EditShare Storage

Version 6.0.5 Administrator's Guide

Part #: ESM-AdminG605

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EditShare

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EditShare Storage Version 6.0 Administrator's Guide

Contents

Chapter 1: Introduction

Welcome to the *EditShare® Administrator's Guide*.

This manual is designed specifically for administrators and technical support specialists. It guides you through the process of installing and configuring your EditShare server and providing ongoing administrative support to editors and other users of the EditShare system. Editors and other users of the EditShare system do not need to concern themselves with this manual.

Before reading this manual, you should first read the *EditShare Editor's Guide*, which introduces you to the purpose and functions of your EditShare system, explains the concepts you'll need to understand in order to use it effectively, and presents common procedures for using it. This manual assumes you are already familiar with the material in the *EditShare Editor's Guide*.

You should also carefully read the entire ReadMe that came with your system. You can view pdfs of the *Editor's Guide* and the ReadMe in the status web page. See "Viewing EditShare Status in a Web Browser" on page 238.

The EditShare Administrator

As the EditShare administrator, you have several responsibilities.

When your EditShare system first arrives, you need to do the following:

- Install and set up the server, or work with your dealer to do so
- Plan and configure the network
- Prepare workstations
- Plan and create user accounts
- Plan use of Media Spaces
- Create initial Media Spaces
- (Option) Set up Instant Messaging

As your organization uses the EditShare system, you need to do the following:

- Add and remove users
- Reset users' passwords

- Help editors understand how to use the system
- Grant limited administrative rights to specified users
- Add and remove Media Spaces
- Manage Project File Spaces (Avid only)
- Delete shared media once it is no longer needed
- Restore deleted media
- Help users protect and manage their media
- Troubleshoot user problems logging in and accessing media

To ensure the continued reliable operation of the EditShare system and guard against data loss, you should periodically do the following:

- Monitor the Daily Status Report
- Perform RAID array maintenance
- Monitor disk usage
- Install of updates and upgrades provided by EditShare
- Back up your systems

If you properly configure the EditShare email alert system (see "Configuring Alert Email" on page 32), you receive Daily Status Reports that assist you with maintenance tasks.

None of these procedures requires an Information Technology (IT) expert or professional system administrator. It is helpful, however, to have some general knowledge of computer and networking technology. See "Chapter 3: Network Configuration" on page 39 for a basic introduction to networking concepts.

Additional Documentation

The following documents are available from EditShare. We strongly recommend that you see the following:

- *EditShare Editor's Guide*
- *EditShare QuickStart Network Configuration Guide*

If you are upgrading from Version 5.0.x, you might also want to refer to the *EditShare 5.1 Update Guide*.

In addition, the following specialized guides are available for customers who purchase optional features:

- *EditShare Guide to iSCSI Option*
- *EditShare Mirrored OS Drive Upgrade Guide*
- *EditShare Ark Setup and User's Guide*
- *EditShare Flow Setup and User's Guide*

Finally, you might also want to read guides specific to third-party software such as Avid or Final Cut Pro.

Technical Support

For questions not addressed in our documentation, contact EditShare Technical Support at support@editshare.com. Have the exact version number of your EditShare implementation ready.

Chapter 2: Setting up EditShare

See the following sections for information about setting up your EditShare system:

EditShare Components

A typical EditShare server ships with the following components:

- Computer; one of the following:
  - 3U or 5U rack-mounted server
  - EditShare Metro tower unit
  - EditShare XStream 3U rack-mounted server with optional JBOD chassis

- One or more hardware RAIDs, each consisting of 4, 8, 12, or 16 internal SATA hard drives preconfigured for RAID-5
- One or more optional network switches (1 gigabit or 10 gigabit)
- EditShare USB licensed dongle
- Uninterruptible power supply (UPS), also called Battery Backup, from American Power Conversion (APC)
- USB cable for connecting UPS to server
- Up to six CAT-6 Ethernet cables (unless otherwise ordered)
- Multiple power cables for each server (two for Metro or XStream, three for 3U, three or four for 5U)
- EditShare Manager software installed on your server
- EditShare CDs as follows:
  - True Image. To reimage the operating system if every necessary.
  - Backup Image and Documentation. Includes the *EditShare Administrator's Guide* (this manual) and the *EditShare Editor's Guide*, in PDF.
  - Mandriva Restore. Tools for reimaging.
  - Mandriva One. Tools for reimaging.

Check www.editshare.com for possible later versions of the items on the CD.

The check list in the next section guides you through the process of setting up and configuring a new EditShare installation as it typically arrives from EditShare. You can defer some steps until later in the process; checking steps off as you complete them helps you to remember to return to steps you have skipped. You can find further information in the sections following the check list.

For information about maintaining the server after it is set up, see "Chapter 15: General EditShare Maintenance" on page 235.

EditShare Server Installation Check List

Do these tasks in the following order:

Done	Task	For more information
	Physically install server in rack or other location.	
	Connect UPS battery (inside the UPS).	See "Connecting the UPS" on page 17.
	Physically install UPS near server, connect to power source, and allow to charge 8 hours.	See "Connecting the UPS" on page 17.
	Connect server power cables to server and UPS.	See "Connecting the UPS" on page 17.
	Connect UPS data cable to server and UPS.	See "Connecting the UPS" on page 17.
	Insert EditShare USB licensed dongle in server.	See "EditShare Licensed USB Dongle" on page 19.
	Connect monitor, keyboard, and mouse (not included) to server.	See "Keyboard and Monitor" on page 19.
	Install and configure switches. Depending on model and network configuration, this might include setting the switch's IP address (default is 192.168.1.10).	See the documentation for your switch.
	Connect server and workstations to each other and switch using CAT-6, CX4, or fiber network cables.	See "Chapter 3: Network Configuration" on page 39.
	Turn on EditShare server.	See "Starting and Shutting Down the EditShare Server" on page 19.
	Update EditShare software (if needed).	See "Updating your EditShare Software" on page 251.
	Set up server networking: • Select Switch Mode or Manual Mode • Set gateway and DNS for outside network, if needed • Turn on Jumbo frames • Set up manual IP addresses if required • Fill out networking charts in the back of this guide	See "Chapter 3: Network Configuration" on page 39.
	Set up ESA Group (if more than one server is to be managed).	See "Establishing an ESA Group" on page 64.

Done	Task	For more information
	Configure email alerts.	See "Configuring Alert Email" on page 32.
	Set default language.	See "Setting Language Options" on page 27.
	Change Administrator password.	See "Changing Your Administrator Password" on page 24.
	Check and set time and date (use network time, if available).	See "Checking Time and Date" on page 26.
	Set up users (or a test user) and at least one Media Space on the server.	See "Chapter 6: Planning EditShare Accounts" on page 113, "Chapter 7: Adding User Accounts" on page 117, "Chapter 9: Planning Media Spaces" on page 145, and "Chapter 10: Creating Media Spaces" on page 153.
	Set up workstations: • Verify network configuration (IP address, Jumbo frames, gateway) • Install EditShare Connect • (Macintosh only) Install Thursby Systems DAVE software • (Macintosh only) Optimize OS X for video	See "Chapter 5: Configuring Workstations" on page 77.
	Register your EditShare server.	See "Registering Your EditShare System" on page 235.

Battery Backup

Clean shutdowns in case of power failure are essential for the health of your data. An automatic shutdown on battery power eliminates the greatest risk of damage to your data if power fails.

Your EditShare system includes a UPS as battery backup and has the appropriate drivers and monitoring software installed. Even if your facility has built-in backup power supplies, you should still use the UPS provided by EditShare. This UPS is able to shut down the power cleanly in the unlikely event of problems with your facility's power.

NOTE: Do not replace the supplied APC UPS with another brand or model. See "Responding to Power Failures" on page 313 for information about what do in case of a shutdown due to a power outage.

CAUTION: Never use your EditShare system without the UPS supplied by EditShare. Plug the redundant power supply cables into the outlets labeled "Battery Backup." Do not use the outlets that only offer "Surge Protection."

Connecting the UPS

The UPS supplied for most EditShare servers plugs into a normal power outlet.

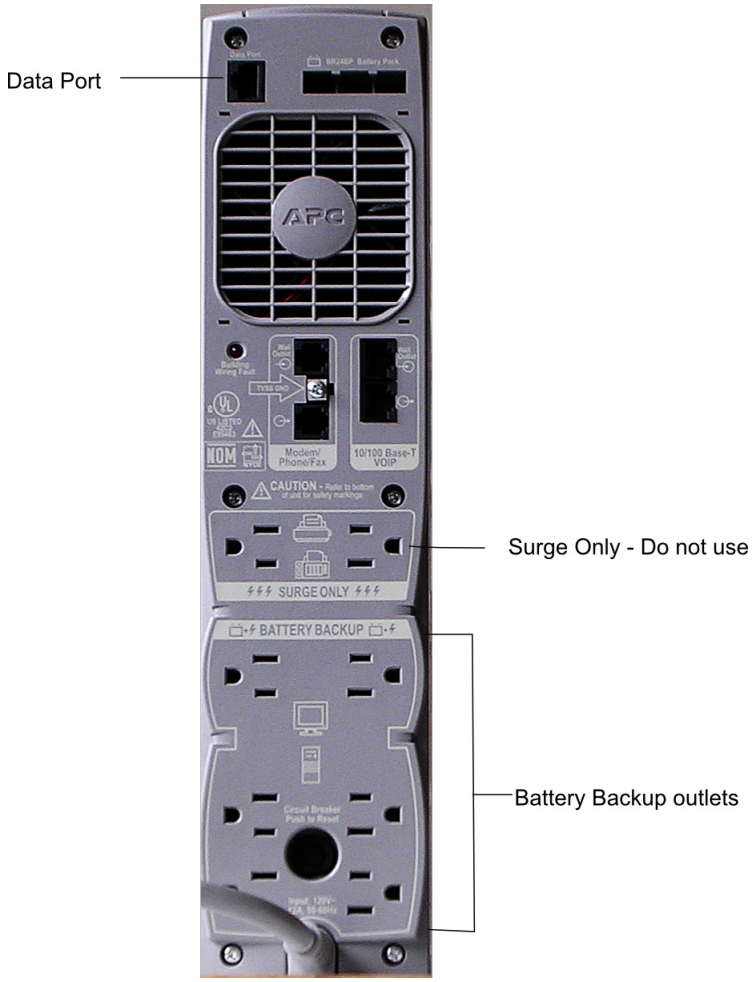
NOTE: In the United States, the UPS used for 8U servers requires a 20-amp circuit which has a special outlet. You cannot plug it into a standard wall outlet.

To connect the UPS to the server, do the following.

TASK

1. Open the UPS battery compartment and connect the battery to the UPS. For more information, see the UPS documentation.

2. Connect the UPS to the computer using the USB cable supplied with the UPS unit by doing the following:



a Connect the USB end to any USB port on the server.

b Connect the other end, which looks like an Ethernet plug, to the port labeled Data Port above the fan grille on the UPS.

c Connect all the power cables from each of the redundant power supplies on the EditShare server to the bottom four or six outlets labeled Battery Backup.

NOTE: *Do not use the two outlets at the top labeled Surge Only.*

3. Charge the UPS for a full 8 hours before you use it.

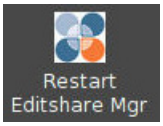
EditShare Licensed USB Dongle

Your EditShare Licensed USB dongle is programmed with a unique license for your sever, enabling the amount of storage and other options you ordered. To connect your dongle, do the following.

TASK

1. Plug the dongle into a USB port on the front or back of the EditShare server.

   CAUTION: ***Do not lose the dongle. EditShare Manager does not open if the hardware dongle is not inserted. A replacement is very costly. If you accidentally start up your EditShare server without the EditShare USB dongle plugged in, important parts of EditShare Manager fail to run.***



2. If EditShare fails to start, make sure the dongle is inserted, and restart by double-clicking the Restart EditShare Mgr icon on the EditShare Control Panel.

Keyboard and Monitor

Before you start your EditShare server for the first time, EditShare recommends that you connect a keyboard, mouse, and monitor to your EditShare server. This makes it easier to set up and verify that everything is working properly. These components are not provided by EditShare. After the EditShare server is up and running, you can disconnect these components, but they can be helpful to have for management and troubleshooting purposes.

Your EditShare server is preconfigured to use a 1024 x 768 display with a 60-Hz refresh rate. Any standard CRT or LCD display with an analog input should be able to display EditShare.

EditShare strongly recommends that you use a PS/2 mouse and keyboard, not USB. Using USB devices other than the EditShare dongle and battery-backup data cable has caused intermittent problems including reduced performance and server lockups.

Starting and Shutting Down the EditShare Server

EditShare recommends that you keep your server running at all times. Shut down your server only when there is a clear need to do so, for example, when you have moved it or when it will not be used for more than a few days. Like

most servers, an EditShare server is under the most stress during startup and shutdown. Frequent shutdowns shorten the life of the server and the drives, and leaving it running allows it to verify freely overnight. See "Setting up RAID Verification" on page 28.

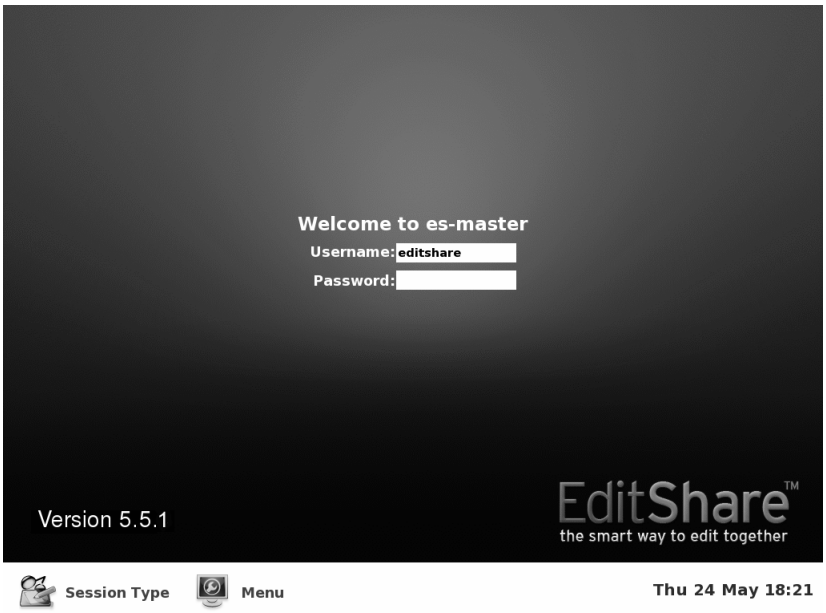
To start and shut down your EditShare server, do the following.

TASK

1. Make sure the EditShare dongle is plugged into a USB port on the EditShare server.

2. Press the Power button.

   A login screen opens with the default username **editshare**.



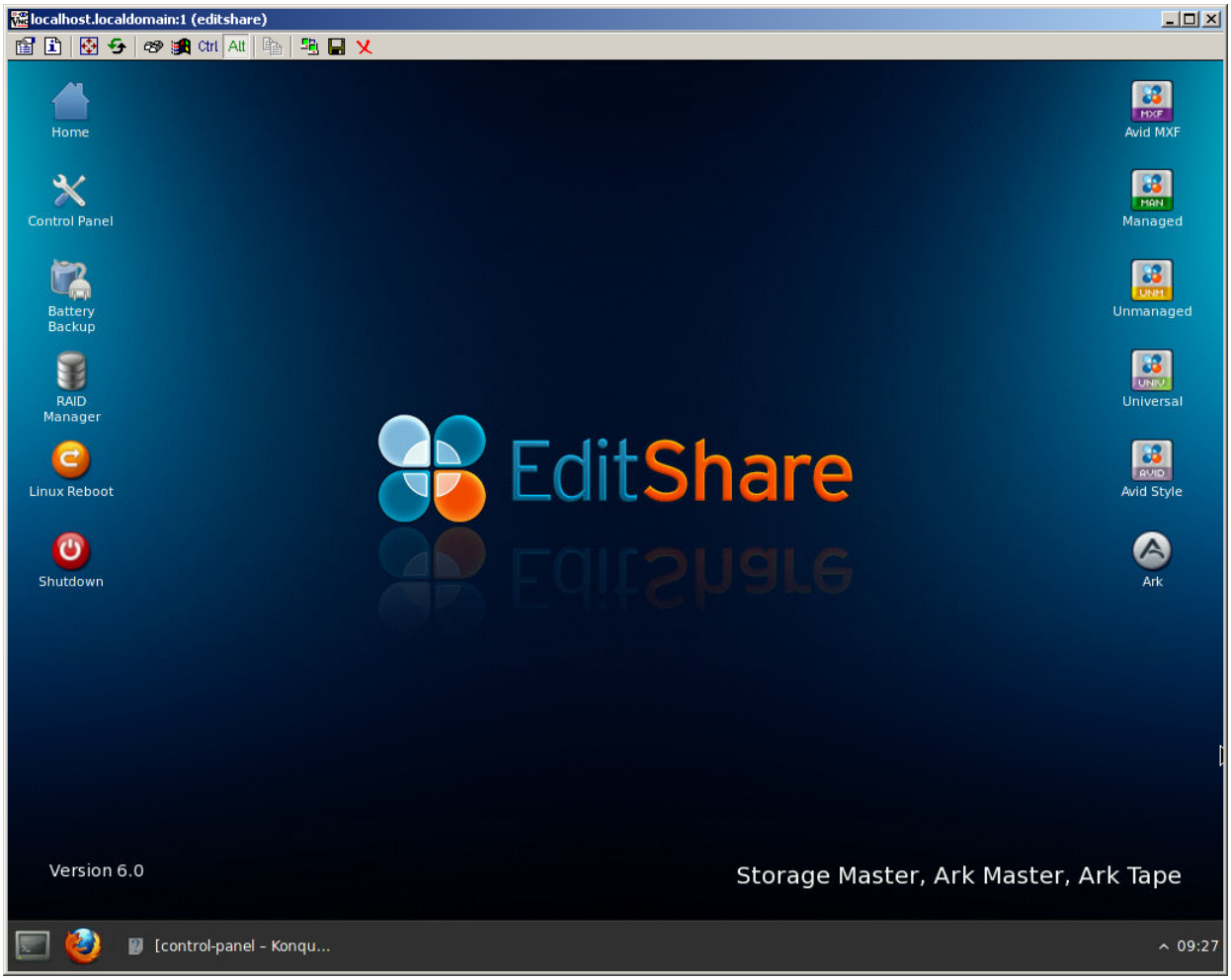
3. Type the default password: **changeme0479**.
4. Change the password as soon as possible. See "Changing Your Administrator Password" on page 24.

5. To shut down the server, double-click the Shutdown icon on the EditShare desktop.

NOTE: *Do not press the Power button or the Reset button during operation.*

Understanding the EditShare Desktop

After you log into your EditShare system for the first time, the desktop appears as in the following illustration.



The version number of your EditShare server is displayed at the bottom left. If you need to contact EditShare technical support, they will ask you for the number.

The icons on the EditShare desktop give you access to the most commonly used EditShare functions. See the following table.

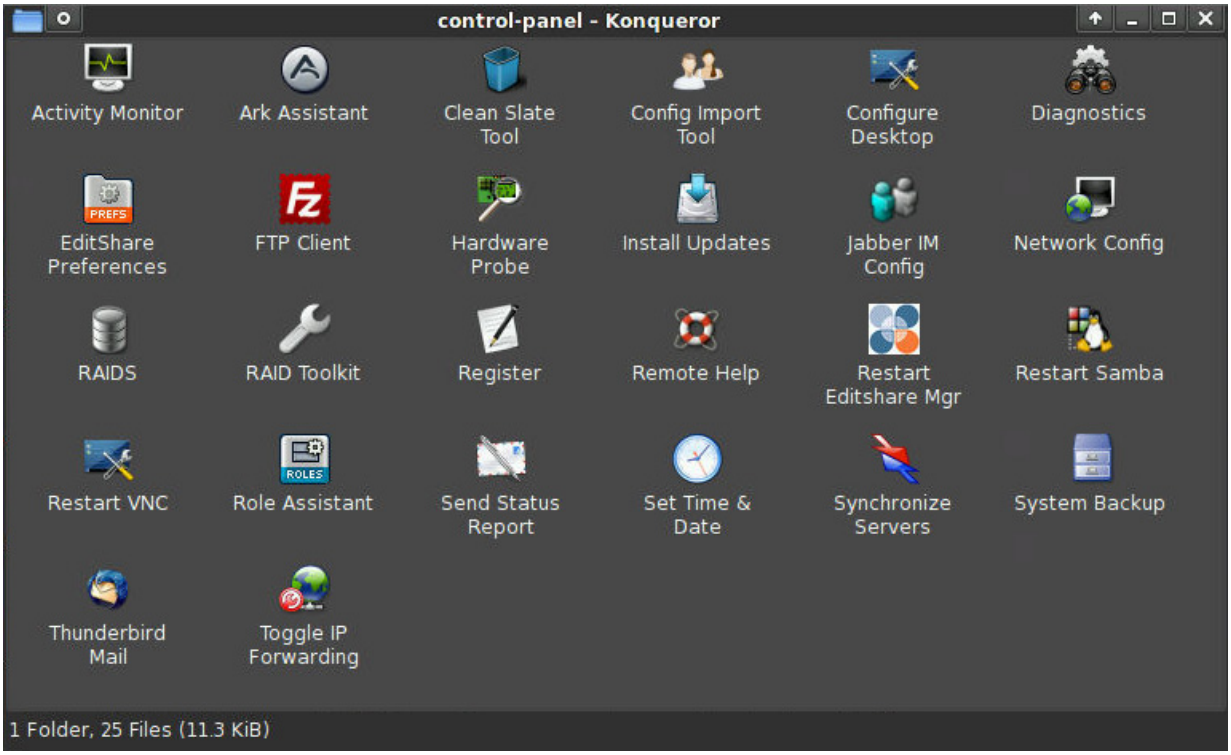
Desktop Icon Name	For More Information
Home	See "Navigating the Filesystem" on page 269.

Desktop Icon Name	For More Information
Control Panel	See "Control Panel" on page 22.
Battery Backup	See "Chapter 19: UPS Maintenance" on page 311.
RAID Manager	See "Chapter 17: RAID Array Maintenance" on page 273.
Linux Reboot	See "Shutting Down and Restarting the Server" on page 247.
Shutdown	See "Shutting Down and Restarting the Server" on page 247.
Avid MXF, Avid Style, Managed, Traditional Avid, Traditional Final Cut, Traditional Premiere, Traditional OtherNLE, Unmanaged	See "Using EditShare Manager" on page 80.

Control Panel

The EditShare Control Panel provides access to additional functions used for setting up, maintaining, and troubleshooting your EditShare system.

To open the Control Panel, double-click the Control Panel icon on the desktop.



For Control Panel functions, see the following table.

Control Panel Icon Name	For More Information
Activity Monitor	See "Monitoring Activity" on page 248.
Clean Slate Tool	See "Deleting Media Spaces: Clean Slate Tool" on page 192.
Config Import Tool	See "Configuration Import Tool" on page 159.
Configure Desktop	See "Configuring the Desktop" on page 81.
Diagnostics	See "Tools for Troubleshooting" on page 259.
EditShare Preferences	See "Configuring Alert Email" on page 32.
FTP Client	See "Internet Access" on page 249.
Hardware Probe	See "Tools for Troubleshooting" on page 259.
Install Updates	See "Updating your EditShare Software" on page 251.

Control Panel Icon Name	For More Information
iSCSI Manager	This icon appears only if you have purchased or installed the iSCSI option. For more information, see the *Guide to iSCSI Options*.
Jabber IM Config	See "Setting Up Jabber Instant Messaging" on page 58.
Network Config	See "Chapter 3: Network Configuration" on page 39.
RAIDS	See "Navigating the Filesystem" on page 269.
RAID Toolkit	See "Chapter 17: RAID Array Maintenance" on page 273.
Register	See "Registering Your EditShare System" on page 235.
Remote Help	See "Remote Help" on page 264.
Restart EditShare MGR	See "Restarting EditShare Manager Services" on page 260.
Restart Samba	See "Restarting Samba" on page 261.
Restart VNC	See "Internet Access" on page 249.
Role Assistant	See "Using the EditShare Role Assistant" on page 253.
Send Status Report	See "Daily Status Report" on page 236.
Set Time Date	See "Checking Time and Date" on page 26.
Synchronize Servers	See "Synchronizing Servers" on page 295.
System Backup	See "Chapter 18: Backups" on page 293.
Thunderbird Mail	See "Viewing the Status Report in Thunderbird" on page 244.
Toggle IP Forwarding	See "Configuring in Manual Mode" on page 55.

Changing Your Administrator Password

Your EditShare server ships with a default Administrator password. To ensure the security of your data, you need to change the password as soon as possible. You need to change the password in two places. EditShare recommends changing it in both places at the same time.

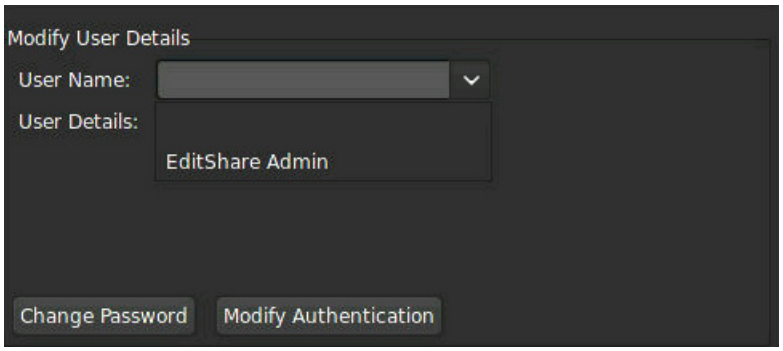
See the following sections:

- "Changing your Administrator Password in EditShare Manager" on page 25
- "Changing your Administrator Password in RAID Manager" on page 26

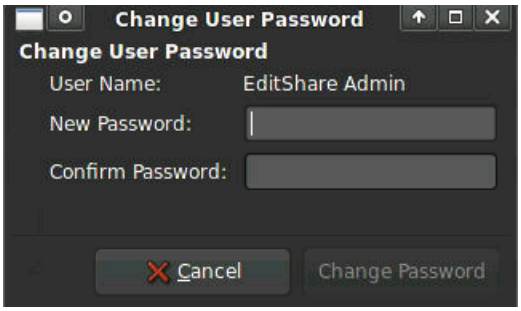
Changing your Administrator Password in EditShare Manager

TASK

1. Open an EditShare Manager.
2. In the Modify User Details area of the Users tab, select User Name > EditShare Admin.



The Change User Password dialog box opens.



3. Type the new password, and then type it again in the Confirm Password dialog box.

   NOTE: Your password must be at least 6 characters long.

4. Click Change Password.

   The Administrator password is changed.

NOTE: This also changes your RealVNC password so that it matches the Administrator password.

5. Change the RAID Manager password to match. See "Changing your Administrator Password in RAID Manager" on page 26.

Changing your Administrator Password in RAID Manager

TASK

1. Double-click the RAID Manager icon on the desktop.

   The application opens to the Login tab.

2. Log in, and then click the 3DM 2 Settings tab.
3. In the Password area, change the password to match your EditShare Administrator password.

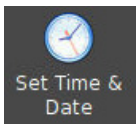
NOTE: Your password must be at least 6 characters long.

4. Click Change Password.

Checking Time and Date

You need to set the time and date correctly on your EditShare server and make sure the editing workstations' clocks are closely synchronized with the server's clock. This is particularly important for Macintosh workstations using Avid with DAVE or Avid with Avid Unity because poor synchronization might cause EditShare to rescan Media Spaces more frequently. The best way to ensure that your editing workstations' clocks are synchronized with the server's clock is to use Network Time Protocol

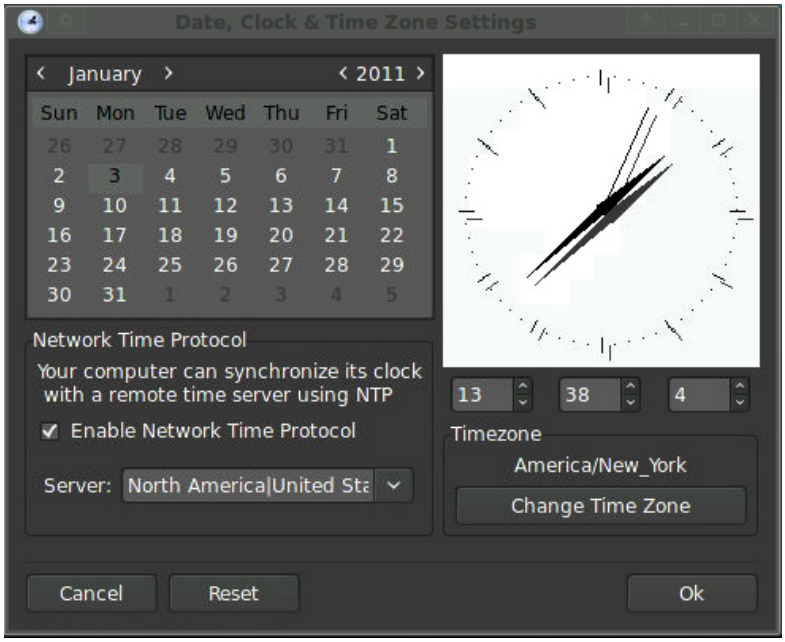
To set your time and date, do the following.



TASK

1. Double-click the Set Time Date icon in the EditShare Control Panel.

   The Date, Clock & Time Zone Settings dialog box opens.



2. If you are not located in the Eastern United States, click the Change Time Zone button.

   A message box opens asking if your hardware clock is set to GMT.

3. Click Yes.
4. Select Enable Network Time Protocol.
5. Select a time server in your part of the world from the Server list. If you are not sure if the time server is available, select None.

   NOTE: *If you select a time server that cannot be reached, Network Time Protocol is disabled and workstations cannot synchronize their time with the EditShare server.*

6. Synchronize your client clocks with the EditShare server. See "Clock Synchronization" on page 111.

Setting Language Options

To select a language option for the EditShare server, do the following.

TASK

1. Double-click the Konsole icon in the lower left corner of the desktop.
   A Konsole Terminal window opens.
2. Type `sudo /scripts/setlanguage.pl`.
   A list of available options opens.
3. To select Chinese, type `sudo /scripts/setlanguage.pl zh_CN`.
   NOTE: *Only English and Chinese are currently supported.*

Setting up RAID Verification

To maximize the reliability of your RAID array, you should schedule regular verification. For more information on the need for verification, see "Why Verification Is Important" on page 275.

You can use the EditShare server during RAID verification, but performance might be reduced while it is verifying. The 3ware RAID Manager allows you to schedule time windows during which RAID verification can occur. This lets you ensure that RAID verification happens during periods when the system is expected to be idle or at a low usage level.

Your EditShare server ships with default RAID verification restricted to two time windows: midnight to 8 AM Sunday, and 2-3 AM Wednesday. This is the minimum recommended schedule. If you remove either of these windows – for example, if you typically have work going on overnight on Tuesdays that cannot be impacted by verification – you must set up another one.

The best practice, if your workflow permits it, is to schedule verification to run for 8 hours every day for each RAID controller. One 8-hour plus one 1-hour session each week is the minimum necessary to keep your RAID in good working order. In addition, scheduled verification might stop working on certain RAID controllers if only one verification session is scheduled. EditShare recommends scheduling two or more 1-hour sessions as well as one 8-hour session per week.

See the following topics:

- "Scheduling Verification" on page 29
- "Setting Verification Controller Options" on page 30

Scheduling Verification

To change the RAID verification schedule, do the following.

TASK

1. Double-click the RAID Manager icon on the desktop.

   If a Security Error dialog box opens, click OK.

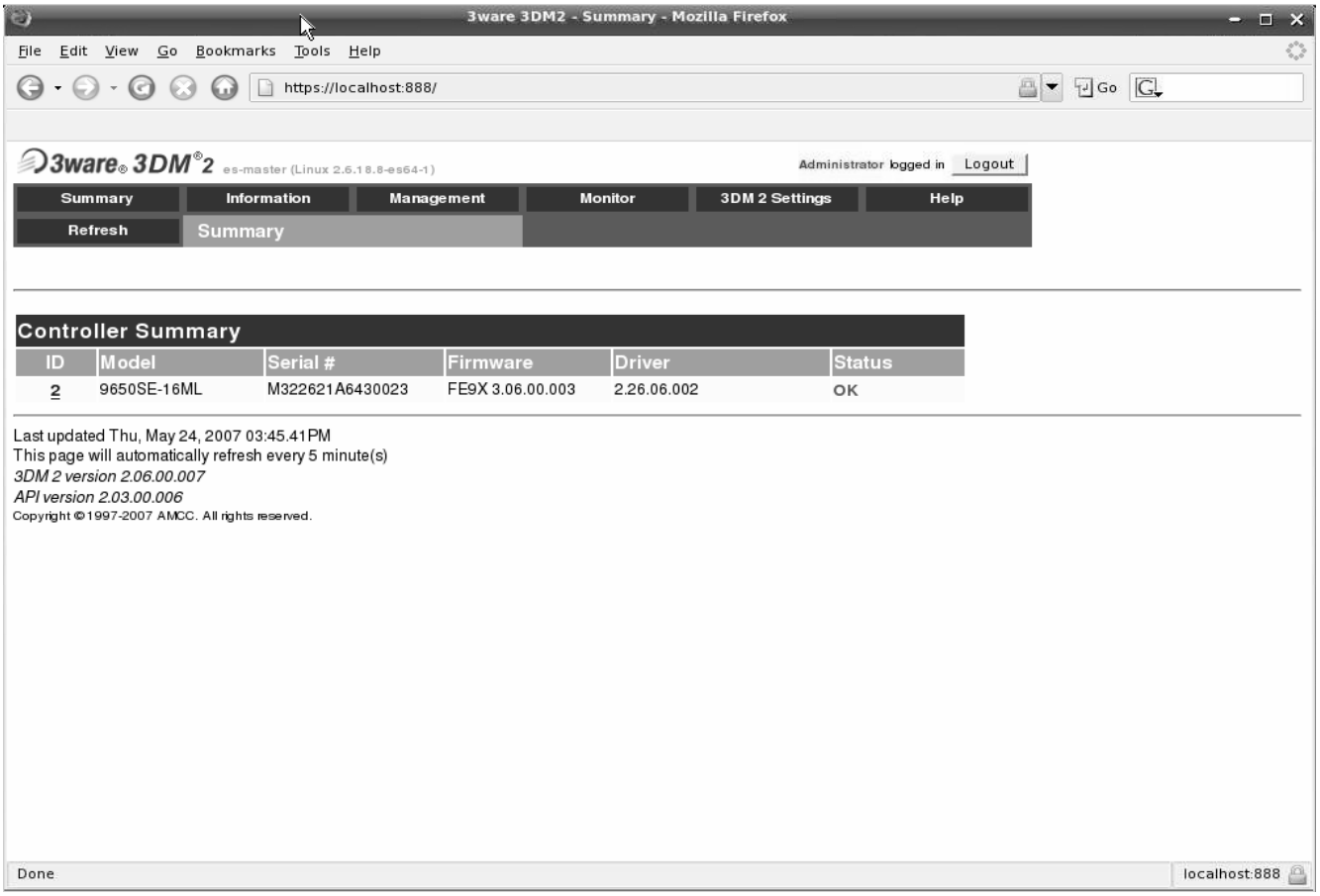
2. Select Administrator from the Login list.
3. Type your Administrator password and then click Login. For more information, see "Changing Your Administrator Password" on page 24.

   The RAID Manager opens.

4. In the 3ware menu bar, select Management > Scheduling.

5. Select “Select a type of task you would like to schedule” > Verify Tasks.

   See the following illustration for the default verification.



6. To add new verification events, select the day, time, and duration in hours for each new event, and then click Add New Slot.
7. To remove scheduled verification events, select each event you don't want and click Remove Checked.
8. Make sure Follow Schedule is selected (and not Ignore Schedule).
9. Select another RAID controller from the Select Controller list, and repeat the scheduling procedure.

Setting Verification Controller Options

To select verification controller settings, do the following.

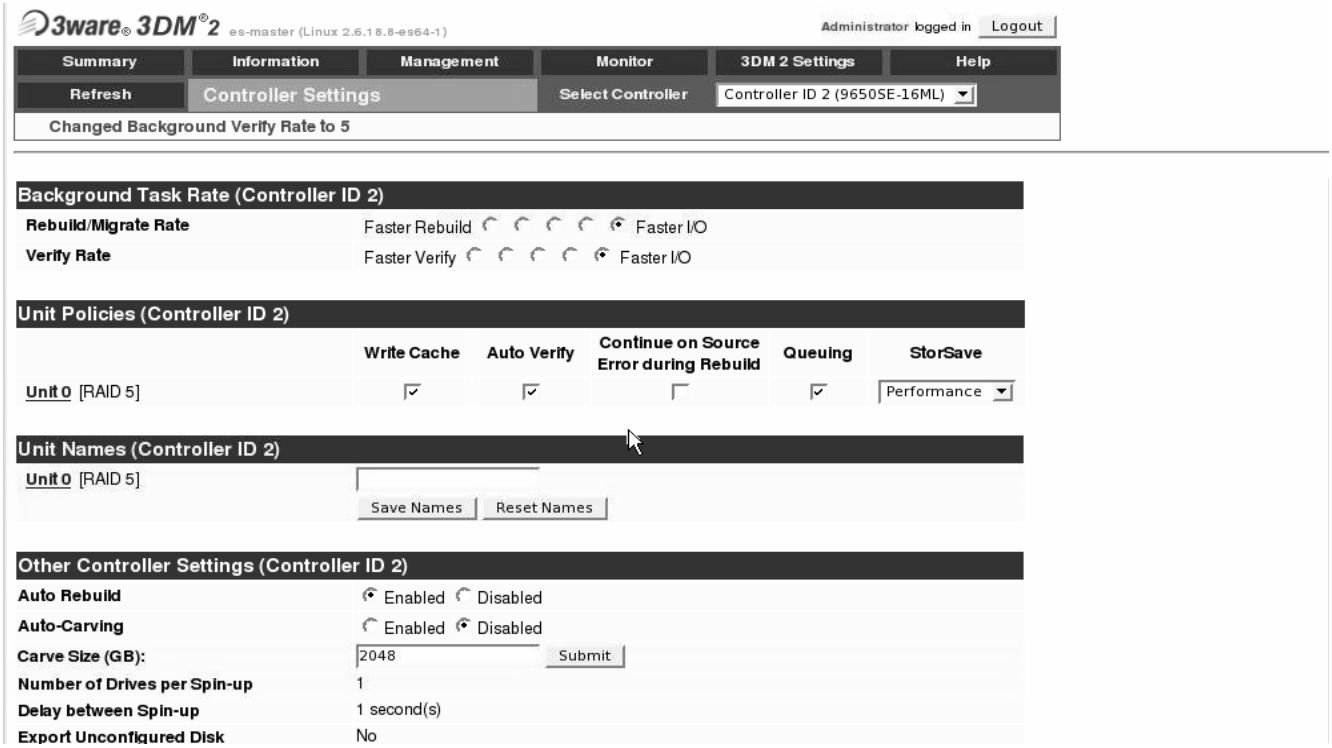
TASK

1. Double-click the RAID Manager icon on the desktop.
   If a Security Error dialog box opens, click OK.
2. Select Administrator from the Login list.

