



Avid NEXIS® Client Manager Installation and User's Guide

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Revision History

Date	Description of Changes
June 2024	Updated Client Type (Resolution) descriptions, added numerical values for Linux CLI use; updated Ubuntu command-line configuration steps.
May 2024	Clarified Workspace mount behavior (by UNC path or drive letter); added "percent used" column in Workspaces panel
February 2024	Added steps to install the Client Manager GUI for CentOS
January 2024	Updated Client Types table; see "About the Client Type Settings" on page 25
October 2023	Ubuntu 22.04 is now available for all clients. Corrected installation and configuration steps.
March 2023	Avid NEXIS v2023.3.0: Removed all Myricom driver content. No longer supported.
January 2023	(Avid NEXIS version 2022.12.0) Avid NEXIS EDGE workflow support; expanded steps for installation on Apple Silicon clients
March 2022	Added cross-ref to the CloudUX documentation
December 2021	Avid NEXIS Client Version 2021.12.0 (Avid NEXIS Teams)
September 2021	Avid NEXIS Client Version 2021.8.0
March 2021	Avid NEXIS Client version 2021.3.0: Updated Client Manager icons; temporary password feature
January 2021	Avid NEXIS v 2018.9 and higher: Added Linux commands for configuring remote hosts, NICs.

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Using This Guide

The Avid NEXIS® software-defined storage system provides a high-performance distributed file system that uses high-capacity shared media storage for workgroups of connected devices. This guide describes how to manage your storage system.

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

The documentation describes the features and hardware of all models. Your system might not contain certain features and hardware that are covered in this guide.

Who Should Use This Guide

This guide is intended for users who will manage the Avid NEXIS 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.
	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.
	A user tip provides a helpful hint that can aid users in getting the most from their system.
	A shortcut shows the user keyboard or mouse shortcuts for a procedure or command.
>	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), (macOS), or (macOS only)	This text indicates that the information applies only to the specified operating system, either Windows or macOS.
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.

Symbol or Convention	Meaning or Action
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.
	The pipe character is used in some Avid product names, such as Interplay Production. In this document, the pipe is used in product names when they are in headings or at their first use in text.

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.
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/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/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 upgrades, and to read or join online message-board discussions.

Accessing the Online Documentation

The Avid online documentation contains all the product documentation in PDF format. You can access the documentation from the Knowledge Base site specific to your release. Download and install Acrobat Reader before you access the PDF documentation.

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Avid makes lifelong learning, career advancement, and personal development easy and convenient. Avid understands that the knowledge you need to differentiate yourself is always changing, and Avid continually updates course content and offers new training delivery methods that accommodate your pressured and competitive work environment.

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1 Installing the Network Adapter and Driver

This chapter does not apply to Cloud client systems. However, make sure your client VM meets the necessary configuration to support your workflow.

Before installing the Avid NEXIS Client software on a physical workstation, make sure you have the appropriate network adapter and driver installed. See the Avid NEXIS Network and Switch Guide and the Avid NEXIS ReadMe for more information, both of which are available on the [Avid NEXIS Documentation KB page](#).

IMPORTANT: See the [Avid Configuration Guidelines and Slot Configurations](#) Knowledge Base article, and select the platform you have or are considering, to determine the correct network adapter slot locations for client systems qualified with Avid NEXIS. The Slot Configurations KB article also includes all the Avid NEXIS-specific information and settings for these platforms.

Supported Adapters and Drivers

Avid supports several different network adapters for editing systems that connect to Avid NEXIS. Depending on the network adapter used in your system, use the default driver that came with the operating system. Avid recommends using the vendor's latest driver unless otherwise noted. Check your driver version in the Windows Control Panel.

Avid has qualified several switches that provide 10Gbps, 25Gbps, 40Gbps, and 50Gbps connections to Engines and the System Director Appliance.



For the latest supported Ethernet network adapters and driver versions, see the Avid NEXIS ReadMe and the Avid Network and Switch Guide, available on the Knowledge Base.

Installing or Updating a Driver on Windows Clients

To install or update a driver on a Windows client:

1. Download the appropriate driver from the web to your client system.
2. Double-click the .exe file to expand the compressed file and run the installer.
3. Accept the default settings to install the driver.



For many adapters, the default transmit and receive descriptors are set to 256; however, the Avid NEXIS client software sets the transmit and receive descriptors to the optimal value for the adapter type. For more information, see the Avid NEXIS Network and Switch Guide.

4. Continue with setting the IP address; see ["Configuring the Network Interface" on page 28](#).

Using Dual Port Network Connections

Dual Ethernet connections (supported for Mac and Windows) allow you to use a dual-attached client, on the same subnet as the Avid NEXIS, for redundancy and performance enhancements.



Linux does not support multiple NICs on the same subnet.

Avid NEXIS uses Avid Adaptive Load Balancing (AALB) to optimize client performance when using dual NICs configured in the Client Manager. AALB is configured automatically when both ports are enabled. No additional actions are required.

When using a dual port configuration, make sure both ports are enabled in the Avid NEXIS Client Manager Network Interface Settings and the network properties (see and ["Configuring the Network Interface" on page 28](#)).

2 Installing the Client Software

To install Avid NEXIS client software on your workstation you must have a user account with Administrator privileges.

You can download the Client software from the Management Console or the Avid NEXIS Installer kit. For physical computers, you can also copy the Client software to a USB flash drive to take to each client.



In Cloud deployments, the Avid NEXIS Client software is installed as part of the deployment.



A client system name (hostname) must comply with RFC 952 standards, such as not including an underscore () character. For more information, see [Naming Conventions in Active Directory for Computers, Domains, Sites, and OUs on the Microsoft Support Knowledge Base](#).



The System Director recognizes only the first 31 characters of a client system name; if multiple client system names have the same first 31 characters, after the first client connects, other clients will receive an error when they try to connect. Make sure that all client names are unique within the first 31 characters of their hostnames.

Uninstalling a Previous Client Version

If you have a version of the Avid Client software on your computer, uninstall it before installing a new version.



If you are working with Avid MediaCentral Cloud UX, see the section on “Upgrading the Avid NEXIS Client” in the latest Avid MediaCentral | Cloud UX Installation Guide for important differences in the installation process.



Avid recommends checking your Client Preferences and making a note of them (or take a screen capture of the dialog box) in case you need to reapply them after installing the new Client software. Preferences might not be saved and applied automatically.

To check existing preferences and uninstall an existing Client version:

1. In the current version of Client Manager, open the Preferences dialog box, and write down any preferences you have selected (if other than the default) for future reference. Close the dialog box.
2. Open the Remote Hosts dialog box, and write down the names or IP addresses of any configured remote hosts, then close the dialog box.
3. Open the Network Interface Settings dialog box, and write down which network interface is selected, if more than one is listed, then close the dialog box.
4. Optionally, unmount any mounted Workspaces.
5. Close and quit the Client Manager.
6. Do one of the following, depending on your client operating system:
 - **Windows:** Open the Windows Control Panel and select Programs and Features. Select the Avid Client and click Uninstall.

When the uninstallation is complete, you are prompted to restart the system. However, you can wait until after you install the new version to restart the client system.

- **macOS:** Run the uninstaller located in Applications, Avid Uninstallers, AvidNEXIS. The uninstaller allows you to save your remote host and network interface settings. Even if you select this option, Avid recommends checking them after installing the new Client software and reapplying them as needed.
- **Linux and Ubuntu:** Open the Terminal application and type `[sudo] /usr/sbin/avid-nexis-uninstaller`



Do not uninstall the Linux Client Manager using the System, Administration, Add/Remove Program feature on the Desktop. This function does not completely remove all the Client Manager software.

Installing Client Software on Windows

If you already have a previous version of the Avid NEXIS Client software installed, uninstall it before installing the new version. See ["Uninstalling a Previous Client Version" on the previous page](#).

Make sure to install the latest Windows critical updates before installing the Avid NEXIS Client.

To install the Windows client software:

1. Log into your Windows client system as a user with Administrative privileges.
2. Copy the `AvidNEXISClient_Win64_n.0.0.nnnnn.msi` file to your Windows client system from either:
 - The `\AvidNEXISClientInstallers` folder in the software kit
 - The Management Console, Installers page
3. Double-click the `AvidNEXISClient_Win64_n.0.0.nnnnn.msi` file.
4. Follow the on-screen instructions.
5. To complete the Client software installation on Windows, reboot the client.
6. Start the Client Manager and, if applicable, reapply any previous preferences and network interface settings. You can also re-add any previously configured remote hosts.
7. Repeat this procedure on each Avid NEXIS Windows client.



You can manually copy the client installer to a USB flash drive and use it to install the client software on multiple Windows clients.

Installing Client Software on Mac

If you already have a previous version of the Avid NEXIS Client software installed, uninstall it before installing the new version. See ["Uninstalling a Previous Client Version" on the previous page](#).

Security Notes for macOS 10.13 and Higher

Apple macOS 10.13 and newer has enhanced security. By default, third-party kernel extensions (also called kexts) that were not previously installed are denied. If you are installing the Avid NEXIS client on a macOS system, watch for the System Extension Blocked alert during the installation process, and click OK to allow the Avid NEXIS client installer to complete. See the Apple Technical Note [TN2459](#).

Legacy System Extension Warning on macOS 10.15.4 and Higher

Starting with macOS 10.15.4, when you install a new Client kit on a system running this OS version, a Legacy System Extension warning is displayed when the Client kit loads and again periodically advising you to “contact the developer for support” for future releases of the client kit. Avid is working to keep our system extensions current with advancing requirements from Apple.

Installing the Client Software on Apple Silicon Systems

For macOS 11 (Big Sur) and macOS 12 (Monterey) running on an Apple Silicon system, you must perform a few steps before installing Avid NEXIS Client software (whether installing for the first time, or after uninstalling a previous version and rebooting).

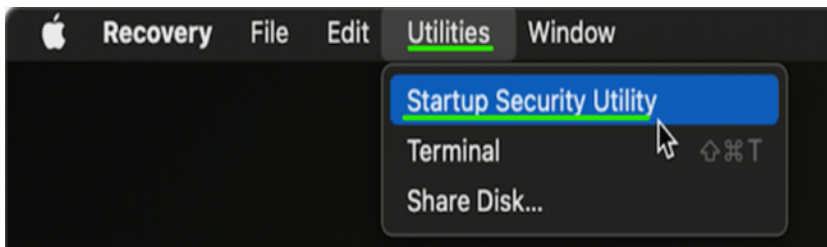
After installing the Client software, check for any outstanding approvals (you might have to do this multiple times).



The steps related to Startup Security are included for convenience and are not guaranteed to be accurate at the time of this release. For the latest details, always consult the Apple documentation.

To install the Mac client software on Silicon systems (on other Apple systems, skip to Step 6):

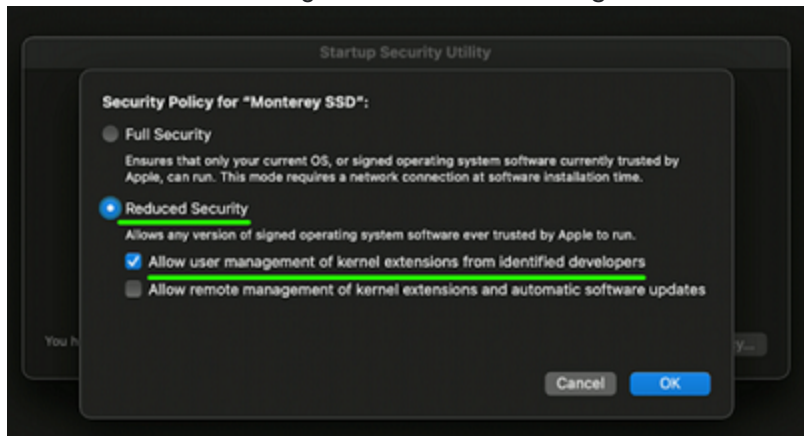
1. Reboot the macOS Apple Silicon client system into Recovery mode.
2. In the Utilities menu, select Startup Security Utility.



