The ISIS Management Console display might differ according to your user account's access privileges.



Mounting and Unmounting Workspaces

Your Avid ISIS user account must have access to at least one workspace. For information on workspace access, see “Creating Client Accounts for Users” in the *Avid ISIS 7000 Administration Guide*.

When you have one or more workspaces mounted and the connection to the System Director is subsequently lost, a message in the taskbar (for Windows systems) or the dock (for Macintosh systems) indicates the workspace is unavailable.

The Client Manager then automatically attempts to reestablish the connection with the System Director. When the connection is successfully reestablished, a message in the taskbar or dock informs you of the connection state.

For information on opening the Client Manager, see [“Logging in to the Avid ISIS Media Network” on page 39](#).

To mount an Avid ISIS workspace on your system:

1. Open the Client Manager.

The Workspaces list opens. The Online field displays a green ball for workspaces that are already mounted. You can filter the Workspaces list by Workspace name.

2. Do one of the following:

- ▶ Click (mount) in the Online column for the selected workspace.
- ▶ Click to select a workspace, then right-click, and select Mount.
- ▶ (Option) Right-click, and select “Mount to drive” from the menu.



Selecting this option will override the current drive mapping option settings for the selected workspace. For more information on drive letter assignments, see [“Configuring Workspace Drive Letter Assignments” on page 45](#).

The Client Manager mounts the selected workspace on your client and the Online icon for the mounted workspace changes to green. The Workspaces list displays the drive the workspace is mounted to. If you use letterless drive mappings, the Workspaces list displays “UNC path” next to the Online icon.

3. (Option) If you want the selected workspace remounted the next time you log in, do one of the following:
 - ▶ Click (enable) in the Auto column for the mounted workspace.
 - ▶ Right-click, and select “Enable auto mount.”

The next time you log in to your client system, the Client Manager automatically mounts the selected workspace.

To mount multiple Avid ISIS workspaces on your system:

1. Open the Client Manager.

The Workspaces list opens. The Online field displays a green ball for workspaces that are already mounted. You can filter the Workspaces list by Workspace name.
2. Do one of the following:
 - ▶ Select multiple non-contiguous workspaces with Control+click.
 - ▶ Select a range of contiguous workspaces by clicking on the first workspace row in the range, then Shift+clicking on the last.
 - ▶ Select all workspaces by right-clicking in the Workspaces list and selecting “Select all”.
 - ▶ Select all workspaces by pressing Control+A.
3. Right-click, and select Mount.

The Client Manager mounts the selected workspaces on your client and the Online icons for the mounted workspaces change to green. The Workspaces list displays the drives the workspaces are mounted to. If you use letterless drive mappings, the Workspaces list displays “UNC path” next to the Online icons.
4. (Option) If you want the selected workspaces remounted the next time you log in, right-click, and select “Enable auto mount”.

The next time you log in to your client system, the Client Manager will automatically mount the selected workspaces.

To unmount an Avid ISIS workspace on your system:

1. Make sure your Avid application is not running.
2. Open the Client Manager.

The Workspaces list opens. The Online field displays a green ball for workspaces that are already mounted. You can filter the Workspaces list by Workspace name.
3. Do one of the following:
 - ▶ Click the green icon in the Workspaces list to unmount the selected workspace.
 - ▶ Click to select a workspace, then right-click, and select Unmount.

The Client Manager unmounts the workspace from your client, and the green icon is removed from the Online field for this workspace.

To unmount multiple Avid ISIS workspaces on your system:

1. Make sure your Avid application is not running.
2. Open the Client Manager.

The Workspaces list opens. The Online field displays a green ball for workspaces that are already mounted. You can filter the Workspaces list by Workspace name.

3. Do one of the following:
 - ▶ Select multiple non-contiguous workspaces with Control+click.
 - ▶ Select a range of contiguous workspaces by clicking on the first workspace row in the range, then Shift+clicking on the last.
 - ▶ Select all workspaces by right-clicking in the Workspaces list and selecting “Select all”.
 - ▶ Select all workspaces by pressing Control+A.
4. Right-click, and select Unmount.

The Client Manager unmounts the workspaces from your client, and the green icons are removed from the Online field for those workspaces.