3. Type your Administrator password and then click Login. For more information, see "Changing Your Administrator Password" on page 24.

   The RAID Manager opens.

4. In the 3ware menu bar, select Management > Controller Settings.



5. For each RAID controller, make sure the following options are selected in the Unit Policies area.
   - Auto Verify – Selected. This makes sure that scheduled verifications are performed.
   - Queuing – Selected. This allows the arrays to receive multiple requests at a time and decide which to complete first. For the environments in which EditShare is used, this almost always improves performance.
   - StorSave – Performance. This provides the best performance. If you have properly set up your UPS, selecting StorSave > Protection or StorSave > Balance does not add any significant protection to your data but does markedly decrease performance.

   NOTE: *Older EditShare servers with 9500S RAID controllers might display slightly different options.*

6. Deselect Rapid Recovery if you see this option (available on EditShare servers shipped since April, 2009, or servers updated to use version 9.5.1 of the 3ware software).

   Selecting Rapid Recovery greatly reduces drive performance.

7. If you have multiple EditShare servers, repeat this procedure on each server. Also see "Logging into the RAID Manager" on page 273.
8. Configure Automatic Alert Emails so EditShare knows how to inform you of any problems it detects. See "Configuring Alert Email" on page 32.

   You receive two or more email messages each week reporting the results of the scheduled verifications. If you do not receive these emails, make sure you have properly configured alert email and verification. If you need more help, contact EditShare Technical Support.

Configuring Alert Email

The EditShare server can notify you immediately by email about problems that might occur, including the following:

- Errors detected during scheduled RAID verification
- Media Spaces that are approaching their quota

The server also sends a Daily Status Report summarizing the status of your sever, providing you with an easy way to monitor your system and become aware of potential problems before the editors notice them. For more information on the Daily Status Report, see "Daily Status Report" on page 236.

NOTE: *EditShare strongly recommends that you configure your EditShare email preferences so you receive these notices. You also need to assign someone responsibility for checking and reading the email.*

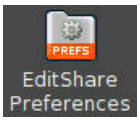
You can use an external email account or email on the EditShare server. If your EditShare server is connected to the Internet or another internal office network with its own email server, you can use external email accounts. In this case, EditShare forwards any warning messages to a regular account on your company's internal mail server, or to an account with an external Internet Service Provider (ISP). You need only check your regular email to receive automatic EditShare messages. If your ISP blocks relayed email messages, however, you cannot use your regular account.

If your EditShare server is not connected to either the Internet or an internal office email server, you need to configure EditShare Manager so it uses the email server built into the EditShare server.

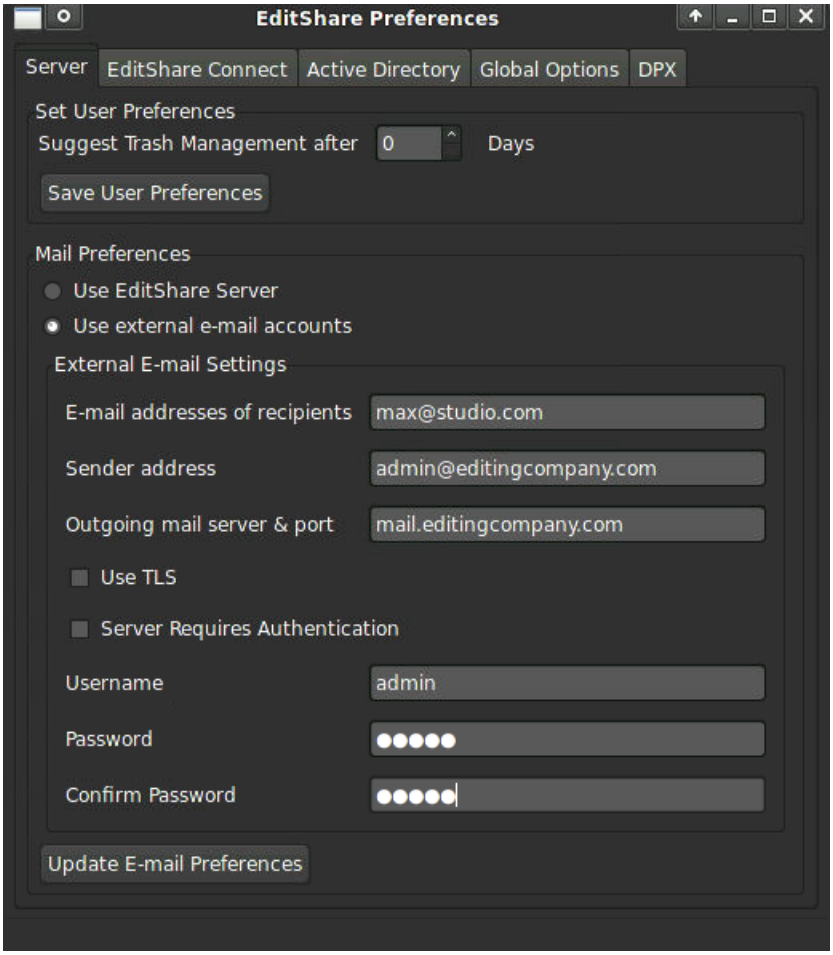
If you have multiple EditShare servers configured in an ESA Group (see "Chapter 4: Server Configuration" on page 61), you only have to configure email alerts on the Master server. Properly configured expansion servers automatically forward their alerts to the Master server.

To set up alert emails, do the following.

TASK



1. On the EditShare Master Server desktop, open the Control Panel.
2. Double-click EditShare Preferences.
3. Click the Server tab.



4. Decide whether you want to use an external email account or email on the EditShare server.
5. To configure an external account, do the following:
   a Select Use external e-mail accounts.
   b Type the email address to which alert messages should be sent in the E-mail address text box. You can type more than one address, separated by commas.
   c Type the same information in the other text boxes that you use to configure your regular email client program.

6. To configure the EditShare email server, do the following:
   a Select Use EditShare Server.
   b Configure the email client on your Administrator's workstation to check for mail on the EditShare server at least once daily. See "Configuring the EditShare Email Client" on page 34.
7. Click Update E-mail Preferences and close the EditShare Preferences dialog box.
8. Send a test email alert. See "Sending a Test Alert" on page 34.

Configuring the EditShare Email Client

To configure your email client, set up the client to do the following.

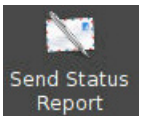
TASK

1. Use the POP3or IMAP protocol.
2. Contact the host machine at the IP address of the EditShare Server (or use the address that corresponds with the subnet that your workstation is on).
3. Log into the email server with the username `editshare`.
4. Log into the email server with the editshare password. See "Changing Your Administrator Password" on page 24.

Sending a Test Alert

You need to send a test alert to make sure email alert is working properly. Do the following.

TASK



1. Open the Control Panel and double-click Send Status Report.

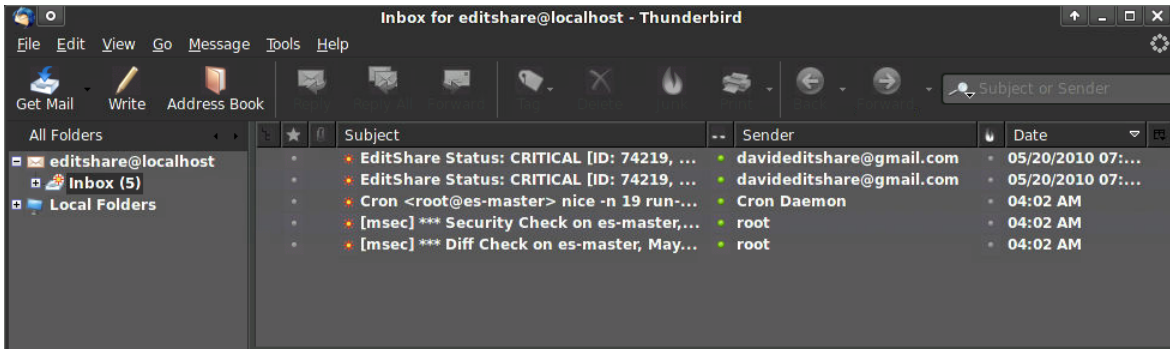
   A dialog box opens telling you about the time and consequences of sending the report.
2. Click Continue.

   The report is sent to the email address you configured and a confirmation dialog box opens.

3. Click OK, and then make sure you received the email.

   The subject line includes a status keyword so you can set up an email filter for it. The status keywords are the following:

   - CRITICAL
   - WARNING
   - Information



EditShare strongly recommends that you set up your alert email to send you the Status Report (see "Configuring Alert Email" on page 32) and that you assign someone responsibility for monitoring the email.

Configuring the ON-AIR Playout Server Tool

If you have an ON-AIR Systems playout server, you can use the EditShare Playout Server tool to let the ON-AIR server know when new files have been added. The playout server can then scan the newly added files and prepare them for playback. You need to first configure the tool, and then, for each Media Space you want to play out, select it. See the following topics.

Do the following to configure the tool.

Configuring the Playout Server Tool

You need to configure the Playout Server tool only once.

TASK

1. Run your ON-AIR system and note the port number in the Listen on Port text box.

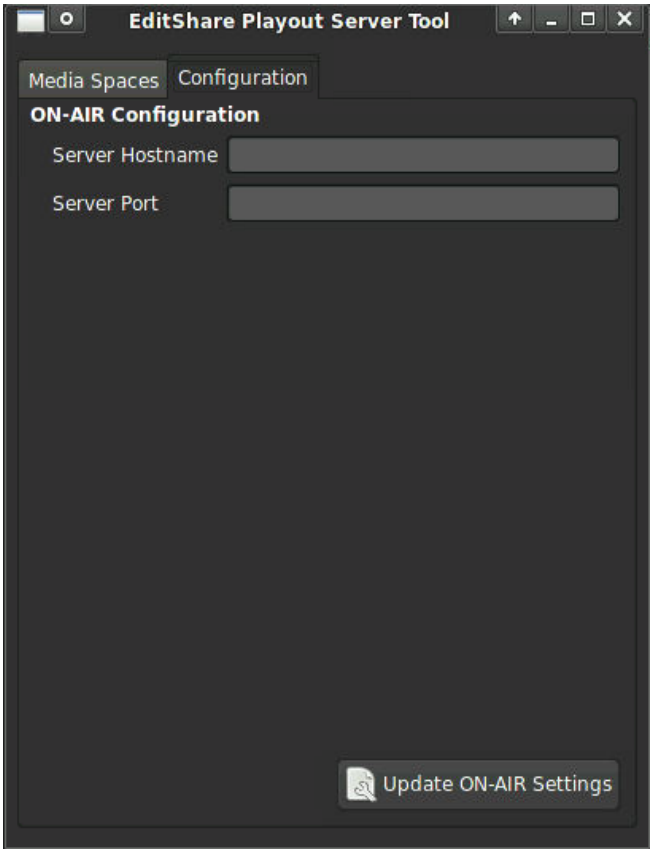
2. Double-click the Konsole icon in the lower left corner of the desktop.

   A Konsole Terminal window opens.

3. Type `editshare editshare_apps.playout_manager` and then press Enter.
4. Type your Administrator password and then click OK.

   The EditShare Playout Server tool opens.

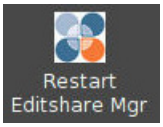
5. Click the Configuration tab.



6. Type the IP address of your server in the Server Hostname text box.
7. Type the Port number in the Server Port text box.
8. Click the Update ON-AIR Settings button.

   A message box opens reporting success or failure at updating your settings.

   NOTE: *If the update was not successful, check the IP address and the port you typed, and make sure the ON-AIR server is running and connected to the network. If your update fails again, contact EditShare Technical Support.*



9. Close the Playout Server tool.
10. Restart EditShare Manager services by double-clicking Restart EditShare Mgr in the Control Panel.

Setting up Media Spaces to Play Out

You need to set up each Media Space you want to play out.

TASK

1. Create an Unmanaged Media Space.

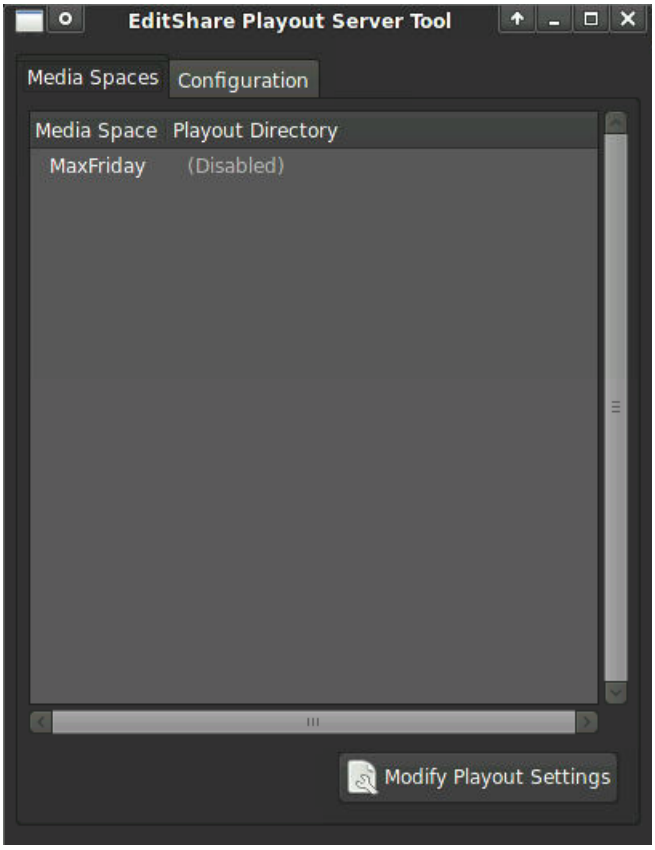
2. Double-click the Konsole icon in the lower left corner of the desktop.

   A Konsole Terminal window opens.

3. Type `editshare editshare_apps.playout_manager` and then press Enter.

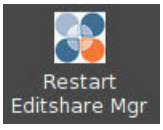
   The EditShare Playout Server tool opens.

4. Click the Media Spaces tab.



5. Select the Media Space, and then click the Modify Playout Settings button.
   The Playout Settings dialog box opens.

6. Select the Enable Playout Notifications option.
7. Select the folder inside the Media Space that you want to be the top level of the notifications.
8. Click OK, and then close the tool.



9. Restart EditShare Manager services by double-clicking Restart EditShare Mgr in the Control Panel.

Chapter 3: Network Configuration

For many organizations, configuring the network that editing workstations use to communicate with the EditShare server is a simple, straightforward task.

Before you configure your network, consider the following:

- Will you be using 100-megabit, 1-gigabit, or 10-gigabit networking, or a combination of speeds?

  NOTE: *EditShare does not recommend using 100-megabit connections for non-linear editing (NLE) workstations, as this can reduce performance on all editing systems connected to the EditShare server. You can, however, use 100-megabit connections for workstations that do not do video editing.*

- How many EditShare servers will you be operating?
- Which, if any, workstations will be doing uncompressed editing (requiring the fastest network connections to the server)?
- Do you need or want Internet access on your workstations?
- Which, if any, of your workstations need to be able to communicate directly with each other?
- Which, if any, of your workstations need access to the rest of your office network (for example, network drives, printers, internal email system)?

The following sections provide basic information about minimal networking needs so you can get your EditShare network up and running. Information is also included on EditShare's requirements and advanced options, so experienced network administrators can incorporate EditShare in a larger or more complex network. If you need more assistance, contact your reseller or EditShare Technical Support.

See the following sections:

QuickStart Network Configuration Guide

The *QuickStart Network Configuration Guide* helps you set up your network by showing common solutions for EditShare network architecture.

The network configurations in the guide do not represent all possible networks. It includes scenarios that are recommended and known to work well. If your network differs from these configurations, it might not perform as well as expected.

Networking Basics

The following sections provide an introduction to some basic networking concepts for administrators who might not be familiar with them. This is not a general networking textbook, and many concepts have been simplified. It should suffice, however, to allow you to set up your network.

See the following sections:

- "Network Ports or Interfaces" on page 40
- "IP Addresses, Subnets, and Routers" on page 41
- "Network Switches" on page 42
- "Network Speeds" on page 42
- "Frame Size" on page 43
- "Ethernet Adapter Cards" on page 44
- "Bandwidth Limiting" on page 44

Network Ports or Interfaces

Each plug that an Ethernet cable can be connected to is called a network port or network interface. Every computer has a name for each interface on it, though different operating systems use different naming conventions.

An EditShare server uses names of the form eth# for its network interfaces. The first port is called eth0, the second eth1, the third eth2, and so on.

Your EditShare server might have 1-gigabit Ethernet ports, 10-gigabit Ethernet ports, or a combination. For cable information, see the following table.

Port Size	Port Type	Cable Type	Cable Illustration
1-gigabit Ethernet	NA	CAT-6	
10-gigabit Ethernet	Copper	CX4	
10-gigabit Ethernet	Fiber	Special-purpose Fiber-optic	

For more information, see "Network Ports and Cables" on page 49.

IP Addresses, Subnets, and Routers

Every network port on a computer must have a unique Internet Protocol (IP) Address, which is a series of four numbers separated by dots, such as 192.168.0.3. A single computer can have multiple network cards (as your EditShare server does), and each one usually has its own IP address (except for a server operating in Switch Mode; for more information, see "Switch Mode" on page 51). An IP address gives other computers on the network a way to indicate where messages for that computer should go so that the network can deliver them.

IP Addresses are grouped into subnets that share the same first two or three numbers. (Sometimes the word LAN, or local-area network, is used to mean subnet.) A netmask of 255.255.255.0 means that the first three digits of the IP address identify the subnet, while a netmask of 255.255.0.0 means that the first two digits of the IP address identify the subnet. (These are by far the most common netmasks, although others are sometimes used.) For example, a network card with an IP address of 192.168.0.3 and a netmask of 255.255.255.0 is said to be on the “192.168.0” subnet. It is on the same subnet as 192.168.0.4 and 192.168.0.99, but a different subnet from 192.168.1.3.

Subnets are important because a pair of network cards can talk directly to each other only if they are on the same subnet. In order to reach a card on another subnet, a message must go through a device called a router or gateway which directs the message to the correct destination. The most common routers are the simple devices connected to cable or DSL modems to allow the computers on a small home or business network to communicate with any computer anywhere on the Internet. Your EditShare server can also act as a router.

Network Switches

Network switches are used to connect multiple network cards to the same network. Generally all the devices on a single subnet should be connected to one switch, and all devices attached to the switch should be on the same subnet.

Some switches, called "Smart Switches," have the capacity to act as if they are multiple switches. By creating two or more Virtual LANs, or VLANs, on the switch, you can place two or more subnets on a single switch, with each subnet corresponding to one VLAN. This allows you to use fewer devices to create a more complex network.

Network Speeds

Modern Ethernet networks operate at one or more of the following speeds:

- 10 Gigabits/second (10Gb/s) Copper: The fastest networks commonly used, these use special CX4 cables with metal ends about an inch wide. Some EditShare servers use 10Gb/s copper Ethernet to connect to a switch, or (for editing uncompressed HD) to a workstation.
- 10 Gigabits/second (10Gb/s) Fiber: Fiber-optic networks work very much like copper networks, although there is a wider variety of cable standards available and they tend to be more prone to configuration errors. Some EditShare servers use 10Gb/s fiber Ethernet to connect to a switch located a too far away from the server for copper to be an option.
- 1 Gigabit/second (Gigabit): Gigabit Ethernet adapters and cables are much less expensive than 10Gb/s and are adequate for most video editing purposes. Gigabit networks should use Category 6 (CAT-6) cables. (CAT-5e and even CAT-5 cables might work, but with some reduction in performance, which often results in frequent dropped frames and sluggish response. Most users find that performance with CAT-5e cables is unacceptable, and so EditShare does not recommend their use.) Most editing workstations can be connected directly to an EditShare server, or to a switch, using CAT-6 gigabit Ethernet cables.

- 10 or 100 Megabits/second (10/100): These slower speeds are not recommended for use with EditShare as they do not provide adequate data rates for most video editing, resulting in frequent dropped frames. While it is possible to use 10/100 adapters on the same network as gigabit adapters (the cables are interchangeable), EditShare recommends against it. Macintosh operating systems seem to be particularly unstable – attempting to edit using a 10/100 connection can result in dropped frames even on other workstations that are using gigabit adapters.

Frame Size

When you work with large streams of data, such as video, it is efficient to work with large, "jumbo" frames, which enable the sending and receiving computers to do much less administrative work to keep track of a given amount of data. More processor time is left for your editing application or for the server to respond to the next workstation.

Jumbo frames are ideal for the EditShare system – particularly for working with uncompressed 1:1 video. Not all network adapters and not all switches support jumbo frames, however.

When two Ethernet adapters establish a connection with each other, they negotiate with each other the frame size they can use. If only one end of a connection has jumbo frames enabled, they are not used. If both ends of a connection support jumbo frames but a switch between them does not, the connection is very, very slow and completely unusable for editing. In this case, you should be sure to disable jumbo frames on at least one end of the connection.

You can configure the EditShare server to use the following frame size options:

Option	Frame Size	Description
1500	1500-byte	Standard frame size (not jumbo)
9000	9000-byte (or 9041-byte)	Most common jumbo frames implementation, supported by EditShare gigabit Ethernet ports and some (not all) switches. All switches provided by EditShare support jumbo frames.
16110	16110-byte (or 16124-byte)*	Use only for direct connections; not supported by switches at present. (*Frames include a 14-byte header. Some systems include this header in the size of the frame; others do not.)

Option	Frame Size	Description
16114	16114-byte (or 16128-byte)*	Only used for 10Gb Ethernet. (*Frames include a 14-byte header. Some systems include this header in the size of the frame; others do not.)
Custom	Set manually	Available for future use.

Your EditShare server comes preconfigured with jumbo frames turned off in case your switches do not support them. If your workstations and switches do support jumbo frames, EditShare recommends that you configure those workstations and the EditShare server to use them. See "Configuring in Switch Mode" on page 52 or "Configuring in Manual Mode" on page 55 for instructions.

EditShare has as yet conducted only limited testing with 16110-byte and 16114-byte jumbo frames.

Ethernet Adapter Cards

Not all gigabit Ethernet adapter cards support jumbo frames. If yours does not support jumbo frames, EditShare suggests you purchase a new gigabit Ethernet adapter for your workstation. EditShare recommends the following adapters:

System	Adapter
PC with PCI-X slots	Intel Pro/1000 MT or GT
PC with PCI-Express (PCIe) slots	Intel Pro/1000 PT
Mac with PCI-X slots	Small Tree PXG1
Mac with PCIe slots	Small Tree PEG1

Bandwidth Limiting

Advanced switches can also implement something called bandwidth limiting. This is a way of preventing any one connection from using all the bandwidth available to the network, preventing other users from using it. It is always optional; however, you might find it helpful to enable it in some situations. For example, if you are transferring video data to EditShare from non-tape devices capable of extremely high transfer speeds (such as Panasonic P2 cards or Sony

XDCam disks), you might need to limit the bandwidth so that the file transfer does not overwhelm the network and interfere with other editors' work.

The SMC 24-port "Smart Switches" that EditShare offers as an option have a simple bandwidth-limiting feature that allows you to set a maximum upload and download bandwidth for each Ethernet connector on the switch. Other advanced switches that EditShare offers (such as the HP ProCurve 10-gigabit switches) have similar features but are primarily oriented towards traffic going to workstations and not coming from workstations.

If this is an issue that affects you, contact your reseller or EditShare technical support for more information.

EditShare Networking Overview

EditShare recommends two overall approaches to setting up your network topology (that is, the arrangement of your physical servers and cables) to send and receive data between the EditShare Server and workstations: Switch mode with multiple Ethernet ports, and a single network with a 10-Gb switch.

NOTE: *In either network approach, each editing workstation should be connected to your EditShare server independently of any standard office or campus network. Such networks are often slower than a dedicated EditShare network and are easily bottlenecked by traffic from web downloads, email, and other network activities. To allow workstation access to the office network, you instead connect it to one port on the EditShare server.*

See the following sections:

- "Switch Mode with Multiple Ethernet Ports" on page 45
- "Single Network with 10-Gigabit Switch" on page 48

Switch Mode with Multiple Ethernet Ports

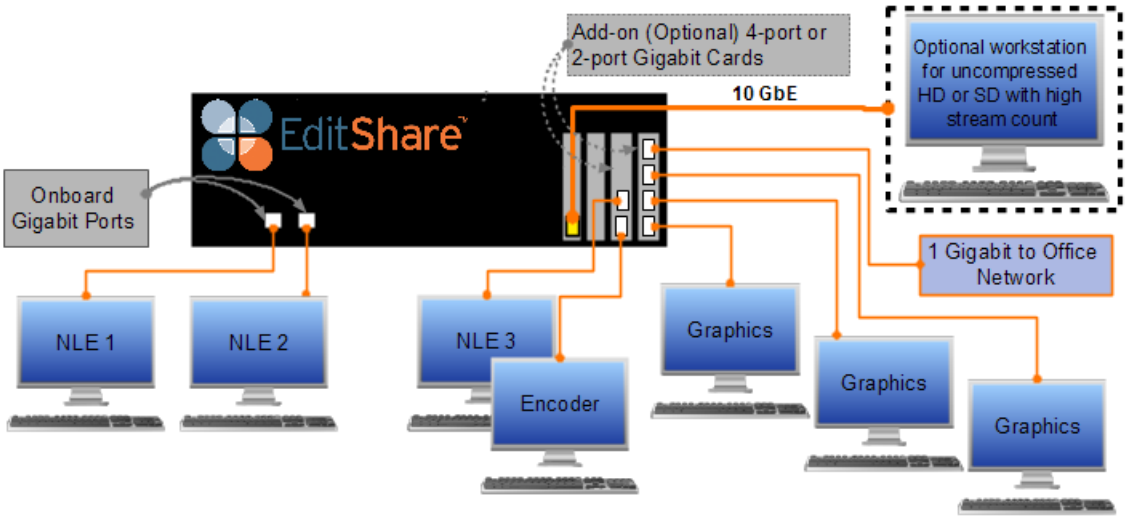
The simplest way to configure your EditShare network is to use the default switch mode configuration. In this mode, the EditShare server acts much like a gigabit switch of the sort that you might already have in your office. Connect one network port from the EditShare to your office network. Then each editing workstation may be connected in one of the following ways:

- Directly to another Ethernet port on the EditShare server, giving that workstation the full throughput of a dedicated gigabit connection to the server

- To a gigabit switch, along with a small number (1 to 4) of other editing workstations. This gigabit switch is then connected to another Ethernet port on the EditShare. This allows multiple workstations to share a single port on the EditShare, but does reduce the bandwidth available for each workstation since they are all sharing the same channel. Therefore, connecting multiple workstations this way is only recommended if you work with low data-rate codecs such as DV25, DV50 or Avid 15:1.

Either way, this topology places all of your workstations on a single network.

The following illustration shows a Switch Mode network.



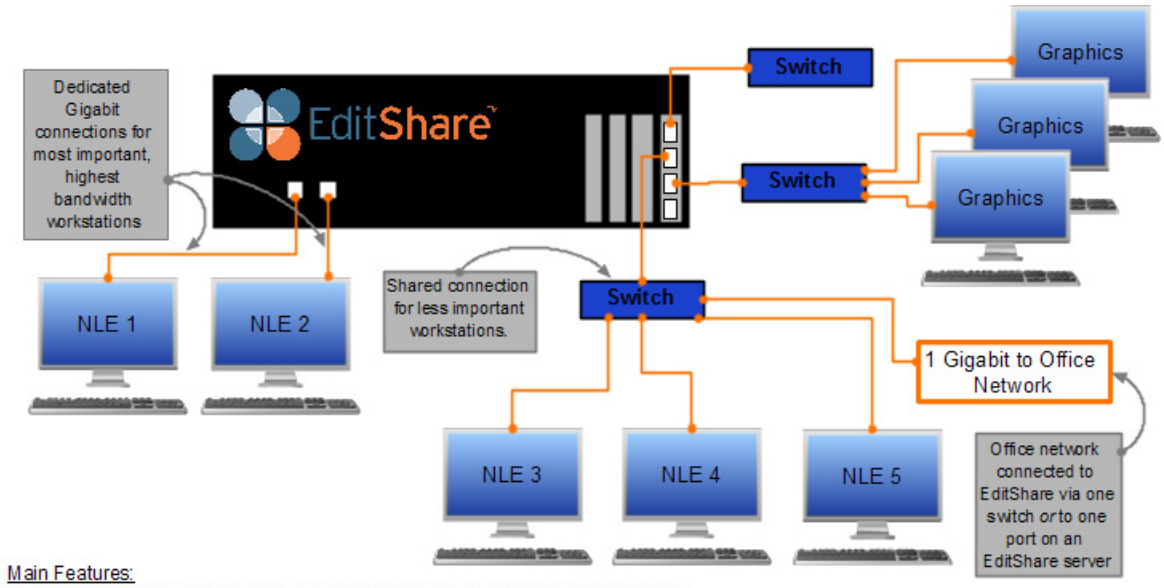
Main Features:

1. Office Network and Internet are connected to one port on EditShare Server.
2. Workstations are connected directly to EditShare Server.
3. Workstations get Internet and office network through EditShare Server.
4. Workstations get IP addresses through DHCP if office network offers DHCP.
5. EditShare needs one static IP address.

Legend

1 Gigabit Cat6 connection
10 Gigabit Cx4 or Fiber connection
Optional feature

The following illustration shows a network with multiple switches.



Main Features:
1. Office Network is connected to one port on EditShare Server or to one switch.
2. Some workstations connected directly to EditShare server, some via a switch that shares the bandwidth of 1 Gb Ethernet channel.
3. Workstations get Internet and office network through EditShare Server.
4. Workstations get IP addresses through DHCP if office network offers DHCP.
5. EditShare needs a static IP address.
6. Instead of using multiple switches, you may use multiple VLANs on a single smart switch.

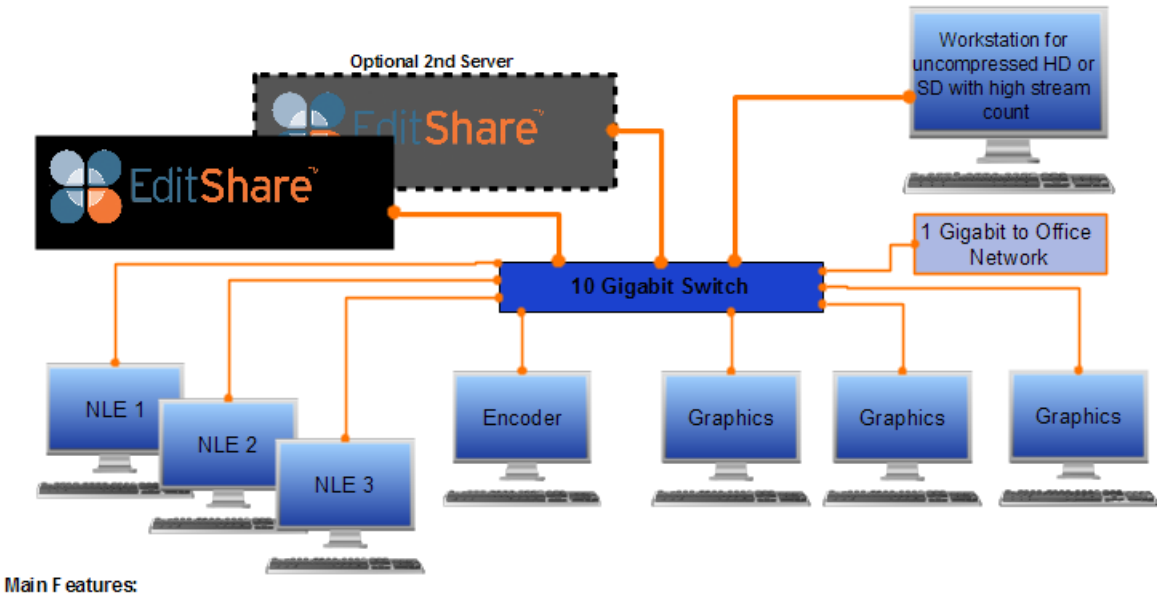
Every EditShare server ships with at least two gigabit Ethernet ports. (You can order additional gigabit ports as an option.) You should arrange your network to split the data load as evenly as possible among the ports on the EditShare server. Usually this means connecting an equal number of workstations to each port, but in some cases, you might know that some workstations generate more traffic than others. For example, workstations that often do uncompressed editing generate much more traffic than workstations that only work with DV video. If you have one workstation that does uncompressed editing and several that work only with DV video, it might be best to plug the uncompressed workstation into its own port on the EditShare server, allowing it to use the full bandwidth of an entire gigabit Ethernet channel and allowing the other workstations to share other channels.

NOTE: *At this time, you can only combine 1-GB and 10-gigabit interfaces on your EditShare server using manual mode, not switch mode.*

In these configurations, the EditShare server can be configured with a single IP address that can be reached by all workstations, as well as by computers on the office network. Traffic between the editing workstations and the rest of your office network flows through EditShare just as if it were an ordinary switch, giving your editing workstations seamless access to printers, other file servers, and the Internet.

Single Network with 10-Gigabit Switch

The most powerful network topology connects your EditShare server and all of your workstations to a switch with both 10-gigabit and 1-gigabit ports, such as the HP ProCurve line. Like the switch mode described in "Switch Mode with Multiple Ethernet Ports" on page 45, this places the EditShare server and all the workstations on a single network. The use of a 10-gigabit connection between the EditShare server and the switch provides plenty of bandwidth to get all of the data from your RAID arrays to the switch. You then connect your workstations to the switch via standard 1-gigabit Ethernet CAT-6 cables. In addition, you can connect your office network to the 10-gigabit switch and have seamless access to the rest of your office network (printers, file servers and Internet).



Main Features:
1. All servers, workstations, and connection to office network and Internet are routed through 10 GbE switch.
2. Workstations get IP addresses through DHCP if office network offers DHCP.
3. EditShare needs one static IP address.

The advantages of a 10-gigabit switch over using multiple one-gigabit switches include:

- A 10-gigabit switch removes the need to balance the load among multiple gigabit Ethernet ports.
- If you intend to use multiple EditShare servers in an ESA Group (see "Chapter 4: Server Configuration" on page 61), configuring them to share a single network is easy.
- If you have some workstations that you use to work in uncompressed HD or to edit complex sequences requiring many streams of video and audio,

you can connect these workstations to the switch via 10-gigabit Ethernet as well to obtain the necessary data transfer rate.

- If your editing workstations make heavy use of the office network (for example, if they frequently need to make frequent large file transfers with a file server on the office network), this configuration does not force all such traffic to flow through the EditShare server. This improves the performance for editing work that is actually using the EditShare server.

Network Ports and Cables

See the following sections:

- "Locating the Network Ports" on page 49
- "Cable Lengths" on page 49

Locating the Network Ports

The Ethernet ports are located on the back of your EditShare server. Two ports are located near the VGA (monitor) port on the motherboard, while any additional ports are installed on add-on cards on the far right-hand side of the rear of the chassis (as seen when looking at the chassis from behind). They are labeled, starting with 0.

If you have any 10-gigabit network adapters in your EditShare system, they are typically assigned to the highest port number, for example, eth2.

Cable Lengths

In general, any professionally-manufactured cables conform to the maximum length requirements set out by the cable specification:

- Gigabit CAT-6 cables: 100 meters (300 feet)
- 10-gigabit CX4 cables: 15 meters (49 feet)
- 10-gigabit SR fiber: 82 meters (270 feet)

Copper cables can experience interference, especially on long runs, or where multiple cables are bundled tightly together. Therefore we recommend against using copper cables substantially longer than necessary, and we recommend not bundling cables tightly together. In the event that you experience sluggish

performance or unexplained dropped frames, look for electrical equipment near the cables that might be generating interference.

For best performance, you should use only high-quality, professionally manufactured CAT-6 cables. Your EditShare server is shipped with six 50-foot CAT-6 cables to help get you started with your connections. If you need to purchase additional cables, buy only high-quality CAT-6 cables.

If you already have CAT-5 and CAT-5e cables, you might be able to use them. In some low-demand environments, they might provide adequate performance.

CAUTION: Most users find that using such older cables leads to unacceptable rates of dropped frames.

While it is possible to cut and splice your own cables, EditShare does not recommend this. Hand-assembled cables do not usually have the quality of factory-assembled cables, and with the high throughput requirements of video editing this difference can result in frequent dropped frames.

Configuring the EditShare Network

The EditShare Network Configuration Tool offers two options for setting up networking: switch mode, which is the simplest to configure, and manual mode, for network administrators with specialized needs (see "EditShare Networking Overview" on page 45).

If you need to change the network configuration of your EditShare server, EditShare strongly recommends doing that with a monitor, keyboard and mouse attached to the server. Otherwise, you might accidentally disconnect the EditShare server from the network and be unable to reconnect. If you must change the network configuration of your server from another workstation, be very careful.

CAUTION: Only change network settings during downtime. Do not change network configuration settings such as IP addresses or jumbo frames while editors are capturing or playing back video files. Network settings should only be changed when there is no important I/O taking place on the system. Changing settings while the system is in use can cause a momentary break in network connections between the EditShare server and workstations connected to the port being modified, possibly resulting in data loss.

See the following sections:

- "Switch Mode" on page 51

Switch Mode

Switch mode is the simplest way to configure your EditShare server. When your EditShare server arrives, it is configured in Switch mode.