3. Click Security Policy.



4. Enable Reduced Security, and allow user management of kernel extensions.



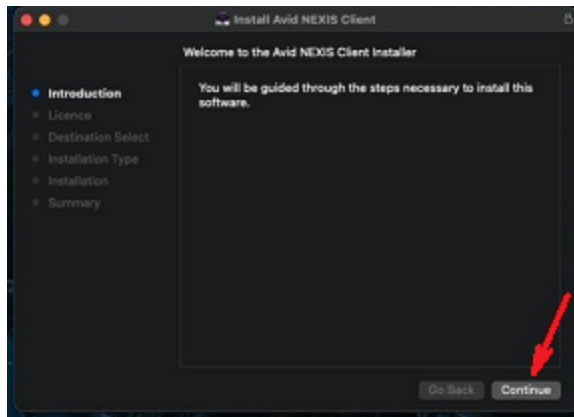
5. Click OK and restart the computer.

6. On each Mac client, copy and save the `AvidNEXISClient_MacOSX_n.0.0.nnnnn.dmg` file to your Mac client system from either:
 - The `\AvidNEXISClientInstallers` folder in the software kit
 - The Management Console, Installers page

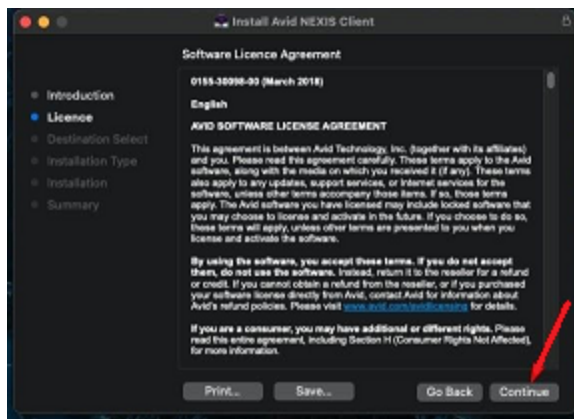


If you use the Safari browser to install the Avid NEXIS software on a Mac client, the disk image is mounted as soon as the download is complete, and the installer starts automatically. Other browser applications do not automatically mount the disk image.

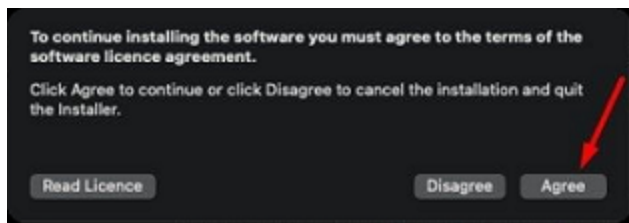
7. Double-click the `AvidNEXISClient_MacOSX_n.0.0.nnnnn.dmg` file.
8. Double-click the `AvidNEXISClient.pkg` file to run the installer.
9. Do the following:
 - a. On the Welcome screen, click Continue.



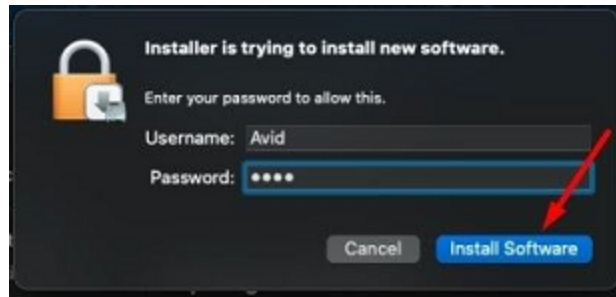
- b. On the Software License Agreement screen, click Continue.



- c. In the License dialog box, read the license agreement, then click Agree.



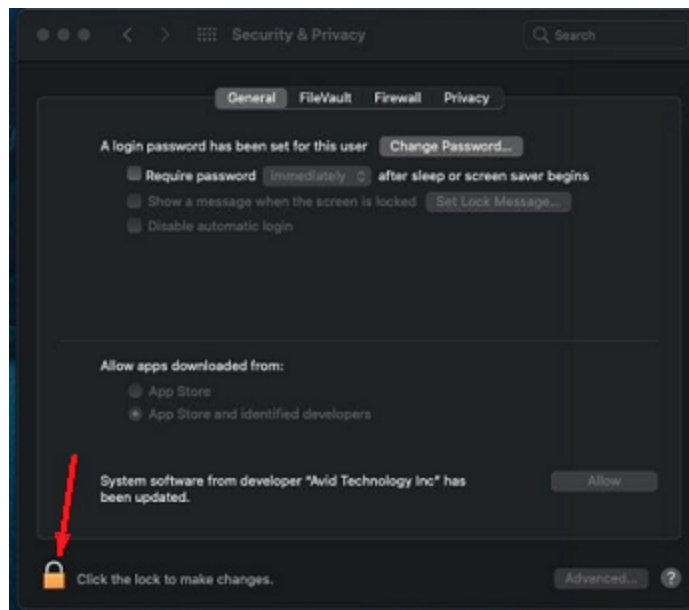
- d. Enter your user name and password, then click Install Software.

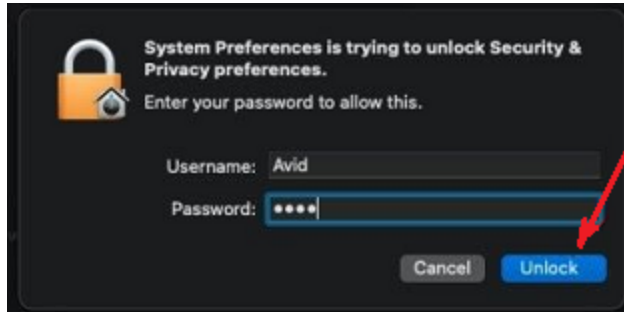


- e. In the popup window, click Open Security Preferences.

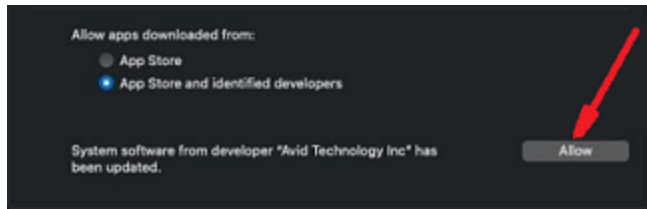


- f. Click the lock icon to allow changes.

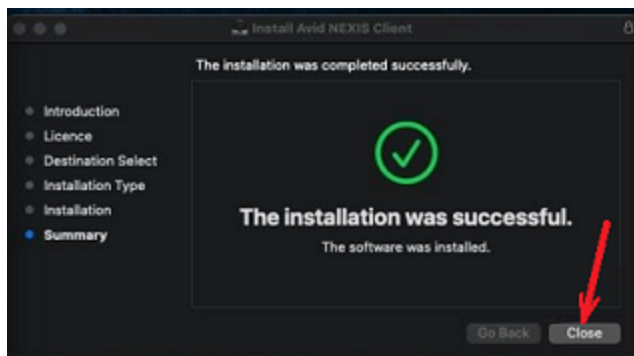




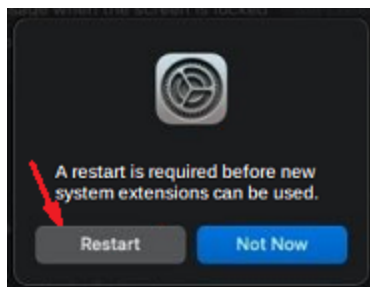
- g. In the “Allow apps” dialog box, click Allow.



- h. In the Avid NEXIS Client Installation window, click Close.



- i. In the “Restart” dialog box, click Restart.



- j. Wait for the system to load the kernel extension and rebuild the auxiliary kernel extension collection.
10. After the system reboots, you might again see the System Extension Updated dialog box. If so, repeat the procedure from step 9e. Make sure no pending approvals remain; otherwise, the Client software might launch, but the driver might not be properly loaded.
 11. After the software is successfully installed on your client, unmount (eject) the installer volume as follows:
 - a. Locate the mounted volumes listed in the left pane of the Finder window.
 - b. Select the volume that contains “Avid NEXIS” in the name.
 - c. Either right-click the volume and select eject, or drag the volume to the Trash in the dock.

Installing Client Software on CentOS Linux

If you already have a previous version of the Avid NEXIS Client software installed, uninstall it before installing the new version.



To install the Avid NEXIS Client on a MediaCentral Cloud UX system, see the latest Avid MediaCentral | Cloud UX Installation Guide.

The Avid NEXIS Linux client is qualified and tested with the included Avid-specific FUSE components, which are installed by default.

The Linux client installer is available from either the Management Console Installers page or the \AvidNEXISClientInstallers folder in the Avid NEXIS software kit.

To install the CentOS Linux client software:

1. Copy and save the Client installer file to the user's home directory of your Linux client system.
2. Open the Terminal application: Application, System Tools, Terminal on your Linux client.



When using the Terminal program, file names and paths are case sensitive.

3. Type `cd [your home directory]` and press **Enter**.
4. Type the following to change the permission on the installer file, then press Enter:

```
chmod +x AvidNEXISClient_e17.centos.x86_64_x.x.x.bin
```

To see the full list of installation options, type the following:

```
./AvidNEXISClient_e17.centos.x86_64_x.x.x.bin -h
```

5. To install the client kit, type the following, then press Enter:

```
[sudo] ./AvidNEXISClient_e17.centos.x86_64_x.x.x.bin [-C]
```



If you are not the root user, type sudo before the rest of the command, and enter your password when prompted.



Use the -C flag to exclude the FUSE components (which supports high bandwidth).

6. Extract the Avid NEXIS GUI Tools application from the installer kit using 7Zip on a Windows system.
7. Use WinSCP to move the GUI Tools application into the Downloads directory on the CentOS client system.
8. As the root user, install the GUI Tools with the following command:


```
[sudo] rpm -Uvh AvidNEXISGUITools-<version>.el.centos.x86_64.rpm --nodep
```
9. As the root user, launch the Application from the command line as follows:


```
[sudo] /usr/bin/avidnexusclientmanager
```
10. Restart the Linux client.

Configuring a CentOS Linux Client (No GUI)

In Linux client environments with no GUI, edit the `/etc/AvidRegistry` file to configure the network interface and add the Avid NEXIS system information so the client can connect to it.

When configuring an Avid NEXIS system as a remote host, use the IP addresses or DNS names of the controllers hosting the System Director. Do not use the Avid NEXIS shared-storage system name. The controllers are either in an SDA or in one of the Engines in the system serving as the System Director for the system. Enter both controller IP addresses or both names (if two are installed).

To configure the network interface and add a remote host:

1. Run the following command to see all available interfaces:

```
ip a
```

2. Identify the interface(s) for communicating with the Avid NEXIS system.
3. Edit the `/etc/AvidRegistry` file and add the following line to configure the NIC:

```
AvidFos\Parameters\UseIfnames <interface_name>
```

For example:

```
AvidFos\Parameters\UseIfnames ens160
```

4. Add one of the following key-value lines to allow access to the Avid NEXIS system:

```
AvidFos\Parameters\RemoteSystemDirectors <physicalSDhostname1;<(optional)
physicalSDhostname2>
```

```
AvidFos\Parameters\RemoteSystemDirectors <IP_address1;<(optional) IP_
address2>
```

For example:

```
AvidFos\Parameters\RemoteSystemDirectors a51-asd4-top;a51-asd4-bottom
```

```
AvidFos\Parameters\RemoteSystemDirectors 198.51.100.20;198.51.100.21
```

5. Save and close the `/etc/AvidRegistry` file.

Installing Client Software on Ubuntu

Avid NEXIS includes a Ubuntu Linux client kit for command-line only use (no Client Manager GUI support).