For more information on mounting workspaces, see the following topics:

- [Adding a Remote Host](#)
- [Sorting the Display](#)

Configuring Workspace Drive Letter Assignments

The Client Manager allows you to configure the drive letter used when mounting Avid ISIS workspaces. This allows you to prevent workspaces from being assigned drive letters you want reserved for other uses.



The Client Manager skips fixed drives and drive letters that are already in use.

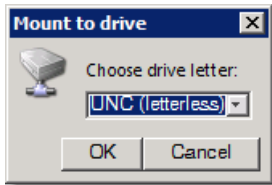
If your system requires using Universal Naming Convention (UNC) paths for all mounted workspaces rather than drive letters, you can use Client Manager to set this as the default mapping for workspaces.

To configure the drive letter for mounting workspaces:

1. Open the Client Manager (see [“Logging in to the Avid ISIS Media Network” on page 39](#)).
- The Client Manager opens.
2. Select a workspace from the Workspace list.

2 Using Avid ISIS Client Manager

3. Right-click the selected workspace, and select “Mount to drive” from the menu.
The Mount To dialog box opens.



4. Click the Choose drive letter menu, and select the drive letter you want to use for mounting workspaces.

Option	Description
UNC (Letterless)	Uses a Universal Naming Convention (UNC) path for the mounted workspace instead of a drive letter.
Any drive	Mounts the workspace to the next available drive letter, working backward from drive Z:
Specific drive	Mounts the workspace to the selected available drive letter.

5. Click OK.

Bandwidth Reservations

You can use the Client Manager to obtain a default bandwidth reservation; however, the reservation cannot exceed your system’s device limit or your client bandwidth limit, whichever is lower. The Avid ISIS system enforces an effective bandwidth limit based on either the client type specified by the Client Manager or the reserved bandwidth value set in the Management Console. Your Avid ISIS administrator sets the bandwidth limits, and the bandwidth limit is listed in the Workspaces list. For more information on using the Management Console to set bandwidth limits, see the following topics in the *Avid ISIS 7000 Administration Guide*:




Setting a bandwidth limit on editing clients, such as an Avid NewsCutter Adrenaline client, can adversely affect playback performance. Avid recommends that you do not set bandwidth limits for users other than Avid AirSpeed® clients. However, your administrator might need to set a bandwidth limit for other devices, such as an Avid Unity TransferManager, in the event the device is consuming more bandwidth than expected.

Enabling the Bandwidth Dialog

The Bandwidth tab must be enabled in order to manage bandwidth reservations.

To enable the Bandwidth Dialog:

1. Open the Client Manager.
2. Click the Preferences button.

The Preferences window opens.
3. In the General section, select “Enable Bandwidth Dialog”.
4. (Option) Select “Display Bandwidth in Bits Per Second” to display bandwidth in bits per second instead of megabits per second.
5. Click Apply.
6. Click Close.



The Bandwidth icon appears in the Client Manager toolbar.

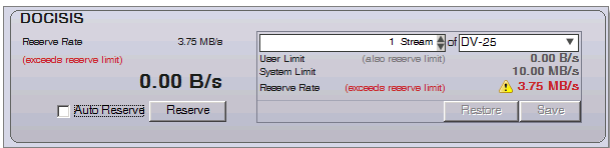
Creating or Releasing Bandwidth Reservations

To create or modify a bandwidth reservation:

1. Open the Client Manager.
2. Click the Bandwidth icon.



The Bandwidth dialog opens.



3. Use the up/down buttons to select the number of streams you will need.
4. Select the type of stream from the list.

There are several presets for various formats, as well as numeric bandwidth values.



If the selected bandwidth value exceeds the limits imposed either by the client type specified by the Client Manager or the reserved bandwidth value set in the Management Console, a warning symbol will appear next to the Total Rate value. You will be able to save these values, but not to create or modify an existing reservation.

2 Using Avid ISIS Client Manager

5. (Option) To restore previously saved values, click Restore.



You can only Restore values if the reservation has not yet been Saved or Reserved.

6. (Option) To save the selected values without creating a reservation, click Save.
7. Click Reserve.

The reservation is created on the ISIS server.