CAUTION: If your server has 10-gigabit Ethernet ports, you cannot run in Switch mode; the gigabit ports do not function correctly. EditShare has configured your server to run in Manual mode. See "Running with 10-Gigabit in Manual Mode" on page 54.

Switch Mode Option	Description
IP Addresses	One address (default: 192.168.1.3).
ESA Support	No.
Workstation IP configuration	Manual, or automatic if another device in the network provides it.
Advantage	Cost effective, simple, powerful.
Disadvantage	All broadcast traffic on the network is passed through the EditShare, which could potentially reduce performance. Also, you cannot use with a 10-Gb port.

An EditShare server in switch mode has a single IP address and acts very much like a switch. The EditShare server bridges all of its Ethernet ports together into a single virtual network, called br0, which preserves the performance of the separate ports, while still enabling all the workstations and other devices connected to any of the ports to communicate with each other easily. If there is a DHCP server available on the network, workstations connected to the EditShare server can receive their network configuration information directly from it, or you may set them up manually. The EditShare server does not provide DHCP services.

If your EditShare server and editing workstations are on a network by themselves, without access to any office network or to the Internet, no action is needed to configure the server in switch mode.

If your EditShare server is being added to an existing office network, you need to configure it for that network. See "Configuring in Switch Mode" on page 52.

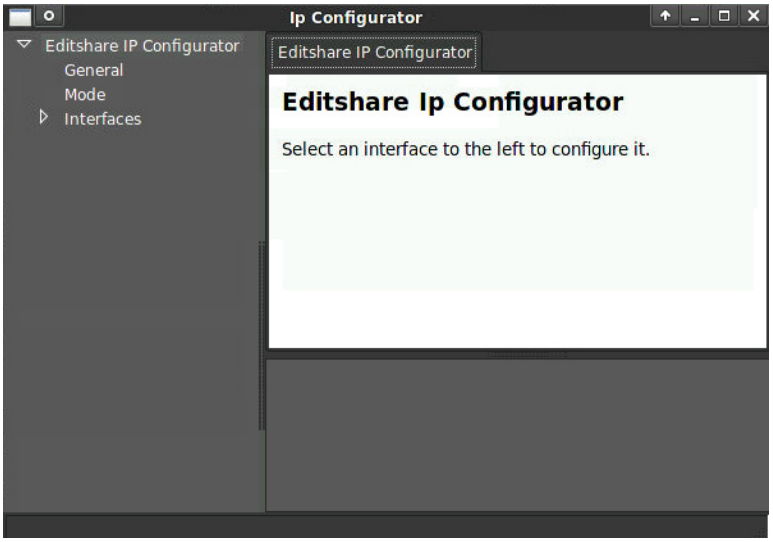
If you have a DHCP server on your network (as most office networks do), your workstations receive the proper network configuration automatically. If you do not, then you should manually configure each workstation connected to the EditShare network with the following parameters (see "Setting up Editors' Workstations" on page 89):

- IP address: an address on the same subnetwork as the EditShare server
- Netmask: same as used on the EditShare server
- Gateway: same as used on the EditShare server, as provided by your network administrator or ISP
- DNS: same as used on the EditShare server, as provided by your network administrator or ISP

Configuring in Switch Mode

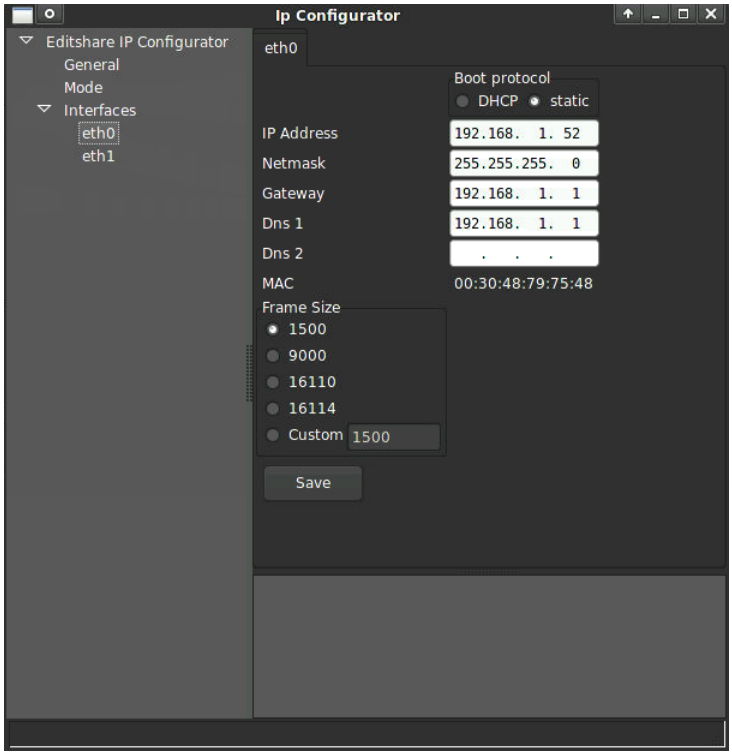
TASK

1. Open the EditShare Control Panel and double-click Network Config.
   The IP Configurator opens.



2. Click the Mode tab and select Switch if it is not already selected, then click Set.

3. Click the triangular opener next to Interfaces, if necessary, to view the server's network interfaces, and then select the br0 interface.



4. Select Boot Protocol > Static.

   NOTE: *Automatic IP configuration is not recommended for the EditShare server, since editors need to access the EditShare by its IP address. Setting a static IP address ensures that the IP address does not change unexpectedly.*

5. Type the IP Address, netmask, gateway address, and two DNS server addresses as provided by your network administrator or ISP. (The IP address of the EditShare server should be an address not used by any other device on your network. The other parameters should be set to the same values used on any other computer on your network.)

   NOTE: *Make sure you check your DNS server addresses. They might be lost if you change to Switch mode from Manual mode.*

6. Set the Frame Size to be used for your network. (All the Ethernet ports on your server must use the same frame size.) EditShare recommends 9000-byte jumbo frames for any installation that can support it, but 1500-byte frames are standard and work with all networking hardware and software.

   NOTE: *Make sure you check this setting. Jumbo frame settings might be lost if you change to Switch mode from Manual mode.*

7. Click Save.

Running with 10-Gigabit in Manual Mode

If your EditShare server has 10-gigabit Ethernet ports, you must run in Manual mode. EditShare has configured the server to run in Manual mode. You need to do the following:

- Set the IP address and netmask for the 10-gigabit port (usually eth2) to the appropriate settings for your network environment. See "Configuring in Manual Mode" on page 55.
- If the 10-gigabit port on your server is connected to switch (rather than directly connected to a workstation), make all connections to the server through that switch. Don't use the gigabit Ethernet ports on the server. This simplifies your network configuration.

If you need to make network connections to the server through both the 10-gigabit port and one or more gigabit ports, you need to assign each port a separate IP address. Contact your dealer if you need additional information.

Manual Mode

Manual mode is the most flexible way to configure your EditShare server, but it requires more knowledge on the part of the administrator setting it up. If you are using a 10-gigabit switch, you must set up your EditShare network in Manual mode. If you want to plug the office network into the same subnet, you must plug it into one of the ports on the 10-gigabit switch, not the built-in gigabit ports.

Manual Mode Option	Description
IP Addresses	Each port has its own IP address, must be on its own subnet, and can be changed (default: ethX has the address 192.168.X.3). For example, eth0 would be at 192.1.68.0.3, eth1 at 192.168.1.3, eth2 at 192.168.2.3, and so on.
ESA Support	Available.
Workstation IP configuration	Usually Manual.
Advantage	Can configure each Ethernet port independently to suit any network requirements.
Disadvantage	Requires knowledgeable administrator to set up. Clients connected to different Ethernet interfaces are connected to EditShare at different IP addresses.

Manual Mode gives you, the administrator, complete freedom to set up your network any way you see fit. Each port on the EditShare server can be assigned

its own IP address; however, you need it set to conform to the needs of your network. See "Configuring in Manual Mode" on page 55.

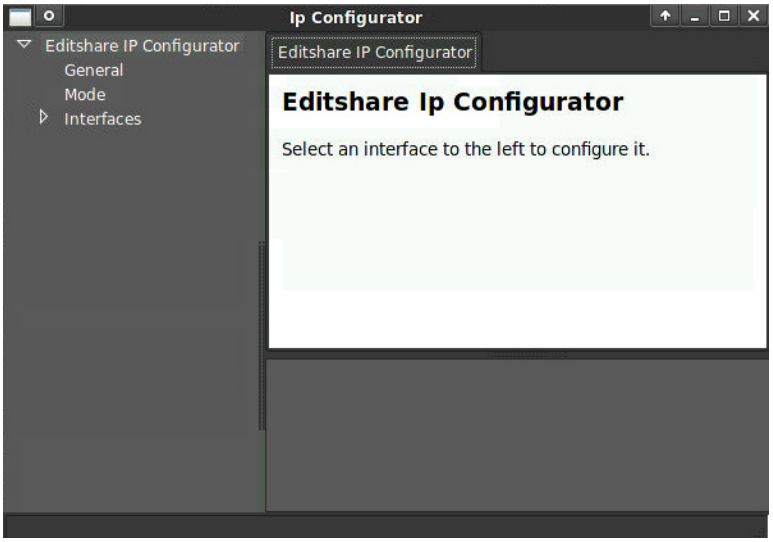
Configuring in Manual Mode

You need to carry out the following procedure for each port you want to configure.

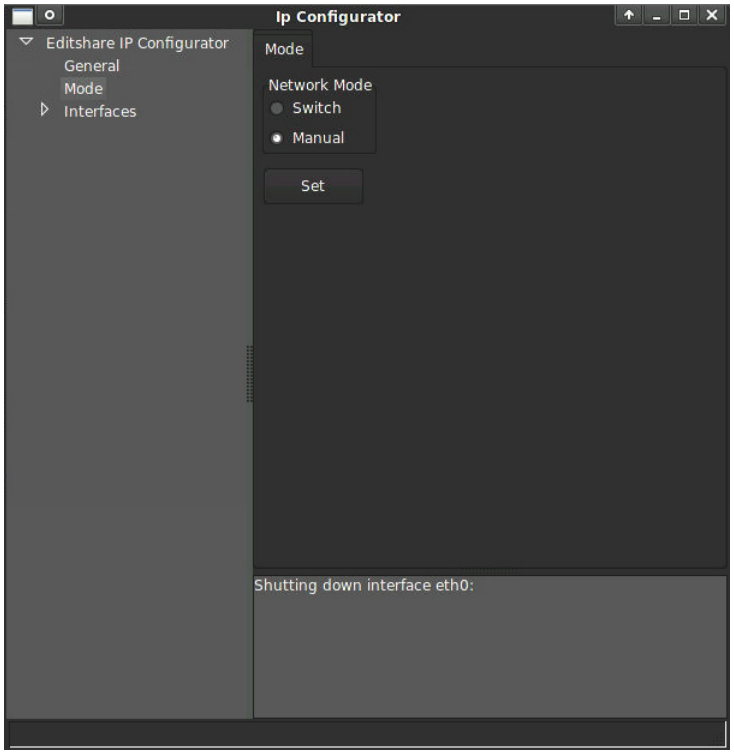
NOTE: *Each port must be on its own subnet.*

TASK

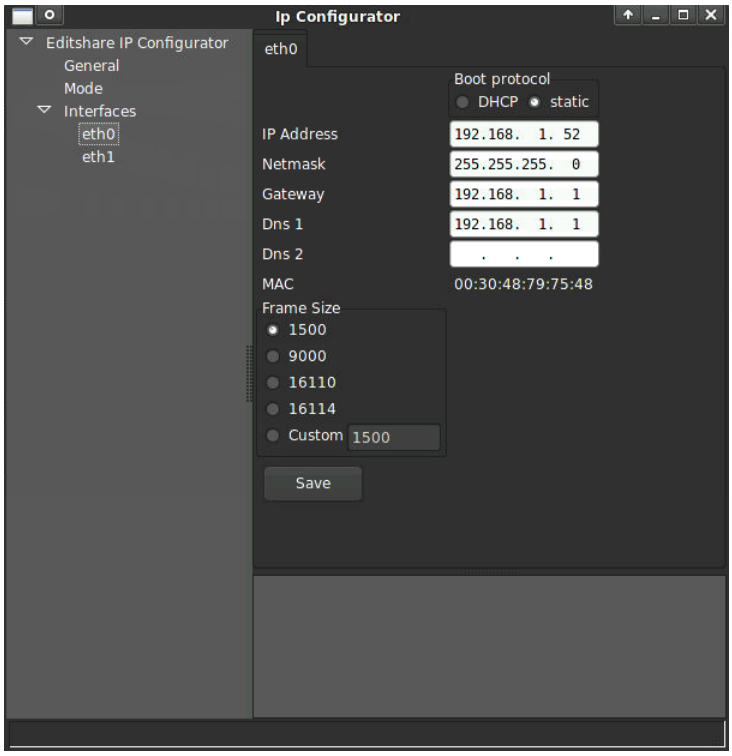
1. Open the EditShare Control Panel and double-click Network Configuration.
   The IP Configurator opens.



2. Click the Mode tab, select Manual, and then click Set.



3. Click the triangular opener next to Interfaces, if necessary, to view the server's network interfaces, and then select, in turn, each interface you want to configure.



4. Do one of the following:
   - If there is a DHCP server on your network that provides the EditShare server with an IP address automatically, under Boot Protocol select DHCP.
   - Select Static, then type the IP Address, netmask, and two DNS server addresses as provided by your network administrator or ISP. (The IP address of the EditShare server should be an address not used by any other device on your network. The other parameters should be set to the same values used on any other computer on your network.)

NOTE: *Make sure you check your DNS server addresses. They might be lost if you change to Manual mode from Switch mode.*

5. If your EditShare server should have access to an outside network, type the gateway address only on the port that is connected to that device. Leave the gateway blank on all other ports.

6. Select the Frame Size to be used for your network. (EditShare recommends that all the Ethernet ports on your server use the same frame size.) EditShare recommends 9000-byte jumbo frames for any installation that can support it,

but 1500-byte frames are standard and work with all networking hardware and software.

NOTE: *Make sure you select this option. Jumbo frame settings might be lost if you change to Manual mode from Switch mode.*

7. Click Save.

8. (Option) Double-click Toggle IP Forwarding in the Control Panel and then type Y if you want to permit a limited amount of network connectivity between subnets through the EditShare.

   NOTE: *Most systems should not use this option, and you cannot use it in Switch mode.*

9. Repeat this procedure for each port you want to configure.

Setting Up Jabber Instant Messaging

EditShare ships with the Jabber Instant Messenger service installed but disabled. If you would like your users to be able to use Jabber to communicate with each other, you can activate the service. Editors can use Jabber to send messages to one another in real time, or to leave messages that will be picked up when the recipient logs in again. This feature can be very convenient for supporting a collaborative workflow.

Because Jabber runs directly on EditShare, an Internet connection is not required to use the service. EditShare's version of Jabber is also not accessible via the Internet. It is strictly for internal use within your organization, so you don't have to worry about interference from outside users.

TASK

1. Open the Control Panel on the EditShare server.
2. Double-click the Jabber IM Config icon.

   The Jabber Instant Messenger Configuration window opens.

3. Select from the following options:
   - Jabber Auto Run OFF: Cancels automatic start on boot.
   - Jabber Auto-Run ON: Configures the Jabber service to start automatically on boot.
   - Jabber IM Restart: Restarts the Jabber Instant Messenger Service.
   - Jabber IM Start: Starts the Jabber Instant Messenger Service for a one-time session. It does not start automatically the next time the server is restarted unless you have run Jabber Auto-Run.
   - Jabber IM Stop: Stops the Jabber Instant Messenger Service. It restarts automatically the next time the server is restarted if you have run Jabber Auto-Run.

For instructions on configuring Jabber clients on users' workstations, see the *EditShare Editor's Guide*.

Chapter 4: Server Configuration

With EditShare's Extreme Scalable Architecture (ESA), you can run two or more EditShare servers and manage most of their functions from a single EditShare desktop. A group of servers managed together – even if it there is only one server in the group – is called an ESA Group. When you set up an ESA Group, you designate one server as the Master server. All other servers in the ESA Group are called Expansion servers. For example, on a three-server system, you would have a Master server, Expansion 1, and Expansion 2. If you have only a single EditShare server, it is always the Master.

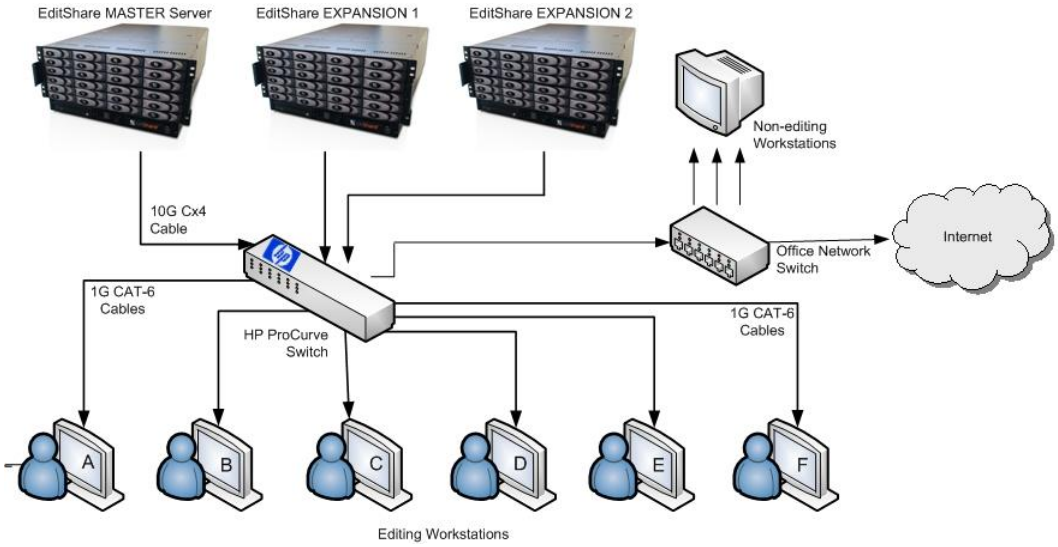
In most cases, when you are instructed to "connect to the server," you connect to the Master server. From the EditShare Manager on the Master server, you can create and manage Media Spaces on any EditShare server in the ESA Group and add users to all servers simultaneously. Using EditShare Connect, users can then connect to any Space without even knowing which server the Space is located on – the EditShare system takes care of the details.

See the following topics:

- Network Configuration for Multiple Servers: Single Network
- Network Configuration for Multiple Servers: Multiple Networks
- Setting up Multiple Servers with ESA Assistant
- EditShare Management Tools with Multiple Servers

Network Configuration for Multiple Servers: Single Network

By far the easiest way to set up multiple EditShare servers is if you are using a single-network topology with 10-gigabit Ethernet. In this case, you can simply connect an additional 10-gigabit cable from each EditShare server to your 10-gigabit switch, as shown in the following illustration.



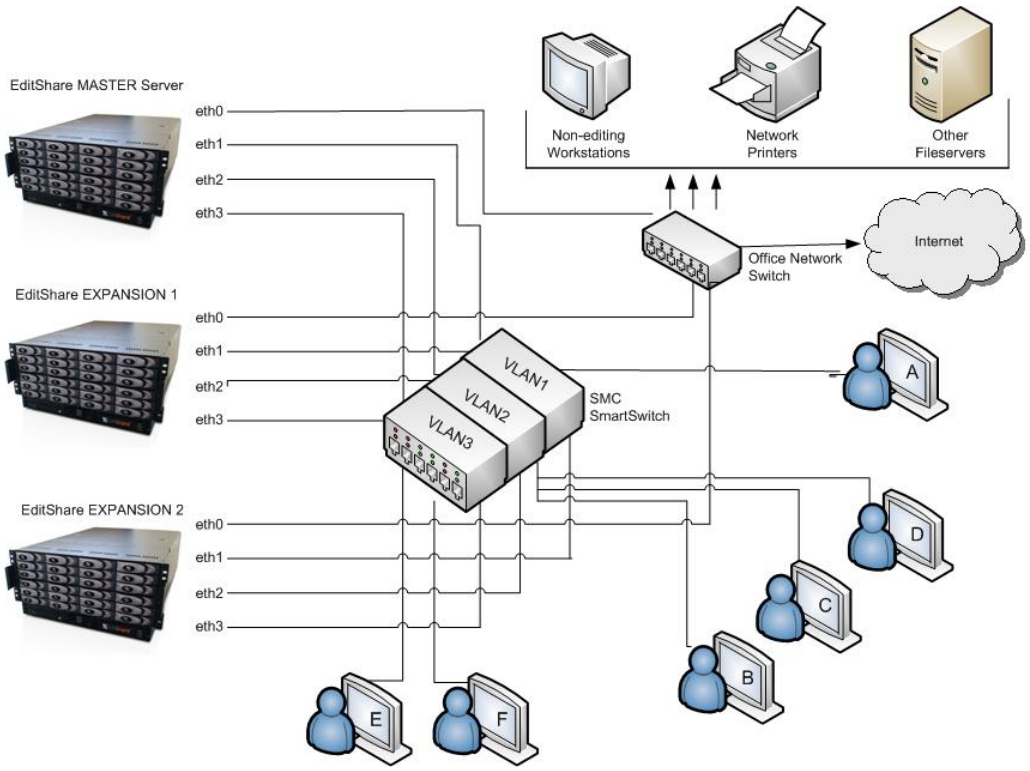
Use the following guidelines for setting up the network configuration with a single-network topology:

- Switch mode is not supported with multiple EditShare servers in an ESA Group.
- You must assign an IP address in the same subnet to the 10-gigabit port on each server.

EditShare strongly recommends a single-network configuration for multiple servers in an ESA Group.

Network Configuration for Multiple Servers: Multiple Networks

If you must use multiple networks with your two or more EditShare servers, every subnet requires a switch (or a VLAN on a Smart Switch) for every workstation to be able to contact every server, as shown in the following illustration.



For larger networks with many editing workstations, this can quickly get out of hand, and a single-network topology with a 10-gigabit switch is much easier to manage. If you must set up a complex network like this, consult a networking specialist for advice tailored to your situation.

Setting up Multiple Servers with ESA Assistant

NOTE: *With version 6.0, the ESA Assistant is included in the EditShare Role Assistant. For the latest information, see your Version 6.0 ReadMe.*

The ESA Assistant, available from the EditShare Role Assistant, manages all the configuration files needed to make multiple EditShare servers work together seamlessly. Run ESA Assistant only on a Master server. You need to use it under the following circumstances:

- To add an additional EditShare server to your network
- To remove an EditShare server from your network
- To change the hostname
- To change the network interface

After you make changes with the ESA Assistant, you need to restart all of your EditShare servers for the change take full effect. ESA Assistant should therefore only be run when all other users have logged out of the EditShare system.

See the following topics:

- "Establishing an ESA Group" on page 64
- "Adding Another Server to an ESA Group" on page 69
- "Removing a Server from an ESA Group" on page 70
- "ESA Conflicts" on page 72
- "Changing IP Addresses" on page 74

Establishing an ESA Group

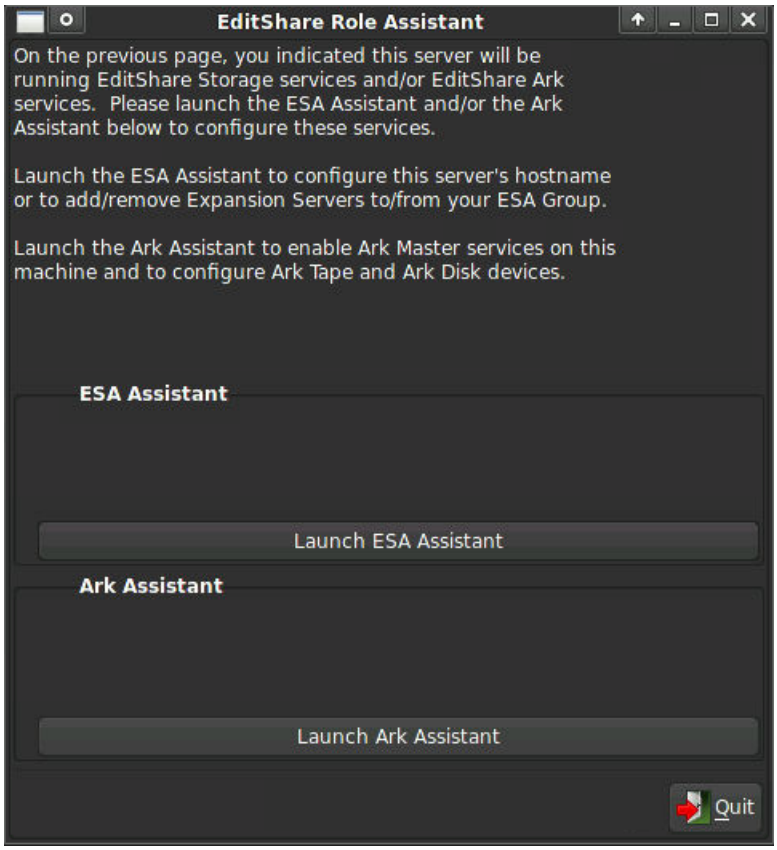
After you install an additional EditShare server, you need to run the ESA Assistant on the Master server to establish the ESA Group.

To establish an ESA Group, do the following.

TASK

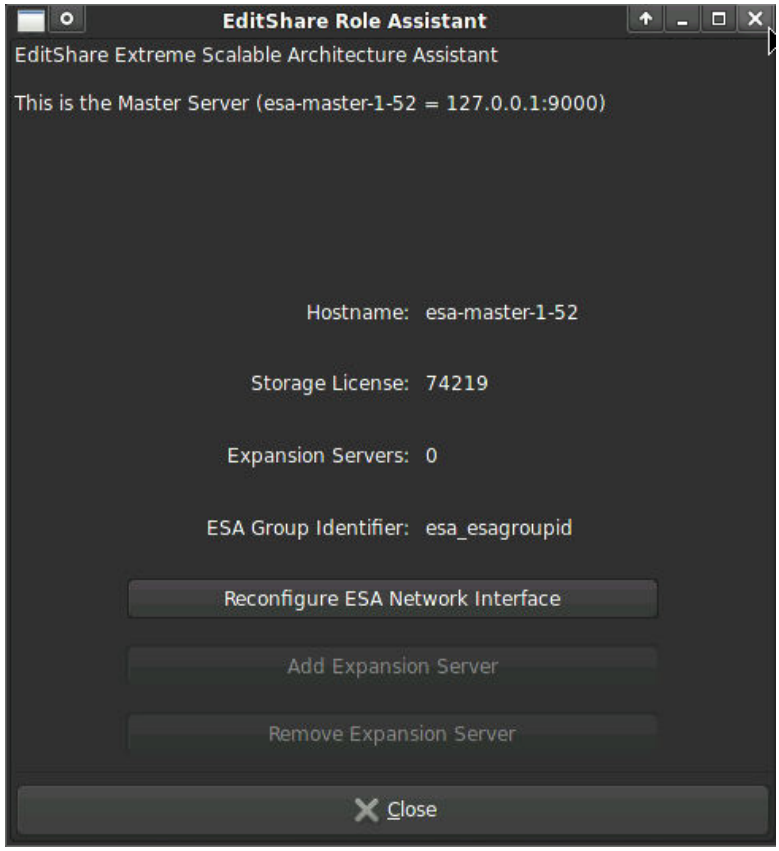
1. Carry out network configuration on each server.
2. Set the EditShare server's IP addresses (see "IP Addresses, Subnets, and Routers" on page 41).
3. Make sure all other users are logged out of the EditShare system.
4. Start the EditShare Role Assistant (see "Using the EditShare Role Assistant" on page 253).

5. Follow the prompts until you reach the page that includes buttons for the ESA Assistant and the Ark Assistant.



6. Click Launch ESA Assistant.

   The EditShare Extreme Scalable Architecture Assistant opens.

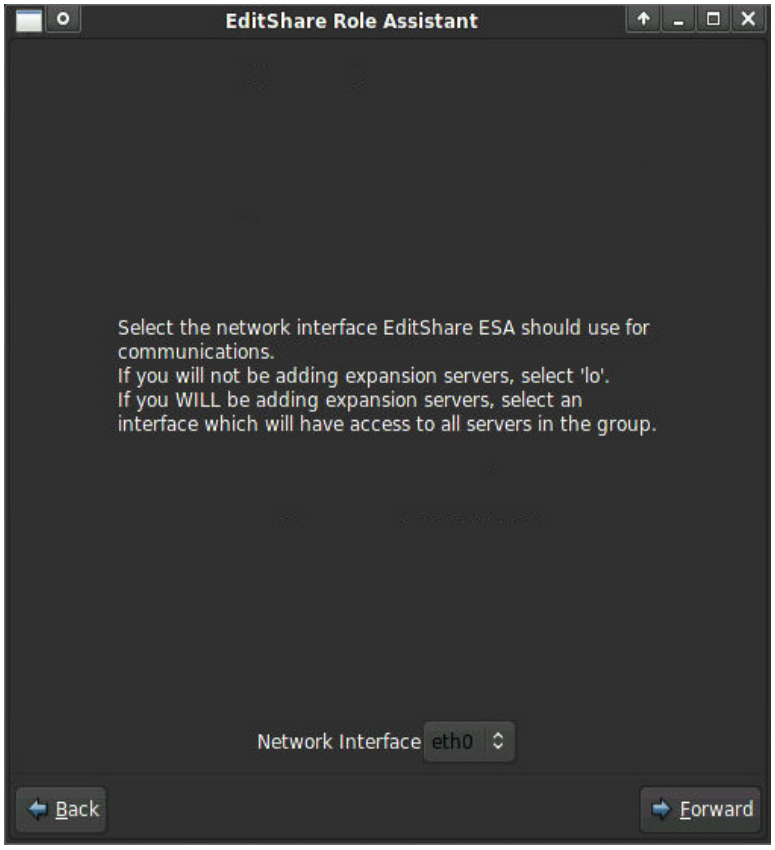


It displays the current settings for hostname, storage license, expansion servers, and ESA group identifier.

7. To change the network interface, click Reconfigure ESA Network Interface.

   NOTE: *You must reconfigure the ESA network before you add an expansion server.*

   A window opens.



8. Do one of the following:
   - If you have only one EditShare server, select Network Interface > lo.
   - If you have one or more expansion servers, select an available interface.

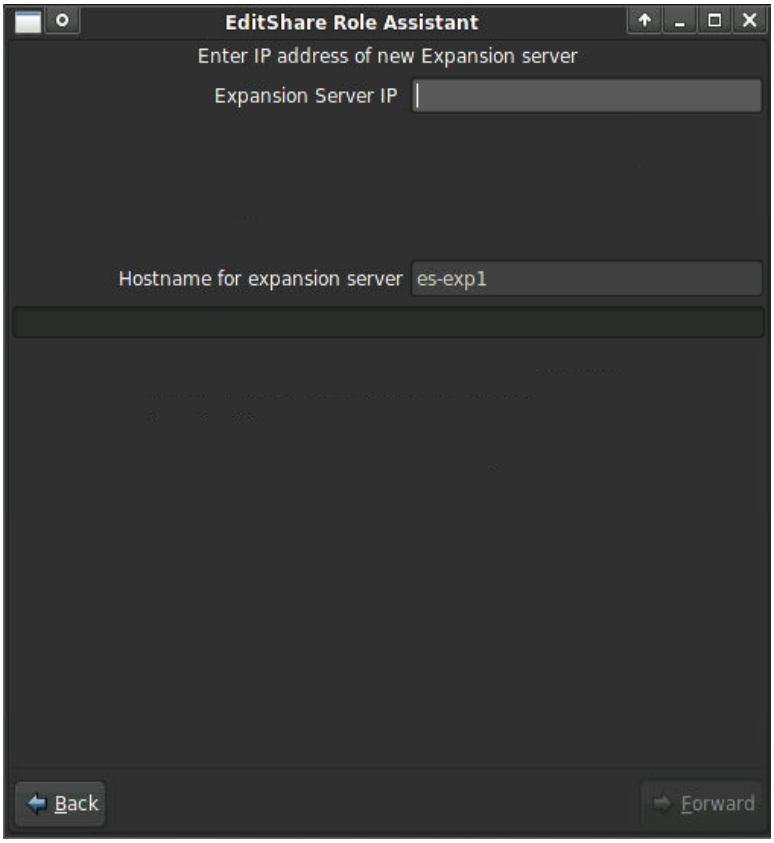
     The interface you select must be able to access all the EditShare servers that are part of this ESA. If there are multiple interfaces with access to all of the EditShare servers, it does not matter which one you select.
9. Click Next.

   A confirmation window opens.
10. Click Continue.

    You are returned to the ESA Assistant window.
11. To add an expansion server, click Add Expansion Server.

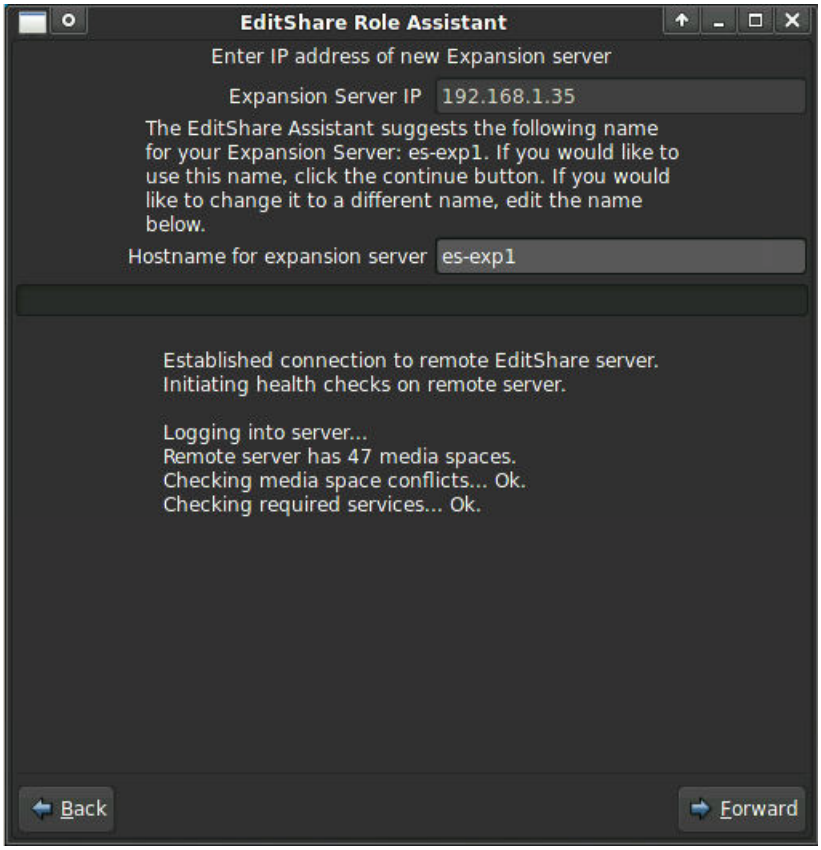
    NOTE: *You must reconfigure the ESA network before you add an expansion server. See Step 7 above.*

    A window opens.



12. Type the IP address of the new expansion server.

    A progress bar appears while the Assistant checks connectivity.



13. (Option) Type a new hostname for the expansion serve.

    NOTE: *You must ensure that no two servers on your network have the same hostname, even if they are in different ESA Groups.*

14. Click Forward.

    A confirmation window opens.

15. Click Continue.

    You are returned to the ESA Assistant window.

16. If you are finished with the ESA Assistant, click Close.

    You are returned to the Role Assistant.

17. Click Quit to leave the Role Assistant.

Adding Another Server to an ESA Group

To add an Expansion server to an ESA Group, you must first set up the Expansion server on the network and configure its IP addresses (using the

Network Configuration tool on that Expansion server). See "Establishing an ESA Group" on page 64.

You must use the same administrator password on all servers for ESA Groups to work. If you have changed your administrator passwords on your existing system and then add a new server, you need to change its administrator password to match before adding it to the ESA Group.

If you have been operating the server to be added independently, you should move any important files stored in users' Private Files Spaces, in the File Exchange Spaces, or in any Avid Shared Project Spaces to local drives or the new Master server. Those spaces on the Expansion server become inaccessible when the server becomes an Expansion. You should also make sure that the new server does not have any Media Spaces that have the same names as Spaces that already exist in the ESA Group, as there cannot be Media Spaces with the same names on two different servers in an ESA Group.

If you create a user on an EditShare server and then add that server to an ESA group as an expansion server, the user is not available in the new ESA group. Make sure you create the ESA group before you create users on any of the intended expansion servers.

When that is done, you can run the ESA Assistant on the Master server to add the new server to its ESA Group. Do the following.

TASK

1. Move any important files stored in users' Private Files Spaces, in the File Exchange Spaces, or in any Avid Shared Project Spaces to local drives or the new Master server.
2. Make sure that the new server does not have any Media Spaces that have the same names as Spaces that already exist in the ESA Group.
3. Follow Steps 3-9 in "Establishing an ESA Group" on page 64.

   The new expansion server is added.
4. Click Close in the ESA Assistant, and the click Quit to leave the Role Assistant.