See the [MediaCentral | Cloud UX documentation](#) for information on migrating current CentOS Linux clients to Ubuntu Linux.

To install the Ubuntu client kit:

1. Copy and save the Ubuntu client kit, named `AvidNEXISClient_Ubuntu_version.bin`, onto the Ubuntu client computer.
2. Open the Terminal application: Application, System Tools, Terminal on your client.



When using the Terminal program, file names and paths are case sensitive.

3. Navigate to the directory where you copied the installer:

```
cd [path]
```

4. Type the following to change the permission on the installer file, then press Enter:

```
sudo chmod +x AvidNEXISClient_Ubuntu_version.bin
```

5. To install the client kit, type the following, then press Enter.

```
sudo ./AvidNEXISClient_Ubuntu_version.bin
```



The Ubuntu Client kit depends on the presence of certain Ubuntu packages. During installation, the client tries to retrieve missing packages from the internet, if possible. If that fails, a list of the missing dependencies is displayed. Install all the listed packages, then retry the installation.

6. Restart the Ubuntu client.

Configuring a Ubuntu Linux Client (No GUI)

The Avid NEXIS Ubuntu client kit does not support the Client Manager GUI. Use the command line interface to configure the network interface, add the Avid NEXIS system information, set the client type, and mount and unmount Workspaces.

When configuring an Avid NEXIS system as a remote host, use the IP addresses or DNS name of the controllers in the Engine or System Director Appliance that runs the System Director service. Do not use the Avid NEXIS shared-storage system name. If redundant Controllers are installed, enter both controller IP addresses or both names.

For more information on the numerical values for client resolution (client types) for the AvidFos\Parameters\UstrvTransport\Hires entry, see ["Linux Deployments" on page 25](#)

To configure the network interface, client type, and add a remote host:

1. Run the following command to see all available interfaces:

```
ip a
```

2. Identify the interface(s) for communicating with the Avid NEXIS system.
3. Edit the /etc/AvidRegistry file and add the following lines:

```
AvidFos\Parameters\UstrvTransport\Hires n
AvidFos\Parameters\UseIfnames interface_name
AvidFos\Parameters\RemoteSystemDirectors IP_addresses
```

4. Save and close the /etc/AvidRegistry file.

3 Configuring the Client Ethernet Ports

Configure each client computer's Ethernet port to allow them to connect to Avid NEXIS systems.

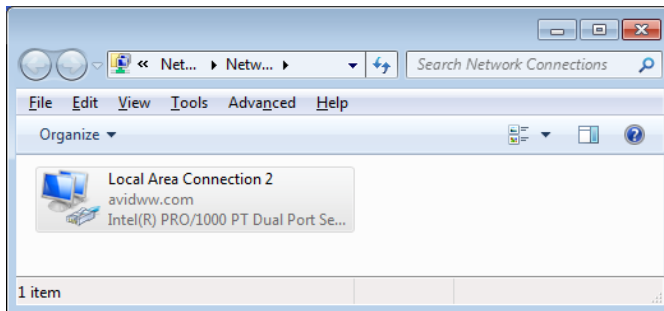


If your Avid NEXIS network includes a DHCP server, clients can automatically obtain IP addresses. If you do not have a DHCP server, assign static IP addresses.

Configuring Windows Client Ethernet Ports

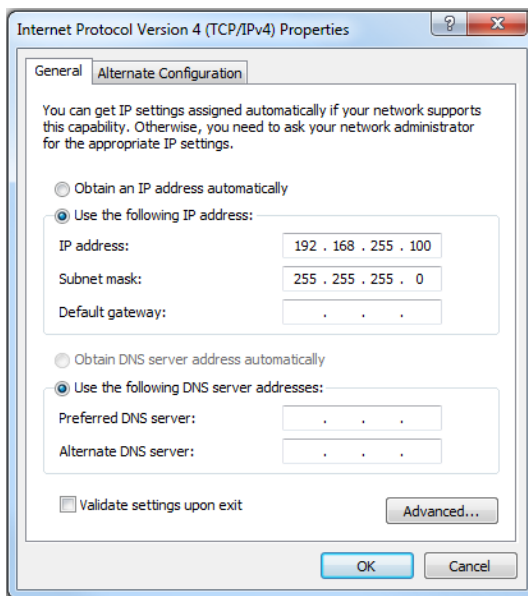
To configure the Ethernet port on your Windows clients:

1. Click Start and type `ncpa.cp1` in the Search text box.
2. Right-click the Local Area Connection icon and select Properties.



3. Select the Internet Protocol Version 4 (TCP/IP) option.
4. Click Properties.

The Internet Protocol Version 4 (TCP/IP) Properties dialog box opens.



5. In the General tab, select **Use the following IP address**.
6. Type a unique IP address in the IP address text box, depending on your configuration. For help, ask your Avid NEXIS administrator.
7. Type the appropriate subnet mask in the Subnet mask text box.

8. (Optional) If connecting to a corporate network or outside the Avid NEXIS subnet, add the Default gateway and DNS server addresses.

See your corporate administrator for the Default gateway and DNS server addresses.

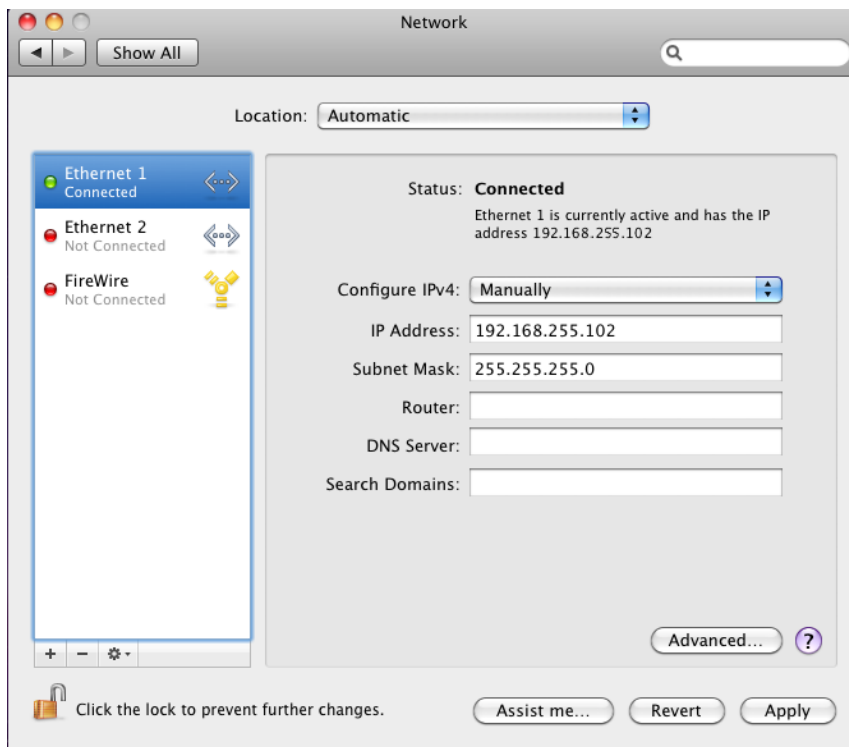
9. Click OK to close each of the open dialog boxes and save the changes.

Configuring Mac Client Ethernet Ports

For macOS clients, you can use any of the onboard Ethernet ports on the Mac system to connect to the Avid NEXIS. For a list of supported Mac systems, see the *Avid NEXIS ReadMe*. See the documentation provided with your Mac system for the exact location of the Ethernet port.

To configure the Ethernet port on your Mac clients:

1. Click System Preferences in the Dock.
2. Click Network.
3. Select the Ethernet port in the left pane.



4. In the right pane select Manually from the Configure IPv4 menu.
5. Type a unique IP address in the IP address text box, depending on your configuration. For help, ask your Avid NEXIS administrator.
6. Type the appropriate subnet mask in the Subnet Mask text box.
7. (Optional) If connecting to a corporate network or outside the Avid NEXIS subnet, add the Default gateway and DNS server addresses.
See your corporate administrator for the Default gateway and DNS server addresses.
8. (Option) If this is a dual port configuration, repeat steps 3 through 7 through to configure the second port.
9. Click Apply.

Configuring CentOS Linux Client Ethernet Ports

To configure the Ethernet port on your CentOS 7 Linux clients:

1. Click Applications, System Tools, Settings, Network.
2. Select the Ethernet adapter for the Avid NEXIS connection.
3. Click the gear-icon button.
4. Select IPv4 in the left pane.
5. Configure the adapter's addressing (method, address, netmask and so on) according to the connection plan for your facility.
6. If you have made changes, click Apply.

4 Configuring the Client Manager

You can configure the Client Manager before using it for the first time, and change it as your workflow changes. For example, you can set preferences for how to display information, control whether the Client Manager starts automatically, and specify the client type (resolution) for your workflow.

Starting the Client Manager

Start the Client Manager and become familiar with its features and the configuration options and preferences you want to set.

To start the Client Manager:

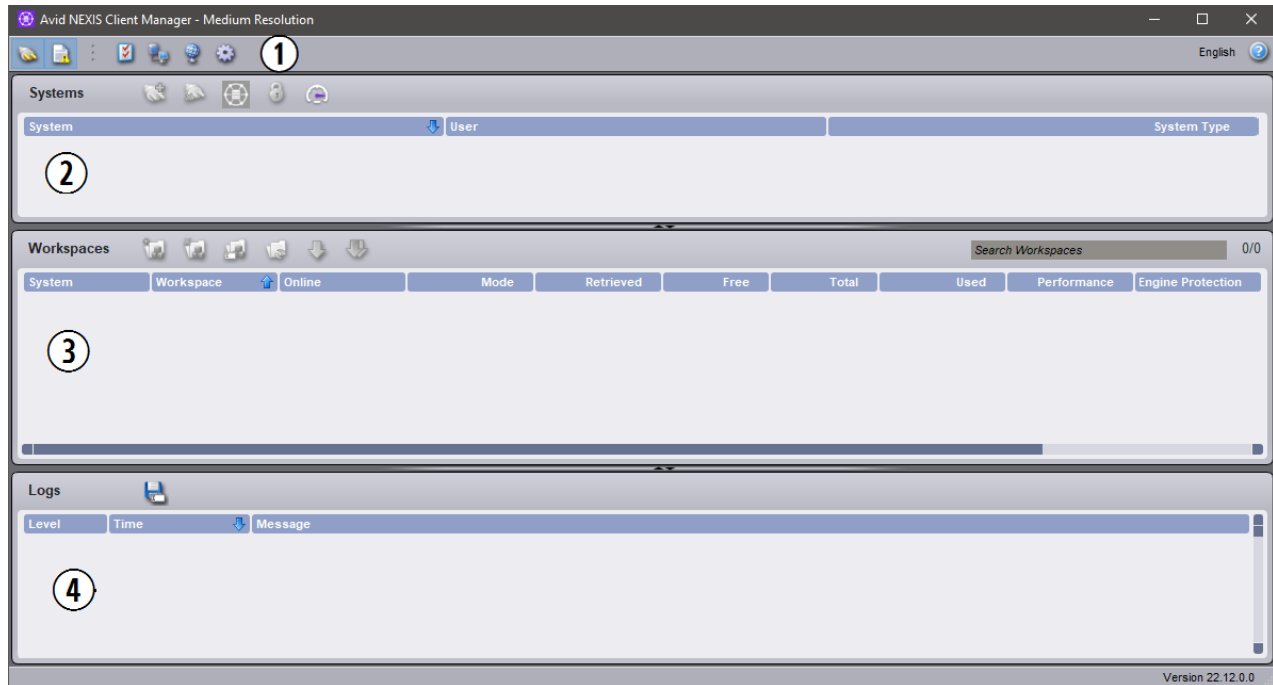
- ▶ Do one of the following:
 - (Windows) Click Start, Avid, Avid NEXIS Client Manager.
 - (Mac) Select Go, Applications, and then double-click the AvidNEXIS folder. In this folder, double-click the Avid NEXIS Client Manager icon.
 - (Linux) Click Applications, System Tools and select Avid NEXIS Client Manager.