8. (Option) If you want the reservation to be created automatically the next time you log in, Click “Auto Reserve On”



You can enable Auto Reserve and create the reservation in one step if you select “Auto Reserve On” before clicking Reserve.

To release a reservation:

1. Select the reservation you want to release.
2. Click Release.

The selected reservation is released.

Avid ISIS Connection Tests

Before you begin using the Avid ISIS media network, you should test the connection to your workspace to make sure communication between your client system and the media network is sufficient for the functionality needed by your system. You can use the Avid PathDiag tool, which installs with your client software, to test the read/write throughput, or the rate that read and write operations are conducted between your client system and a mounted workspace.



For more information on the PathDiag tool, see “Avid PathDiag Tool” on page 53.

Administrative Tasks

You can use the Preferences dialog box and the Messages dialog box to manage the following administrative tasks:

- Set display properties
- Clear cached information
- View, save, and clear logged error messages

For more information about these functions, see the following topics:

- “Setting Display Properties in the Client Manager” on page 49
- “Clearing Cached Data” on page 50
- “Using Logs and Messages” on page 50

Setting Display Properties in the Client Manager

Display properties in the Client Manager control how the application displays information on your local system.

To set Client Manager display properties:



1. Open the Client Manager. (For information on opening the Client Manager, see [“Avid ISIS Shared Storage Network Connection” on page 36.](#))
2. Click the Preferences button.
The Preferences dialog box opens.
3. Click General.
4. In the General area, select the appropriate options:

Option	Description
Start Client Manager Hidden	Select this option to allow the Client Manager to run hidden and accessible from the Client Manager icon in the taskbar. Deselect this option to open the Client Manager each time you start your system.
Use UNC (Letterless) Drive Mappings	Select this option to use UNC paths to map workspaces instead of drive letters.
Enable Bandwidth Dialog	Select this option to display the Bandwidth tab in the Client Manager. Also enables the “Display Bandwidth in Bits Per Second” option.
Display Bandwidth in Bits Per Second	Select this option to display bandwidth in bits per second in the Bandwidth tab. Deselect this option to display bandwidth in bytes per second.
Measure Free Space In	You can choose to display the amount of available space in your workspace either in gigabytes (GB) or in the total length of stored media (hours:minutes:seconds) at a selected resolution.
Client Type	You can select a client type to set a default bandwidth reservation for the workspaces you mount. For information on client types, see “Selecting Client Types” on page 37.

5. Click Apply.
6. Click Close.

Clearing Cached Data

The Client Manager maintains information on site settings in cache files, and the tool appends data each time you open the Client Manager. You can clear the cached information — for example, to remove settings for users no longer working on a specific system — by deleting the cache files.

To clear cached data:

1. Open the Client Manager. (For information on opening the Client Manager, see [“Avid ISIS Shared Storage Network Connection” on page 36.](#))



2. Click the Preferences button.

The Preferences dialog box opens.

3. Click Advanced.

4. In the Advanced section, do one of the following:

- ▶ Click the Clear button for each cache file you want to clear.
- ▶ Click the Clear All button to clear all cached data.

5. Click Apply.

6. Click Close.

Using Logs and Messages

The Client Manager keeps a log of events, information, and error messages. You can view the current log in the Messages section of the Client Manager window. You can also save a copy of the log, and you can clear the log maintained for the current work session.



The Client Manager clears all logs when you exit the application.

To view Client Manager event logs:

- ▶ Open the Client Manager. (For information on opening the Client Manager, see [“Avid ISIS Shared Storage Network Connection” on page 36.](#))

The Messages area is the bottom section of the Client Manager window. You can sort the Messages list by clicking the Level, Time, or Message field heading and clicking on the blue arrow to sort in ascending or descending order.

To save a copy of the event log:

1. Right-click in the list, and select Export.

The Export dialog box opens.

2. Navigate to the folder where you want to save your log.
3. Type a name for the log in the File Name text box.
4. Click Save.

The Client Manager saves the event messages as a log file (*filename.log*).

To clear all event logs:

- Right-click in the list, and select Clear.