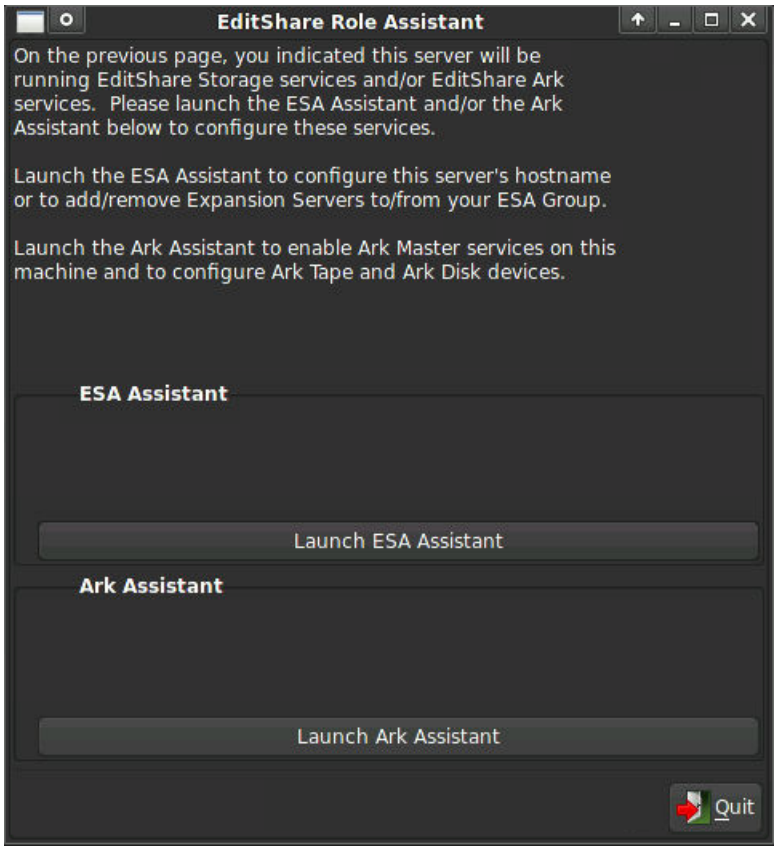
Removing a Server from an ESA Group

When you remove a server from an ESA Group, all the data on the server to be removed is preserved. Do the following:

TASK

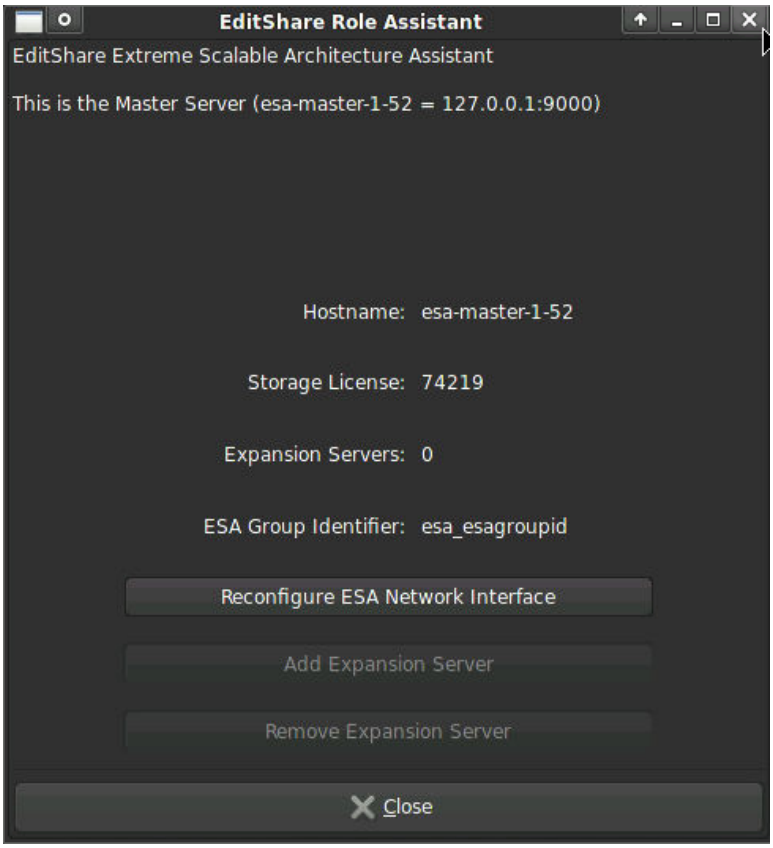
1. Start the EditShare Role Assistant (see "Using the EditShare Role Assistant" on page 253).

2. Follow the prompts until you reach the page that includes buttons for the ESA Assistant and the Ark Assistant.



3. Click Launch ESA Assistant.

   The EditShare Extreme Scalable Architecture Assistant opens.



4. Click Remove Expansion Server.
   A window opens.
5. Type the IP address of the expansion server you want to remove.
   A progress bar appears while the Assistant checks connectivity.
   A confirmation window opens.
6. Click Continue.
   You are returned to the ESA Assistant window.
7. If you are finished with the ESA Assistant, click Close.
   You are returned to the Role Assistant.
8. Click Quit to leave the Role Assistant.

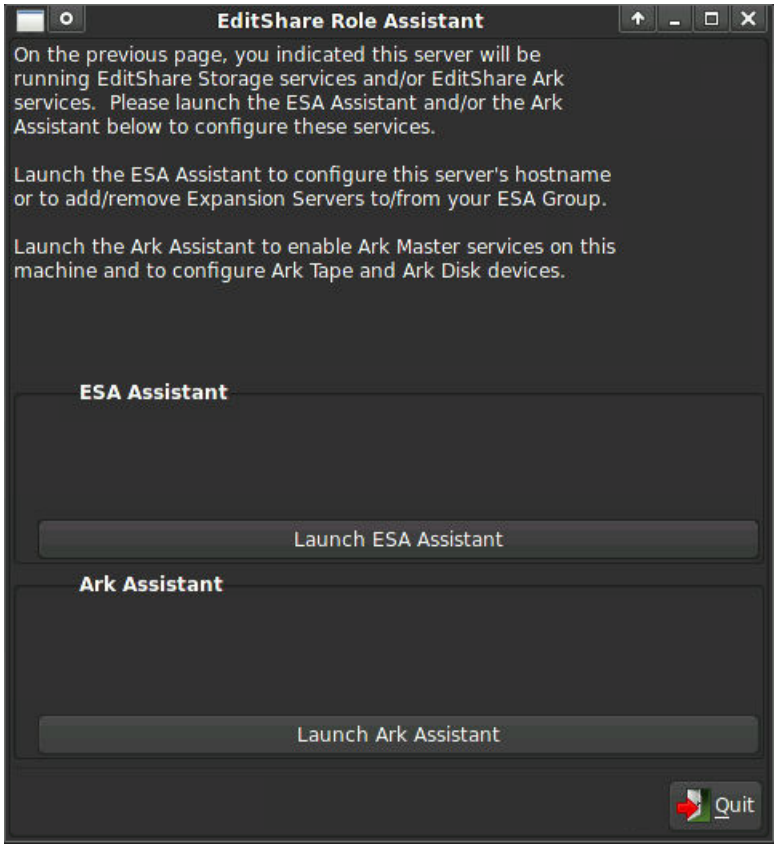
ESA Conflicts

At all times, all servers in an ESA Group must maintain synchronized copies of certain configuration information. If a server is removed from your network without first removing it from the ESA Group, it is possible for it to become out

of sync with the rest of the ESA Group. For example, a new user added to the ESA Group would not be added to the server that was not available at the time. Fortunately, it is easy to resynchronize the server that has become disconnected. Do the following.

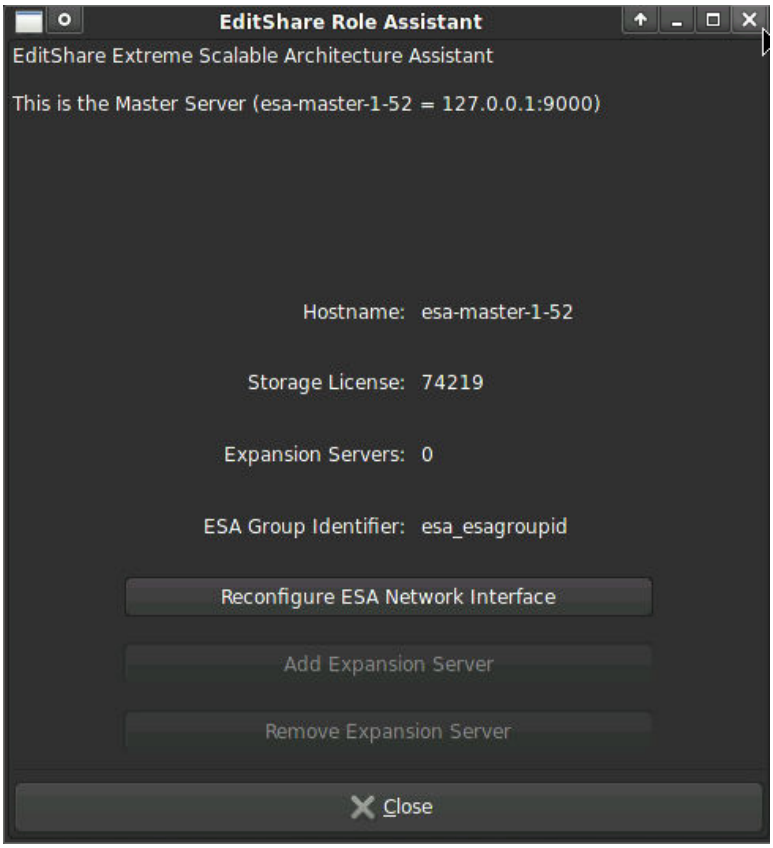
TASK

1. Start the EditShare Role Assistant (see "Using the EditShare Role Assistant" on page 253).
2. Follow the prompts until you reach the page that includes buttons for the ESA Assistant and the Ark Assistant.



3. Click Launch ESA Assistant.

   The EditShare Extreme Scalable Architecture Assistant opens.



ESA Assistant checks the server's configuration to see if it is properly configured. Any server with a conflict displays a message to that effect.

4. Remove each expansion server conflicting with the ESA group by following the steps in "Removing a Server from an ESA Group" on page 70.
5. Close the ESA Assistant and exit the Role Assistant.
6. Open the ESA Assistant again, and add the expansion servers you removed back to the ESA group (see "Adding Another Server to an ESA Group" on page 69).

   The conflicts are automatically corrected.

Changing IP Addresses

If you change the IP addresses used for ESA operations by the Master server or any Expansion, you need to run the ESA Assistant to reconfigure the ESA Group again.

If the Master's IP address has changed, this is detected when you first start ESA Assistant, and you need to make it a Master server again. Then you need to add each existing Expansion server (if any) again.

If an Expansion server's IP address has changed, ESA Assistant cannot contact it using the old IP address. A message next to that Expansion server indicates this. Remove the “missing” Expansion server, then add it back using the new IP address.

EditShare Management Tools with Multiple Servers

When you have properly configured multiple servers to run together in an ESA Group, EditShare's various management tools allow you to do most management tasks from the Master server alone, rather than needing to connect separately to each server.

For example, the following are some of the benefits:

- Usernames are shared across ESA groups.
- RAIDs from all ESA servers are displayed in EditShare Manager.
- Media Spaces can be mounted seamlessly.
- Diagnostics run on all servers.
- Updates are automatically copied to all servers.

Chapter 5: Configuring Workstations

See the following topics for information about configuring workstations:

- Preparing the Administrator's Workstation
- Using EditShare Manager
- Network Protocols
- Setting up Editors' Workstations

Preparing the Administrator's Workstation

As an EditShare Administrator, you access the EditShare server from a workstation using a remote desktop program called RealVNC that allows you to work with the EditShare desktop as if you were sitting at a monitor and keyboard at the server itself. This application is included in your SMB File Exchange area. You can perform almost all EditShare configuration and management tasks using RealVNC except for configuring the EditShare server's IP addresses, which is best done directly at the server itself.

NOTE: *TightVNC and Chicken of the VNC are no longer supported.*

It is only necessary to install RealVNC on the workstation from which the EditShare Administrator connects to the EditShare desktop. Since only one person should connect to the EditShare desktop at a time, you might want to install the software on only one workstation.

See the following topics:

- "Connecting to the EditShare Desktop" on page 77
- "Starting RealVNC (Windows Only)" on page 78
- "Starting VNC Viewer (Macintosh Only)" on page 79

Connecting to the EditShare Desktop

To perform administrator functions such as managing users and media spaces, RAID array maintenance, and deleting media, use RealVNC to connect to the EditShare desktop. You can also sit at a monitor, keyboard,

and mouse connected directly to the server, if you have them, although it is often more comfortable and convenient to be elsewhere.

Only one administrator at a time should access the EditShare server through RealVNC. If more than one user connects to EditShare at the same time through RealVNC, both users have control of the same desktop.

NOTE: *The desktop you see when using RealVNC is not the same desktop you would see if you were sitting at the console. It contains the same controls, but if you were to, for example, open EditShare Manager sitting at the console, a user connected through RealVNC would not see that you had done so.*

You can use the Lock Screen icon at the bottom of your screen to lock the console – that is, the monitor and keyboard directly connected to the server – even from a remote RealVNC session. This helps prevent unauthorized people from accessing the desktop, but does not interfere with RealVNC sessions. If you need to access the console when it is locked, press any key, then type the EditShare password.

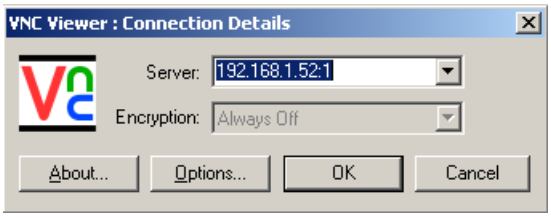
Most EditShare management is done from the EditShare Desktop on the Master server only. If you have one or more Expansion servers, you rarely need to access their Desktops directly.

Starting RealVNC (Windows Only)

To access the EditShare desktop from a Windows workstation, do the following.

TASK

1. Navigate to File Exchange > SMB > Client Installers > VNC.
2. Copy the .exe file to your Windows desktop and double-click it.
   The VNCViewer Connection Details dialog box opens.



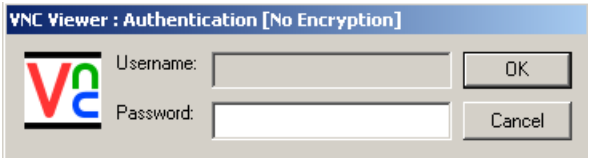
3. Type the IP address of the port on the EditShare Master Server to which your workstation is connected, followed by :1 (colon and the number one) which tells EditShare to display Desktop Number 1. For example, a typical

administrator might type 192.168.0.3:1 or 192.168.1.3:1. After the first time you use VNCViewer, it automatically fills in the IP address you last used.

NOTE: *If you have changed the IP addresses on the EditShare server, you have to type a different IP address in VNCViewer than what is shown in the default configuration.*

4. Click OK.

   The VNCViewer Authentication dialog box opens.



5. Type your EditShare Administrator's password in the Password text box.
6. Click OK.

   The EditShare desktop opens.

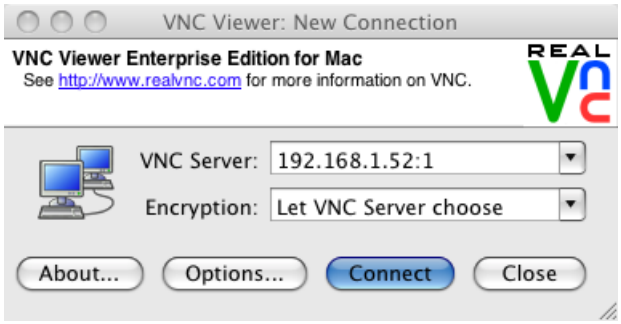
Starting VNC Viewer (Macintosh Only)

To connect to the EditShare desktop using VNC Viewer, do the following.

TASK

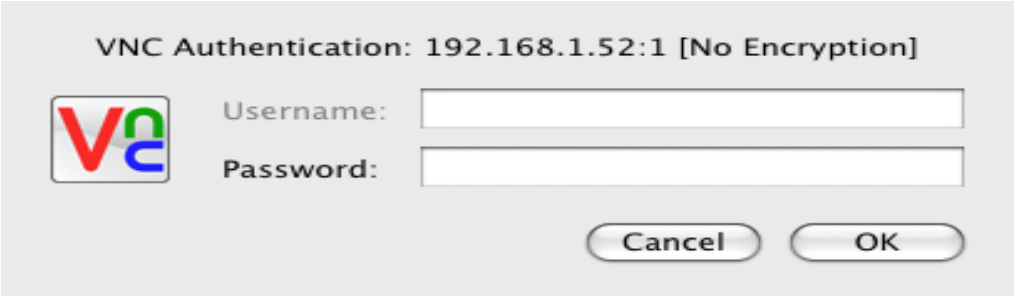
1. Navigate to File Exchange > SMB > Client Installers > VNC.
2. Copy the .dmg file to your Macintosh desktop.
3. Double-click VNCViewer in the Finder.

   The VNCViewer New Connection dialog box opens.



4. Type the IP address of the EditShare server in the VNC Server text box.
5. Keep the default Encryption selection, and then click Connect.

   The VNC Authentication dialog box opens.



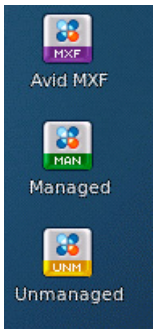
6. Type your EditShare Administrator's password in the Password text box.
7. Click OK.

   The EditShare desktop opens.

Using EditShare Manager

After you connect to the EditShare Master server from your workstation via RealVNC, the EditShare desktop opens.

The most important program on the desktop is EditShare Manager. There is a separate version of the EditShare Manager for each type of Media Space, each with its own icon on the right side of the desktop.



You use one or more of the versions of this program to manage almost all aspects of your EditShare system.

NOTE: *When you manage a Media Space, you need to use the version of EditShare Manager specialized for that type of Space.*

See the following sections

- "Password Security" on page 81
- "Configuring the Desktop" on page 81

- "Opening EditShare Manager" on page 83

Password Security

A password is required every time you open the EditShare Manager program. Anyone who has the password for the user **editshare** has the ability to open up the EditShare Manager program, add and delete users, add and delete Media Spaces, delete media, and so on. Non-administrators should access the EditShare server only through EditShare Connect.

*CAUTION: **To help keep your system secure, always close EditShare Manager when you are finished with it. Don't give the password out unnecessarily. Only Administrators should be allowed to use the EditShare Manager programs.***

Configuring the Desktop

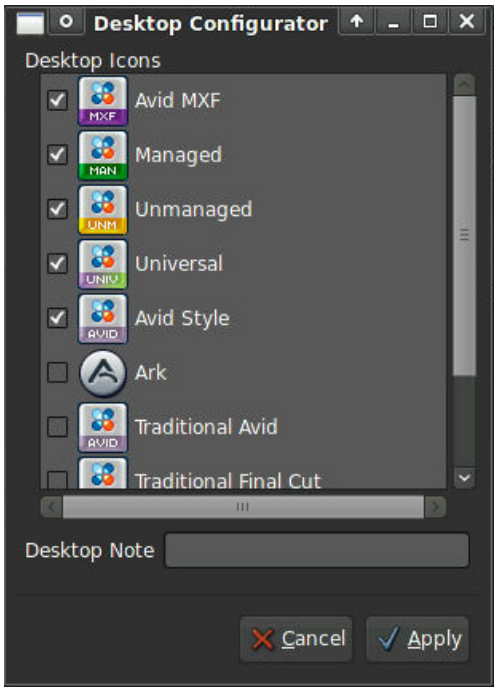
Most EditShare systems use only one or two types of Media Spaces. For example, if all of your editors use Avid systems, you probably only use AvidMXF Media Spaces. It helps your workflow to display icons only for Media Space types you use and to hide icons for Media Space types you don't use.

To add or remove Media Space icons from your desktop, and to change the desktop background, do the following.

TASK

1. Close any open EditShare Manager, RAID Manager, or other windows.
2. Open the Control Panel.
3. Double-click Configure Desktop.

   The Desktop Configurator dialog box opens, listing all the available Media Space types.



4. Select only the Media Space types you want to see on the desktop.

   NOTE: *Universal Media Spaces are only for use with EditShare Flow. For more information, see your Flow documentation.*

5. (Option) Type a short desktop note to appear in the lower-left-hand corner of the desktop in the Desktop Note text box. This can be useful, for example, if you have more than one EditShare server and you want to make it clear which one is which just by looking at the desktop.

6. Click Apply.

   In order to properly redisplay your desktop and show the icons in the correct positions, it is necessary to restart your desktop. You are asked if you want to do this.

7. Click Yes unless you have an important reason not to.

   All open windows on the desktop are closed, as is any RealVNC session, and you are logged out.

   When you log into the EditShare server again, the desktop note you provided is displayed, and only the EditShare Manager icons that were still selected appear on the desktop.

   NOTE: Do not delete or move other icons on the desktop.

Opening EditShare Manager

To open any of the EditShare Manager programs, do the following.

TASK

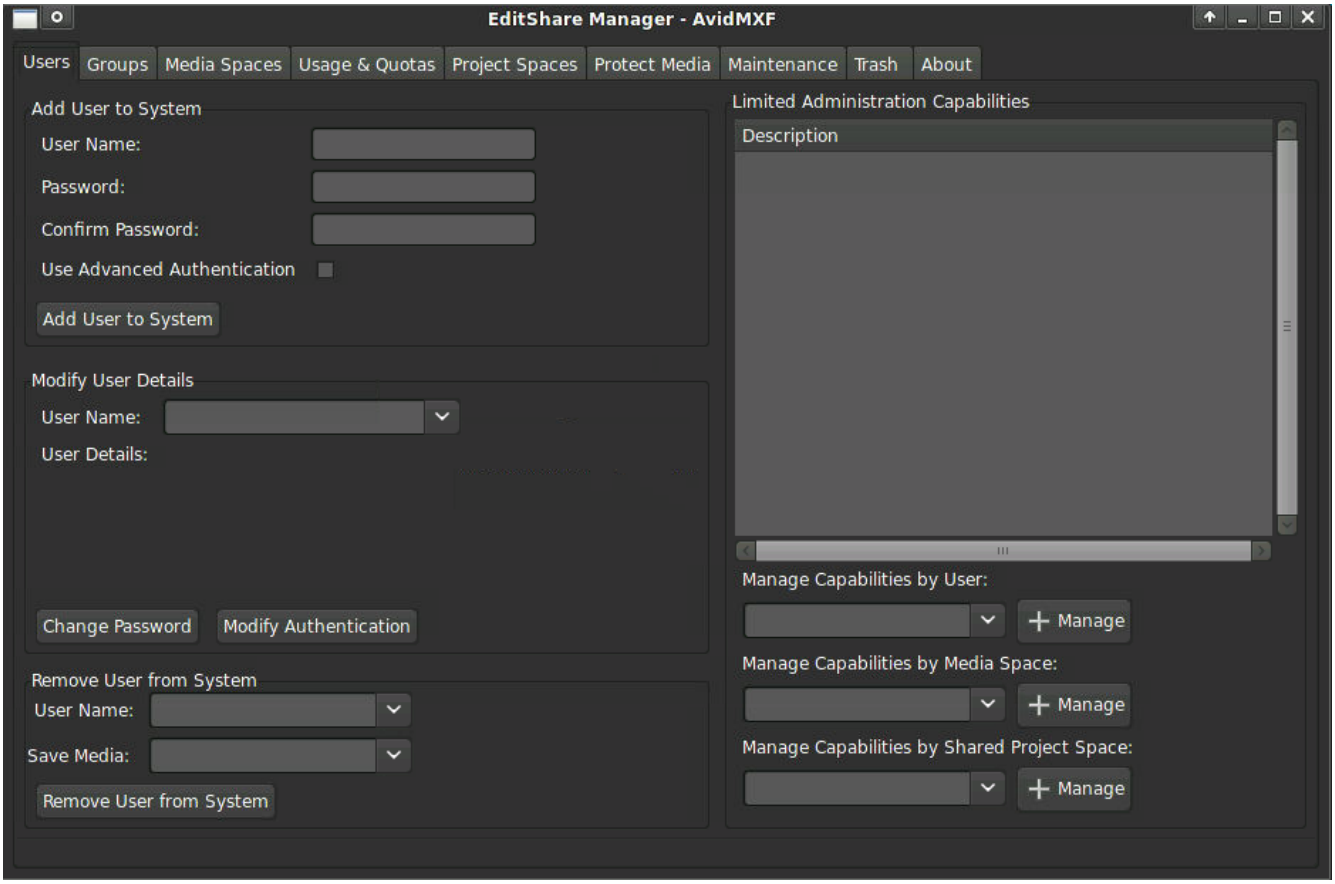
1. Double-click the icon on the right side of the desktop.

   The Login to EditShare dialog box opens.

2. Type the EditShare password, and click OK.

   A Connecting message box opens while the system gathers information from the EditShare servers, and then the EditShare Manager window opens.

   NOTE: *If you click Cancel in the Connecting message box, an error message box opens. Click OK, and then double-click the EditShare Manager icon again.*



3. Use EditShare Manager for the following functions:

Function	Description
Adding and managing users	• "Chapter 6: Planning EditShare Accounts" on page 113 • "Chapter 7: Adding User Accounts" on page 117 • "Chapter 8: Managing Users" on page 135
Adding and managing Media Spaces	• "Chapter 9: Planning Media Spaces" on page 145 • "Chapter 10: Creating Media Spaces" on page 153 • "Chapter 11: Managing Media Spaces" on page 173
Granting limited administrative capabilities to users	"Chapter 13: Limited Administrative Capabilities" on page 213
Giving users access to Media Spaces	"Adding Users to Media Spaces" on page 156
Setting quotas on Media Spaces	• "Using Quotas to Control Storage Space" on page 150 • "Changing Quotas on Media Spaces" on page 168 • "Monitoring Disk Usage and Quotas" on page 183
Adding and managing Project File spaces (Avid and Final Cut Pro only)	"Chapter 14: Project File Sharing" on page 227
Configuring automatic Sharing and Refreshing	"Configuring Automatic Share and Refresh" on page 329
Sharing and Refreshing media for users	"Sharing and Refreshing Media" on page 324
Deleting and undeleting media	"Chapter 12: Organizing and Deleting Media" on page 197
Monitoring disk usage	"Monitoring Disk Usage and Quotas" on page 183

Network Protocols

Before editors begin to work within the EditShare system, you must decide on a consistent network protocol. The available protocols are Server Message Block (SMB) and Apple File Protocol (AFP). EditShare strongly recommends not using AFP, however. If your editors use only Windows workstations, only SMB

is available, and you can safely skip the rest of this section. If some or all of your editors use Macintosh workstations, there are several considerations to be aware of. See the following sections:

Network Configuration: OS X Network Protocols

You can connect to EditShare Spaces from a Macintosh OS X workstation in three ways:

- DAVE from Thursby Systems (an alternative form of SMB): This is a network client program that replaces the Apple built-in SMB client and performs extremely well, especially on complex sequences with many edits and tracks. EditShare strongly recommends using DAVE. DAVE SMB is generally the best option for both Final Cut Pro and Avid applications running on Macintosh OS X. DAVE licenses can be purchased directly from EditShare. Contact your dealer or EditShare Sales for current pricing information.
- Native SMB (also called Windows Networking Protocol, Samba, or CIFS): This is also built into each Macintosh system; however, EditShare has found that while it has a very high data transfer rate, it does not perform as well when it must frequently switch between files, as it does when moving quickly along a sequence with many edits and many tracks. In addition, recent versions of Avid editing applications cannot capture or render to a Media Space mounted with Native SMB.
- Apple Filesharing Protocol (AFP): This method is built in to each Macintosh system. EditShare strongly recommends not using AFP except in certain circumstances, for example, Final Cut Pro with uncompressed HD. You cannot use AFP with your Avid editing application.

See the ReadMe that came with your system for the currently supported DAVE version for use with EditShare.

EditShare recommends that all Mac users use DAVE SMB. It is also strongly recommended that you run the Mac Utilities discussed in "EditShare Mac

Utilities (Macintosh Only)" on page 105. Playback performance is generally better with jumbo frames enabled.

You cannot use both native SMB and DAVE SMB at the same time. Once DAVE is installed on a workstation, the native SMB client is no longer available (unless you uninstall DAVE).

Sharing Files Between Operating Systems

If you need to share files between Windows and Macintosh workstations, you must use SMB. On the Macintosh side, you can use either native SMB or DAVE SMB and the Windows workstations can share the files. Don't switch between native SMB and DAVE SMB.

If you access an SMB share on Macintosh and Windows workstations, only delete files in that share using a Macintosh. Windows does not delete the resource fork files, leaving the resource fork files behind with no corresponding real file. This is not dangerous, but it clutters your disk.

Using DAVE SMB for Avid

Beginning with Avid versions 2.7.2 and 5.7.2, Avid can no longer capture to any networked storage (including but not limited to EditShare) using the SMB client built into the OS X operating system. EditShare has always recommended using the Thursby Systems DAVE software to get the best performance from Avid software, but with Avid Versions 2.7.2 and 5.7.2 and higher, it is required.

EditShare is investigating this issue and might be able to offer additional options in the future, if later versions of Avid continue to exhibit this behavior

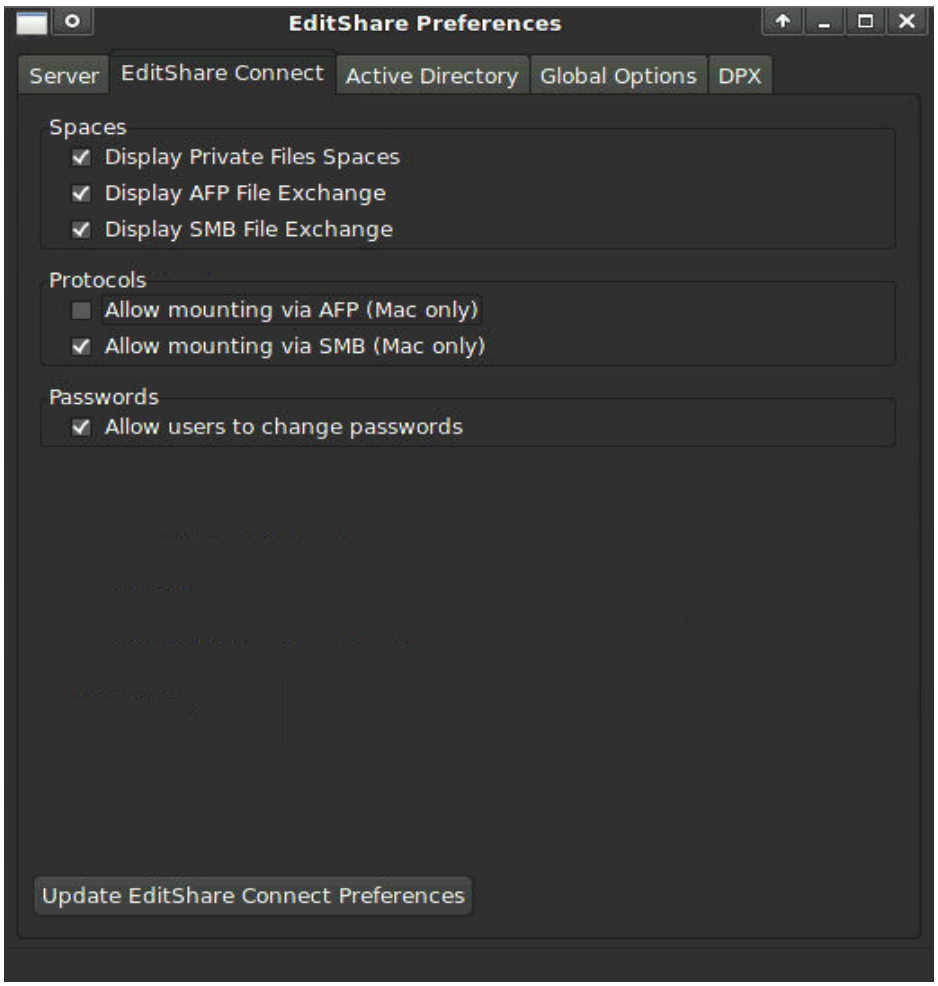
Disabling AFP for EditShare Connect (Macintosh Only)

You can disable AFP for your Macintosh users, enforcing a consistent protocol. To disable AFP, do the following.

TASK

1. Open the EditShare Control Panel and double-click EditShare Preferences.
   The EditShare Preferences dialog box opens.

2. Click the EditShare Connect tab.



3. Deselect Allow Mounting via AFP.

NOTE: *Do Not Disable Both SMB and AFP. Deselecting both options prevents all Macintosh users from accessing EditShare network drives.*

Resource Forks

Macintosh operating systems store additional data with each file they save. This data is called a resource fork. On drives formatted by Macintosh operating systems, the resource forks are associated with the files and invisible, but on network filesystems like EditShare, this data must be saved in a separate file. Each network protocol saves this data slightly differently:

- Native SMB stores the resource fork for each file in a separate file with the same name prefixed with **._** (for example, **._project.fcp**).

- DAVE SMB stores the resource forks for all files in a folder inside a subfolder called **resource.frk**.
- AFP stores resource forks for all files in a folder inside a subfolder called **.AppleDouble**.

Windows operating systems do not store resource forks.

As a result of these differences, files saved using one network protocol are not properly recognized by the OS X operating system if you reconnect to the drive using another network protocol, and you see the unexpected files or folders with the names shown in the preceding list.

NOTE: *Do not delete these files, or your other files will not be read properly even with the correct network protocol.*

Use only one network protocol (native SMB or DAVE SMB) on any given Media Space. (EditShare strongly recommends using DAVE SMB.)

For example, don't connect to a Media Space using native SMB one day, and then connect using DAVE SMB another day.

Avid Network Protocol Considerations (Macintosh Only)

If you work with Avid on a Macintosh, consider the following about network protocol:

- You must use SMB with Avid. You can use either native SMB or DAVE SMB with Avid versions prior to 2.7.2/5.7.2, but you must use DAVE SMB with versions 2.7.2/5.7.2 or later. EditShare strongly recommends DAVE SMB for use with all versions of Avid.
- AvidMXF Avid Media Spaces are not accessible via AFP.
- With older versions of Avid, you can switch back and forth from native SMB to DAVE SMB or vice versa, but Avid usually complains that the media database files have been corrupted soon (but not immediately) after such a change. Delete the media database and let Avid recreate it in this case.
- If you are running an Avid application on any Mac OS older than OS 10.4.3, you must use DAVE SMB. The native SMB client in OS 9 and earlier versions of OS X is not effective.

Final Cut Pro Network Protocol Considerations (Macintosh Only)

If you work with Final Cut Pro, consider the following about network protocol:

- EditShare strongly recommends using SMB with the EditShare-provided version of DAVE for best performance.
- You can use native SMB or AFP with Final Cut Pro, but you should discuss this with EditShare Technical Support first.
- EditShare does not support Final Cut Pro on OS 9.

Setting up Editors' Workstations

For information about setting up editors' workstations, see the following topics.

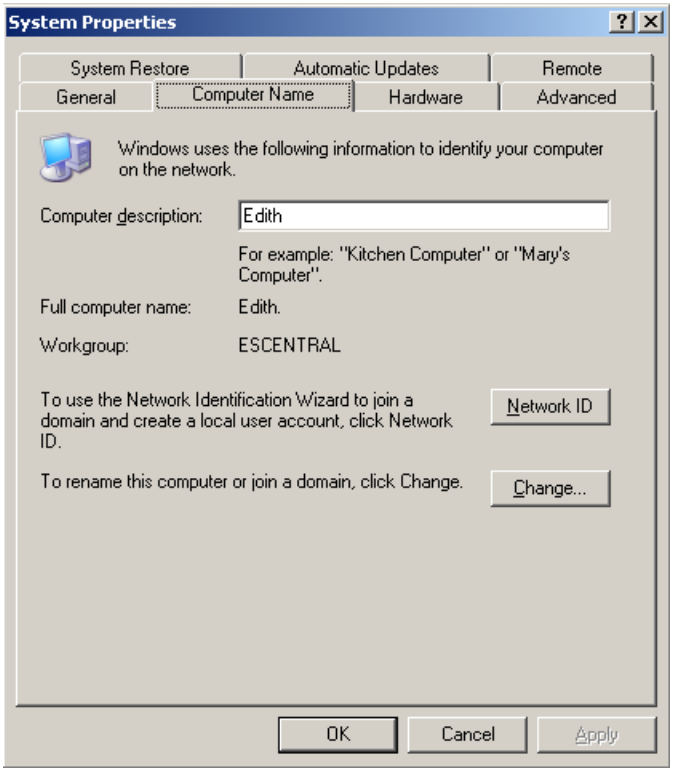
- "Naming Workstations" on page 90
- "Naming Boot Drives" on page 91
- "Disabling User Account Controls" on page 92
- "Network Configuration: Windows XP Workstations" on page 94
- "Network Configuration: Windows Vista and Windows 7 Workstations" on page 96
- "Tuning for Windows Uncompressed HD" on page 100
- "Network Configuration: OS X Workstations" on page 101
- "Tuning OS X Systems for Uncompressed HD" on page 103
- "EditShare Connect Installation" on page 104
- "Installing EditShare Connect (Windows Only)" on page 104
- "Installing EditShare Connect (Macintosh Only)" on page 104
- "Installing DAVE (Macintosh Only)" on page 105
- "EditShare Mac Utilities (Macintosh Only)" on page 105
- "Optimizing System Preferences (Macintosh Only)" on page 110
- "Clock Synchronization" on page 111

Naming Workstations

Each Windows and Macintosh workstation on your network must have a unique name. To name your workstation, do the following:

TASK

1. On a Windows system, do the following:
   a Right-click My Computer and select Properties.
   The Computer Properties dialog box opens.
   b Click the Computer Name tab, and type a unique name for the workstation in the Computer description text box.



   c Click OK.
2. On a Mac, do the following:
   a Select System Preferences from the Apple menu.
   b In the Internet & Network area, click Sharing.
   The Sharing window opens.

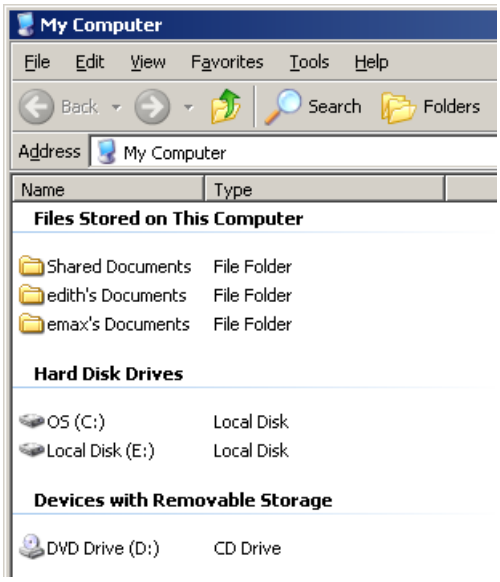
c Type a unique name for the workstation in the Computer Name text box, and then close the Sharing window.

Naming Boot Drives

Each boot drive on your network must have a unique name. The boot drive is the primary hard drive on your Windows or Mac workstation. To name your boot drive, do the following:

TASK

1. On a Windows system, do the following:
   a Double-click My Computer.



   b Click the C: drive name, and type a unique name for it.
2. On a Mac, do the following:
   a Click the hard drive icon, and then click the drive name.