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

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

Navigating the Client Manager

The following illustration describes the Client Manager window and the tools available in each area.



Avid NEXIS Client Manager - Main Window Icons

①

Main Tool bar. Functions available:



Show or hide the Systems panel (callout 2)



Show or hide the Logs panel (callout 4)



Change the Client Manager preferences (startup behavior, columns displayed, how free space is measured, client resolution, drive mapping, and more). See ["Client Manager General Preferences" on page 24.](#)



Configure Avid NEXIS systems that are not on the same network as the client system. See ["Adding and Removing Remote Hosts \(System Directors\)" on page 27.](#)



Configure the appropriate network interfaces for your workflow. See ["Choosing the Network Interface for Your Workflow " on page 28.](#)



Clear various caches. See ["Clearing Cached Settings" on page 37.](#)



Select the language for the Client Manager interface from the following:

- English (default)
- Simplified Chinese
- French
- German
- Japanese
- Spanish
- Italian
- Arabic

- Korean
- Ukrainian



Open a link to the documentation on the Avid Knowledge Base.

2

Systems panel.

Lists all available and connected Avid NEXIS systems and information about them. By default, only the System, User, and System Type columns are shown. To show more columns, see ["Client Manager General Preferences" on the next page.](#)



Connect to an Avid NEXIS system.



Disconnect from an Avid NEXIS system.



Open the Management Console for the selected Avid NEXIS system.(Not supported for Team Users; see the Avid NEXIS Administration Guide for more information.

This feature is not supported in the Client Manager running on CentOS.



Change your password for the selected Avid NEXIS system.



Run a connection test on an Avid NEXIS system (usually done by, or with help from, Avid Customer Care).



Reserve bandwidth for the selected Avid NEXIS system.

Used with Configure Reserve Rate for Selected System(s).

First, configure a reserve rate. Then click this button to apply the reservation.



Configure a Reserve Rate. Lets you specify how many streams of various formats to reserve on the Avid NEXIS system. Displays the equivalent speed in MB/sec for each available format. See ["About Bandwidth Reservations" on page 31.](#)



Toggle Auto Reservation. Lets you turn reservations on or off as needed.

3

Workspaces panel. Lists all Workspaces available on connected Avid NEXIS systems, and shows details for mounted Workspaces. See ["Displaying Workspace Details" on page 36.](#)



Mount the selected Workspaces (using the next available drive letters).



Unmount the selected Workspaces.



Assign a mount point to the selected workspace. Use this to mount a Workspace on a specific drive letter (not the next available) or UNC mount point.



Toggle automount for selected Workspaces. Controls whether the Workspace is mounted automatically whenever you connect to the Avid NEXIS system.



Retrieve details for mounted Workspaces (gets and displays the size, free space, used space percentage, performance and protection modes, and access type).



Retrieve details for all Workspaces (mounted or not).

4

Logs panel. Displays information, warnings, and error messages and lets you save the log as a text file for Customer Care.

Client Manager logs are saved automatically in the following location:

- C:\Users\username\AppData\Local\Avid\AvidNEXISClientManager\Logs (on Windows clients)
- [Drive]:/Users/username/Library/Application Support/AvidNEXISClientManager/Logs (on macOS clients)



Save the messages displayed in the current Client Manager Logs panel to the following location:

- C:\Program Files\Avid\Avid NEXIS Client (on Windows clients)
- [Drive]:/Users/username (on macOS clients)

Client Manager General Preferences

In the General Preferences dialog box, the Client Manager lets you configure the following properties:

Setting	Description
Start Client Manager Hidden	(Windows and Linux) Allows the Client Manager to run continuously, but hidden and accessible from the Client Manager icon in the taskbar. Disable this option if you prefer to start the Client Manager yourself.
Use UNC (Letterless) Drive Mapping	(Windows) Use UNC paths to map Workspaces instead of drive letters
Enable Automatic Refresh (enabled by default)	Automatically refreshes the data in the Systems and Workspace panels for both Windows and Mac clients
Enable System IP Column	When enabled, displays the IP address of all connected Avid NEXIS systems. Enable this column to identify the IP address of a system for troubleshooting or to run a Connection Test (see "Running Connection Tests (for Avid NEXIS EDGE)" on page 41).
Show Transfer Rate Columns <i>Formerly, Enable Bandwidth Columns</i>	Displays the columns showing Read and Write Transfer Rates between the client and the connected Avid NEXIS systems. Use this setting in an Avid NEXIS EDGE workflow or if you plan to configure and monitor bandwidth reservations (see "Creating or Releasing Bandwidth Reservations" on page 31).
Show Transfer Rates in Bits Per Second (default is Bytes Per Second) <i>Formerly, Display Bandwidth in Bits Per Second</i>	Available when Show Transfer Rate Columns is enabled. Displays the transfer rate between the client and the Avid NEXIS system in either bits per second or (default) bytes per second.
Measure Free Space in	Displays the amount of available space in your Workspace either in gigabytes (GB;

Setting	Description
	default) or in the remaining time available (hours:minutes:seconds) at the selected resolution
Client Type	Selects the resolution for the client type. See "About the Client Type Settings" below .
Windows Firewall	(Windows) Enables the firewall profile configurations used in your Avid NEXIS shared storage network: domain network, public network, or private network. See "Identifying the Network Profiles (Windows)" on the next page .

About the Client Type Settings

The Client Manager supports the following client types for different workflows, as described in the following table. These settings limit the maximum bandwidth your workstation can use in an Avid network.

Client Type Option	Use Case and Notes
Remote Avid NEXIS	Workstations using a remote Avid NEXIS EDGE solution. For more information, see the Avid NEXIS EDGE Documentation available on the Avid Knowledge Base. Performance and responsiveness will vary due to network conditions (bandwidth and latency). When using this setting, you can run a Connection Test (see "Running Connection Tests (for Avid NEXIS EDGE)" on page 41) to determine if your connection will support the workflow.
Low resolution	Workstations connected to a network of unknown Quality of Service (QoS) or working with very low bitrate files (for example, Avid DNxHD 36 proxy)
Medium resolution (default)	All non-real time applications and real-time editing applications using "lite" compression resolutions such as DNxHR LB, DNxHD 60, or Apple ProRes 422 LT Use with 1GbE-connected media servers such as AirSpeed and FastServe
High resolution	Editing applications using DNxHR HQX and above, DNxHD 185 and above, or any other file format above 185Mbps per stream, including Apple ProRes 422 HQ and above
Ultra high resolution	Intended for dual 1GbE, 10GbE, and dual 10GbE connections performing high-end finishing tasks with high bandwidth codecs such as DNxHR 444, Apple ProRes 4444 or higher, and uncompressed HD or 4K files Also works with 25GbE (not optimized) Generally used for 10GbE-connected media servers, such as AirSpeed and FastServe, and some configurations of 10GbE-connected media management systems such as MediaCentral
40 Gigabit	Workstations with 40Gbps network adapters performing very high-end finishing work or file-per-frame workflows; sets specific driver parameters Also for 50GbE and 100GbE connections (not optimized)

Linux Deployments

In most Linux deployments, there is no GUI and thus the Client Manager is not available to set the Client Type. For these systems, the Client Type is set as a numeric value in the `/etc/AvidRegistry` file.

The most common use of the Linux client is in the service of FastServe or MediaCentral. Management of the Client Type on each of these products must be done through the product's controlling automation and scripting (which will overwrite the `/etc/AvidRegistry` file).

- For MediaCentral, consult the installation and configuration sections of the installation guide.
- For FastServe, consult the Avid NEXIS client sections in the setup guide.

If you're using the Linux client on a system that does not have configuration automation, edit the `/etc/AvidRegistry` file with a text editor (such as `vi`) to set the Client Type, which is read as the `AvidFos\Parameters\UsvrTransport\Hires` value.

The following table lists the numerical values that correspond to the Client Types:

Client Type	Value
Remote Avid NEXIS (WAN)	6
Low Resolution	3
Medium Resolution	0
High Resolution	1
Ultra-High Resolution	4
40 Gigabit	5

New installations of the Linux client have an `/etc/AvidRegistry` template file that includes a helpful comment (which will get stripped if overwritten by automation).

The following example shows the `AvidFos\Parameters\UsvrTransport\Hires` setting for a Medium Resolution client.

```
## Uncomment this line to set client mode.
## This mostly manages switching load.
## 3 Low          (lowest switching requirements)
## 0 Medium
## 1 High         (lower timeouts)
## 4 UltraHigh   (10Gb clients)
## 5 40Gbit clients
## 6 WAN access mode

AvidFos\Parameters\UsvrTransport\Hires    0
```

Identifying the Network Profiles (Windows)

Network profiles are used by Windows operating systems 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.

When enabled, some firewall settings on Windows or macOS clients can prevent you from connecting to the Avid NEXIS environment. On Linux clients, the client installer configures the Linux firewall settings for communication between the Linux clients and the System Director in the Avid NEXIS environment.

To determine which network profiles your Windows client uses:

1. Click Start, Control Panel.
2. Click Network and Internet.
3. Click Network and Sharing Center.

The Network and Sharing Center window lists the network connections present on your system and which of the possible network profiles has been applied to them:

- Domain network
- Public network
- Private network

4. Use this information to configure the Client Manager firewall profiles.

Setting or Changing the General Preferences

You can set or change the preferences and client type (also called client resolution) at any time.



Changes to Windows Firewall settings take effect after you reboot the computer.

To set or change the Client Manager preferences:

1. Start the Client Manager.
2. Click **General Preferences**, then do the following:
 - a. In the General section, select the options for how you want Client Manager to start, map drives, refresh the display, and show or hide additional columns (see "[Client Manager General Preferences](#)" on page 24).
 - b. In the Client Type list box, select the client resolution for your workflow (see "[About the Client Type Settings](#)" on page 25).
 - c. In the Windows Firewall section, select each applicable network profile type (see "[Identifying the Network Profiles \(Windows\)](#)" on the previous page).



Configure only the network profiles needed to connect to your Avid NEXIS system. If you are not sure which firewall profiles to enable for Windows clients, enable all of them to ensure the client can connect in all firewall configurations, or ask your network administrator.

3. Click the green check mark to apply the settings or the red X to close the dialog box without any changes.

Adding and Removing Remote Hosts (System Directors)

If your client is not in the same location or on the same subnet as the Avid NEXIS system, add either the name (if your environment uses DNS) or IP address of the System Director to the Client Manager.

For Avid NEXIS Cloud Storage systems, enter the VM IP address or DNS name.

(On Linux clients with no GUI, see "[Performing Operations without the Client Manager](#)" on page 43).

If an Avid NEXIS system has redundant Controllers, you can add the IP addresses of both Controllers to the Remote Hosts list so that the button to open the Management Console (see "[Opening the Management Console from the Client Manager](#)" on page 30) will work even if the System Director service switches from one Controller to the other.



The Client Manager automatically displays all detected Avid NEXIS System Directors that are in the same subnet as the client.