2 Using Avid ISIS Client Manager

3 Avid PathDiag Tool

Avid PathDiag tool is a diagnostic utility that allows you to validate your Avid ISIS storage group by quantifying the throughput of Windows or Macintosh editing applications accessing Avid ISIS workspaces. The Avid PathDiag tool can also test the throughput from local storage elements and any other shared storage to which a client has access. This sections includes the following topics:

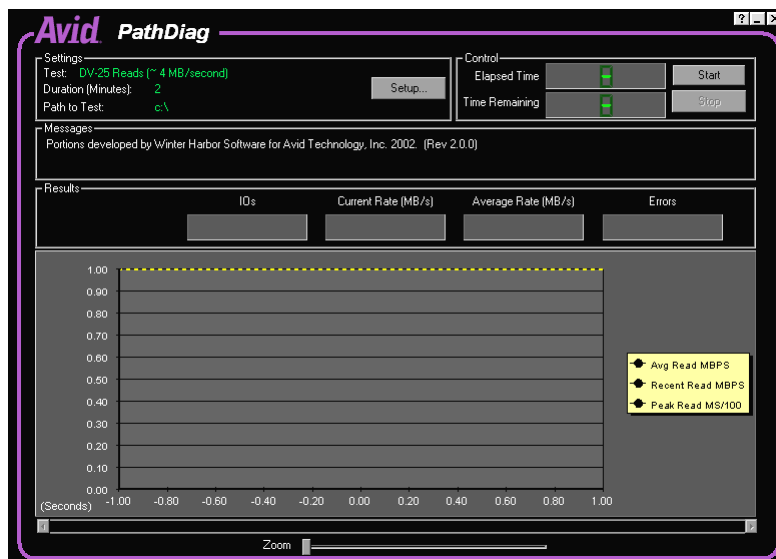
- [Starting Avid PathDiag Tool](#)
- [PathDiag Tool Interface](#)
- [Diagnostic Tests](#)
- [Starting and Stopping the Test](#)
- [Test Results](#)

Starting Avid PathDiag Tool

To start Avid PathDiag tool, do one of the following:

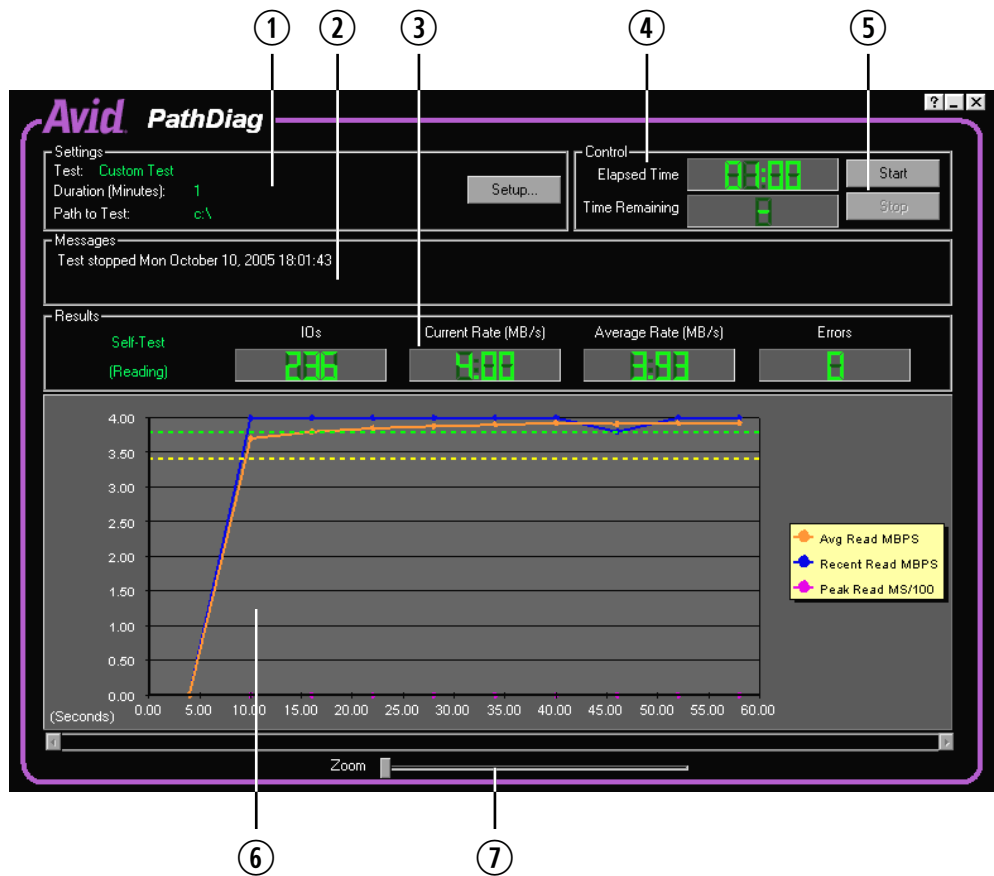
- ▶ (Windows) Select Start > All Programs > AvidUnityISIS > PathDiag.
- ▶ (Macintosh) Select Go > Applications, and then double-click the AvidUnityISIS folder. In this folder, double-click the PathDiag file.