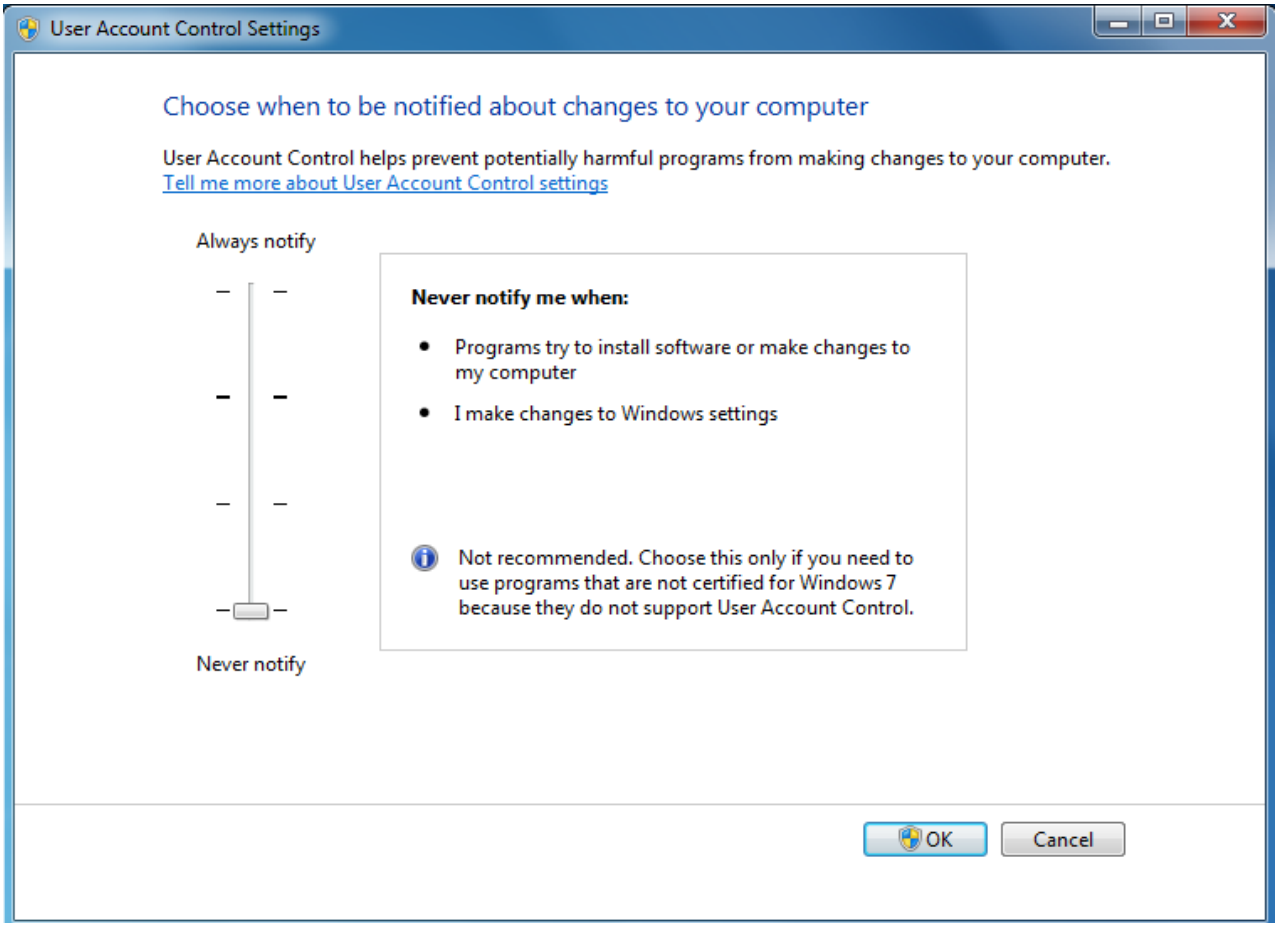
   b Type a unique name for the drive.

Disabling User Account Controls

The default levels of the User Account controls (UAC) on your Windows 7 or Windows Vista workstation might impede performance. To disable user account controls, do the following:

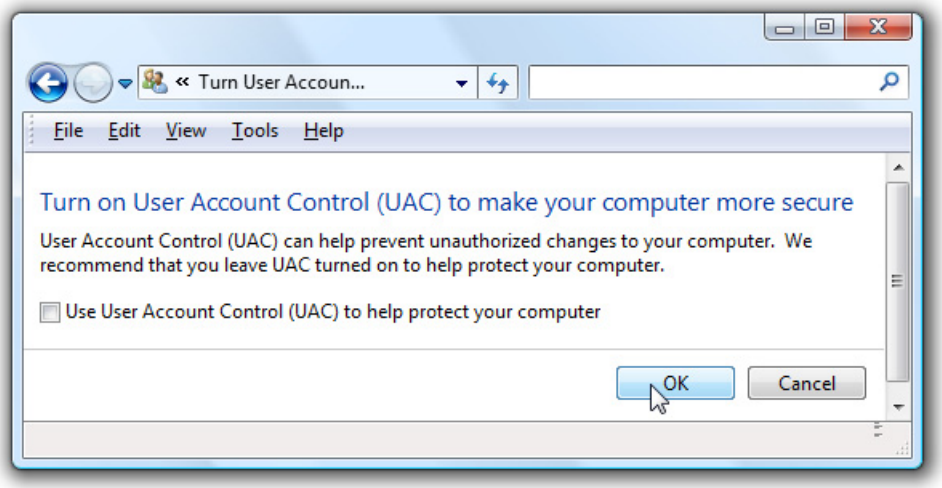
TASK

1. On a Windows 7 system, do the following:
   a Click the Start Button and select Control Panel > User Accounts.
   b Click Change User Account Control settings.



   c Click the slider and drag it to the Never Notify setting, and then click OK.

2. On a Windows Vista system, do the following:
   a Click the Start Button and select Control Panel > User Accounts.
   b Click Turn User Account Control on or off.



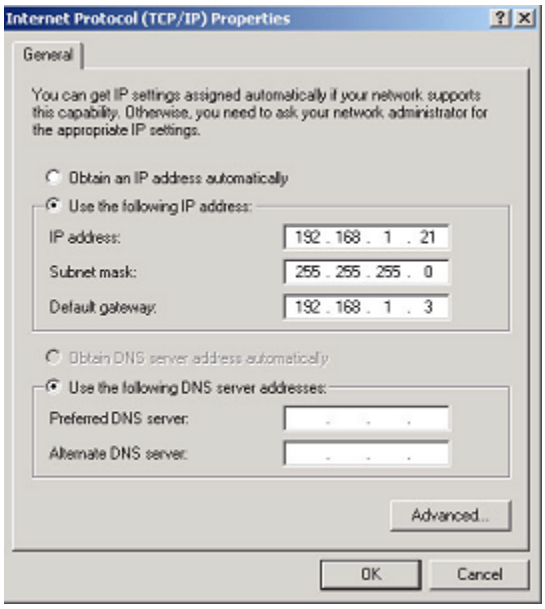
   c Deselect Use User Account Control (UAC) to help protect your computer, and then click OK.

Network Configuration: Windows XP Workstations

To configure a Windows workstation, do the following.

TASK

1. Click the Start button, and select Control Panel.
2. Double-click Network Connections.
3. Double-click Local Area Connection, then Properties.
4. Double-click Internet Protocol (TCP/IP).
   The Internet Protocol (TCP/IP) Properties dialog box opens.

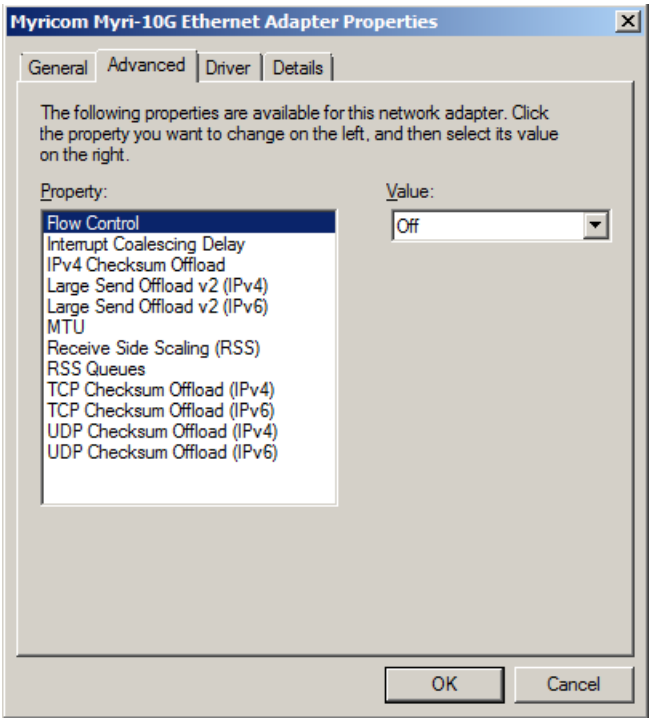


5. Make a note of all of your current settings so that you can restore them if necessary.
6. Do one of the following:
   - If DHCP services are available on your network, select Obtain an IP address automatically.
   - If DHCP services are not available on your network, select Use the Following IP Address. Set the IP address, subnet mask, default gateway, and DNS addresses to values appropriate for your network.
7. Click OK to save your changes.
8. Click Configure in the Local Area Connection Properties window.

   The Network Connection Properties dialog box for your card opens.
9. Click the Advanced tab.

   NOTE: The options in this tab vary depending on your card.

10. Select Flow Control in the Settings list and Off in the Value list.



NOTE: *This is Windows Flow control, not EditShare Flow Control.*

11. Select Interrupt Coalescing Delay in the Settings list and 25 in the Value list.
12. Activate jumbo frames by doing the following for most commonly-used network cards:
    a Select Jumbo Frame, Jumbo Packet, or MTU in the Settings list (depending on your card).
    b Select 9014 bytes or 9KB MTU in the Value list.
13. Select Receive Side Scaling in the Settings list and Disabled in the Value list.
14. Click OK, and then click Close.
15. Repeat the procedure for each of your workstations, and then connect the workstations into the switches, and the switches into the EditShare server.

Network Configuration: Windows Vista and Windows 7 Workstations

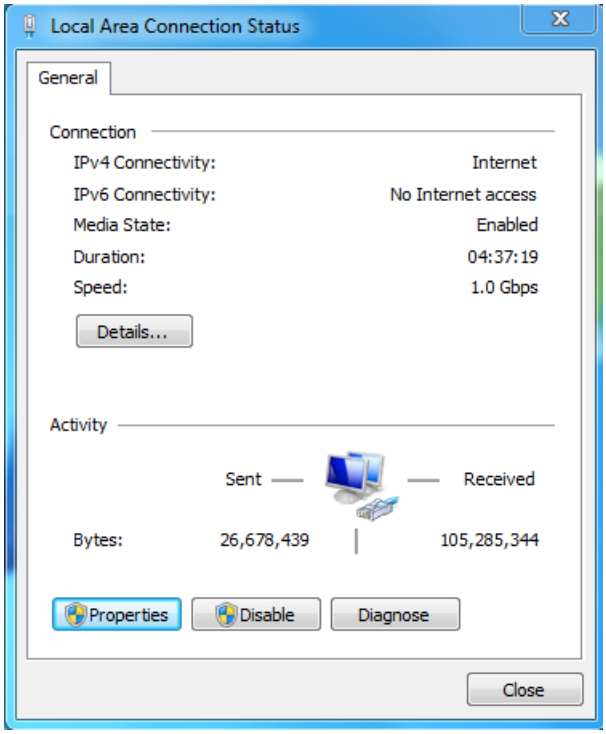
To configure a Windows Vista or Windows workstation, do the following.

TASK

1. Click the Start button, and select Control Panel.

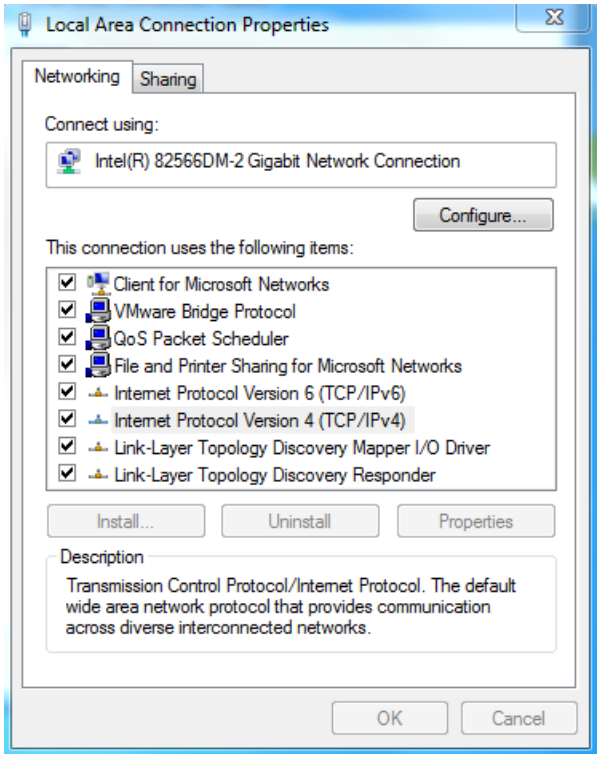
2. Click Network Sharing Center.
3. Double-click Local Area Connection.

   The Local Area Connection Status dialog box opens.



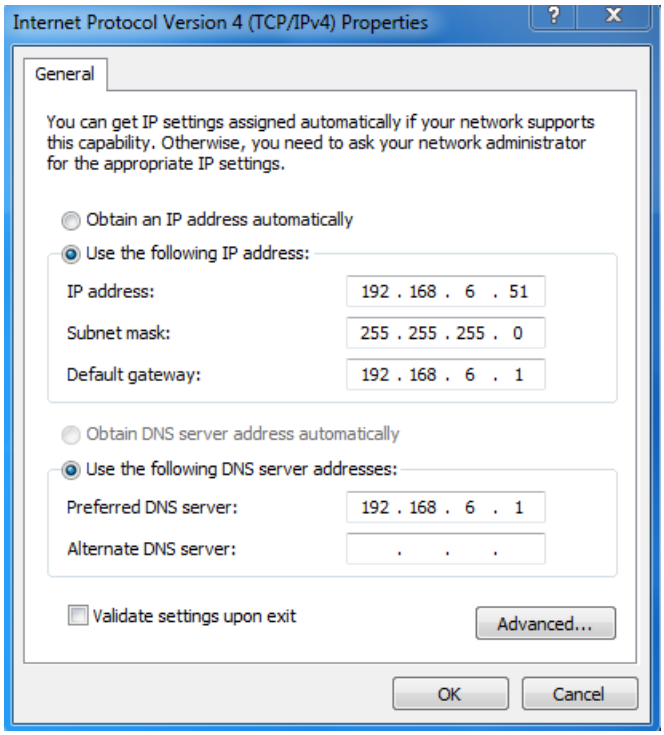
4. Click Properties.

   The Local Area Connection Properties dialog box opens.



5. Double-click Internet Protocol (TCP/IP) version 4.

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

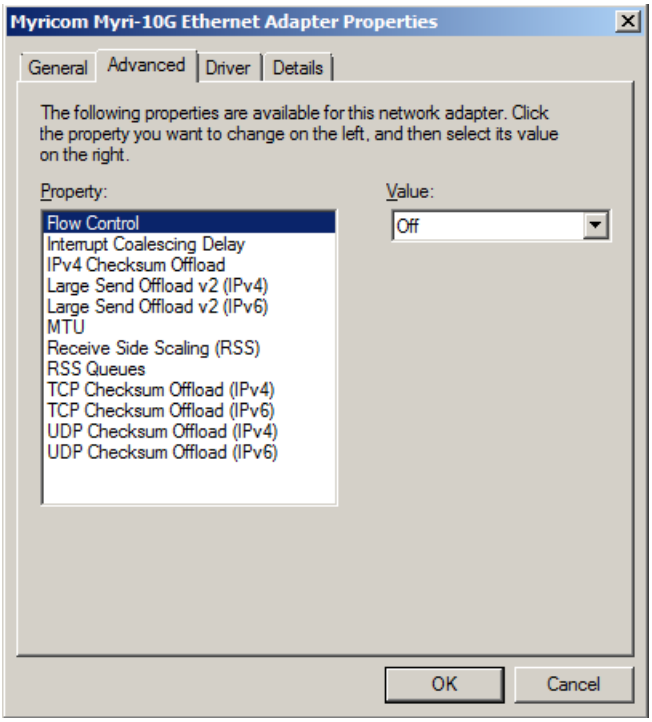


6. Make a note of all of your current settings so that you can restore them if necessary.
7. Do one of the following:
   - If DHCP services are available on your network, select Obtain an IP address automatically.
   - If DHCP services are not available on your network, select Use the Following IP Address. Set the IP address, subnet mask, default gateway, and DNS addresses to values appropriate for your network.
8. Click OK to save your changes.
9. Click Configure in the Local Area Connection Properties window.

   The Network Connection Properties dialog box for your card opens.
10. Click the Advanced tab.

    NOTE: The options in this tab vary depending on your card.

11. Select Flow Control in the Settings list and Off in the Value list.



NOTE: This is Windows Flow control, not EditShare Flow Control.

12. Activate jumbo frames by doing the following for most commonly-used network cards:
    a Select Jumbo Frame, Jumbo Packet, or MTU in the Settings list (depending on your card).
    b Select 9014 bytes or 9KB MTU in the Value list.
13. Select Interrupt Coalescing Delay in the Settings list and 25 in the Value list.
14. Select Receive Side Scaling in the Settings list and Disabled in the Value list.
15. Click OK, and then click Close.
16. Repeat the procedure for each of your workstations, and then connect the workstations into the switches, and the switches into the EditShare server.

Tuning for Windows Uncompressed HD

Windows Vista and Windows 7 systems on 10-Gb Ethernet include a feature that throttles network activity to improve performance. The features operates when multimedia applications are running. This feature, however, affects

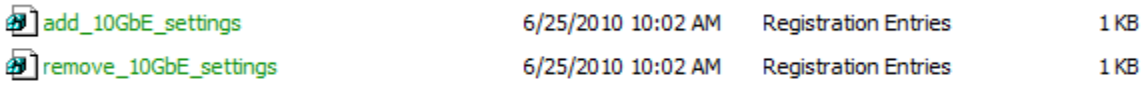
EditShare performance when you work with uncompressed HD. EditShare includes a registry key that disables the throttle feature.

NOTE: *Only Administrators should install these keys.*

To tune for uncompressed HD by disabling the throttle feature, do the following.

TASK

1. Locate the 10GbE_settings files in the SMB File Exchange area.



2. EditShare recommends that you move them to another location that only Administrators can access.
3. Double-click the add_10GbE_settings file.

   A security confirmation dialog box opens.
4. Click Run.

   The registry key is installed and the throttle feature is disabled.
5. To restore the Windows default settings, double-click the remove_10GbE_Settings file, and then click Run.

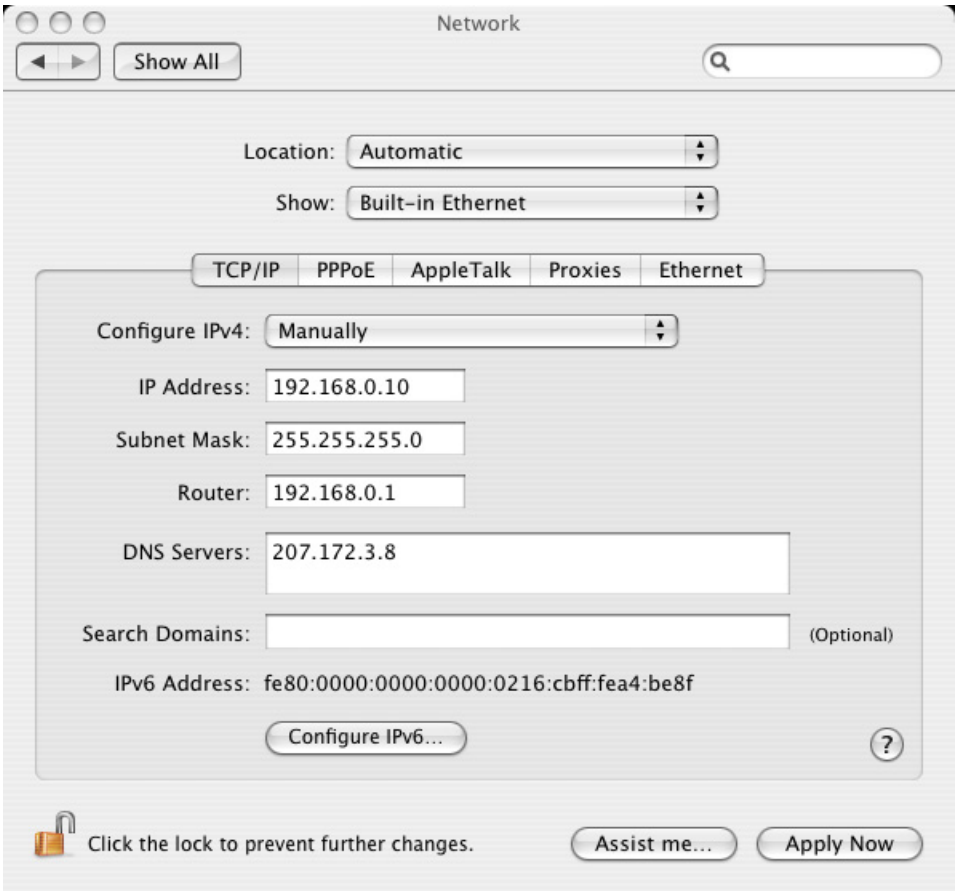
Network Configuration: OS X Workstations

To set the IP address of a Macintosh OS X workstation, do the following.

TASK

1. Open the System Preferences application from the dock, and click Network.
2. Disable any network adapter that you are not using. For example, there is normally no reason that OS X should be using any FireWire port as a network port.
3. If there is more than one network adapter available, drag the network adapter you are using to connect to the EditShare server at the top of the list. This helps ensure maximum performance for video editing.
4. Select the Ethernet interface you want to use to connect to the EditShare server.

5. Click the TCP/IP tab.



6. Make note of all of your current settings so that you can restore them if necessary.
7. Do one of the following:
   a If DHCP services are available on your network (provided by a device such as a router), select Configure IPv4 > Automatically.
   b If DHCP services are not available on your network, select Configure IPv4 > Manually. Then set the IP address, subnet mask, default gateway, and DNS addresses to the preceding values.
8. Activate jumbo frames using the Ethernet tab on this panel. Due to a bug in OS X, even if you activate jumbo frames, the Ethernet tab often still reports that standard (1500 byte) frames are in use. You can confirm that 9000-byte frames are in fact in use by opening a Terminal window and typing the following command:

   ifconfig | grep en | grep mtu

   If the end of the line reads "mtu 9000," you have correctly enabled jumbo frames.

9. Repeat the preceding procedure for each of your workstations, then connect the workstations into the switches, and the switches into the EditShare server.

   You should now be able to connect to the EditShare server from your OS X workstation. However, before you can effectively use EditShare, you need to consider which networking protocol you will be using. For more information, see "Network Configuration: OS X Network Protocols" on page 85.

Tuning OS X Systems for Uncompressed HD

As an Administrator, you can adjust several options for optimal performance with uncompressed HD.

Do the following.

TASK

1. Make sure your Myricom 10 Gigabit adaptor card is in an 8-lane PCI-e slot and not in a 4-lane slot.
2. Open /etc/sysctl.conf in a text editor that allows you to save the file.
3. Add the following lines to the file and then save it:
   - `kern.ipc.maxsockbug=2097152`
   - `net.inet.tcp.sendspace=131072`
   - `net.inet.tcp.recvspace=262144`
4. Open a Terminal and type the following:

   ```
   sudo vi
   /System/Library/Extensions/Myri10GE.kext/Contents/Info.plist
   ```
5. Locate the following pair:
   - `<key>enable_flow_control</key>`
   - `<integer>1</integer>`
6. Change the second line to read `<integer>0</integer>`.
7. Locate the following pair:
   - `<key>intr_coal_delay</key>`
   - `<integer>75</integer>`
8. Change the second line to read `<integer>25</integer>`.
9. Save the file, and then reboot the workstation

EditShare Connect Installation

All workstations that regularly access EditShare should have the latest version of EditShare Connect installed on them. This is the only preparation normally required for Windows workstations.

EditShare Connect can be installed on Windows 2000, XP, and Vista, and OS X 10.4 and later workstations just like any other application. It is available from the Clients link in the Status web page and is also included on the EditShare Utilities CD you received with your EditShare server.

EditShare periodically makes new, improved versions of EditShare Connect available on the EditShare web site. Check the EditShare web site periodically to see if a newer version is available. If you have registered your EditShare server, you should receive an email advisory from EditShare when an important new version is released.

Installing EditShare Connect (Windows Only)

EditShare Connect for Windows is distributed as a standard .exe setup file. If you are upgrading from a previous version of EditShare Connect, it is not necessary to uninstall that version first. Do the following.

TASK

1. Navigate to EditShareConnect.exe via the Status web page or the EditShare Utilities CD.
2. Double-click EditShareConnect.exe.

   It guides you through the installation process.
3. Read and agree to the End User License Agreement.

   The installer creates Start Menu items and a desktop icon.

Installing EditShare Connect (Macintosh Only)

EditShare Connect is not supported on versions of OS 9 or OS X prior to 10.4 (Tiger). EditShare Connect for OS X is distributed as a standard disk image (.dmg) file. Do the following.

TASK

1. Delete any previous installation of the EditShare Connect client.
2. Drag the EditShare Connect icon into your Applications folder.
3. (Option) Drag a copy of the EditShare Connect icon from the Applications folder to the Dock.

4. To have EditShare Connect automatically start when you log on to the Mac, click the dock icon and hold until a menu appears, then make sure that "Open at Login" is selected.

   The EditShare Connect disk image also includes the EditShare OS X Optimizer, which you should run after installing DAVE (see "Installing DAVE (Macintosh Only)" on page 105), and a copy of the End-User License Agreement.

Installing DAVE (Macintosh Only)

If your organization is using DAVE as recommended, you need to install it on each workstation that accesses EditShare, including laptops. Do the following.

TASK

1. Do one of the following:
   - Download a copy from the Thursby Systems web site (http://www.thursby.com/).
   - Use the version provided by EditShare. In either case, you need a valid license code to activate the product.
2. Expand the disk image, and double-click the DAVE icon to run the DAVE Installer.
3. Accept the license agreement, and type the administrator's password when prompted.

   Once the installation is complete, the setup assistant runs automatically.
4. Accept all the default options, and do not click the "Set up DAVE sharing" button.

   NOTE: *If you later add another workstation to your network, remember to buy a DAVE license for it and then install DAVE on the workstation.*

EditShare Mac Utilities (Macintosh Only)

EditShare provides several utilities for optimizing your Mac workstation so it works correctly with EditShare storage. Previously, these optimizations were performed by running the OS X Optimizer included with the EditShare Connect Mac installer. EditShare also provides additional tools for troubleshooting.

It is very important for correct operation of your EditShare server that you run the two Mandatory utilities on all OS X workstations that connect to EditShare Media Spaces. Several Performance utilities are also strongly recommended.

See the following sections:

Available Mac Utilities

The utilities fall into three types:

- **Mandatory**: Changes defaults so your Mac operates correctly with EditShare.
- **Performance**: Tunes your Mac network connection for different configurations. If your Mac connects to your EditShare via 10-Gb Ethernet, running these utilities are strongly recommended. If you are experiencing performance issues on 1-Gb connected Mac systems, you can try to improve performance by running relevant scripts.

  NOTE: *If you need help deciding which version of the Performance utilities to run, contact EditShare Technical Support.*
- **Support**: Gathers information to help EditShare Technical Support assist you better.

The following table describes the utilities.

Utility	Type	Description
Prevent .DS_Store File Creation	Mandatory	Prevents the workstation from creating .DS_Store files on the EditShare server or any network share.
Show All Drives on Desktop	Mandatory	Causes all hard drives – network, removable, and internal – to display on the desktop for all users on the Mac.
DAVE Tuner	Performance	Offers options for optimizing DAVE settings, as follows: • Tune DAVE A —Optimizes DAVE settings for Tiger systems and older Leopard systems. If you are experiencing dropped frames on your Snow Leopard or newer Leopard system, this utility might help improve performance. • Tune DAVE B — Experimental. Creates a slight increase in DAVE throughput, but slightly increases the risk of dropped frames. • Tune DAVE Default — Restores default DAVE settings, recommended by EditShare for Snow Leopard systems and newer Leopard systems.

Utility	Type	Description
Myricom Ten Gigabit Ethernet Tuner	Performance	Offers options for adjusting Myricom driver parameters, as follows: • Default — Removes custom adjustments to the Myricom driver parameters. • A — Adjusts Myricom driver parameters for optimal performance with uncompressed HD. Run this utility only on Macs that connect to your EditShare via Myricom 10-Gb Ethernet and that edit uncompressed HD. • B — Adjusts Myricom driver parameters for optimal performance with all formats except uncompressed HD. Run this utility on Macs that connect to your EditShare via Myricom 10-Gb Ethernet and that edit all formats except uncompressed HD.
Network Settings Tuner	Performance	Offers options for adjusting network parameters, as follows: • EditShare Tuned — Adjusts network parameters for high-speed networking. Run this utility on all Macs that connect to your EditShare via 10-Gb Ethernet. This utility might also increase performance if your Mac is connected via 1-Gb Ethernet. • Restore Defaults — Restores network settings back to Mac OS X defaults.
Check DAVE Version	Support	Determines the DAVE version and makes sure it is consistent with itself.
Check Jumbo Frames	Support	Checks current maximum transmission settings and capabilities, and then determines what is pingable at different packet sizes.
Check Network Settings	Support	Summarizes the kind of information that the **ifconfig -a** command produces.
Gather Diagnostics	Support	Collects various logs, preferences, the System Profiler report, and so on, making an archive suitable for sending to EditShare Technical Support.
Turn off Finder Icon Previews	Support	For v10.5 (Leopard) only, disables previews of Finder icons to prevent a kernel panic (system crashes and you need to restart) that might happen when DAVE is installed and you try to access a file on an unmounted drive.

Running the Mac Utilities

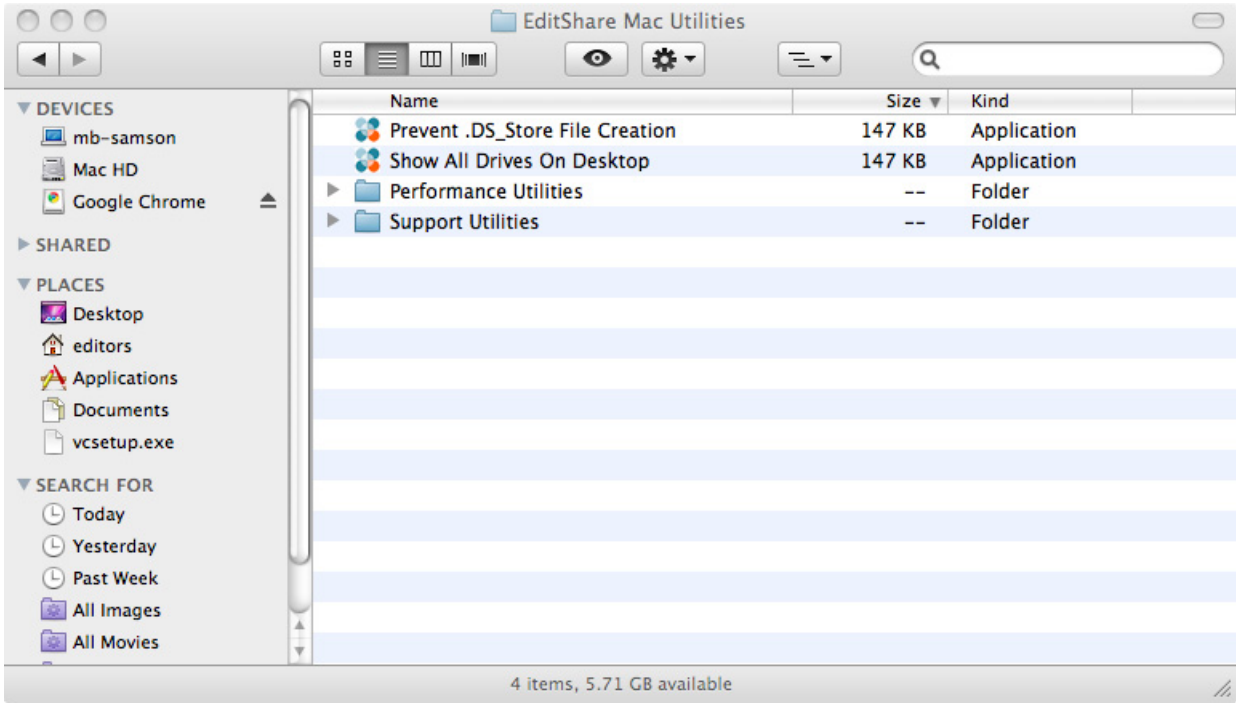
You need to run these utilities on all Mac systems that access EditShare storage servers. In most cases, the utilities need to be run by a user with Administrative privileges on the local machine.

To run the utility, do the following.

TASK

1. Finish work in any open Finder windows and shut down other applications.
2. Navigate to the EditShare Mac Utilities folder on the EditShare Connect disk image (you can also copy the folder to any folder on your Mac, such as the Applications folder at the top level of the hard drive).

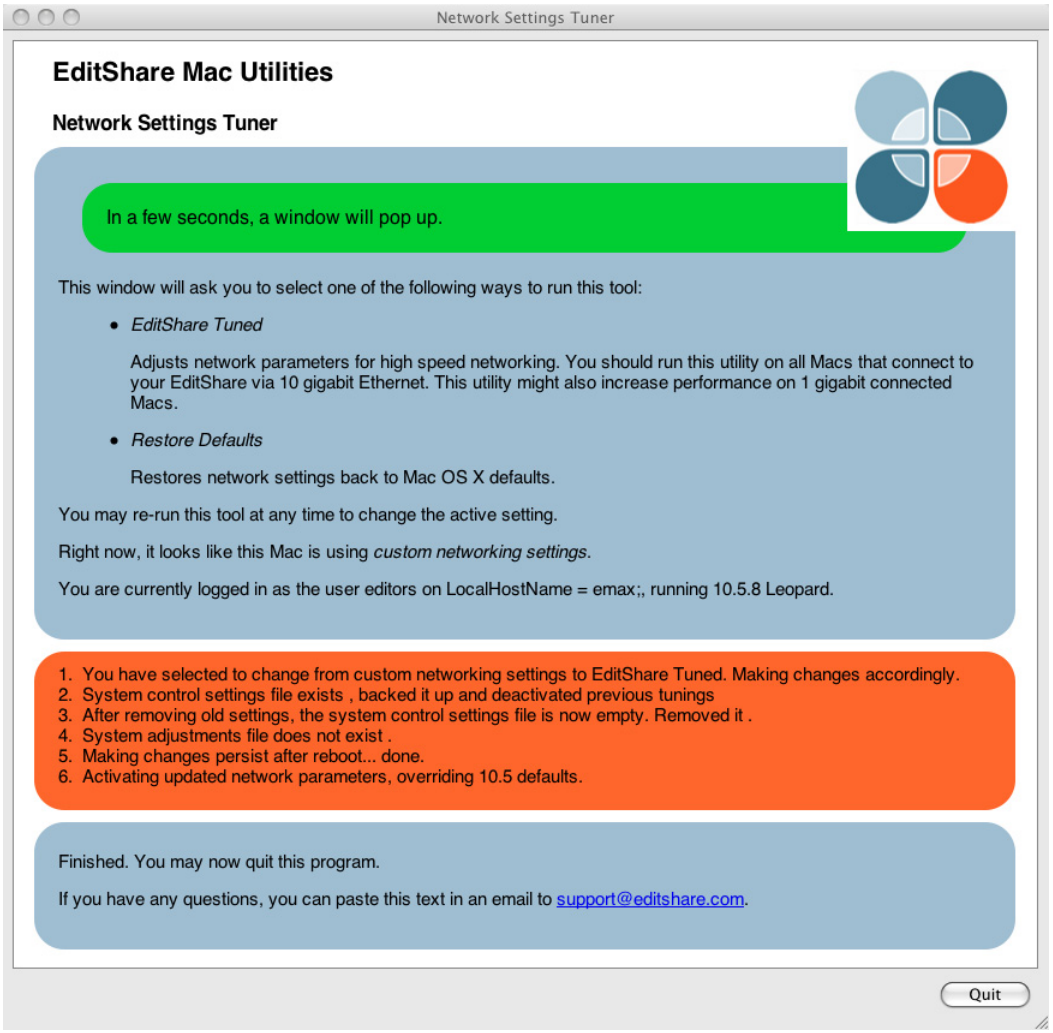
   The two Mandatory utilities are at the top level of the EditShare Mac Utilities folder. The folder also contains subfolders for the Performance utilities and the Support utilities.



3. Do one of the following:
   - Double-click a Mandatory utility name.
   - Navigate to the Performance Utilities folder or the Support Utilities folder, and double-click a utility name.

   If required, you are prompted for your Administrator password.
4. Type the password and press Return.

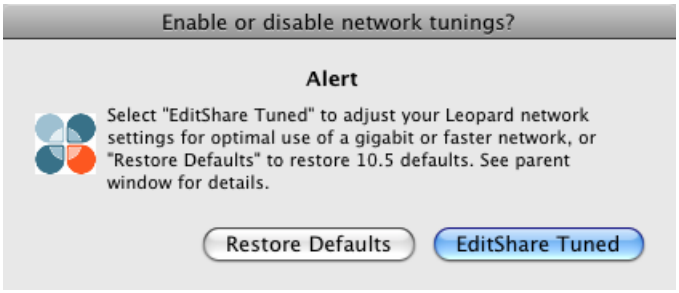
   The utility runs in a resizeable window that describes the changes being made to your Mac. The following illustration shows the Network Settings Tuner utility.



An additional dialog box might open prompting you to select the version of the utility best suited for your system configuration.

NOTE: *If you need help selecting a utility version, contact EditShare Technical Support.*

The following illustration contains an example of the dialog box.