To add a remote host to the Client Manager:

1. Start the Client Manager application.
2. In the toolbar, click **Remote Host Settings**.
3. In the text box, type the name or IP address of the Avid NEXIS System Director, then click **Add** (green plus button).
4. Click **Apply** (green check mark button). (It can take up to 30 seconds for the Hosts list to display the new entry.)
5. Close the dialog box.

To remove a System Director from the Remote Hosts list:

- ▶ Select a System Director name or IP address and click **Delete** (red X button).

To remove all System Directors from the Remote Hosts list:

- ▶ Click **Clean**.

Choosing the Network Interface for Your Workflow

The network interfaces available on your client system depend on several factors:

- The operating system
- Your location relative to the Avid NEXIS system (local/on-premises or remote)
- The speed of your network interface cards (NICs)

For on-premises clients with multiple NICs (for example, 10Gbps for editing work and 1Gbps for the corporate network), you might be required to enable only the 10Gbps network adapter for the Avid production network and identify and disable the NIC to the corporate network.

If you are working off-site (Remote Avid NEXIS client type), you might connect to the Internet through a Wi-Fi network in your home or current working location. Additionally, you might need to connect securely to the corporate network of the company that owns the Avid NEXIS system, through a Virtual Private Network (VPN) service.

Before you connect to your home or corporate network, only the Wi-Fi interface will be displayed. After you connect, the display also shows the available VPN interface (names can vary by vendor). At that point, you must disable the Wi-Fi interface and keep only the VPN interface enabled.



Linux clients are not supported for remote workflows.



Disabling a network card in the Client Manager Preferences makes the card unavailable only to Avid NEXIS. The network card is available for use by the operating system and other applications.

Configuring the Network Interface

See before you begin.

To select the Network Interface:

1. Start the Client Manager application.
2. Click **Network Interface Settings** in the Client Manager window.
3. Select the appropriate Ethernet network connection.
4. Click **Apply**.

5 Using the Avid NEXIS Client Manager

You must connect your client system to an Avid NEXIS network (shared-storage system), then mount a Workspace before you begin your work session.



For non-GUI users, see "Performing Operations without the Client Manager" on page 43.

When you start the Client Manager it automatically detects and displays all available System Directors and Workspaces. You can configure the Client Manager to reconnect automatically to Avid NEXIS systems when you restart your system.

Users with the necessary account privileges can specify client bandwidth reservations, if any.

Fast User Switching Not Supported

Fast User Switching is a Windows feature that allows multiple user accounts to log on to a computer simultaneously. Fast User Switching is enabled by default in Windows computers. The Fast User Switching feature and multiple concurrent logged on user modes are not supported in the Avid NEXIS environment. The Avid NEXIS software does not distinguish the different drive letters mapped to the same Workspaces on the same computer. Conflicts appear in the following scenarios:

- When one user maps a drive letter to one Workspace and another user maps the same drive letter to a different Workspace
- When one user maps a Workspace to one drive letter, and another user maps a different drive letter for the same Workspace.

Connecting to an Avid NEXIS System

After you start the Client Manager, it continues to run in the background so you can mount and access your Workspaces at any time, as well as manage your Workspaces and bandwidth reservations. Depending on your client operating system, an icon for the Client Manager is displayed in the following location:

- Windows — In the System tray in the lower-right corner of your desktop
- macOS — In the dock
- CentOS — In the main menu bar

To connect to an Avid NEXIS system:

1. Do one of the following:
 - (Windows) If the Client Manager is not already running, click Start, Avid, Avid NEXIS Client Manager.
 - (Windows) If the Client Manager icon is visible in the Windows Taskbar, click it.
 - (Windows) If the Client Manager icon is not in the Windows taskbar, open the System Tray, then click the Client Manager icon.
 - (Mac) If the Client Manager alias icon is not available, select Go, Applications, and then double-click the AvidNEXIS folder. In this folder, double-click the Avid NEXIS Client Manager icon.
 - (Linux) If the Client Manager alias icon is not available, click Applications, System Tools and select Avid NEXIS Client Manager.
2. In the Systems list, double-click the name of an Avid NEXIS system or select it and click **Connect to Selected System(s)**.
3. Type your user name and password.

On Windows clients only, this might be your network user name and password. If so, click the box for **OS Login** and enter your network credentials. If you want to log in automatically every time you start your system, also click the box for **AutoConnect**.

4. Click **Connect**.



*You might be prompted to change your password. After you type and confirm a new password, click **Apply**, then click **Connect** again and log in with the new password.*

When the connection is successful, the Client Manager displays the Workspaces you can access.

Systems Panel Information

By default, the Systems panel shows the following columns:

- **System** — The name of the Avid NEXIS systems found on the network
- **User** — If connected, the user name used to connect to the Avid NEXIS system (otherwise, shows **not connected**)
- **System Type** — The type of Avid NEXIS system (for example **online** or **nearline**)

You can display additional columns as follows:

- **Reserve Rate** — The bandwidth reservation setting, if any, for the connected client. If a bandwidth is configured and reserved, the reserve rate value is shown in bold.
- **User Limit** — The bandwidth limit on the user, if any, configured on the Avid NEXIS system (this limit is configured for each user)
- **System Limit** — The bandwidth limit, if any, configured for all users of the Avid NEXIS system
- **Write Transfer Rate** [*formerly, Write Bandwidth*] — The rate in MB/sec at which the client can write data to the Avid NEXIS system (displayed on macOS and Windows clients only).
- **Read Transfer Rate** [*formerly, Read Bandwidth*] — The rate in MB/sec at which the client can read data from the Avid NEXIS (displayed on macOS and Windows clients only).
- **Latency** — Amount of time it takes for data to be exchanged between the client and the Avid NEXIS system (displayed on macOS and Windows clients only).
- **System IP** — Shows the IP address of a connected Avid NEXIS system. Enable this column for troubleshooting, or to see the IP address you want to enter in the Connection Test dialog box. (You can also run a connection test by right-clicking the name of any connected system.)

For more information, see ["Client Manager General Preferences" on page 24](#) and ["Setting or Changing the General Preferences" on page 27](#)

Opening the Management Console from the Client Manager

You can open the Avid NEXIS Management Console from the Client Manager window after you have connected to an Avid NEXIS system.



Avid NEXIS Team users cannot connect to the Management Console. For more information, see the [Avid NEXIS Administration Guide](#).

To open the Avid NEXIS Management Console:

- ▶ Select one or more systems in the Systems section of the Client Manager window and click the **Management Console** button.



Not supported on clients running CentOS .

Your default web browser opens the Avid NEXIS Management Console login page in separate tabs.

If you see a Change Password dialog box, this means the Avid NEXIS administrator set up or changed your account to use a temporary password for security. Change your password and click Apply, then click the Management Console button again and log in with the new password.



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

About Bandwidth Reservations

Bandwidth reservations control the amount of bandwidth available to the client for both reads and writes. The Avid NEXIS administrator can set overall limits in the Management Console optionally based on the client type specified by the Client Manager, but you can set a default bandwidth reservation within the Client Manager which cannot exceed your system's device limit or your client bandwidth limit, whichever is lower. Bandwidth limits are hidden by default; to display them, see "[Client Manager General Preferences](#)" on page 24.

For more information on using the Management Console to set bandwidth limits, see the *Avid NEXIS Administration Guide*.



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

Creating or Releasing Bandwidth Reservations

This procedure assumes that there are existing bandwidth reservations on the Avid NEXIS Management Console for the device (client system) or the users of the client system. On the client system, you can further restrict the bandwidth to less than the limit set on the Avid NEXIS.

To create or modify a bandwidth reservation:

1. Open the Client Manager.
2. Connect to the Avid NEXIS system on which you want to configure a bandwidth reservation.
3. Make sure the System panel displays the columns for Reserve Rate, User Limit, and the other columns for Bandwidth. (See "[Setting or Changing the General Preferences](#)" on page 27 for more information.)
4. Make sure the system is selected, then click **Configure Reserve Rate for Selected System(s)**.
5. In the Configure Reserve Rate dialog box, do the following:

- a. Use the up/down buttons to select the number of streams you will need.
- b. 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 can save these values, but cannot create or modify an existing reservation.

- c. Click **Apply**, then close the dialog box.
6. Do one of the following:

- To reserve the bandwidth for the current session only, click **Reserve bandwidth for selected System(s)**.

When the reservation is applied, a green circle is displayed in the Reserve Rate cell for the selected system.

- To reserve the bandwidth for the current session and future sessions automatically, click **Toggle Auto Reservation for Selected System(s)**. This reapplies the bandwidth reservation the next time you connect to the Avid NEXIS.

When enabled, the Toggle Auto Reservation icon is displayed in the Reserve Rate cell for the selected system.

To release a reservation:

1. Select the system reservation you want to release.
2. Click **Release bandwidth for selected System(s)**.

The selected reservation is released, and the green circle is removed from the cell.

Mounting and Unmounting Workspaces

Your Avid NEXIS user account must have access to at least one Workspace. For information on Workspace access, see the *Avid NEXIS Administration Guide*.

If a Workspace is mounted and the connection to the System Director is subsequently lost, a message appears in the Log pane of the Client Manager window. The Client Manager icon in the Taskbar changes color (on Windows systems). The Client Manager then automatically attempts to reestablish the connection with the System Director. When successful, a log message informs you of the connection state.

To mount an Avid NEXIS Workspace on your system:

1. Open the Client Manager and connect to a storage system.

The Workspaces list opens. In the Online column, a green icon indicates Workspaces that are already mounted. You can filter the Workspaces list by clicking any column heading.

2. Do one of the following:
 - Select a Workspace and click Mount.
 - Right-click a Workspace and select Mount.
 - Double-click the Workspace.
 - (Option) Right-click, and select **Assign Mount Point** 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 "Client Manager General Preferences" on page 24.

The Client Manager mounts the selected Workspace on your client and the Online icon for the mounted Workspace changes to green.

- On Windows, the Workspaces list displays the drive the Workspace is mounted on. If you use letterless drive mappings, the Workspaces list displays UNC path" next to the Online icon.
- On macOS, the Workspaces list displays the path to the mount point.



If you manage your lettered or UNC Workspace mounts outside of the Client Manager application (for example, using Map Network Drives on windows clients) you can create multiple mount points to the same Workspace. Client Manager will display the multiple mounts properly.

3. (Option) To automatically remount the selected Workspace the next time you log in, do one of the following:
 - Select the Workspace and click **Toggle Auto Mount**.
 - Right-click the Workspace 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 NEXIS Workspaces on your system:

1. Open the Client Manager.

The Workspaces list opens. The Online column displays a green icon 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 Workspace on your client and the Online icon for the mounted Workspace changes to green.

- On Windows, the Workspaces list displays the drive the Workspace is mounted on. If you use letterless drive mappings, the Workspaces list displays UNC path” next to the Online icon.
- On macOS, the Workspaces list displays the path to the mount point.



If you manage your lettered or UNC Workspace mounts outside of the Client Manager application (for example, using Map Network Drives on windows clients) you can create multiple mount points to the same Workspace. Client Manager will display the multiple mounts properly.

4. (Option) To automatically remount the selected Workspace the next time you log in, do one of the following:
 - Select the Workspace and click **Toggle Auto Mount**.
 - Right-click the Workspace and select **Enable Auto Mount**.

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

To unmount an Avid NEXIS Workspace on your system:

1. Open the Client Manager.

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

2. Do one of the following:
 - Select a Workspace and click **Unmount Selected Workspace**.
 - Right-click on the Workspace and select **Unmount**.