The Avid PathDiag tool opens.



PathDiag Tool Interface

The primary user interface of PathDiag tool consists of a single window from which you can select the test to be performed, start and stop the selected test, and view the test results as the test progresses. You access auxiliary controls through dialog boxes.



- ① Settings area
- ② Messages area
- ③ Results area

- ④ Control area
- ⑤ Start and Stop buttons
- ⑥ Test results graph
- ⑦ Zoom slider control

Settings Area

The Settings area in the main 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 test settings. For more information, see [“Diagnostic Tests” on page 57](#).

Control Area

The Control area in the main window has Start and Stop buttons along with test timing information. For more information, see [“Starting and Stopping the Test” on page 64](#).

Messages Area

The Messages area provides test progress and diagnostic information about the operation of the utility. If you need to troubleshoot, the detailed text information in these messages might be helpful.

Results Area

The Results area provides the following numerical test results:

Item	Description
IOs	Displays the current number of I/O operations that have been completed during the test
Current Rate (MB/s)	Displays the calculated throughput or bandwidth (in megabytes per second [MB/s]) 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

Item	Description
Errors	<p>Displays the number of errors encountered during testing. This is the total of all errors generated for both read and write operations and can include errors related to the following:</p> <ul style="list-style-type: none">• Opening or closing data files• Validity of the specified file system path• User access privileges• Read or write operations

Text indicators on the left of the Results area show the file access protocol used and the operation performed in the current phase of testing.

The File Access Protocol indicator shows one of the following:

Item	Description
Automatically Select	Selects a protocol automatically for testing the selected path. Generally, the tool selects Win32 File API for the specified path
Win32 File API	Indicates the Win32 file access API is being used. This indicator is displayed for local disks, mounted ISIS workspaces, and network file shares.
Self-Test	Indicates the performance monitor runs a test without actually performing any read or write operations. This is usually done to benchmark the tool without disk input/output actions affecting the results.

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

Item	Description
(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 is particularly useful when you want 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, you might see this as a periodic drop in observed throughput in the Test Results graph.

The Test Results graph shows the following:

Item	Description
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/100	<p>The peak latency for individual I/O operations (either reads or writes) that have been completed over a short period of time. A high measurement indicates a longer period of time was needed for the operation to complete.</p> <p>Because only the highest (peak) measurement over a short period of time is displayed, a single high peak could be accompanied by many low-latency operations that do not appear in the graph.</p>



When you run the Network Connectivity test, the Test Results graph display is replaced with a table of results generated by the test. For more information, see [“Setting Up a Network Connectivity Test”](#) on page 62.

Diagnostic Tests

The Settings area of the PathDiag tool displays the currently specified test parameters. Before running the test, you must mount at least one workspace in the Avid ISIS media network.

For information on setting up standard and customized tests, see the following topics:

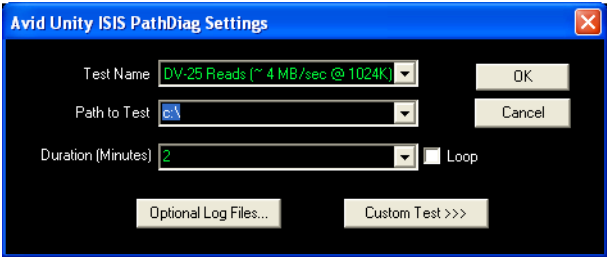
- [“Setting Up a Standard Test”](#) on page 58
- [“Setting Up a Custom Test”](#) on page 60
- [“Setting Up a Network Connectivity Test”](#) on page 62

Setting Up a Standard Test

To change the default test settings:

1. Click the Setup button.

The PathDiag tool Settings dialog box opens.