NOTE: If you need to keep reading the text in the utility window, you can move this dialog box out of the way.

5. Select the option you want.

   The Finder might restart in the background after the utility finishes.

6. (Option) To send the text in the utility window to EditShare, do the following:
   a Click the email link in the utility window.

     The text in the window is included in the body of the email.

   b (Option) Add additional information.

   c Click Send.

7. Click Quit.

Optimizing System Preferences (Macintosh Only)

After you have run the EditShare Optimization utility, you should use the OS X Preferences utility to disable several more optional features that can interfere with optimal performance for video editing. Do the following.

TASK

1. Open System Preferences.
2. Click Screensaver and select Screensaver > Never.
3. Click Update and deselect Automatically Check for Updates.

4. Click Energy and do the following:
   - Deselect Automatic Spindown of Hard Drives when Idle.
   - Select Turn Off Monitor > Never.
   - Select Processor Performance > Highest (this option offered only In PowerPC system).

Clock Synchronization

For best results, you should ensure that the clock on your editing workstation is synchronized with the clock on the EditShare server. This is particularly important on Macintosh workstations using DAVE and running Avid applications.

If your EditShare server and editing workstations have access to the Internet, you can synchronize them all to a network time server. If not, you can enable Network Time Protocol on the EditShare Server (see "Checking Time and Date" on page 26) and synchronize the workstations directly to the EditShare Server.

It takes the EditShare server about five minutes to begin serving time after you enable Network Time Protocol. If you try to synchronize workstations to the server too soon, they report an error. This is normal. Just wait a few minutes and try again.

See the following sections:

- "Synchronizing the Clock (Windows Only)" on page 111
- "Synchronizing the Clock (Macintosh Only)" on page 112

Synchronizing the Clock (Windows Only)

TASK

1. While logged in as an Administrator, right-click the clock and click Adjust Date/Time.
2. Click the Internet Time tab, then be sure that Automatically synchronize with an Internet time server is selected.
3. For the server, either type in the IP address of an EditShare server that is running Network Time Protocol, or type in the address of the same server that your EditShare server uses (for example, us.pool.ntp.org for United States installations).

   Other versions of Windows might require a slightly different procedure to synchronize clocks with a remote server.

Synchronizing the Clock (Macintosh Only)

TASK

1. Open the System Preferences application and click Date & Time.
2. Ensure that Set Time & Date Automatically is selected.
3. For the server, either type in the IP address of an EditShare server that is running Network Time Protocol, or type in the address of the same server that your EditShare server uses (for example, us.pool.ntp.org for United States installations).

Chapter 6: Planning EditShare Accounts

To store and access media with EditShare, each user needs a unique username and password. Before adding any users, you have a few decisions to make. Planning at this stage makes your work easier later. If you decide to use Active Directory support to authenticate usernames and passwords, you have additional considerations. This chapter reviews the decisions and considerations you need to make regarding user accounts.

See the following topics:

About User Accounts

The following are several important aspects of EditShare user accounts:

- EditShare user accounts do not necessarily have to correspond to specific people in your organization. For many organizations, that is the best way to organize things, but it is not the only way.
- Each EditShare user account gets a Private Files Space associated with it, in which that user can store project metadata files. A user's Private Files Space can be opened from any workstation where someone is logged in as that user, and not by any other user. (If you don't want users to have Private Files Spaces, you can disable them. See "Disabling Private Files" on page 141 for more information.)
- Editors should not log on to EditShare with the same user account from more than one workstation simultaneously, as this risks loss of data, particularly of metadata files.
- On Windows Vista and Windows 7 systems, the Administrator's list of drive letters is independent from the user's list. If an editing application is launched by a user logged in as Administrator, drives mounted by EditShare Connect will not be visible unless EditShare Connect is also launched by the Administrator.

- A Windows user account cannot have the same name as the computer itself.
- Usernames must consist exclusively of lowercase, non-accented letters and digits.
- You can create user groups and organize users in them. See "Adding Users to Groups" on page 120.
- Certain usernames are reserved (see "Username and Password Restrictions" on page 115).
- If you use Active Directory support, there are particular username and password considerations. See "Active Directory Username and Password Considerations" on page 131.

Selecting a Username Basis

The first decision you must make is whether to give each person his or her own username and password, or to give each editing workstation its own username and password. There are advantages and disadvantages to each strategy. Either works, and under some circumstances you might create both types of usernames.

See the following sections:

- "Names Based on People" on page 114
- "Names Based on Editing Workstations" on page 115

Names Based on People

If you choose to assign names based on people, it is generally much easier for editors to move from one workstation to another. Editors can use their own Private Project Folder for storing Project Files, allowing them to easily open their projects at any workstation. EditShare can also remember their usual drive mappings, so they do not need to manually mount each drive they use every time they sit down to work.

It is important that a user not log on to the EditShare server from more than one location at a time using the same username and password. If individuals in your organization (for example, assistant editors) need to log on to more than one workstation at a time, you must either give those editors multiple usernames and passwords, or use names based on editing workstations instead.

Names Based on Editing Workstations

If you assign names based on the editing workstation, individuals do not get their own Private Files Spaces. This makes it more difficult for editors to use the same project metadata files (bins and sequences) on different workstations without making copies of those files. However, if certain editors in your organization (for instance, assistant editors) need to log on to more than one workstation at a time, you might find it simpler to use workstation names instead of peoples' names, rather than giving individual people multiple personal usernames.

As a general rule, EditShare recommends against using workstation names unless it is absolutely necessary, because some EditShare features (such as Avid Project Sharing) can be easier to use and understand when usernames correspond to real people as opposed to workstations.

CAUTION: When deciding how to set up usernames, never allow two workstations to connect to the EditShare server simultaneously with the same username. This can cause project file corruption and data loss – especially in the case of Avid editing systems.

If individual editors need to work at more than one editing workstation at the same time, you must either give them multiple usernames and passwords, or set up usernames based on workstation names rather than people.

Username and Password Restrictions

Usernames should be 20 characters or fewer.You can use only lowercase letters or numbers. You cannot use spaces, hyphens, underscores, periods, or special characters (such as *, %, #, and so on). EditShare recommends usernames no longer than 8 characters. See the following examples of acceptable and unacceptable usernames.

Acceptable	Unacceptable
johndoe	john-doe
john1952	john_doe
11021952	john doe
	JOHNDOE

Acceptable	Unacceptable
	John Doe
	john@doe

The following usernames are reserved:

```
adm, ark, avahi, bin, clamav, daemon, editshare, ftp,
games, gdm, haldaemon, halt, lp, mail, messagebus, mysql,
news, nobody, ntp, operator, postfix, root, rpc, rpcuser,
rpm, shutdown, sshd, sync, uucp, vcsa, xfs
```

Any attempt to create a user with any of these usernames fails.

Passwords may be up to 31 characters long, and otherwise must conform to the restrictions described in this section.

Limited Administrative Capabilities

You can grant limited administrative capabilities to specific users, enabling them to perform certain management functions for the Media Spaces they use without needing to involve the EditShare Administrator. The authorized users access these capabilities from EditShare Connect on their own desktops from their own user accounts. They do not require the EditShare Administrator password or access to the EditShare Desktop.

For instructions on granting and removing limited administrative capabilities, see "Chapter 13: Limited Administrative Capabilities" on page 213.

Chapter 7: Adding User Accounts

Before adding user accounts to the EditShare system, make sure you review "Chapter 6: Planning EditShare Accounts" on page 113. You can limit users to read-only access if necessary. If your facility uses Active Directory (AD) support for username and password authentication, you need to configure several options.

You can add users in different ways. You can add a single user, multiple users, or a group of users. When you create a user group, you can add the group to Media Spaces and Shared Project Spaces. When you add a user to a group or remove a user from a group, the Spaces the group is part of are automatically updated.

See the following topics:

Adding Users

You add users to EditShare in the Users tab of EditShare Manager. (Once you have added users to one version of EditShare Manager, the same users are available in other versions. You need to change EditShare Managers in order to add the users to different types of Media Spaces.)

The Configuration Import tool lets you easily add a large number of users to an EditShare system. See "Configuration Import Tool" on page 159.

EditShare supports three methods of password authentication:

- Standard (traditional) authentication – Passwords are stored encrypted on the EditShare server and users' Samba passwords are the same as their EditShare passwords. Users can log into EditShare Media Spaces directly from the operating system without using EditShare Connect. EditShare recommends this method. Standard authentication, formerly called Legacy authentication, is the default when the Administrator creates a new user.

- Advanced Authentication – Passwords are stored encrypted on the EditShare server and passwords are also encrypted when they are transmitted over the network. Users' Samba passwords are different from their EditShare passwords (and are unknown).Users must log in through EditShare Connect.
- Authentication through Active Directory – Users are authenticated against an Active Directory server running on the network. Passwords are stored only on the Active Directory server and passwords are encrypted when they are transmitted over the network. Users must log in through EditShare Connect.

NOTE: *If you create a user on an EditShare server and then add that server to an ESA group as an expansion server, the user is not available in the new ESA group. Make sure you create the ESA group before you create users on any of the intended expansion servers.*

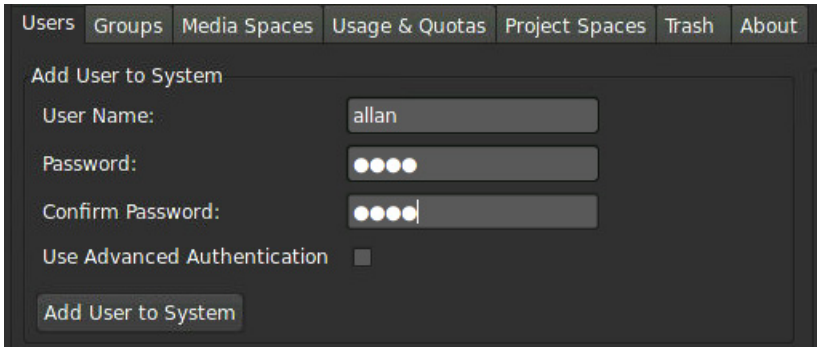
To add a user, do the following.

TASK

1. Double-click the EditShare Manager icon on the EditShare desktop.

   The EditShare Manager window opens.

2. Click the Users tab.
3. Type a name in the User Name text box.

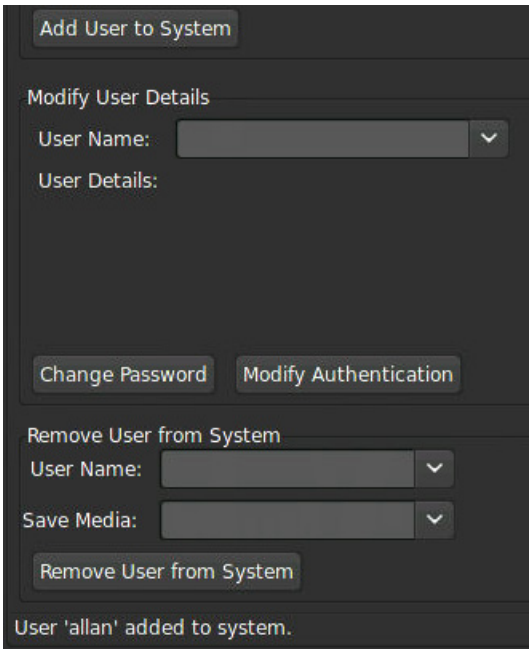


4. Type a password in the Password text box, and then type it again in the Confirm Password text box.
5. If you want to authenticate the user with a high degree of security, select Use Advanced Authentication. For Standard authentication, deselect the option. The option is deselected by default. You can also change authentication later. See "Changing User Authentication" on page 137.

   EditShare can authenticate users with security, or an Active Directory system can. For more information on Active Directory, see "Active Directory Support" on page 127.

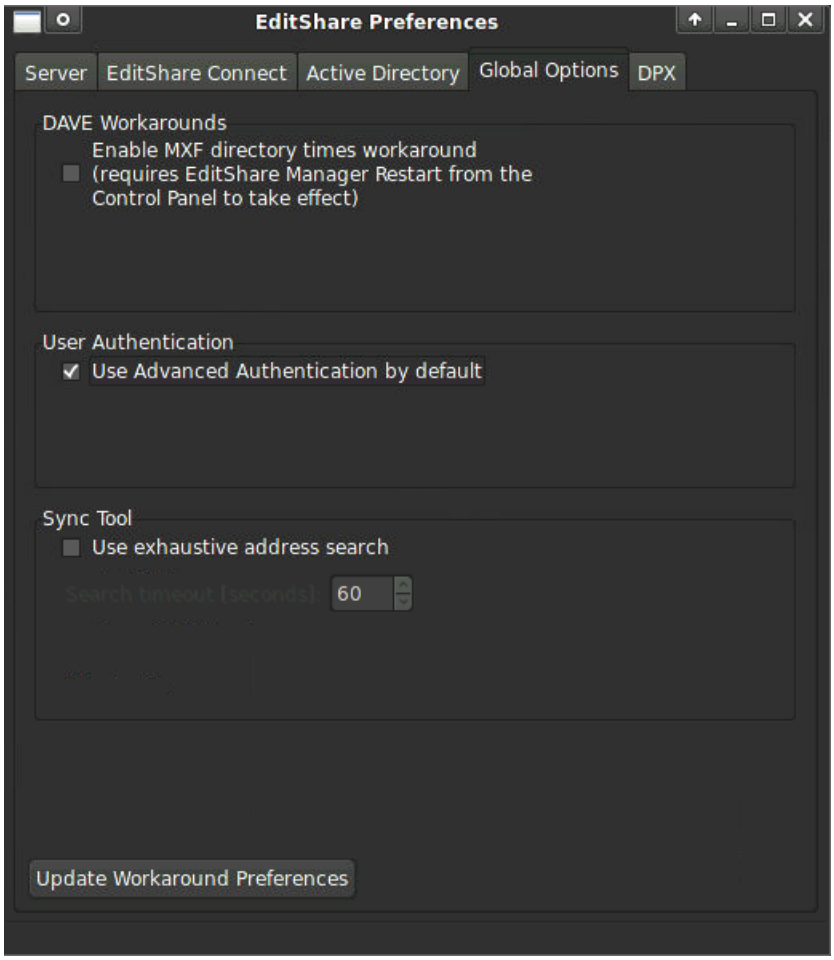
6. Click Add User to System.

   A confirmation line appears at the bottom of the EditShare Manager window.



7. Repeat from Step 3 for each new user.

8. (Option) To make Advanced authentication selected by default in the Users tab, do the following:
   a Open the Control Panel, and double-click EditShare Preferences.
   b Click the Global Options tab.



   c Select Use Advanced Authentication by default, and then click Update Workaround Preferences.

Adding Users to Groups

After you add users, you can create user groups and add users to them. You can then add a group to a Media Space or a Shared Project Space, effectively adding all the users at once. (For information about removing a user from a group or

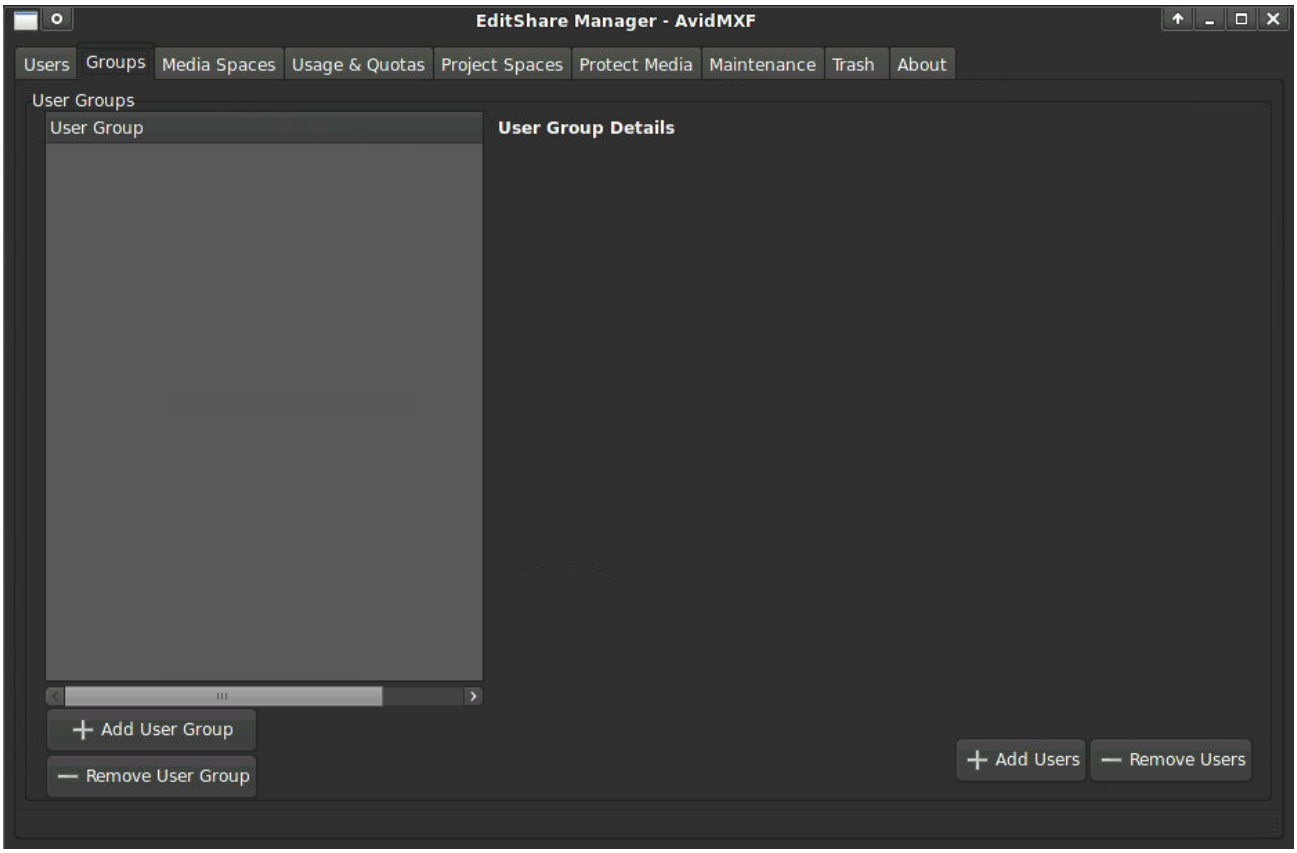
removing a group from a Media Space, see "Removing Users from Groups" on page 139 and "Removing Users or Groups from Media Spaces" on page 179.)

User groups are active. If you add another user to a group, EditShare automatically updates any Media Spaces or Shared Project Spaces the group is part of.

To add users to groups and groups to Media Spaces, do the following.

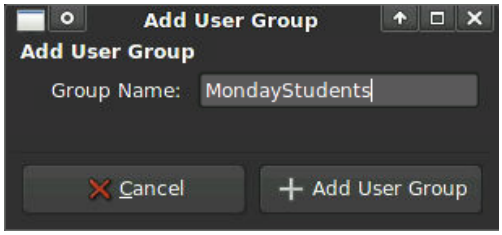
TASK

1. Open EditShare Manager and click the Groups tab.



2. Click Add User Group.

   The Add User Group dialog box opens.

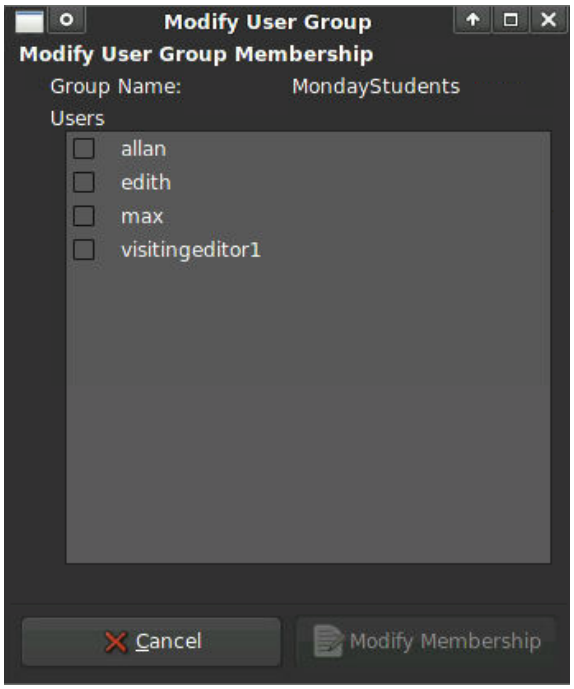


3. Type a name for the group, and then click Add User Group.

   The new group appears in the User Groups list. When you select the group name, the User Group Details area reports that information about the group.

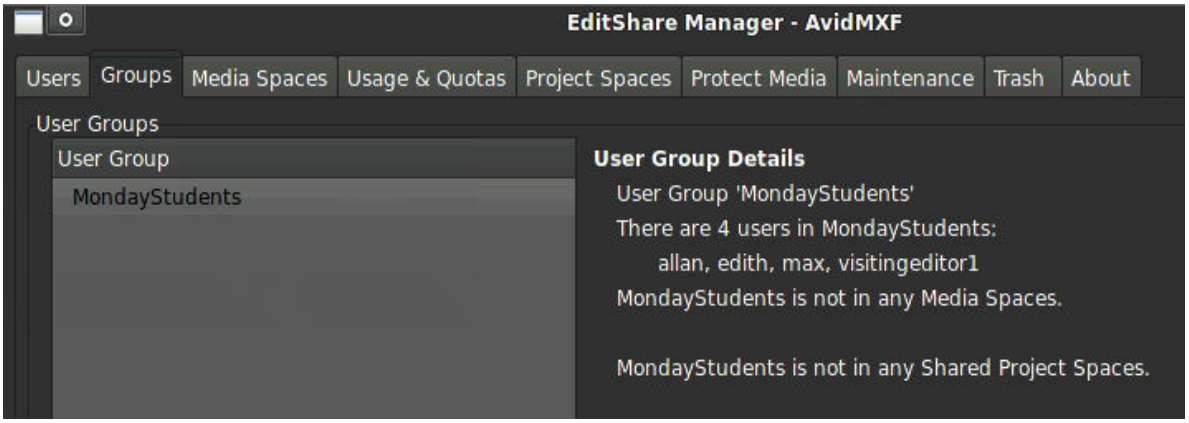
4. Select the group name, and then click Add Users.

   The Modify User Group Membership dialog box opens.

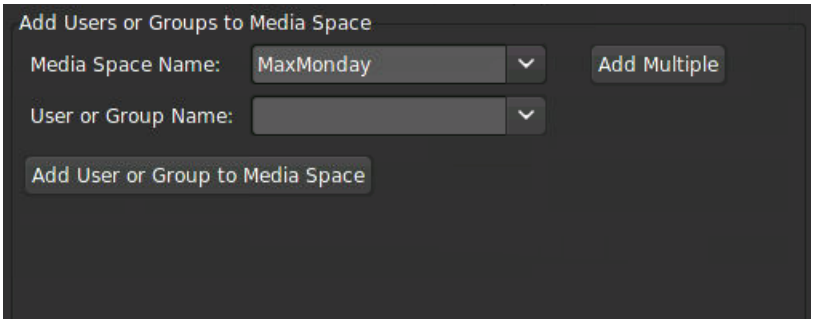


5. Select users, and then click Modify Membership.

   The group appears in the User Groups list. The User Group Details area reports that the group is not in any Media Spaces or in any Shared Project Spaces.



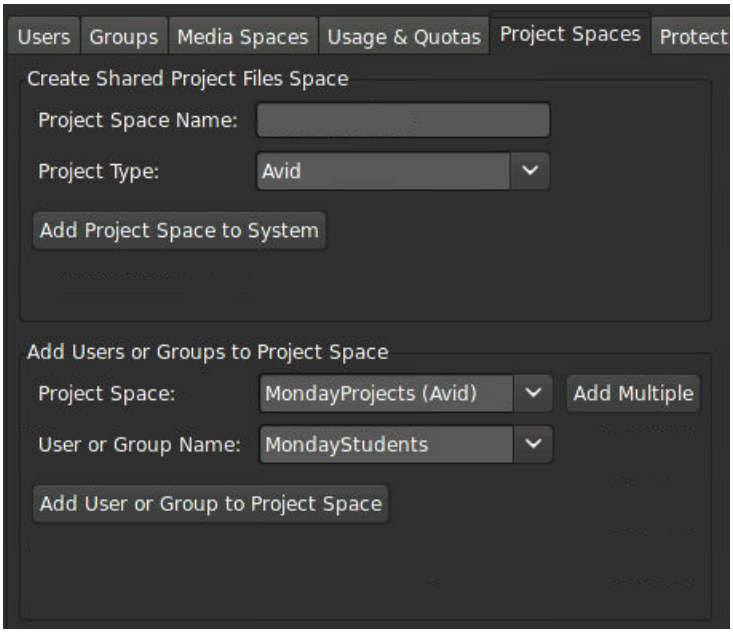
6. Click the Media Spaces tab.
7. In the Add Users or Groups to Project Spaces area, select a Media Space name from the list.



8. Select the group name you want to add, and then click Add User or Group to Media Space.

   The group is added to the Media Space.

9. (Option) To add a group to a Shared Project Space, do the following:
   a Click the Project Spaces tab.



   b In the Add Users or Groups to Project Space area, select a Project Space name from the list.
   c Select the group name you want to add.
   d Click Add User or Group to Project Space.

   The group is added to the Project Space.

Limiting Access to Read-Only

Whenever new users are added to a Media Space, they have full read/write access to that Media Space. They can capture and render media to the Space and (for Unmanaged Media Spaces) modify existing files. Sometimes you might want to limit a user to read-only access to a Media Space. For example, a Media Space might be set up containing archived footage from previous projects. Only one or two users are allowed to capture or consolidate new material into this space, but many users need access to it in order to include archive footage in their projects.

NOTE: *You can make a user read-only for a particular Media Space only if he or she is already a member of the Media Space.*

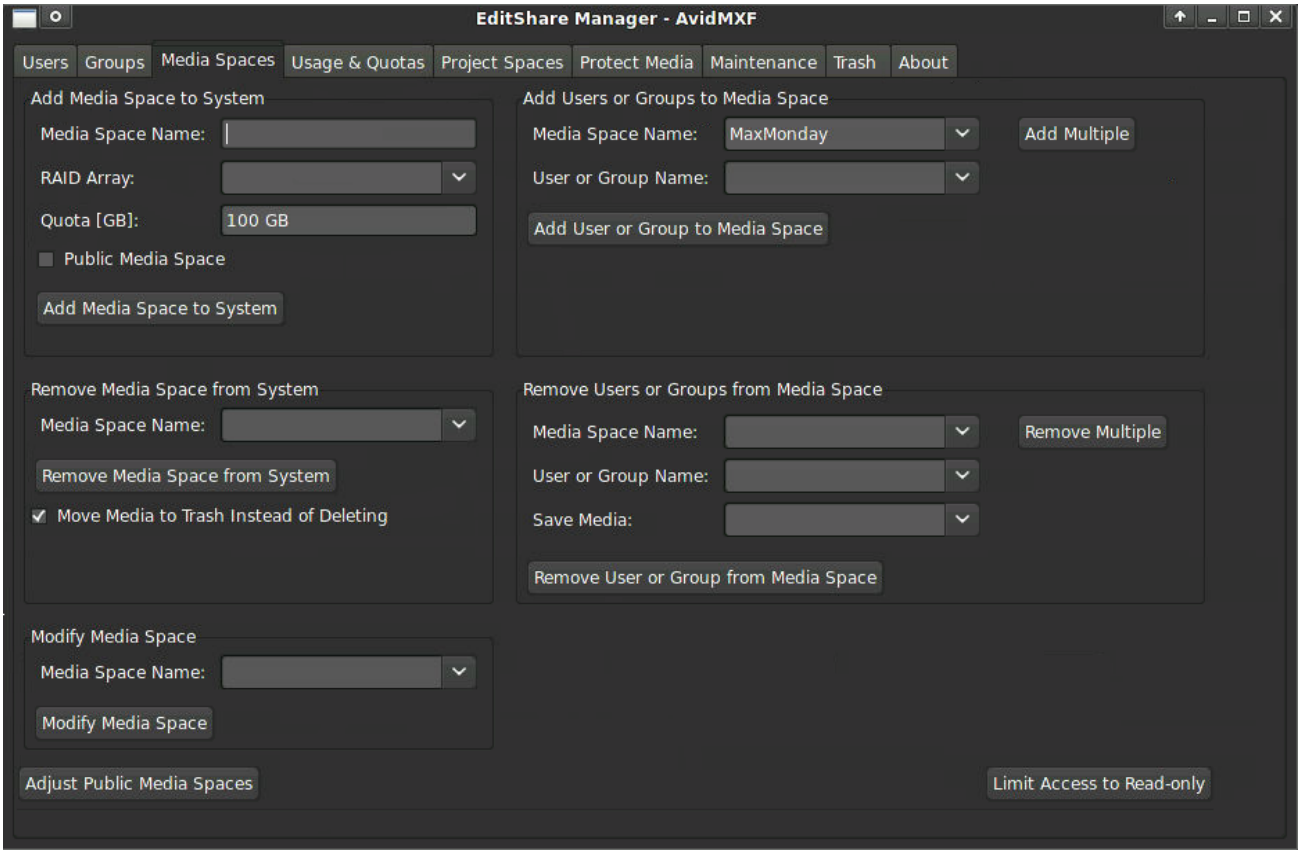
For information on read-only limitations, see the following section:

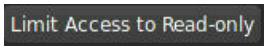
- "Limitations on Read-Only Mode for Avid Media Spaces" on page 126

To limit a user's access to a Media Space to read-only, do the following.

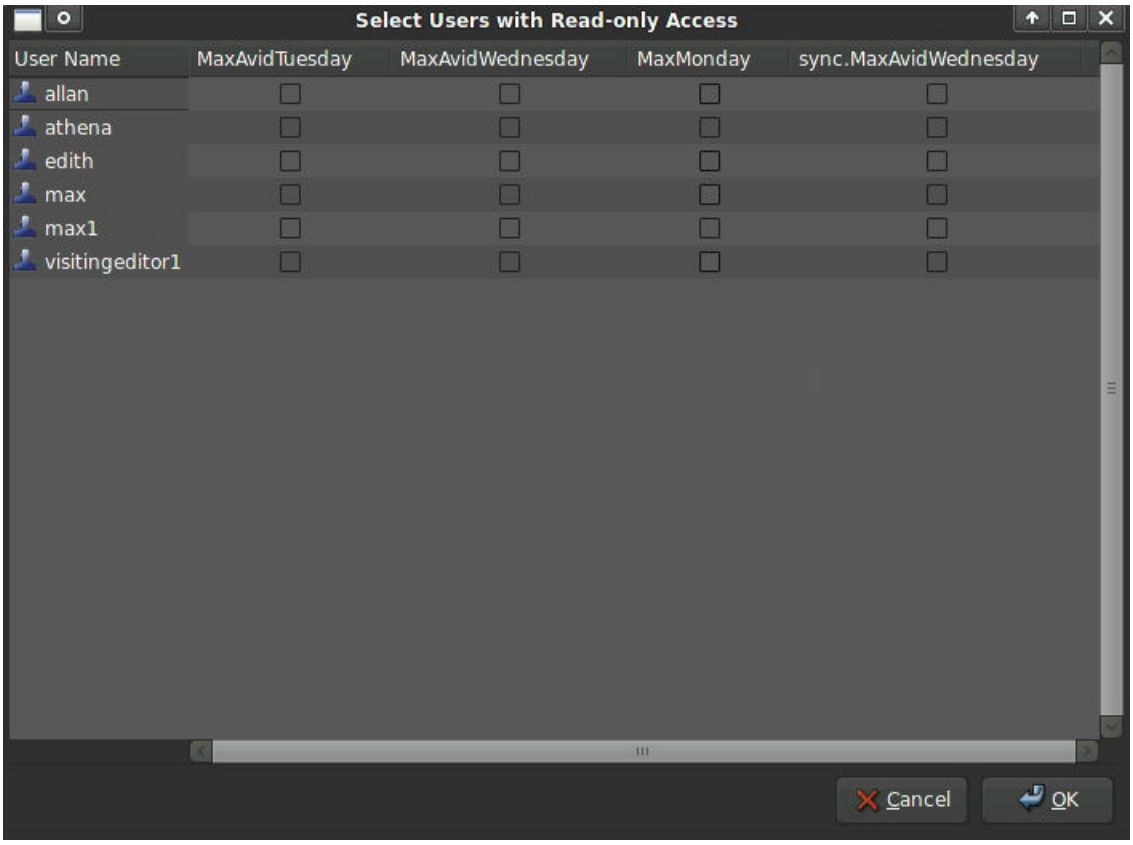
TASK

1. Double-click the EditShare Manager icon on the EditShare desktop.
   The EditShare Manager window opens.
2. Click the Media Spaces tab.





3. Click the Limit Access to Read-only button in the bottom right corner.
   A grid opens showing all Media Spaces and all users.



4. Select each user you want to restrict to read-only access to a particular Media Space. Deselect any user to allow the user full, normal, read/write access to the Media Space.

   Placing a user in read-only mode affects only a single user in a single Media Space. Similarly, to prevent a user from writing to any Media Space, you must enable read-only mode for that user in each Media Space individually.

   All types of Media Spaces support read-only mode.

Limitations on Read-Only Mode for Avid Media Spaces

After you limit a user's access to read-only in an Avid MXF Media Space, the user might still be able to transfer files into the Media Space using Windows Explorer or Macintosh Finder.

When you limit a user to read-only access, any of the user's numbered MXF folders that are empty of media files are deleted. If there are no numbered MXF folders remaining, the user cannot move or copy files into the Media Space. However, if the user has any numbered MXF folder that does contain media

files, EditShare can only block the user from capturing or rendering new files, not from transferring files from another source. This limitation is necessary in order to allow the user to delete and rebuild his media database file in case that should become necessary.

If you want to ensure that a user cannot put any files into an Avid MXF Media Space, the best way is to limit them to read-only access when you first add the user to the Media Space.

Alternatively, you can use Maintenance Mode to move all of the files in the user's numbered MXF folders into another user's folders, and then limit him to read-only access.

Active Directory Support

You can authenticate EditShare users with Active Directory (AD). This enables you to centralize password management. You can make a change that takes place everywhere, and, in a future release, you will be able to block particular users and delete accounts on EditShare and AD at the same time.

NOTE: *AD has many capabilities; EditShare uses AD only for password authentication. If you decide to use AD Support, you still need to create user accounts on your EditShare server, and you still need to add users to all Media Spaces to which they should have access.*

AD Support is available for EditShare Version 5.5.4 or later.

To enable AD Support, you need to enable AD authentication by setting several preferences.

See the following sections:

- Enabling AD Support
- Specifying DNS Server Addresses
- Active Directory Username and Password Considerations

Enabling AD Support

To enable AD Support, do the following.

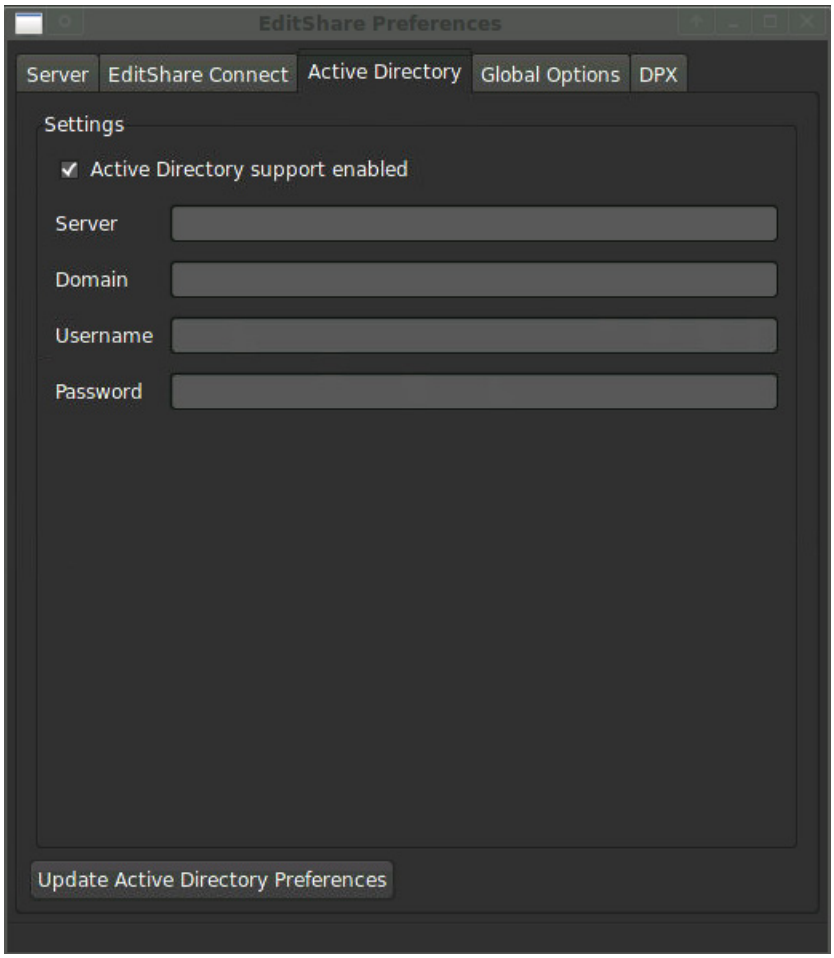
TASK

1. Double-click Control Panel, and then double-click EditShare Preferences.
   A dialog box opens.

2. Type the EditShare Administrator password, and then click OK.

   The EditShare Preferences window opens.

3. Click the Active Directory tab.



4. Select Active Directory Support Enabled to turn AD Support on.
5. Type the IP address or hostname (for example, *ServerName.YourCompanyName.com*) of your AD server in the Server text box. You must be able to ping the AD server using the IP address or hostname. If you need help, see your Information Technology department.
6. Type the name of the domain that the AD server is configured to administer in the Domain text box, for example, *Your CompanyName.com*.
7. Type the name of an available AD user in the Username text box. The user must be part of the Domain Users group and does not need any special privileges. EditShare recommends you create and use an AD user named **editshare**.
8. Type the password for the AD user you specified in the preceding step in the Password text box.

9. Click Update Active Directory Preferences to save your changes.

   A message box opens reflecting that your options preferences were saved.