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

To unmount multiple Avid NEXIS Workspaces on your system:

1. Make sure your Avid application is not running.
2. Open the Client Manager.
The Workspaces list opens. The Online column displays a green icon 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. Click **Unmount Selected Workspace** or right-click and select Unmount.
The Client Manager unmounts the Workspaces from your client, and the green icons are removed from the Online column for those Workspaces.



When you quit the Client Manager you can choose whether or not to unmount Workspaces.

Configuring Workspace Mount Points (Windows)

The Client Manager allows you to configure the drive letter used when mounting Avid NEXIS 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.



Do not allow multiple users to log into the same computer and run the Client Manager. See "Fast User Switching Not Supported" on page 29.

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

If you manage your lettered or UNC Workspace mounts outside of the Client Manager application (for example, Map Network Drives) you can create multiple mount points to the same Workspace. Client Manager will display the multiple mounts properly.

UNC mounting and drive letter mounting do not operate the same. With UNC mounting, Windows accesses the Workspace as a network share, and authenticates to it as though it is a server using credentials provided by the Avid NEXIS client system. Depending on your company's policy and Windows settings, these credentials might be cached by the operating system, resulting in automatic reconnection.



This is known Windows OS behavior and is not controlled by the Avid NEXIS Client Manager.

The Client Manager is not notified, so a user might see a Workspace connected in File Explorer that is not mounted in the Client Manager.

If this raises a security concern, you can do the following:

- Your IT administrator can disable automatic saving of network credentials on the client system and remove existing entries from the Windows Credentials Manager.
- Use drive-letter mounting instead of UNC paths. Drive-letter mounting does not store credentials, but limits the number of possible mount points to 26 (the letters of the English alphabet, minus any hard-

coded drive letters such as the C:\ drive).

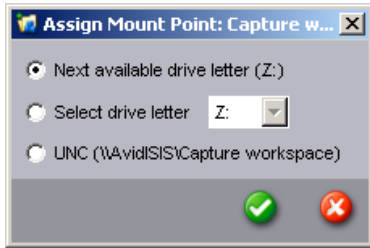
- When you quit the Client Manager, do not select the option to keep the Workspaces mounted (see ["Closing and Exiting the Client Manager" on page 39](#)).

To configure the drive letter for mounting Workspaces:

1. Open the Client Manager.
2. Right-click a Workspace, and select **Assign Mount Point** from the context menu.

The Assign Mount Point dialog box opens.

 *On Mac and Linux clients, UNC does not apply but you can select the default or manually entered mount point.*



3. Click **Select drive letter**, and select the option you want to use for mounting Workspaces:
 - Next available drive letter (letter:): Mounts the Workspace to the next available drive letter, working backward from drive Z:
 - Select drive letter: Mounts the Workspace to the selected available drive letter.
 - UNC (\\pathUNC (\\path): (Windows) Uses a Universal Naming Convention (UNC) path for the mounted Workspace instead of a drive letter.
4. Click the green check mark to apply the settings or the red X to close the dialog box without any changes.

Workspace Information

The Workspaces panel provides the following information:

Column Heading	Definition
System	Name of the Avid NEXIS system hosting the Workspace
Workspace	Workspace name
Online	If mounted, shows the drive letter (Windows), UNC path, or mount point for the mounted Workspace. Mounted Workspaces display a round icon whose color indicates the Workspace status: • Green — Workspace is accessible (normal operation) • Yellow — Workspace connection has been lost (temporarily, such as due to renaming, or permanently, due to being deleted)
Mode	Connection status (connected, not connected, auto-mounted)
Retrieved	The last time the Workspace information was retrieved from the Avid NEXIS system
Free	Available free space in the Workspace (unit of measure depends on the General Preference settings; see "Client Manager General Preferences" on page 24)

Column Heading	Definition
Total	The total Workspace capacity (Workspace size)
Used	The percentage of the Workspace capacity that has been used
Performance	The performance type of the Workspace (see the Avid NEXIS Administration guide for more information)
Engine Protection	The Engine protection mode used by the Workspace (see the Avid NEXIS Administration guide for more information)
Protection	The Media Pack protection mode used by the Workspace (see the Avid NEXIS Administration guide for more information)
R/W	The privileges you have for the Workspace (read, write, or read/write)

Displaying Workspace Details

When you connect to an Avid NEXIS system, only the names of the accessible Workspaces are displayed. You can show additional details for mounted and unmounted Workspaces, such as their size, free space, and other attributes.

To retrieve details for one or more selected Workspaces:

1. Select one or more Workspaces as follows:
 - Click a single Workspace
 - Click one Workspace, then Control-Click to select multiple non-contiguous Workspaces (in any order)
 - Click one Workspace, then Shift-click to select another Workspace and all the ones in between
2. Right-click in the Workspace list, and select **Retrieve Details, Selected Workspaces**.

Additional details are retrieved for the selected Workspaces.

To retrieve details for all mounted Workspaces, do one of the following:

- ▶ Click **Retrieve Details for Mounted Workspace(s)**
- ▶ Right-click in the Workspace list, and select **Retrieve Details, Mounted Workspaces**.

To retrieve details for all Workspaces (mounted or not), do one of the following:

- ▶ Click **Retrieve Details for All Workspaces**.
- ▶ Right-click in the Workspace list, and select **Retrieve Details, All Workspaces**.

Sorting and Filtering the Workspaces Display

If the Workspaces list contains a large number of Workspaces, you can sort the list by any column heading, or filter the list to see only what you are interested in.

To sort the Workspaces list:

- ▶ Click on a column heading that you want to sort.

A blue arrow appears next to the heading, indicating whether the information is sorted in ascending or descending order (alphabetically, or by time, size, or value, as relevant).

- ▶ Click the column heading again to reverse the sort order.

To filter the Workspaces list:

- ▶ Type part or all of a Workspace name in the Search Workspaces field.

The display lists only the Workspace names that match the text entered.

To display all Workspaces:

- ▶ Delete the text in the Search Workspaces field.

The display lists all available Workspaces.

Managing Logs and Messages

The Client Manager keeps a log of information, warnings, and error messages. You can view the current log in the Messages section of the Client Manager window. You can save a copy of the log and 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.

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 column 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.

Clearing Cached Settings

The Client Manager maintains information on site settings in cache files, and 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.

To clear cached data:

1. Open the Client Manager.
2. Click **Advanced Settings**.
3. In the Advanced section, do one of the following:
 - Click **Clear** for each cache file you want to clear.
 - Click **Clear All** to clear all cached data.
4. Click the red X to close the dialog box.

Changing Your Password

You can change the password you use to connect to an Avid NEXIS system in the Client Manager, which is also the password for you to log into Avid NEXIS system through the Management Console (if supported).

Avid NEXIS Team user accounts can change the password to connect to the shared-storage system in the Client Manager, but cannot use that password to log into the Management Console. Team users cannot access the Avid NEXIS directly. For more information on Team users, see the Avid NEXIS Administration Guide.



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

To change your Avid NEXIS account password:

1. Open the Client Manager.
2. Connect to the Avid NEXIS system for which you want to change your password.
3. Click Change Password.

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.



The Client Manager supports only ASCII characters in user passwords.

6. For confirmation, type the password again in the Confirm New Password text box.
7. Click the green check mark to apply the changes or click the red X to close the dialog box without any changes.

Disconnecting from an Avid NEXIS System

When you disconnect from an Avid NEXIS system, Workspaces are unmounted.



If you close the Client Manager without disconnecting from the Avid NEXIS systems, all Avid NEXIS connections remain connected, and mounted Workspaces stay mounted.

To disconnect from an Avid NEXIS system, do either of the following:

- ▶ In the Systems list, select the Avid NEXIS system you want to disconnect from, then click Disconnect.
- ▶ Right-click an Avid NEXIS System name and click Disconnect.



The Avid NEXIS system name stays in the Systems list so you can connect to it again later.

Closing and Exiting the Client Manager

Closing and exiting (quitting) the Client Manager are two separate operations. Closing the Client Manager window closes the window only; the Client Manager continues running in the background, and any connections to Avid NEXIS systems remain connected, and Workspaces remain mounted.

Exiting (quitting) the Client Manager gives you the option to unmount Workspaces and closes the Client Manager interface. The client system remains connected to the Avid NEXIS systems.

Important Note for Linux Clients

Linux clients must always unmount Workspaces before exiting Client Manager or the mount points could be different the next time you start the Client Manager and mount them.

If you do not unmount the Workspace, it will appear as `/mnt/workspace_name1` in the Online column the next time you start the Client Manager.

To correct the issue, make sure no Avid NEXIS Workspaces are mounted, and delete the `/mnt/workspace_name1` directory on the client system.

To close the Client Manager:

- Click the red X in the Client Manager window.

To exit (quit) the Client Manager:

1. In the taskbar or notification area, right-click the Client Manager icon, then click Quit.
2. Choose whether or not to unmount Workspaces (click Yes or No).

Workspaces are unmounted (or not), and the Client Manager process stops and the window closes.

6 Troubleshooting

If you experience problems while working — such as losing your connection to an Avid NEXIS system, being unable to connect to a system or mount a Workspace that you could previously, or noticing workflow performance changes — consult the following sections for possible reasons and solutions.

 *On Windows clients, the Client Manager icon in the Taskbar changes color if a problem occurs.*

Also check the color of the Workspace icons (see ["Workspace Information" on page 35](#)) and open the Logs panel to see any messages about lost connections, lost Workspace access, and other issues.

Connection Issues

Connection issues include being unable to connect to an Avid NEXIS, being unable to mount Workspaces, or experiencing dropped connections.

Possible reasons:

- The Avid NEXIS administrator changed (or deleted) your account (user name, password, individual Workspace access, or your group membership or group's Workspace access).
If your account is deleted (or your access changes) while you are connected, the Workspace icons change color. You remain connected to the Avid NEXIS system and the Workspaces remain mounted until you unmount them or disconnect, but you cannot reconnect or remount them.
- The Avid NEXIS system has reached the limit on the number of supported active connections, or has reached the maximum system bandwidth.
- The administrator deleted or renamed the Workspace.
- The Avid NEXIS system was shut down, or is restarting after a software update or other system change that requires a reboot. If connection to the Avid NEXIS system is lost, a message appears in the Log pane of the Client Manager window. On Windows clients, the Client Manager icon in the Taskbar changes color.
- The license on the Avid NEXIS system expired.
Only two (read-only) clients are allowed to reconnect and remount Workspaces, on a first-come, first-served basis, until the license has been renewed.
- The administrator changed the name or IP address of the Avid NEXIS system (this is not common).

Suggested solutions:

- Contact your Avid NEXIS administrator.
- If applicable, update the name or IP address in the Remote Hosts menu. See ["Adding and Removing Remote Hosts \(System Directors\)" on page 27](#).
- If a mounted Workspace was deleted, its icon becomes yellow. The Logs panel shows a message that the Client Manager cannot validate the connection. After you unmount the Workspace, its Workspace name is removed from the list after a few minutes.
- If a mounted Workspace was renamed, its icon becomes yellow and the new name is shown in the Workspace column. For example: **Workspace-A (Now Workspace-B)**. The Workspace remains mounted. If you unmount and remount it, the Workspace column changes to the new name and the icon is green.

Performance Issues

Performance issues include dropped frames, underruns, playback issues, and greater than expected bandwidth consumption.