2. Adjust the test parameters using the information provided in the following table, the ISIS Read/Write Test Name selection is recommended.

Parameter	Description
Test Name	<p>The following are predefined selections that perform either read or write testing at a bandwidth similar to that required for DV 25, DV 50, IMX 30, or low resolution operation.</p> <ul style="list-style-type: none">• DV 25 Reads• DV 25 Writes• DV 50 Reads• DV 50 Writes• 4:1s Writes• 10:1m Writes• 14Z:1 Writes• IMX 30 Reads• IMX 30 Writes• ISIS Read/Write (see the statement below this table)
Path to Test	<p>Select the path to the workspace you want to test, or type it in the text box.</p> <p>This can be a UNC path (for example, <code>\\myMachine\ myShareFolder\subfolder</code>).</p>

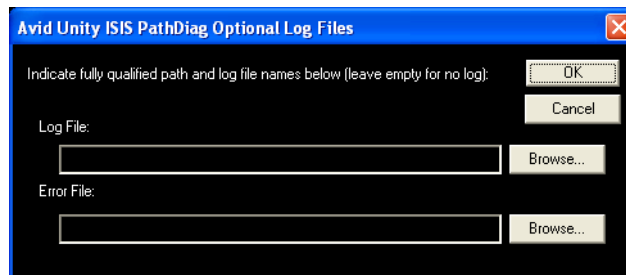
Parameter	Description (Continued)
Duration (Minutes)	Select the test duration (in minutes), or type a duration in the text box. The minimum test duration is 1 minute.
Loop	<p>Select the Loop option to repeat the test indefinitely. When you select this option, the test proceeds until you press the Stop button in the main utility window.</p> <p>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 restarts using cleaned-up intermediate test files.</p>

The ISIS Read/Write test is a good standard test because it includes unlimited bandwidth used to ascertain the available performance of the end-to-end path. The following are typical results:

- Single 1 Gb connection produces an average of 96 MB/s
- Dual 1 Gb connection produces an average of 192 MB/s

3. If necessary, specify paths and file names for optional test and error log files as follows:
 - a. Click Optional Log Files.

The Avid ISIS PathDiag Optional Log Files dialog box opens.



- b. If you want to log information about the test and its results, type a path name and a file name in the Log File text box, or click Browse to search for a file name.
 - c. If you want to log error information, type a path name and a file name in the Error File text box, or click Browse to search for a file name.

If you do not want a log file, leave the Log File, Error File, or both text boxes blank.
- d. Click OK to close the dialog box.

3 Avid PathDiag Tool

Setting Up a Custom Test

In addition to the standard, predefined tests, the PathDiag tool allows you to configure custom tests.



To view the selection of standard tests, click Standard Tests in the PathDiag tool Settings dialog box.

To access the custom test settings options:

1. Click Custom Test in the PathDiag tool Settings dialog box.

The dialog box expands to display the Custom Test Settings area.

Avid PathDiag Settings

Test Name: DV-25 Reads (~ 4 MB/sec @ 1024K) [OK]

Path to Test: [Folder Icon] [Cancel]

Duration (Minutes): 2 [Loop]


[Optional Log Files...] [Custom Test >>]

Custom Test Settings:

- File Access Method: Automatically select
- Reads vs Writes: Writes, then Reads (Sequ...)
- Transfer Size (KB): 4096
- Transfer Rate (KB/S): unlimited
- Max File Size (MB): 100