NOTE: *If you typed incorrect information in any of the text boxes, an error message box opens. Click OK, correct the information, and click Update Active Directory Preferences again.*

10. Click OK.

Specifying DNS Server Addresses

You need to make sure your EditShare storage server is configured correctly to work with AD Support. In particular, you need to either specify valid Domain Name System (DNS) server addresses appropriate to your network. AD Support does not work correctly if you use the default DNS server addresses that ship with your storage server.

Do the following.

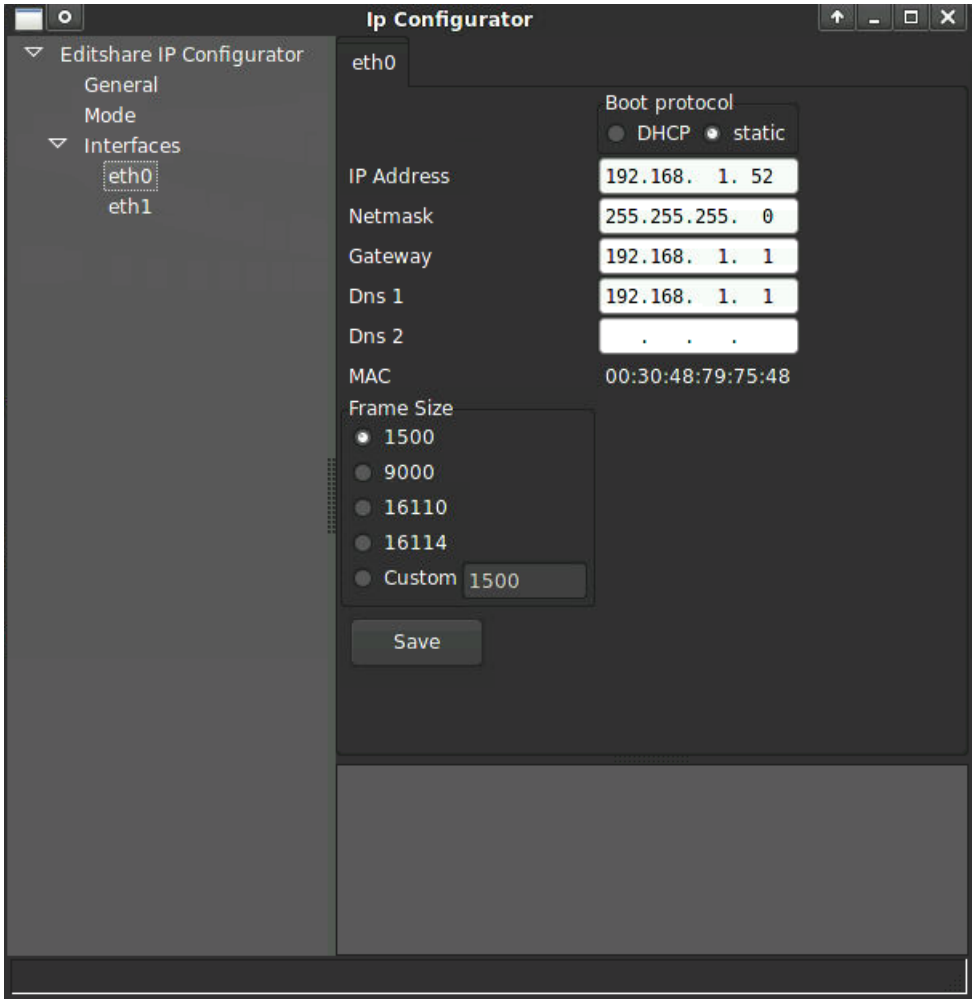
TASK

1. Start the server with a keyboard, mouse, and monitor attached to it.

2. Open the Control Panel (left side of the Desktop).
3. Double-click the Network Configuration icon.

   The IP Configurator window opens.

4. Click the triangular opener next to Interfaces.


Ip Configurator
Editshare IP Configurator
General
Mode
Interfaces
eth0
eth1
eth0
Boot protocol
DHCP
static
IP Address
192.168. 1. 52
Netmask
255.255.255. 0
Gateway
192.168. 1. 1
Dns 1
192.168. 1. 1
Dns 2
MAC
00:30:48:79:75:48
Frame Size
1500
9000
16110
16114
Custom
1500
Save

5. Select and delete the default DNS server IP addresses that came with your EditShare storage server.

   CAUTION: ***AD Support does not operate correctly if you use the default DNS IP Addresses.***

6. Do one of the following:
   - Type a valid, local DNS server IP Address for each DNS server.

   NOTE: *If your AD server hosts a DNS server, type the AD server IP Address.*

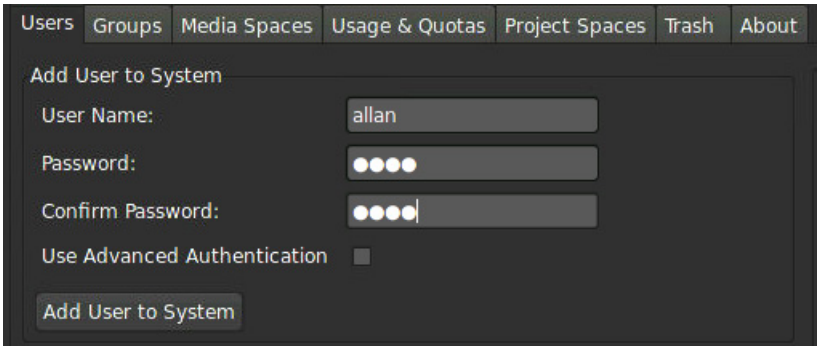
   - Leave the DNS text boxes blank. In this case, you must type an IP Address, not a hostname, in step 5 of "Enabling AD Support" on page 127.

7. Click Save.

Active Directory Username and Password Considerations

The following functionality is added when you enable AD Support:

- When you add a new user and select the Use Advanced Authentication option (see "Adding Users" on page 117), AD Support checks the username against the AD server. If AD Support finds a matching username, it asks you if you want to continue to add the user. The user's password is authenticated with the AD server if AD Support is enabled.
- If AD Support does not find the name, it reports similar usernames and asks if you want to cancel or add the user anyway.
- When you add a new user in EditShare Manager, you can type and confirm a password, even if you know that the user and a password already exist on AD. In this case, the user can authenticate using either the EditShare password or the AD password. You might use this feature to add a password for a user if AD is temporarily not functioning.
- If you don't specify a password, the user can only use EditShare with the AD password. If the user is disabled in AD, the AD server is down, or AD Support is disabled, the user cannot log into EditShare. You can add a password later in the Modify User Details area of the Users tab.
- You can add a user with Standard authentication by deselecting the Use Advanced Authentication option.



Standard users are not authenticated with AD (or with EditShare high security). If a Standard user is also an AD user, only the password you define in EditShare Manager can be used for authentication.

- It is possible to create a non-standard user account on your EditShare server that does not correspond to any account on AD. If you do that, the EditShare password for that account is stored only locally and does not change when AD Support runs. If AD Support does not find the name or similar usernames, it asks if you want to cancel or add the user anyway.

Consider the following:

- You should ensure that the usernames and passwords of EditShare users on AD conform to the EditShare naming requirements. For more information, see "Username and Password Restrictions" on page 115.

  In particular, your EditShare username can be no longer than 20 characters and cannot contain a space. If the Active Directory pre-Windows 2000 username is longer than 20 characters, EditShare authenticates against only the first 20 characters.

- Users can change their own EditShare passwords in EditShare Connect. In this case, the user would end up with different passwords on EditShare and AD.

- Users whose names are disabled on AD can still access EditShare if they have a password defined for their account using EditShare Manager.

Chapter 8: Managing Users

For information about managing users, see the following sections:

Changing User Passwords

If a user forget his or her password, or reveals it inappropriately, you need to either change the password or allow the user to change it in EditShare Connect.

See the following sections:

- "Changing a User's Password" on page 135
- "Allowing Users to Change Their Own Passwords" on page 136

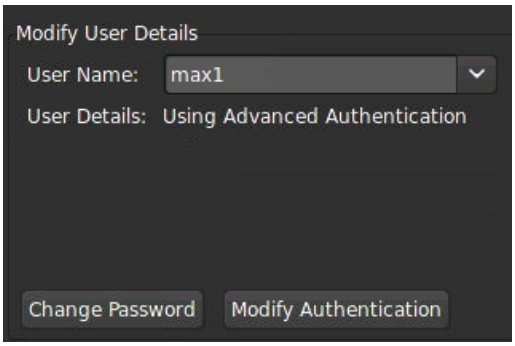
Changing a User's Password

To change a user's password, do the following:

TASK

1. Open EditShare Manager and click the User's tab.

2. In the Modify User Details area, select the user's name from the User Name list.



3. Click the Change Password button.

   The Change User Password dialog box opens.

4. Type a new password in the New Password text box.
5. Retype the new password in the Confirm Password text box.
6. Click Change Password.

   A confirmation message appears at the bottom of the window.

Allowing Users to Change Their Own Passwords

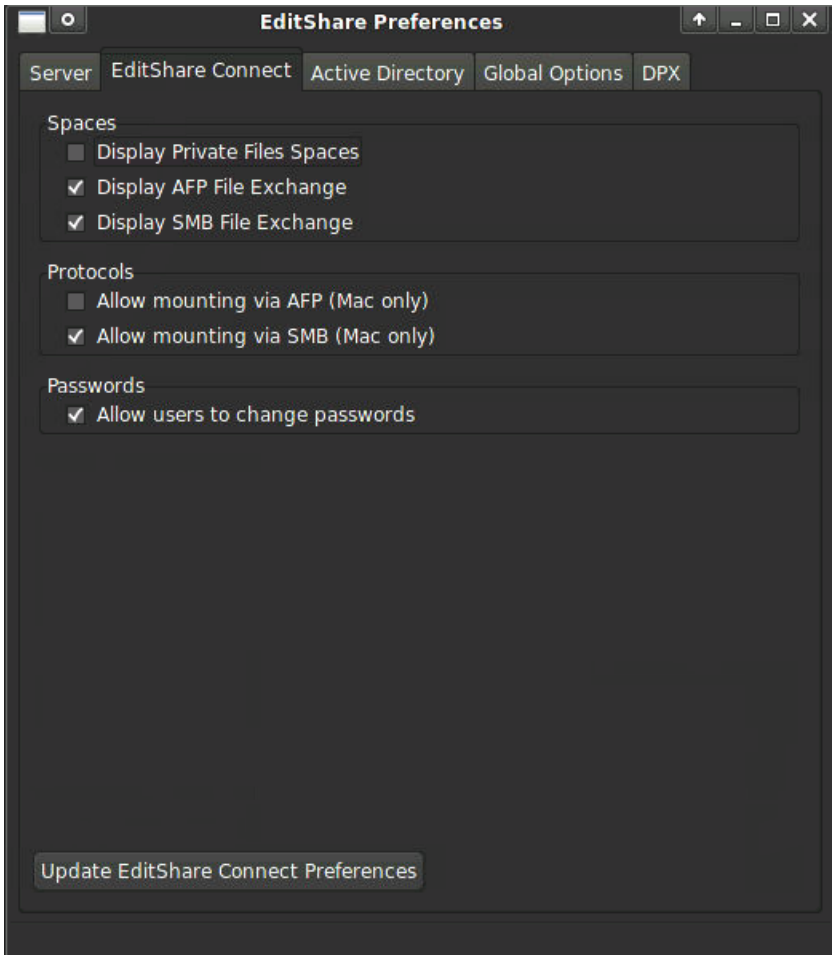
To allow users to change their own passwords in EditShare Connect, do the following.

TASK

1. Double-click EditShare Preferences in the EditShare Control Panel.
2. Type the Administrator username and password.

   The EditShare Preferences dialog box opens.

3. Click the EditShare Connect tab.



4. In the Passwords area, select Allow users to change passwords.
5. Click Update EditShare Connect Preferences.

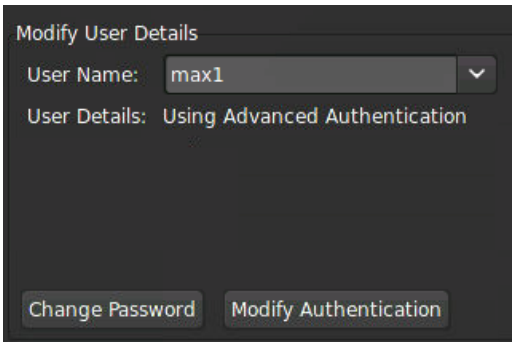
Changing User Authentication

When you add a user, you can select Advanced Authentication for higher-security authentication, or you can deselect that option for standard users (see "Adding Users" on page 117 and "Active Directory Username and Password Considerations" on page 131).

To change a user's authentication method, do the following:

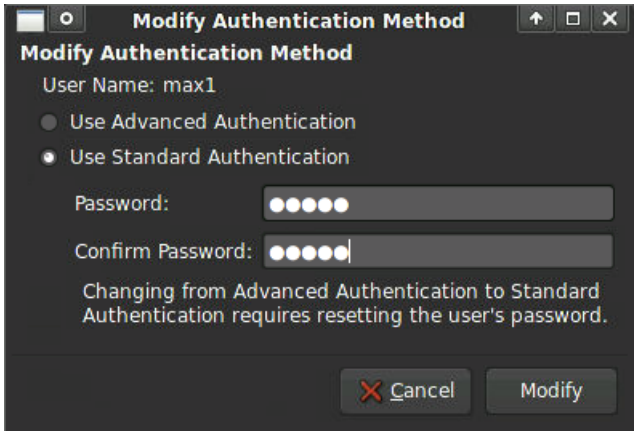
TASK

1. Open EditShare Manager and click the User's tab.
2. In the Modify User Details area, select the user's name from the User Name list.



3. Click the Modify Authentication button.

   The Modify Authentication Method dialog box opens.



4. Select an authentication method.

   You need to reset the user's password.
5. Type a new password in the New Password text box.
6. Retype the new password in the Confirm Password text box.
7. Click Modify.

   A confirmation message appears at the bottom of the window.

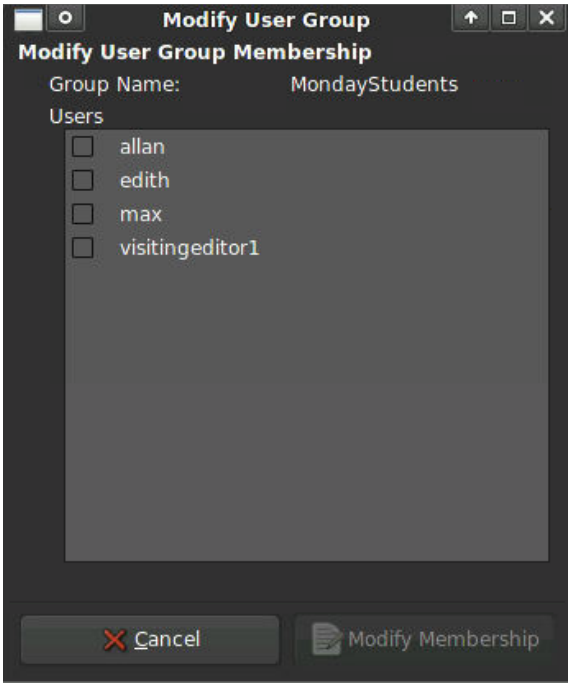
Removing Users from Groups

If you have set up user groups (see "Adding Users to Groups" on page 120), you can remove one or more users from a group by doing the following. When you remove a user from a group, you also remove that user from any Media Spaces or Shared Project Spaces you have added the group to. (For information about removing users or groups from Media Spaces, see "Removing Users or Groups from Media Spaces" on page 179.) The Media Space or Shared Project Space is automatically updated.

TASK

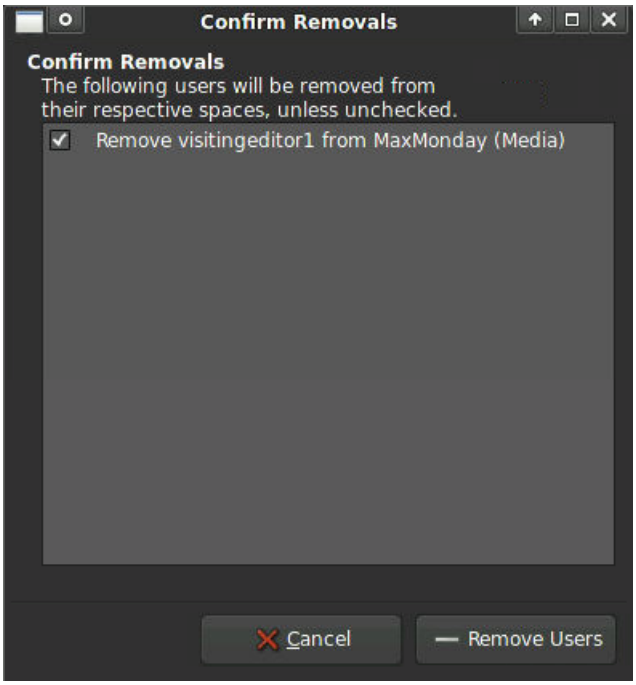
1. In EditShare Manager, click the Groups tab.
2. Select a group, and then click Remove Users.

   The Modify User Group Membership dialog box opens.



3. Select the users you want to remove, and click Modify Membership.

   The Confirm Removals dialog box opens.



4. Click Remove Users.

   The user is removed from the group or groups and any Media Spaces or Shared Project Spaces that the group was added to. The Spaces are automatically updated.

Removing Users from the System

When an editor no longer needs access to the EditShare system, you can remove the user from the system.

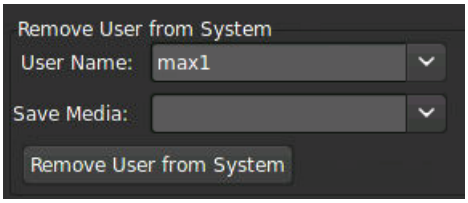
You cannot remove a user from the system when any Media Space of which he or she is a member is in Maintenance or Unshare Mode.

To remove a user, do the following.

TASK

1. Open EditShare Manager and click the Users tab.

2. In the Remove User from System area, select a user from the User Name list.



3. In the Save Media list, select one of the following:,
   - Move Media to Trash – Any of the user's files that would otherwise be deleted (for example, files they captured or rendered into Avid MXF Media Spaces) are temporarily stored in the EditShare Trash and can still be retrieved until the Trash is emptied. For more information about deleted files and the Trash, see "EditShare Trash" on page 203.
   - Delete Media – The user's files are deleted.

4. Click the Remove User from System button.

   Removing a user from the system causes the following to happen:
   - The user is removed from every Media Space of which he or she is a member. (See "Removing Multiple Users or Groups from Media Spaces" on page 181 for more information about what happens to a user's media when he is removed. It is not possible to have a user's media in Avid MXF Media Spaces be given to another user when removing the user from the system. If you need to do that, you should remove the user from all Avid MXF Media Spaces before removing the user from the system.)
   - The user is removed from every Shared Projects Space of which he or she is a member.
   - The contents of the user's Private Files Space are deleted or moved to the Trash.
   - The user is removed from the system.

   NOTE: *The Clean Slate Tool can also be used to remove all users from an EditShare system. See "Deleting Media Spaces: Clean Slate Tool" on page 192 for more details.*

Disabling Private Files

In some cases, you might need to disable a user's Private Files Space or SMB and AFP File Exchange Spaces. For example, in a classroom environment, managers might want to prevent their students from cluttering the EditShare server with

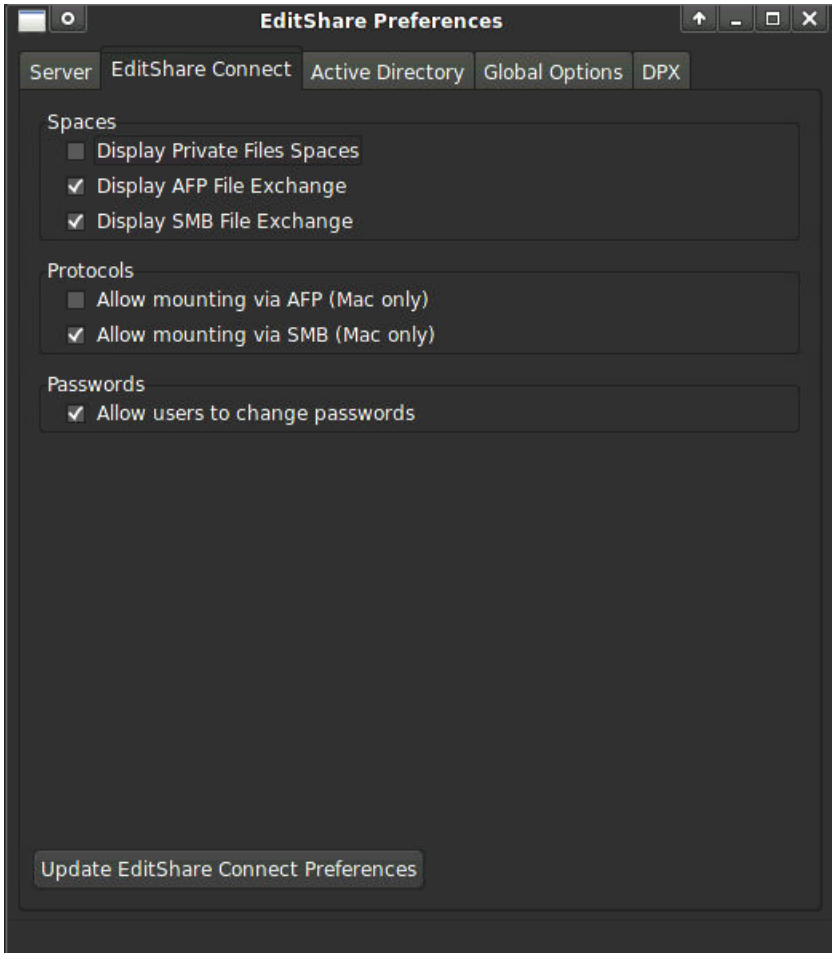
unrelated media or other files. These spaces can be disabled; this does not delete the contents; it merely makes them inaccessible from EditShare Connect.

To disable private files, do the following:

TASK

1. Double-click EditShare Preferences in the EditShare Control Panel.
2. Type the Administrator username and password.

   The EditShare Preferences dialog box opens.
3. Click the EditShare Connect tab.



4. In the Spaces area, deselect the Display Private Files Spaces option.

   This does not completely restrict access to the Private Files; it simply prevents EditShare Connect from displaying or mounting them. A clever and determined user can mount their Private Files Space manually.
5. Click Update EditShare Connect Preferences.

Disabling Access to AFP and SMB File Exchange Spaces

You can disable a user's access to the AFP and SMB File Exchange Spaces. Do the following.

TASK

1. Double-click EditShare Preferences in the EditShare Control Panel.
2. Type the Administrator username and password.

   The EditShare Preferences dialog box opens.
3. Click the EditShare Connect tab.
4. In the Spaces area, deselect one of the following:
   - Display AFP File Exchange
   - Display SMB File Exchange

   This does not completely restrict access to the File Exchange Spaces; it simply prevents EditShare Connect from displaying or mounting them. A clever and determined user can mount their Private Files Space manually.

Chapter 9: Planning Media Spaces

Media Spaces are separate folders or “virtual volumes” on the EditShare RAID arrays where your audio and video files are stored and shared. You need to set up at least one Media Space for storing media files, and usually many.

As EditShare Administrator, it is your job to set up Media Spaces as needed for each editing project, assign quotas to them, and delete the Media Spaces when the files they contain are no longer needed.

See the following topics:

Allocating and Naming Media Spaces

It is easier to have smaller Media Spaces and delete an entire Media Space when you are finished with a project than to have one large Media Space with files intermixed from many projects, and have to delete the specific files related to that project. Therefore, EditShare recommends giving each editing project its own Media Space whenever possible, with the same name as the project. This way you'll know exactly where the media is stored that belongs to a particular project, making it easy to manage – and eventually delete – the media from one project without affecting the media from another project. Knowing that all the media in a particular Media Space can be deleted simplifies media management.

EditShare highly recommends creating more than one Media Space per project. For example, if you create a separate Media Space for render files, then you can safely and easily delete just your render files by deleting that Media Space, without risking the original media. Also, you can treat rendered files differently than original media – for example, you can make a practice of never Protecting or Sharing files in the Media Space used for rendered files, so that users can always freely delete the rendered files they created.

Some organizations like to create a separate Media Space for each user, and this can be a viable structure. It is particularly effective in two situations:

- If each editor normally works on his or her own projects and only rarely shares them with other editors, then you can give each editor an individual Media Space to be managed by that editor according to the needs of those projects.
- When you are using Managed Media Spaces in an environment where multiple users capture media, assigning each user their own Media Space into which they capture media for a particular project (and making sure they do indeed only capture media into their assigned Space) makes it very easy to identify which user owns, and can therefore modify or delete, any particular media file.

However, it is perfectly possible to have multiple editors working on the same project capture, render, and work with media in the same project-based Media Spaces. This is one of the strengths of EditShare, and in fact, it is how most organizations structure their Media Spaces.

Media Space names may be up to 25 characters long, and may include letters, numbers, hyphens (-), and spaces. No punctuation may be used in Media Space names, and certain names are reserved. For more detail, see "Naming Media Spaces" on page 155.

Choosing the Right Type of Media Space

EditShare offers several different types of Media Space, as described in the *EditShare Editor's Guide*. As EditShare Administrator, you decide which type of Media Space to use for each purpose. See the recommendations in the following table. For additional information, also see "Restrictions on Modifying Media" on page 197.

NOTE: *EditShare encourages the use of Media Spaces other than Traditional Media Spaces. For information on Traditional Spaces, see "Appendix A: Traditional Media Spaces" on page 321.*

Media Space Type	Reasons to Use
Avid MXF	Simple and secure collaboration with Avid. All media must be in MXF format. Media and bins are all owned by the user who created them. Media is captured into each user's 1 folder. (To work with OMF media, you must use an Avid-Style Space or a Traditional Space.)

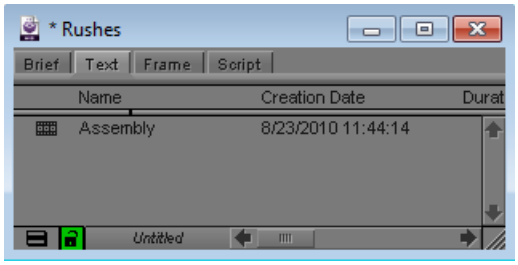
Media Space Type	Reasons to Use
Avid Style	Simple and secure collaboration with Avid. Emulates the way Avid projects and media are shared on Avid's own shared storage systems. You can use either MXF or OMF video media, and MXF (PCM), AIF, or WAVE audio. For more information, see "Avid-Style Media Space (Windows Only)" on page 147.
Managed	• Simplest safe collaboration with non-Avid NLEs. • Can be used to save exported media from any NLE, or to store media to be imported into Avid.
Unmanaged	• No management. • Use with Avid Capture or Render files only if two editors never mount the same Media Space simultaneously. • Can be used to save exported media from any NLE, or to store media to be imported into Avid. • Can be used for transcoding and consolidating to OMF for ProTools. • Use only with caution – any user can delete or overwrite any media at any time.
Universal	For use only with Universal Media Files in EditShare Flow. For detailed information, see the *Flow Setup and User's Guide*.
Traditional Avid	• Familiarity to users of older EditShare versions. • Avid media that must be stored as OMF, not MXF. • Gives each editor complete control over when other editors see what they have captured, and when they see what other editors have captured.
Traditional Final Cut Traditional Premiere Traditional OtherNLE	• Familiarity to users of older EditShare versions. • Gives each editor complete control over when other editors see what they have captured, and when they see what other editors have captured.

NOTE: *You can store OMF, MXF, or both in a Traditional Avid space. If you need to store OMF, you must use Traditional Avid. If you only have MXF, then you can choose to use Avid MXF or Traditional Avid. Avid MXF is almost certainly going to provide a better solution because you do not need to Share and Refresh manually.*

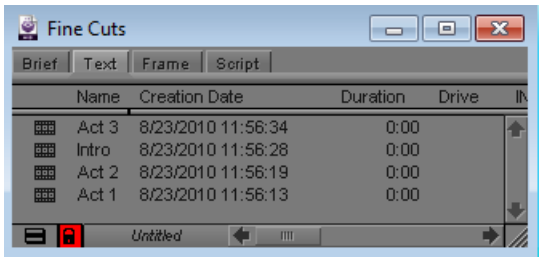
Avid-Style Media Space (Windows Only)

Avid-Style Media Spaces were created to emulate the way Avid projects and media are shared on Avid's own shared storage systems. Media and projects can be stored in the same Media Space, or in separate Spaces. All files are owned by the members of the Media Space—including media files, media database files, project settings and bins—and any user can modify or delete the files at the Explorer level.

For Avid projects stored in Avid-Style Media Spaces, any bin can be opened Read-Write by the first user who opens it. This is represented in the Avid application by a green lock icon on the bin.

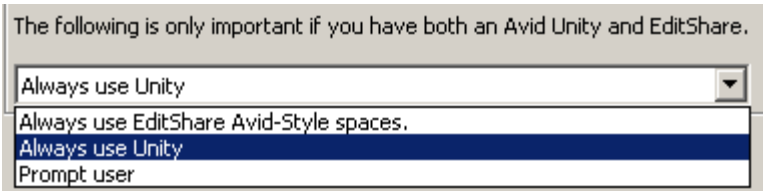


Any subsequent users have only Read access, which is represented by a red lock icon.



NOTE: *Make sure each of the workstations and boot drives on your facility's network has a unique name. See "Naming Workstations" on page 90 and "Naming Boot Drives" on page 91.*

If EditShare users also have Avid Unity, they need to select in EditShare Connect whether to work in EditShare Avid-Style or in Unity.



They can also choose to be prompted each time. For details, search for Avid Launcher in the *EditShare Editor's Guide*.

For Avid-Style Media Spaces to operate correctly, you need to log in to each workstation as Administrator and need to enable the EditShare Avid Launcher while you are thus logged in.

NOTE: *It is not sufficient to run EditShare Connect as Administrator. You must actually log into Windows as Administrator.*

On Windows Vista and Windows 7 systems, you might first need to enable the Administrator account in the Local Security area so you can log in as

Administrator. See “EditShare Avid-Style Media Spaces” in the *EditShare Editor’s Guide*.

One you have enabled EditShare Avid Launcher in EditShare Connect, you can log out as Administrator and log back in asa normal user. You must then enable EditShare Avid Launcher in EditShare Connect again

Public Media Spaces

You can declare a Media Space Public in order to make certain files easily available to all users. By definition, all users on your EditShare system can access a Public Media Space. For example, you might place company logos in a Public Media Space so that all users can access them. In a university environment, all materials for a class might be placed in a Public Media Space. New users added to EditShare automatically have access to Public Media Spaces.

NOTE: *You cannot exclude users from a Public Media Space. To remove one or more users from a Public Media Space, you must first make it non-Public.*

Previous versions of EditShare supported Unprotected Public Spaces, which offered very similar features to a Public Unmanaged Media Space. To simplify management, Version 5.5 and later eliminates Unprotected Public Spaces. When upgrading to Version 5.5 and later, any Unprotected Public Spaces on your system are automatically converted to Public Unmanaged Media Spaces.

For information about making a Media Space Public, see "Changing the Public Option" on page 155.

Locating Media Spaces

Each time you create a new Media Space, you must decide in which filesystem to locate it. The most important consideration is space. For example, if you have three filesystems and four Media Spaces, you could put all four Media Spaces in one filesystem, but then if you filled that filesystem, you would not be able to add any more media to any of those Media Spaces even though you would still have two empty filesystems.

In this case, EditShare recommends placing two Media Spaces – ideally the ones you expect to be smallest – on one filesystem, and each of the others on its own filesystem. If you later need to add a fifth Media Space, you can add it to the filesystem with the most free space available.

See "Media Drives" on page 266 for several other factors to keep in mind.

Using Quotas to Control Storage Space

Every Media Space has a size limit called a quota. Quotas help you control how much storage space is available for each Media Space or project. See the following topics:

- "Leaving Room for Avid Media Database Files" on page 150
- "Quota Overbooking System" on page 150

Leaving Room for Avid Media Database Files

As soon as the total size of the files in a Media Space reaches the quota, it becomes impossible for users to write any additional data to that Media Space unless the quota is increased or files are deleted.

Reaching a quota is much like completely filling a real hard disk, except that it is not harmful to the filesystem to reach a quota (unlike filling a real hard disk, which can be harmful to the filesystem). However, when a quota has been reached for an AvidMXF Media Space, it becomes impossible to update any Avid Media Database files in that Media Space, causing scanning to fail. Therefore, users should take great care to always leave at least a few hundred megabytes to a gigabyte of empty space in each Avid Media Space.

The Daily Status Report includes a quick summary of how close each Media Space is to reaching its full quota. Checking each day's report is an easy way to notice when a Media Place might need to be cleaned up or have its quota increased. See "Daily Status Report" on page 236. If your Media Space is near or at its quota, you receive one or more Quota Report emails. See "Viewing Quota Reports" on page 245.

For information on setting quotas, see "Changing Quotas on Media Spaces" on page 168.

Quota Overbooking System

You might be familiar with the concept of overbooking plane flights. Airlines typically overbook flights to ensure that their planes fly with the greatest possible number of passengers. While this might occasionally be inconvenient

to passengers who don't actually get seats, it means that planes fly out with fewer empty seats, improving the efficiency and profitability of the airline.

Similarly, you can use overbooking to set quotas for your Spaces. Overbooking is the practice of setting total quotas to exceed the existing space available. For example, you might have four Media Spaces on a 2-TB server and assign them each a quota of 1 TB. Together, the four Media Spaces' quotas exceed the available space on the server, but the likelihood that all four Media Spaces will utilize a full terabyte at the same time might be small. This allows a Media Space to occasionally contain a large amount of data for a short time. You can allow unrestricted overbooking, restrict overbooking to a set level such as 10%, or allow no overbooking at all.

For information on establishing overbooking, see "Setting Quota Overbooking Policy" on page 170.

Chapter 10: Creating Media Spaces

Before creating Media Spaces, be sure to review "Chapter 9: Planning Media Spaces" on page 145 for information on planning Media Spaces.

See the following topics:

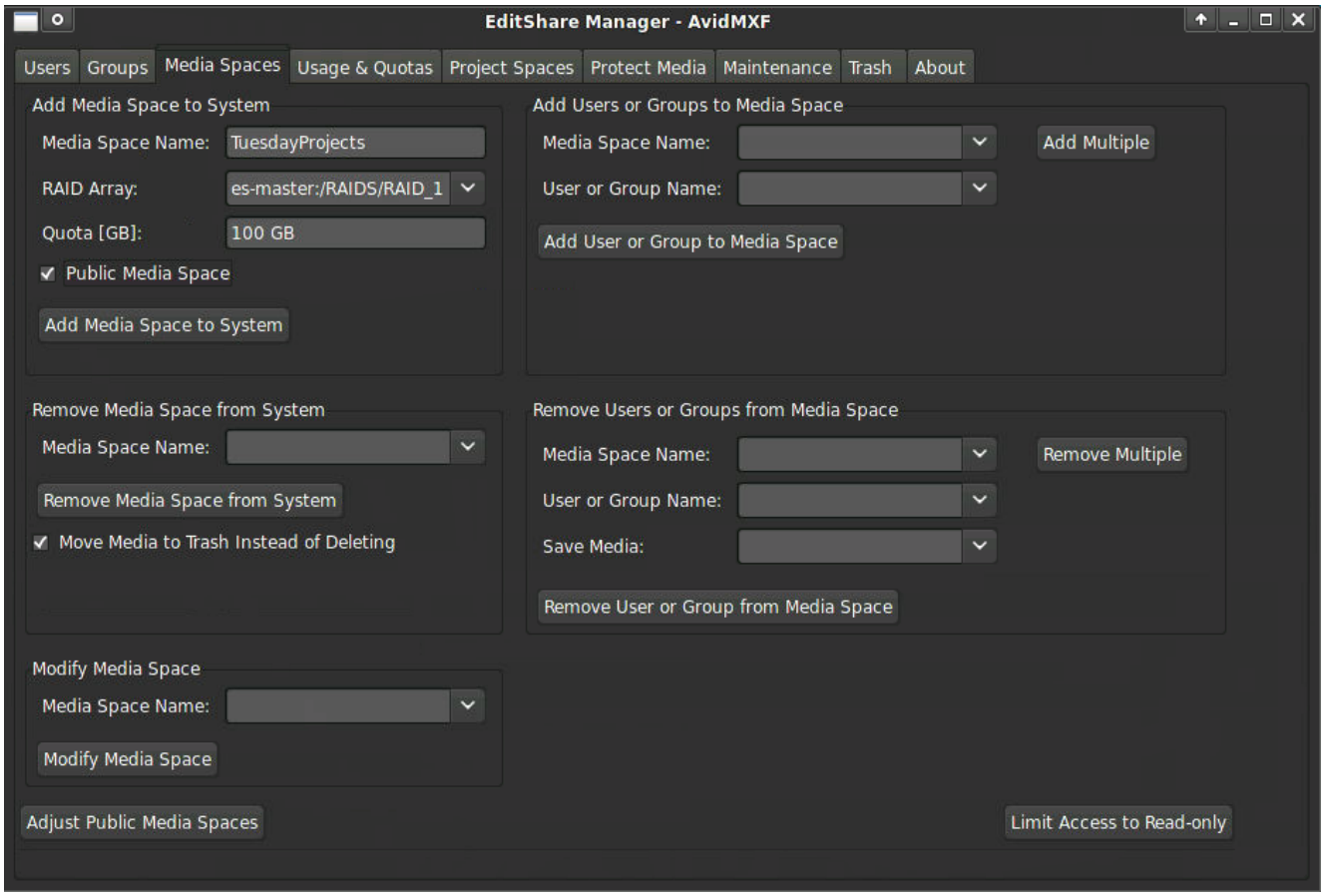
- Adding Media Spaces
- Adding Users to Media Spaces
- Configuration Import Tool
- About Netatalk and AFP
- Changing Quotas on Media Spaces
- Setting Quota Overbooking Policy

Adding Media Spaces

To add Media Spaces, do the following.