Possible reasons include, but are not limited to, the following:

Reason	Solution
The administrator is removing a Media Pack from the system, or the system is performing a redistribution.	Contact your Avid NEXIS administrator and update the system name or IP address in the Remote Hosts menu. See "Adding and Removing Remote Hosts (System Directors)" on page 27 .
Wrong Client Type is set	See and "Setting or Changing the General Preferences" on page 27
Wrong network interface, or more interfaces selected than necessary	See "Configuring the Network Interface" on page 28 .
Bandwidth limit was set in error, or the Avid NEXIS administrator changed (or deleted) your bandwidth limit.	Check and adjust the bandwidth settings as needed; see "Creating or Releasing Bandwidth Reservations" on page 31 . If that does not resolve the problem, contact the Avid NEXIS administrator.
Flow Control Rx is not enabled on the switch port for the connection to the Avid NEXIS system (important for workstations with 10Gbps and higher adapters).	See the documentation for your switch or contact your Avid NEXIS administrator.
A firewall or anti-virus program is reducing performance (for example, CrowdStrike with 10Gbps and higher on macOS and Windows, which is not supported)	Disable CrowdStrike on clients with 10Gbps or higher network interface cards.
UDP or TCP ports needed for Avid NEXIS communication is being disallowed (possible misconfiguration)	See the Avid Networking Port Usage Guide , on the Avid NEXIS Documentation KB page , or contact your Avid NEXIS or IT administrator.
Disk is failing or has failed	To check the disk or Media Pack status, contact your Avid NEXIS administrator or log into the Avid NEXIS Management Console (if you have login credentials) and see the Avid NEXIS Administration Guide for more information.

Running Connection Tests (for Avid NEXIS | EDGE)

In an Avid NEXIS | EDGE workflow, you can test the connection between a Windows or macOS client and a remote Avid NEXIS system running version 2022.12 or higher to establish the maximum bandwidth and latency between them. This is primarily intended for troubleshooting problems in the network.



While running a connection test, refrain from all other network activity, such as editing, downloading files, browsing the Internet, and so on.

To run a connection test:

1. In the Client Manager, open the Systems panel.
2. If the target Avid NEXIS system is listed and connected, right-click the system name and select **Connection Test** from the pop-up menu.
3. If the target Avid NEXIS system is not listed or not connected, do the following:
4. Click **Connection Test**.
5. In the Connection Test dialog box, enter the IP address for an Avid NEXIS system, then press Enter or click the green check mark.



6. To run a test on another Avid NEXIS system, enter its IP address, or click the red X to close the dialog box.

A command window opens and runs the test. The window closes when the test completes.

In the Logs panel, a message is displayed when the test starts and completes.

As requested by your Avid support contact, you can navigate to the location of the log files and open them with any text editor. Avid support can help you interpret the results.

The test results are saved in the following directory:

- **Windows:** `C:\Program Files\Avid\Avid NEXISClient\Utilities\NetworkUtilities\logs`
- **macOS:** `/Library/Logs/AvidNetworkUtilities/`

7 Performing Operations without the Client Manager

In some cases, your client systems might not be able to run the Client Manager GUI, or you might have workflows that require you to use native operating system commands.

This section covers performing some of the functions of the Client Manager using commands in Windows, macOS, and Linux (CentOS and Ubuntu).

Mounting and Unmounting Workspaces Using Windows Commands

To mount and unmount Workspaces:

1. Open a Windows command prompt.
2. To mount a Workspace, type the following command:

```
net use drive_letter: \\Avid_NEXIS_system_name\workspace
<password> /USER:<user_name>
```

For example, the following command mounts a Workspace named ingest on an Avid NEXIS system named KLA-Rentals on the G:\ drive, using the administrator name and password:

```
net use G: \\KLA-Rentals\ingest mYpAsSwOrD /USER:administrator
```

3. To unmount a Workspace, type the following command:

```
net use drive_letter: \DELETE
```

For example, the following command unmounts the Workspace mounted on the G:\ drive but does not delete it or its contents:

```
net use G: \DELETE
```



You can also use the Windows Map Network Drive function to mount a Workspace.

Mounting and Unmounting Workspaces Using macOS Commands

To mount a Workspace, type:

```
mount_avid -U <username>:<password> <AvidNEXISname>:Workspace_name>
/Volumes/<mount_point>
```

For example:

```
mount_avid -U administrator:avid AvidNEXIS:ingest /Volumes/ingest
```

To unmount a Workspace, type:

```
umount <AvidNEXISname>:<Workspace_name>
```

For example:

```
umount AvidNEXIS:ingest
```

To mount a CIFS-reserved Workspace using commands:

1. Create a mount point:

```
mkdir /Volumes/mount_point
```

For example:

```
mkdir /Volumes/copy
```

2. Mount a CIFS share:

```
mount_smbfs //cifs_username>:<password>@cifs_servername>/share
/Volumes/mount_point
```

For example:

```
mount_smbfs //CIFS_user:avid@B5-05/copy /Volumes/copy
```

To mount a CIFS share using the Finder menu:

1. Click Go > Connect to Server.
2. Type either of the following:
 - `smb://<server_name>/<share>`
 - `cifs://<server_name>/<share>`

To unmount a CIFS-resshared Workspace:

- Use the standard unmount command.

Mounting and Unmounting Workspaces Using Linux Commands

To mount all the Workspaces on an Avid NEXIS system:

1. Create a mountpoint:


```
mkdir /mnt/mountpoint_name
```

 For example: `mkdir /mnt/NEXIS_Workspaces`
2. Run the following command, specifying the shared-storage system name (not the System Director name):


```
mount -t avidfos administrator:password@<system_name> /mnt/mountpoint_name
```

 For example: `mount -t avidfos administrator:password@KLANews /mnt/NEXIS_Workspaces`

To mount a single Workspace:

1. Create a mountpoint:


```
mkdir /mnt/NEXIS_Workspaces
```
2. Run the following command, specifying the shared-storage system name (not the System Director name):


```
mount -t avidfos administrator:password@system_name/Workspace_name
/mnt/mountpoint_name
```

 For example: `mount -t avidfos administrator:password@KLANews/Workspace1
/mnt/NEXIS_Workspaces`

Capturing Client Logging Information

If you encounter a problem with the client, you can set a trace flag, redo the operation that caused the client failure, then save the log (take a snapshot) to send to Avid Customer Care.

The following steps apply to both CentOS and Ubuntu Linux.

To capture a client log on Linux:

1. Set the appropriate trace flag (logging mask):


```
/usr/bin/avidfos_ctrl -s 0xdddddddd
```
2. Re-run the operation that generated the failure.

3. Save the log (take a snapshot):

```
/usr/bin/avidfos_ctrl -da
```

Dumping Client Logs

If requested by Avid Customer Care, you can capture logs from your Linux client. You can assign any name to the dumpfile.

To dump CentOS Linux client logs:

```
▶ /usr/bin/avidfos_ctrl -d file=/tmp/dumpfile_name,a
```

To dump Ubuntu Linux client logs:

```
▶ /usr/bin/avidfos_ctrl -d file=/tmp/dumpfile_name,t
```

8 Avid PathDiag Tool

The Avid PathDiag tool is a diagnostic utility that allows you to validate your Avid NEXIS storage group by quantifying the throughput of Windows or Mac editing applications accessing Avid NEXIS 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.

 As of Avid NEXIS Version 2020.3, the PathDiag tool is no longer available for macOS clients. To continue using PathDiag Tool, you must have a Windows system in your network that can run PathDiag and connect to the Avid NEXIS system.

 The Path Diag Tool provides basic diagnostics. For more robust tests and results, use the Avid Benchmark Utility. See the Avid Benchmark Utility Guide for more information.

To start the Avid PathDiag tool:

- ▶ (Windows) Select Start, All Programs, Avid, NEXIS Client, PathDiag.

The Avid PathDiag tool opens.



PathDiag Tool Interface

- File Access Protocol used in the test:
 - Automatically Select: Selects a protocol automatically; generally, the tool selects the Win32 File API protocol
 - Win32 File API: The protocol for local disks, mounted Workspaces, and network file shares
 - Self-Test: Runs a test without performing read or write operations. Used to benchmark the tool without any I/O affecting the results.
- The I/O operation indicator (Reads or Writes)
- I/Os box: The number of I/Os completed

- **Current Rate (MB/s) box:** The current calculated throughput or bandwidth for recently completed I/O operations
- **Average Rate (MB/s) box:** The average calculated throughput or bandwidth for recently completed I/O operations
- **Errors box:** The total number of errors encountered during the test, for both reads and writes, and can include errors related to:
 - Opening or closing data files
 - Validity of the specified file system path
 - User access privileges
 - Read or write operations

The bottom part of the results area displays a graph. While a test is running, you can use the Zoom slider to show details for a larger or smaller span of time. The default time scale on the X axis is 0.00 to 120.00 seconds (the default 2-minute test run).

The Test Results graph plots results measured over time, which 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 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	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. 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.



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 50.

Configuring PathDiag Tests

You can run one of the predefined standard tests, or create a custom test.



Before running the test, mount at least one Workspace in the Avid NEXIS shared storage network.

Setting Up a Standard Test

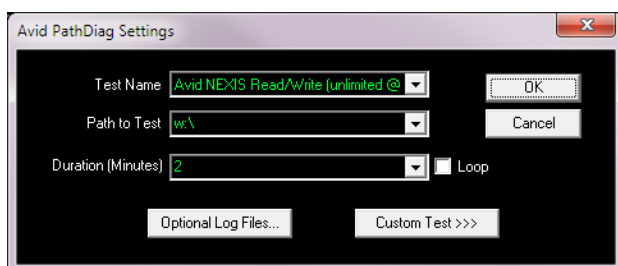
PathDiag contains the following predefined tests:

DV-25 Reads (~4MB/sec @ 1024K)	10:1m Writes (~5.5MB/sec @ 1024K)
DV-25 Writes (~4MB/sec @ 1024K)	14Z:1 Writes (~3.3MB/sec @ 1024K)
DV-50 Reads (~8MB/sec @ 1024K)	IMX30 Reads (~5 MB/sec @ 1024K)
DV-50 Writes (~8MB/sec @ 1024K)	IMX30 Writes (~5 MB/sec @ 1024K)
4:1s Writes (~3.8MB/sec @ 1024K)	Avid NEXIS Read/Write (unlimited @ 4096K)

To set up a standard test:

1. Click **Setup**.

The PathDiag tool Settings dialog box opens.



2. Do the following:

- a. Choose a Test Name from the drop-down list.

The predefined tests perform reads or writes at a bandwidth similar to that required for DV 25, DV 50, IMX 30, or low resolution operations.

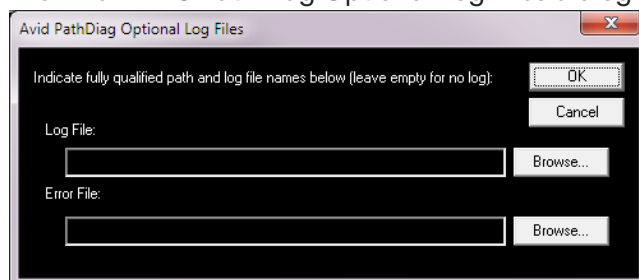
The Avid NEXIS Read/Write test is a good standard test because it includes unlimited bandwidth used to ascertain the available performance of the end-to-end path.

- b. Select a path to the Workspace to test, or enter it in the field. This can be a UNC path (for example, \\myMachine\myShareFolder\subfolder).
 - c. Set the test duration in minutes (2, 5, or 10), and whether or not to loop the test indefinitely. When you select Loop, the test runs until you click Stop. The Loop operation follows true loop behavior: At the end of the specified duration, the test stops, intermediate test files are cleaned up, and the test repeats using the cleaned-up intermediate test files.

3. Optionally, specify paths and file names for test and error log files as follows:

- a. Click **Optional Log Files**.

The Avid NEXIS PathDiag Optional Log Files dialog box opens.



- b. Type a path name and a file name in the Log File text box, or click **Browse** to search for a file name.

- c. Type a path name and a file name in the Error File text box, or click **Browse** to search for a file name.
- d. Click **OK** to close the dialog box.