☐ Use named common file for Reads

2. Adjust the custom test parameters described in the following table, as required:

Parameter	Description
File Access Method	<p>PathDiag tool supports more than one interface or protocol for accessing data. This option allows you to control which interface is used. Choose one of the available settings:</p> <ul style="list-style-type: none"> Automatically select — PathDiag tool selects a protocol automatically for testing the selected path. Generally, the tool selects Win32 File API for the specified path. Win32 File API — PathDiag tool uses the Win32 File API for its data file access, even if AECIFS is supported. Network Connectivity Test — PathDiag tool runs a high-level test to verify network connectivity. For more information on the network connectivity test, see “Setting Up a Network Connectivity Test” on page 62. Self-Test — PathDiag tool runs a test without actually performing any read or write operations. This is usually done to benchmark the tool without disk input/output actions affecting the results.
Reads vs Writes	<p>PathDiag tool supports testing that focuses on Reads or Writes, or that alternates between Reads and Writes. Select a testing mode:</p> <ul style="list-style-type: none"> Writes, then Reads — The utility alternates between Write and Read tests. Approximately half of the test duration is allocated to reading, and the other half is allocated to writing. 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. <p> <i>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.</i></p>
Transfer Size (KB)	<p>This option controls the amount of data the test utility attempts to read or write during a single I/O. Some software (like audio applications) uses smaller I/Os. Video applications use larger I/Os. Depending on the client application, you can select a typical I/O size for your application and run a PathDiag to see the results that you can expect from your client running that application.</p> <p>In some cases, you might set the Transfer Size to large I/O sizes to test switch performance.</p>

Parameter	Description (Continued)
Transfer Rate (KB/S)	<p>The utility can attempt to perform I/O at a variety of fixed transfer rates. This is useful for simulating the behavior of applications that have a known data rate. You can select a data rate where I/Os do not exceed a particular limit.</p> <p>A special unlimited transfer rate setting is also available. When you select the unlimited transfer rate, the PathDiag tool performs I/O operations as fast as possible while being affected by all aspects of the total system being exercised.</p>
Max File Size (MB)	<p>This option controls the maximum size of test data files created for Reads or Writes. This option might affect throughput measurements. For example, at any given data rate, a smaller file is opened and closed more often than a larger file, creating more overhead. The default file size is 100 MB.</p>
Use named common file for Reads	<p>This option changes the way that the Path to Test parameter is used, and the option is intended for advanced users only. When you select this option, 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.</p> <p>The utility creates the file if it does not exist and deletes it 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 is completed. With this option selected, you can run PathDiag tool on multiple clients simultaneously and supply the same file name.</p> <p>This allows PathDiag tool applications running on multiple clients to read a common file. (The file is created as needed, and the last PathDiag tool application to stop deletes the file.)</p>

3. Click OK.

Setting Up a Network Connectivity Test

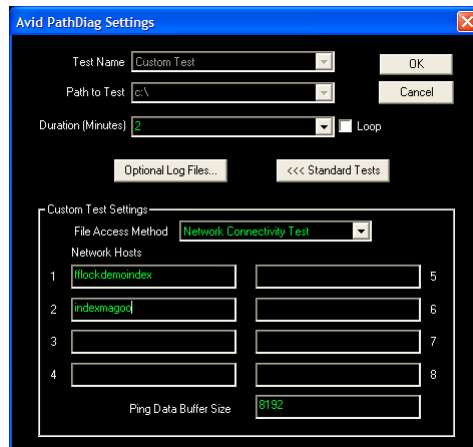
The PathDiag tool provides a high-level verification of network connectivity when you select Network Connectivity Test as a custom test parameter. The Custom Test Settings area of the Avid ISIS PathDiag Settings dialog box allows you to list up to 8 network hosts to test. Results display in the Test Results graph area of the PathDiag tool.

To set up the Network Connectivity Test:

1. Click Custom Test in the PathDiag tool Settings dialog box.

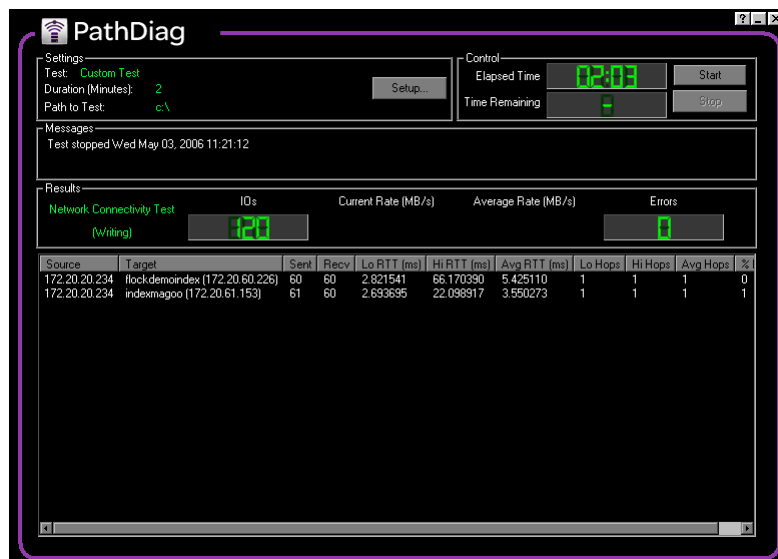
The dialog box expands to display the Custom Test Settings area.

2. Select Network Connectivity Test from the File Access Method menu.
The Network Hosts list displays the available systems in your network.



3. Type the host name or the IP address of the network system you want to test.
4. (Option) Set the Ping Data Buffer Size. The default buffer size is 8192 bytes, and the maximum buffer size is 64 KB.
5. Click OK.

When you run the Network Connectivity test, results display in the Test Results graph area of the PathDiag tool.



The following table describes the test results.

Network Connectivity Results

Category	Description
Source	The IP address of the client system
Target	The host name and IP address of the target system
Sent	The number of packets sent
Recv	The number of packets received
Lo RTT (ms)	The minimum round-trip time (in milliseconds)
Hi RTT (ms)	The maximum round-trip time (in milliseconds)
Avg RTT (ms)	The average round-trip time (in milliseconds)
Lo Hops	The minimum number of forwarding routers in the path between the source and the target system
Hi Hops	The maximum number of forwarding routers in the path between the source and the target system
Avg Hops	The average number of forwarding routers in the path between the source and the target system
% Lost	The percentage of the packet lost in the test

Starting and Stopping the Test

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

To start the currently configured test:

- ▶ Click Start in the PathDiag tool main window.

The test runs for the specified duration and then stops automatically. The elapsed time a test has been running and the remaining time are displayed in the Control area. If you selected the Loop option in the PathDiag tool Settings dialog box, the test runs indefinitely. In this case, the word LOOP appears in the Time Remaining display in the main window.

To stop the currently running test:

- ▶ Click Stop in the PathDiag tool main window.

Test Results

This section provides information to help you interpret test results displayed in the PathDiag tool main window.

Average Rate Calculation

The average data rate is calculated over the duration of the test. This calculation includes the time the utility requires to open and to close the test files, so the test file size (which you can configure for custom tests) can affect the overall measured throughput.

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

Performance Graph

The graph of results over time can help experienced users obtain information about system performance.

The following display is a normal unlimited read/write profile for an ISIS client.



3 Avid PathDiag Tool

The following are a few items to look for:

- Trends: Does the system perform at a consistent rate over time? Is there an upward or downward trend in performance measured over time? If you notice a trend, it might 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.

It is normal for the maximum read bandwidth to be greater than maximum write bandwidth.

- Patterns: Is there a momentary drop in performance that occurs at consistent or varied intervals? Patterns can emerge as a result of implementation details and the configuration of a particular system (for example, caching strategies or physical memory), or they might indicate 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 PathDiag tool is running 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 performance at the time of the plot. This is done to limit the amount of data that is plotted, which otherwise could include a very large number of data points. As a result, the performance graph could miss a momentary drop or increase or a peak in performance that occurs between plot points. The average rate calculation reflects the impact of such a dip or spike, even if the actual size of a momentary variation does not appear in the graph.

Test Result Interpretation

If your results fall below optimal performance, you can check to see if your bandwidth is limited. You can use the Avid ISIS Management Console to check your user bandwidth in the Users list in the Users dialog box (see “User Descriptions” in the *Avid ISIS 7000 Administration Guide*) and your device bandwidth in the Device list in the Device dialog box (see “Device Descriptions” in the *Avid ISIS 7000 Administration Guide*). If your bandwidth requirements are greater than the reservations set in the Management Console, your Avid ISIS administrator can adjust the limits.

These results represent guidelines for Avid-qualified systems; performance on your system might vary.

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