Setting Up a Custom Test

In addition to the standard, predefined tests, the PathDiag tool allows you to configure custom tests using the following options:

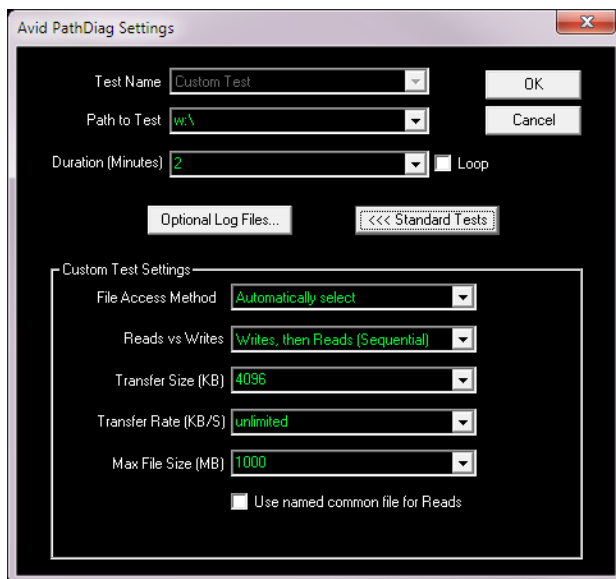
Parameter	Description
File Access Method	PathDiag tool supports more than one interface or protocol for accessing data. This option allows you to control which interface is used. Choose one of the available settings: - Automatically select — PathDiag tool selects a protocol automatically for testing 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. . - 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 the next page. - 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	PathDiag tool supports testing that focuses on Reads or Writes, or that alternates between Reads and Writes. Select a testing mode: - 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. 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.
Transfer Size (KB)	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. In some cases, you might set the Transfer Size to large I/O sizes to test switch performance.  <i>For 10Gbps connections, the recommended Transfer Size is 32768 with a Transfer Rate of unlimited.</i>
Transfer Rate (KB/S)	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. 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.

Parameter	Description
Max File Size (MB)	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. The Max File Size setting is very useful when creating custom PathDiag tests. To test pure disk I/O throughput, run multiple instances of PathDiag using the largest supported file size of 2000 MB.
Use named common file for Reads	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. 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. 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.)

To set up a custom test:

1. Click Setup in the Settings area. Custom Test in the PathDiag tool Settings dialog box.
2. In the Avid PathDiag Settings dialog, click **Custom Test**.

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



3. Select the custom test parameters as described in the previous table.
4. 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 NEXIS 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.

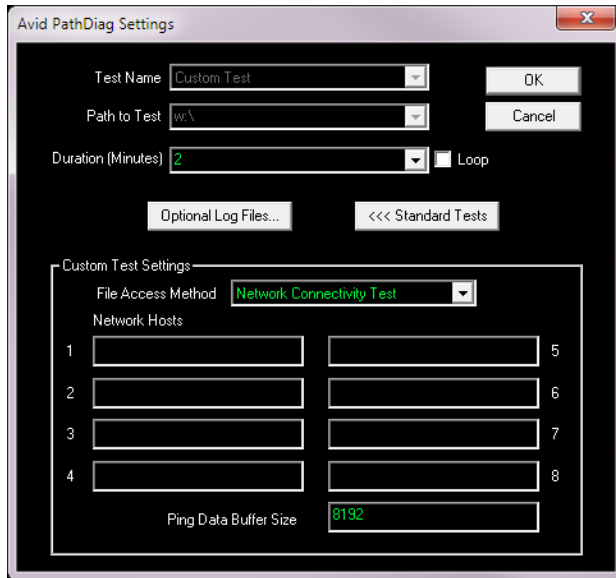
To set up the Network Connectivity Test:

1. In the Settings area, click **Setup**.
2. In the Avid PathDiag Settings dialog box, click **Custom Test**.

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

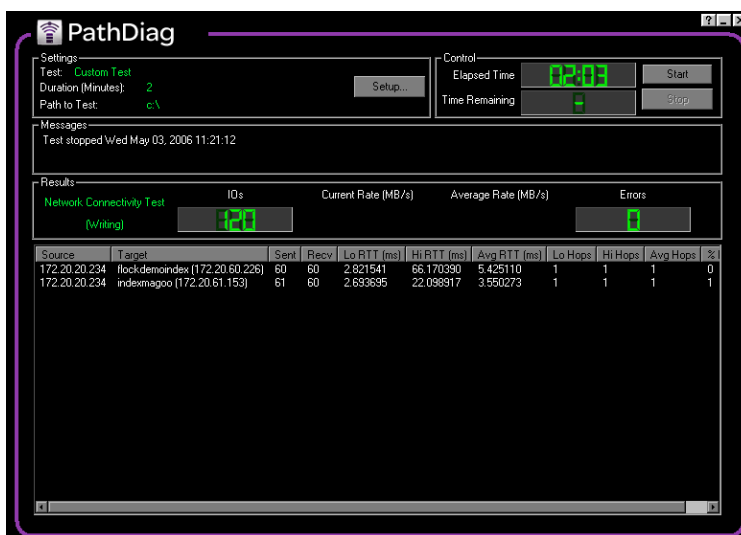
3. In the File Access Method menu, select **Network Connectivity Test**.

The Network Hosts list displays the available systems in your network.



4. Type the host name or the IP address of up to eight (8) network systems you want to test.
5. (Optional) Set the Ping Data Buffer Size. The default buffer size is 8192 bytes, and the maximum buffer size is 64 KB.
6. 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

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.

Understanding PathDiag 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.

Look for the following:

- **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 the 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 (approximately every 5 seconds) and represent a snapshot of performance at the time of the plot. This limits 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, check to see if your bandwidth is limited. You can use the Avid NEXIS Management Console to check your user bandwidth and your device bandwidth (see the *Avid NEXIS Administration Guide*). If your bandwidth requirements are greater than the reservations set in the Management Console, your Avid NEXIS administrator can adjust the limits.

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

9 Avid NEXIS Log Utility

The Avid NEXIS Log Utility, primarily used by Avid Customer Support, shows logging information for the Avid NEXIS client. This utility is installed with the Avid NEXIS client software and helps to diagnose client issues using a common user interface for Windows, Mac, and Linux clients.

With the Log Utility, you can:

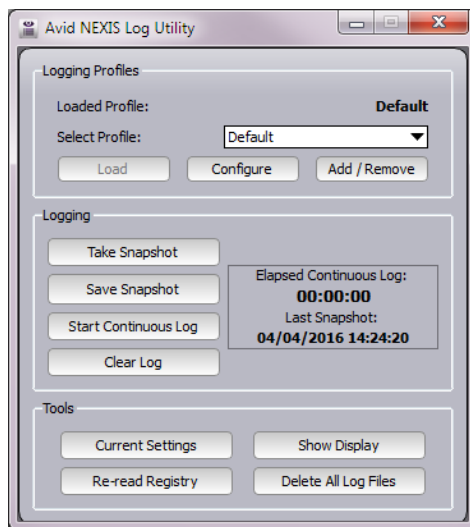
- Use predefined or custom trace filter masks to gather events of interest
- Capture, view and save continuous logs and snapshots

Starting the Log Utility

To start the Log Utility:

- ▶ (Windows) Click **Start, Programs, Avid, Avid NEXIS Client, Avid NEXIS Log Utility**.
- ▶ (Mac) Launch **AvidNEXISLogUtility** from Spotlight or from the Launchpad. Alternatively, from the Finder, click the **Go** menu and select **Application, AvidNEXIS, Avid**.
- ▶ (Linux) Click **Applications, System Tools, Avid NEXIS Log Utility**.

The Log Utility opens.



Choosing a Logging Profile

The Logging Profiles are preset to capture specific event types for specific failures or investigations. You cannot save any changes to the predefined settings. However, you can use a predefined setting as a template from which to create a custom test. The predefined profiles are:

Logging Profile	Notes
Default	These logs capture general Avid NEXIS client problems. Use this profile if you are unsure of which profile to use.
Client Hang	Select if the editor stops while capturing, playing, consolidating, or transcoding to an Avid NEXIS Workspace, and you want to see if the unexplained client failure is associated to Avid NEXIS functions.
File or Workspace	Select if the Avid NEXIS client cannot mount or access files within a Workspace, or it

Logging Profile	Notes
Access	receives errors when accessing Workspace files.
I/O Timeouts	Select if the Avid NEXIS editing client displays “semaphore timeout” messages or “delayed write failures,” or drops frames while working with media on a Workspace.
OAM	Captures sets of logs pertinent to the OAM, if running, on the local host.
Redistribution Problems	Select if the Avid NEXIS client is experiencing errors, displaying messages, or dropping frames while the Avid NEXIS system is in the process of a redistribution. Although client performance is expected to drop during redistribution, these problems are less likely to occur under light loads and low resolutions.

Choosing Logging Tools

In the Tools section, you can set different flags or continuous logging options before starting the capture.

- Trace buffering—Click the check box to enable or disable flags. You will see the resulting flag mask in the Current text box under the check boxes. You can also type values directly into the Current text box.
- During continuous logging, two streams are created: one for the trace buffer, and one for the IO stats (Nt stats). Collecting continuous logs over a long period (for example, overnight) can result in a log file too large to be helpful. Use the settings in the Continuous Logging section to control the number of log files, the total size of all the log files (in MB), or the number of seconds to collect logs.



For continuous logging, make sure to select either NT or the Trace Buffer.

For best results, choose the smallest window that will capture enough of the events of interest. For example, if an event of interest happens every 10 minutes and you want to capture a 60-minute window, check the Enable check box for each of Trace Buffer and Nt Stats, check the Time box for each column and enter 3600 (seconds) in each of the time text boxes, as shown in the following figure.



Click Apply, then click Close. (If you do not click Apply, your changes are not saved and used.)

Log Utility Capture Options

You can choose between two types of capture:

- **Snapshot**, which captures recent events kept in a memory buffer. Typically, you use Snapshot to capture history when some unexpected event has just happened.
- **Continuous Logging**, which captures events for arbitrarily long periods. Typically, you use Continuous Logging to capture history for rare or difficult-to-detect events.

When you have determined which type of capture is needed and set the appropriate options, make the capture.

Capturing a Recent Event (Snapshot Capture)



Depending how busy the client is and which trace flags are set, the internal event buffer might contain a very small time slice, ranging from less than a second to more than a day.

To capture an event that just occurred:

1. Click **Take Snapshot** to capture the trace log.
2. Click **Save Snapshot** (which also creates a new snapshot) to save the log to a text file. (You can immediately see the most recent snapshot by clicking **Show Display** in the Tools section.)
3. Collect the log files you have saved and send them to the service personnel that requested them.

Capturing Continuous Logs

To capture something that may take time to recur, use continuous logging.

To capture a continuous log:

1. Click **Clear Log** before starting continuous logging to remove uninteresting history from the top of the log file.
2. Click **Start Continuous Log**.
3. Leave the Log Utility open for as long as the Continuous Log is running. This might be for minutes, days, or weeks. Generating the event may require that you perform a series of reproduction steps.
4. When the event has occurred, return to the Avid NEXIS Log Utility and click **Stop Continuous Log**.

When you stop the continuous log, the files are compressed and saved to the following location depending on your operating system:

- Windows (workstations and servers) — C:\Users\<username>\NEXISLogUtility
- Mac OSX — /Users/<username>/NEXISLogUtility
- Linux — /home/<username>/NEXISLogUtility

You can change this location in the Logging Directory section of the Current Settings dialog.

5. Click **Show Display** or **Save Snapshot** to view or save the results.
6. Collect the log files you have saved and send them to the service personnel that requested them.