TASK

1. Open the EditShare Manager for the type of Media Space you want to create, and click the Media Spaces tab.



2. In the Add Media Space to System area, type a name in the Media Space Name text box (see "Naming Media Spaces" on page 155 for tips on naming of Media Spaces, and "Renaming Media Spaces" on page 174 for the procedure to rename a Media Space).
3. Select the RAID array on which you want to create that space from the list of all the RAID filesystems on all EditShare servers configured.

   The list shows you how much space is available on each filesystem so you can use that information to decide where to put your new Media Space. Even if you have only one RAID filesystem, you must still select that filesystem. If you have two or more, you can choose among the different filesystems.
4. Type a quota for the new Media Space.

5. To ensure that all users on the system are always members of the Media Space, select Public Media Space.
6. Click Add Media Space to System.
7. Repeat this process for each Media Space you want to create. You can add new Media Spaces at any time.
8. To add Media Spaces of a different type, close the EditShare Manager you are using and open a different one.

Naming Media Spaces

Media Space names can be 25 characters or fewer. You cannot name any Media Space with the following names (in any combination of uppercase and lowercase letters):

```
adm, ark, audio, avahi, bin, cdrom, cdwriter, clamav,
ctools, daemon, disk, editors, editors_us, editshare,
floppy, ftp, games, gdm, haldaemon, kmem, lp, machines,
mail, man, mem, messagebus, mysql, news, nogroup, ntools,
ntp, postdrop, postfix, root, rpc, rpcuser, rpm, slocate,
sshd, sys, tape, tty, usb, users, utmp, uucp, vcsa, video,
wheel, xfs, xgrp
```

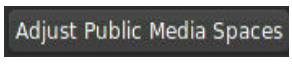
No punctuation other than spaces and hyphens is allowed in Media Space names. Certain punctuation interferes with EditShare's ability to manage and maintain Media Spaces. By excluding punctuation in Media Space names, for example colon (:), slash (/), backslash (\), vertical bar (|), angle brackets (< and >), and parentheses, we ensure good filesystem health. This does not affect existing Media Spaces with names including punctuation, nor does it exclude foreign language characters. For additional information, see "Allocating and Naming Media Spaces" on page 145.

Changing the Public Option

You can change whether a Media Space is Public or not. Do the following.

TASK

1. Open the EditShare Manager for the type of Media Space you want to create and click the Media Spaces tab.



2. Click the Adjust Public Media Spaces button in the bottom left corner of the Media Spaces tab.

   The Select Public Media Spaces dialog box opens.

3. Select or deselect spaces and then click OK.

NOTE: *You cannot remove users from a Public Media Space. To make the Space inaccessible to one or more users, you must change it to a non-Public Media Space.*

Adding Users to Media Spaces

This section does not apply to Public Media Spaces. All users can automatically access Public Media Spaces.

Every user account (or workstation) that needs to access a Media Space must be added to that Media Space (you should first create a Media Space; see "Chapter 9: Planning Media Spaces" on page 145 and "Adding Media Spaces" on page 154 on planning and creating Media Spaces). Editors cannot see a Media Space on the network until they are specifically added to that Media Space. Once added, these users can store and access media there.

Whenever you add a new user, you need to give that user access to any Media Spaces he or she needs to use.

See the following topics:

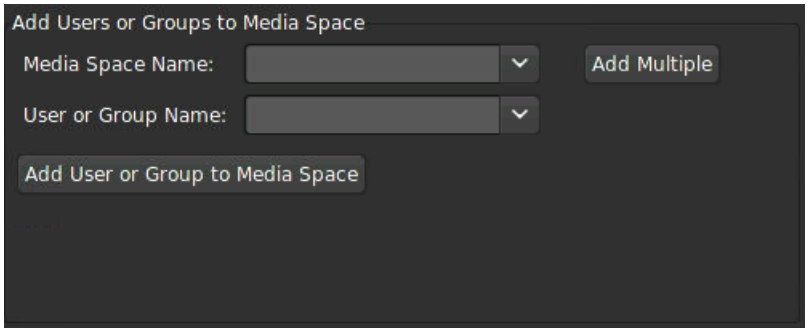
- "Adding Multiple Users to Media Spaces" on page 157
- "Adding Individual Users to Media Spaces" on page 158

Adding Multiple Users to Media Spaces

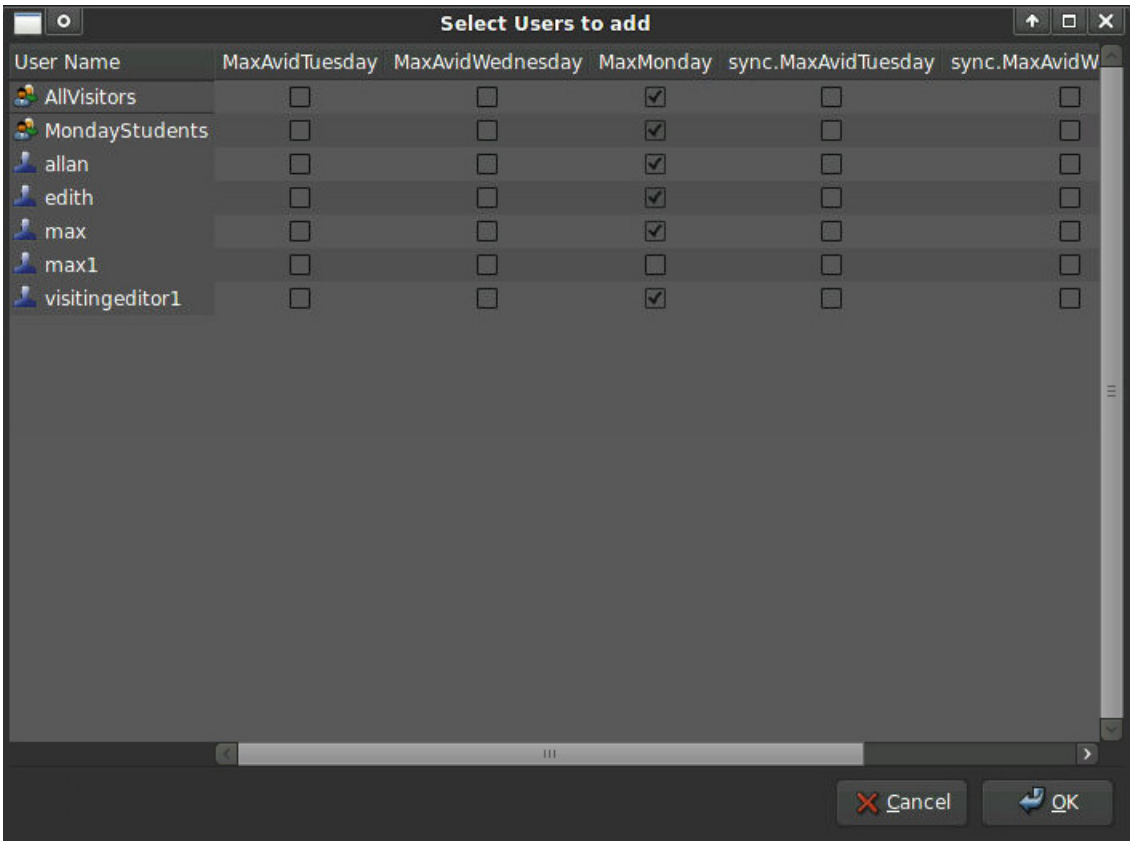
To add users to one or more Media Spaces, do the following.

TASK

1. Start the EditShare Manager and click the Media Spaces tab.
2. Click Add Multiple in the Add Users or Groups to Media Space area.



A spreadsheet-like window opens. Each row is a user or group, each column is a Media Space. Check marks appear for users or groups who have access to a particular Media Space.



3. Select additional users or groups to add them to Media Spaces, and then click OK.
4. To add all users and groups to a single Media Space, click the name of the Media Space at the top of the window. To add a single user or group to all Media Spaces, click the user or group's name at the left side of the window.

   If the window is not big enough to show the entire table, scrollbars appear. You can resize the window.

   NOTE: *You cannot remove users or groups from Media Spaces using this window. If you try to deselect a user or group from a Media Space, nothing happens. To remove a user or group from a Media Space, you use the Remove Multiple button; see* *"Removing Multiple Users or Groups from Media Spaces" on page 181*.
5. Click OK.

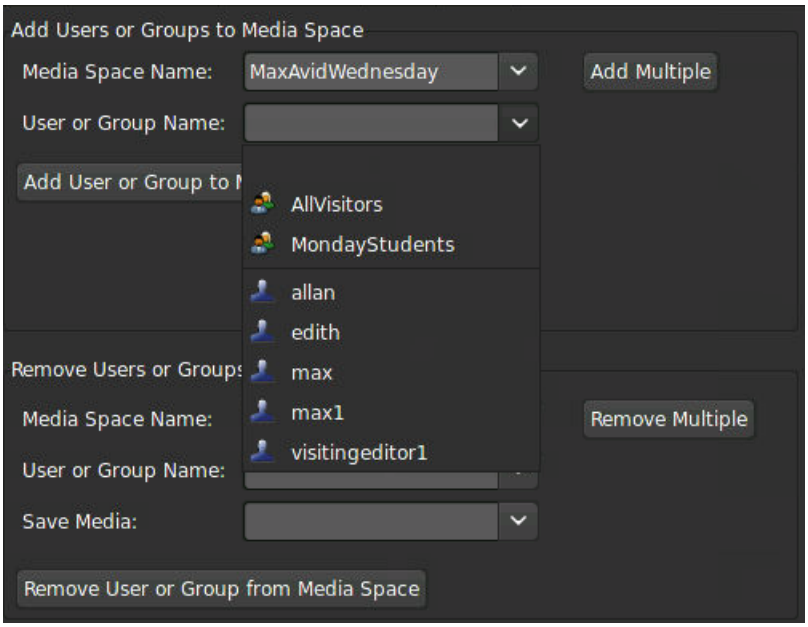
   NOTE: *If you click Cancel instead, no users are added to any Media Spaces.*

Adding Individual Users to Media Spaces

To add one or two users to a Media Space, do the following.

TASK

1. Open the EditShare Manager for the type of Media Space you want to create and click the Media Spaces tab.
2. In the Add Users or Groups to Media Space area, select a name from the Media Space Name list.



3. Select the user name from the User or Group Name list. (Only names that are not already members of the Media Space are available.)
4. Click Add User or Group to Media Space.

   NOTE: *If you create multiple Media Spaces for a project (for example, one for media files, one for renders, one for effects), be sure to add the appropriate users to each of those Media Spaces.*

Configuration Import Tool

You can use the Configuration Import Tool when you want to create many users and Media Spaces at once. It is designed specifically for a classroom setting, where typically an Administrator might be creating an account and personal Media Space for each student, plus perhaps some additional project Media Spaces. It can also be valuable in any situation where many users and Media Spaces are to be created at once.

Using the Configuration Import tool begins with the creation of a spreadsheet. You can use most common spreadsheet programs, such as Microsoft Excel or OpenOffice.org Calc, as long as the program is capable of exporting a spreadsheet in Comma-Separated Values (.csv) format. A template for use with the Configuration Import tool (in Microsoft Excel and OpenOffice.org formats) is included on the EditShare Utilities CD or you can download it from the EditShare web site. The spreadsheet template includes brief instructions which are elaborated upon in the following sections. You need to place the actual information used by the Configuration Import tool between the red Section lines.

See the following sections:

- "Creating New Users and Personal Media Spaces" on page 160
- "Creating New Media Spaces" on page 161
- "Adding Users to Media Spaces" on page 162
- "Importing the Spreadsheet" on page 163

Creating New Users and Personal Media Spaces

Step 1 identifies the users to be created, and optionally allows you to create a personal Media Space for each user. The spreadsheet contains two sections pertaining to users.

The first section, GLOBAL, tells the Configuration Import tool how to name each user's personal Media Space. For example, if you wanted Joe's Media Space to be named Joe's Space, Mary's Media Space to be named Mary's Space, and so on, you would put USERNAME's Space in the column next to Personal Media Space Template. Make sure to use the exact text USERNAME in all capitals to make sure each user gets a personally-named Media Space.

The second section, NEW USERS, lists each of the users to be created. Each line represents one new user. The columns are described in the following table.

Column	Column Name	Action and Description
A	Username	Type the user name.
B	Password	Type the password. EditShare recommends assigning each user a different password, preferably something difficult to guess.

Column	Column Name	Action and Description
C	Create Personal Media Space?	Type **yes** if the user should have a personal Media Space with a name based on the text in the GLOBAL section (see the preceding paragraphs), or **no** if the user should not have a personal Media Space. Leave the remaining columns blank if you type **no** in this column.
D	Media Space Location	If a personal Media Space is to be created, type the server and path on which it is to be created, separated with a single colon (and no spaces). The server name should be a name you see in EditShare Manager's About tab, where the servers are listed. The RAID path is always of the form /RAIDS/RAID_#. If you have only one server, its name is probably es-master as specified in the template.
E	Media Space Quota	Type the desired quota (in gigabytes) for the user's Personal Media Space. When you add Media Spaces in the Configuration Import tool, overbooking limitations are not enforced. This means that even if you have set the server to disallow overbooking completely, you can still create Media Spaces with quotas that total far more than the available space on the system if you are not careful.
F	Media Space Type	Type one of the following to specify the desired type of personal Media Space: AvidMXF, Managed, Unmanaged, Avid, FinalCut, Premiere, OtherNLE, Edius. (Be careful not to insert spaces in these words.)
Additional columns		If you want to add other users (such as instructors or teammates) to the user's personal Media Space, type each user's name in a separate column here. The users can already exist on the system, or be created in other lines in this section. Each user is automatically added to his or her own personal Media Space, so there is no need to specify them.

Creating New Media Spaces

Step 2 identifies additional Media Spaces to be created other than the users' personal Media Spaces. The columns are described in the following table.

Column	Column Name	Action and Description
A	Media Space Name	Type the name of the Media Space.
B	Media Space Location	Type the server and path on which the Media Space is to be created, separated with a single colon (and no spaces). The server name should be a name you see in EditShare Manager's About tab, where the servers are listed. The RAID path is always of the form /RAIDS/RAID_#. If you have only one server, its name is probably es-master as specified in the template.
C	Media Space Quota	Type the desired quota (in gigabytes) for the user's Personal Media Space. Quotas are mandatory: you cannot set the quota to 0.

Column	Column Name	Action and Description
D	Media Space Type	Type one of the following to specify the desired type of personal Media Space: AvidMXF, Managed, Unmanaged, Avid, FinalCut, Premiere, OtherNLE, Edius. (Be careful not to insert spaces in these words.)
E	Public?	Leave blank if the Media Space should not be Public, or type **yes** if it should be Public.

Adding Users to Media Spaces

Step 3 allows you to add users to Media Spaces – the ones you've just created, or other Media Spaces that already exist. Do not use this section to add users to Public Media Spaces; all users are automatically added to such Spaces. The columns are described in the following table.

Column	Column Name	Action and Description
A	Media Space Name	Type the name of the Media Space.
Additional columns		Type the username of one user per column. You can use as many columns as you need.

Creating New Shared Project Spaces

Step 4 allows you to add Shared Project Spaces – the ones you've just created, or other Shared Project Spaces that already exist. The columns are described in the following table.

Column	Column Name	Action and Description
A	Shared Project Space Name	Type the name of the Share Project Space.
Additional columns		Type the type of the Space: • Avid • Non-Avid

Adding Users to Shared Project Spaces

Step 5 allows you to add users to Shared Project Spaces – the ones you've just created, or other Shared Project Spaces that already exist. You can add new users or users you've just created. The columns are described in the following table.

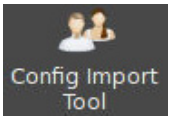
Column	Column Name	Action and Description
A	Shared Project Space Name	Type the name of the Shared Project Space.
Additional columns		Type the username of one user per column. You can use as many columns as you need.

Importing the Spreadsheet

To import the spreadsheet, do the following.

TASK

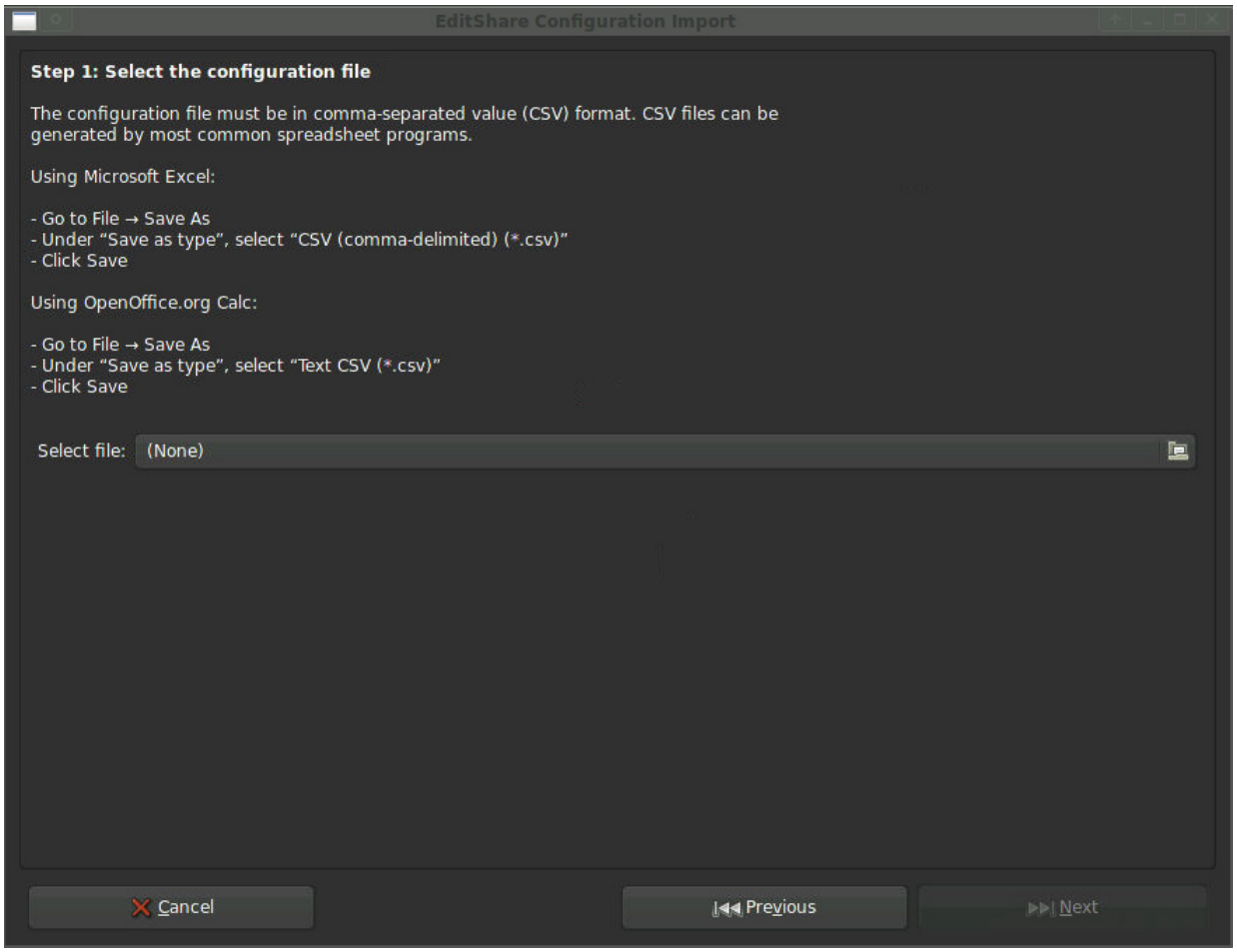
1. Export the spreadsheet as a comma-separated values (.csv) file.
2. Do one of the following and note the location:
   - Save the file directly onto the EditShare server.
   - Save the file to your local hard drive and then copy it to the SMB File Exchange area of your EditShare server.



3. From the EditShare Control Panel, double-click Config Import Tool.
4. Type the EditShare Administrator password when prompted to do so.

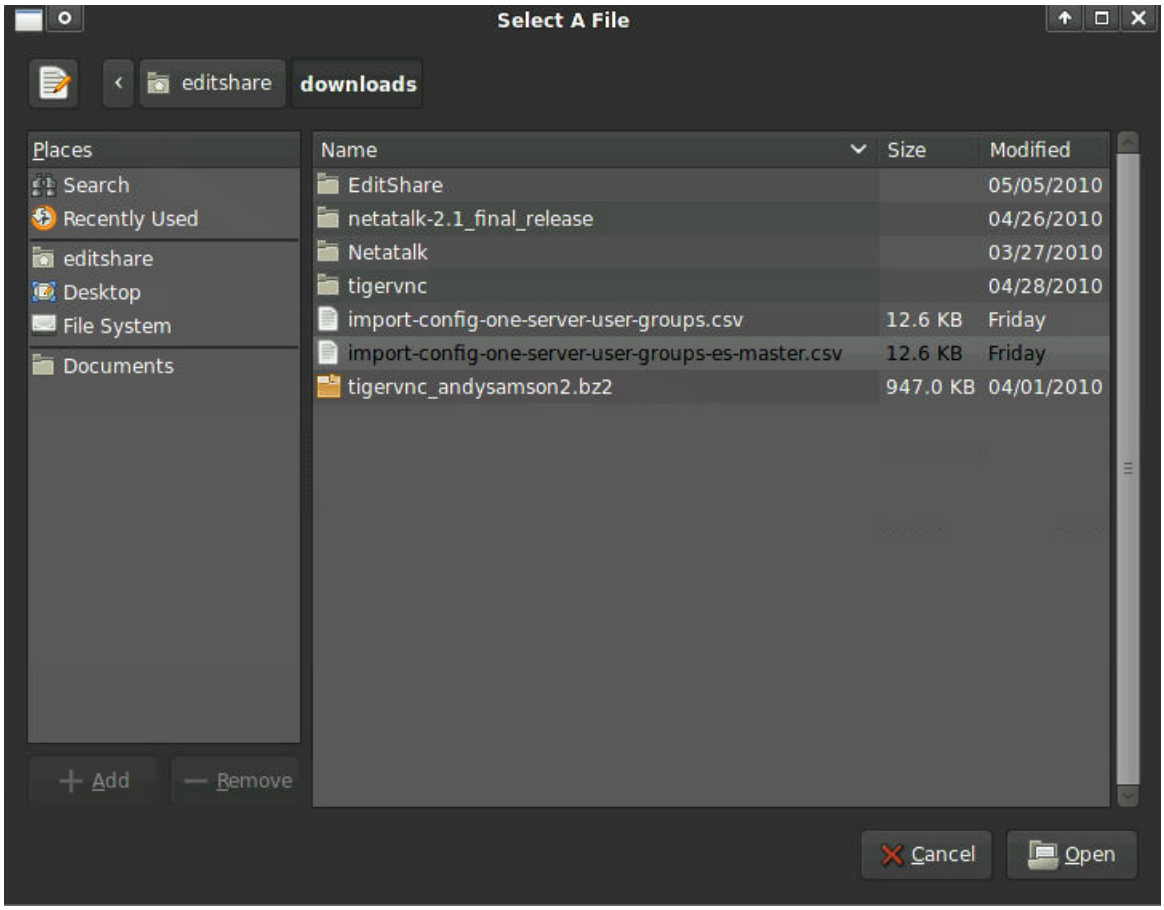
   The Configuration Import tool opens.
5. Click Next.

   The Step 1 window opens.

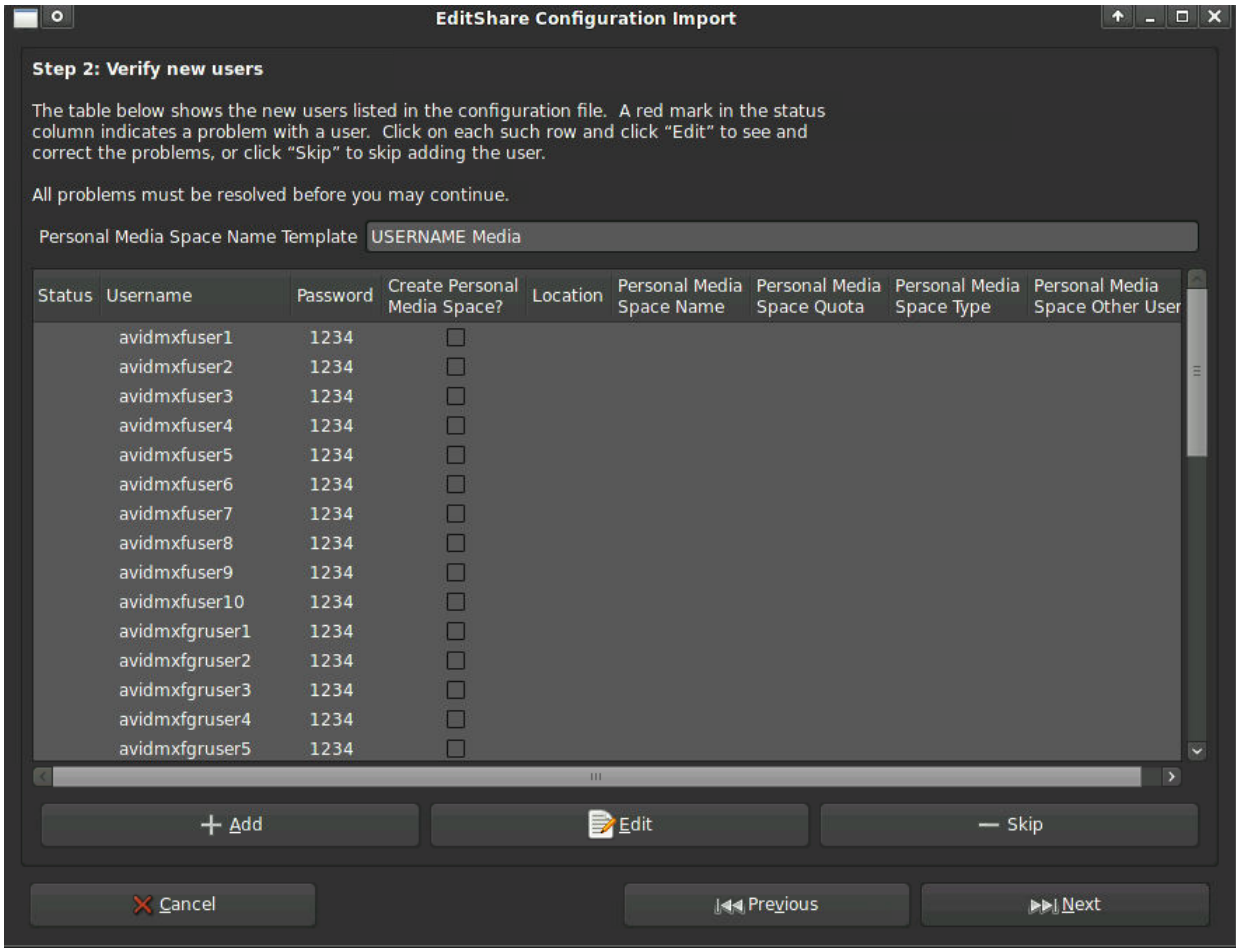


6. Click the Select File button.

   The Select A File dialog box opens.



7. Navigate to the file you want, click Open, and then click Next.
   The tool leads you through each step of the import process.



8. Review the data entered and make sure it was read correctly.

   If there are any errors (such as missing or invalid values), they are indicated by a red mark in the first column.

9. Click any row with a red mark – or in which you see an error – and click Edit to make any necessary corrections. If you want to skip an item, click Skip and that row is omitted from the import.

10. (Option) Add a new item by clicking Add.

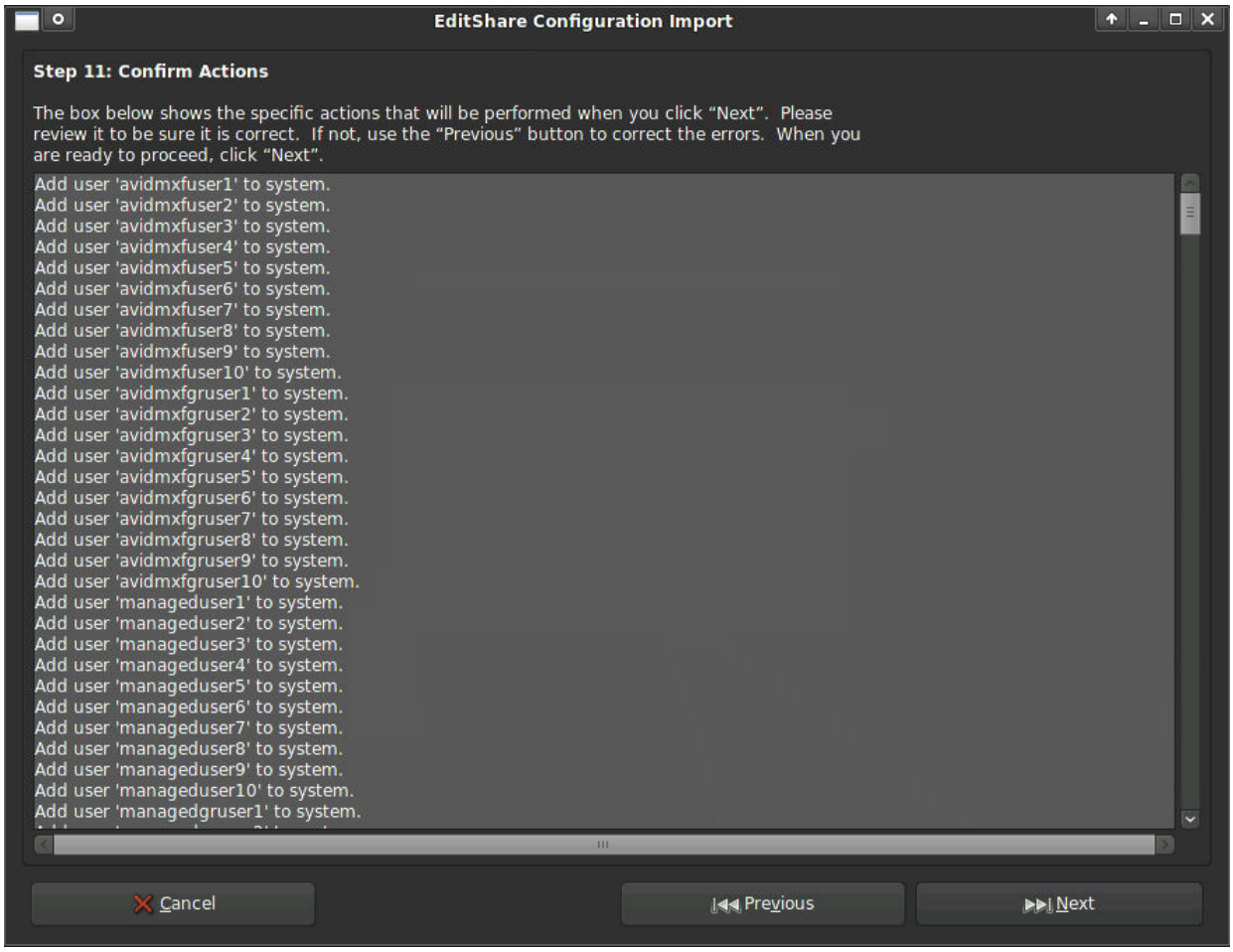
    NOTE: *Making changes here does not change the CSV file or the original spreadsheet – it only alters what is actually done on the server.*

11. Use the Back and Next buttons to move back and forth to review the changes.

    NOTE: *Nothing is actually done until you click Commit on the final Summary page, so you can safely make any changes you need before anything is done. If you exit the tool at this time, no users or Media Spaces have been added.*

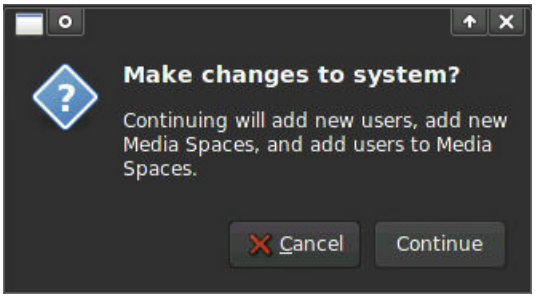
12. When you are satisfied with the changes to be made, click the Next button until you reach the Step 11 page.

    This page shows you what will be imported.



13. If everything is correct, click Next.

    A message box opens asking if you want to continue.



14. Click Continue.

    When the import is complete, any errors that occurred during the import are displayed.

15. Click Close to close the Configuration Import tool.

About Netatalk and AFP

Managed, Unmanaged, Traditional Final Cut, and Traditional OtherNLE Media Spaces are accessible by the AFP protocol, which is managed on EditShare servers by the Netatalk service. Due to the way Netatalk works, a new Media Space is not mountable via AFP until the Netatalk service is restarted. However, when you restart Netatalk, you disconnect any Media Spaces on that server that are currently connected via AFP. If your users connect by AFP, it is best to add Media Spaces only when nobody has AFP Media Spaces mounted.

If none of your users connect by AFP – for example, if your Final Cut Pro users connect by Native SMB or DAVE SMB – you don't need to worry about restarting Netatalk. You can also enforce SMB use; see "Disabling AFP for EditShare Connect (Macintosh Only)" on page 86 for details.

The EditShare Managers for the Media Space types that support AFP have an additional option in the Add Media Space to System pane labeled Restart Netatalk. If this option is selected, Netatalk is restarted each time you add a Media Space (and users are disconnected from all Media Spaces on that server which are mounted with AFP). If it is deselected, Netatalk is not restarted and users cannot mount the Media Space until it is.

If you are adding several Media Spaces at once, you might wish to deselect the option until you add the last one, so the Netatalk service is restarted only once.

If you add Media Spaces with the option deselected, and later remember you need to restart Netatalk, you can do so using the Restart Netatalk Manually button also located on this page.

Changing Quotas on Media Spaces

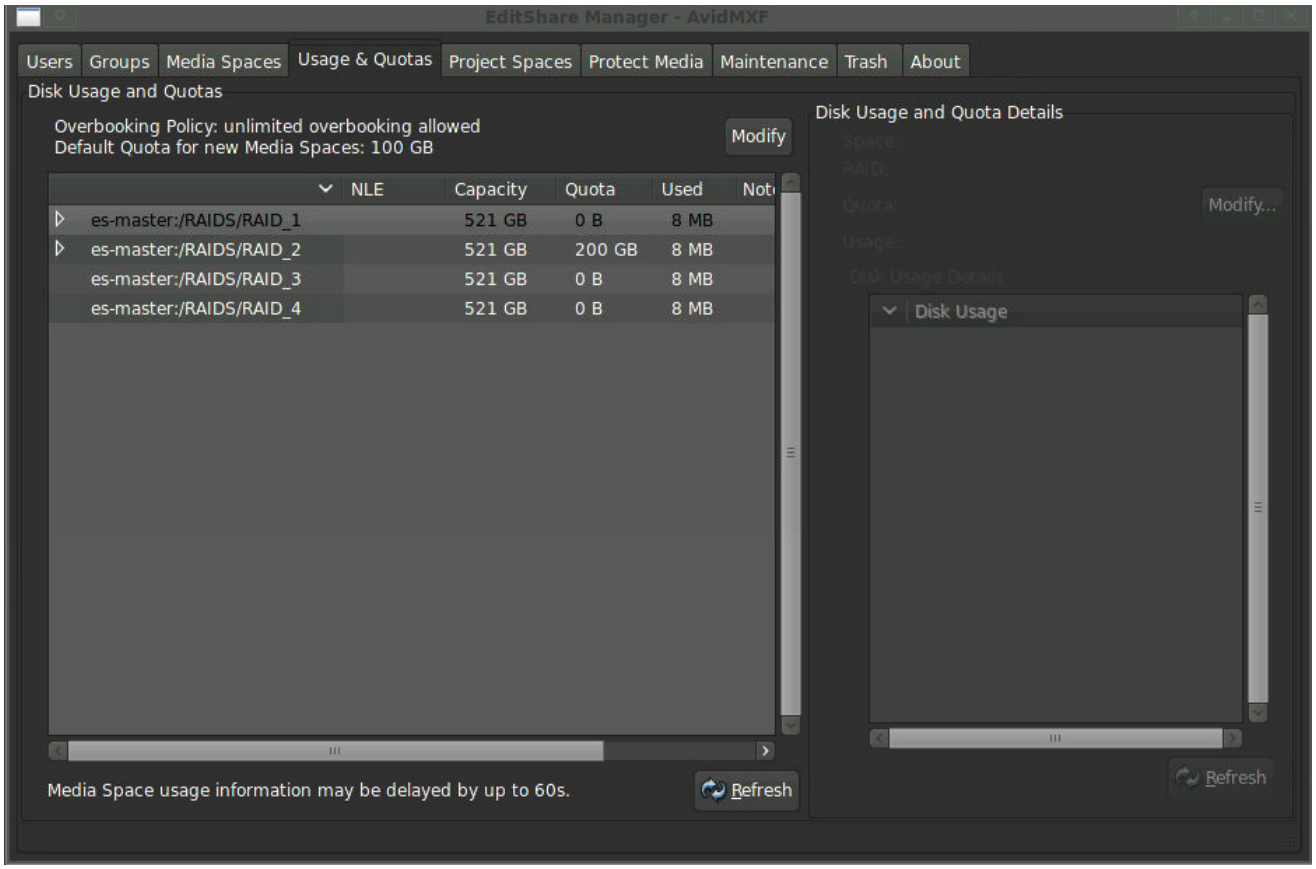
You can change the quota on a Media Space. The default unit for quotas is the gigabyte. You can specify other units, for example, you could type 500 MB or 2 TB.

To change the quota on a Media Space, do the following.

TASK

1. Open EditShare Manager and click the Usage & Quotas tab.

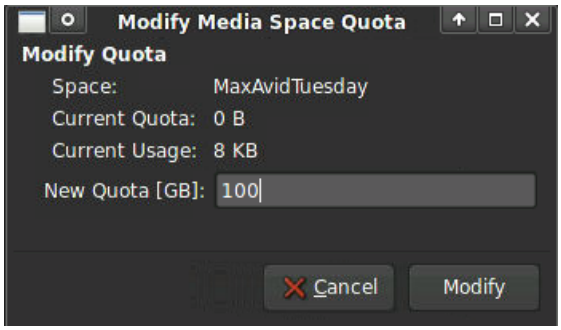
   The left area of the window shows a list of the available RAID filesystems.



2. Click the triangular opener to the left of a RAID to view the list of Media Spaces or Project Spaces within that RAID.
3. To modify the quota for a Media Space, click the Media Space within the list.

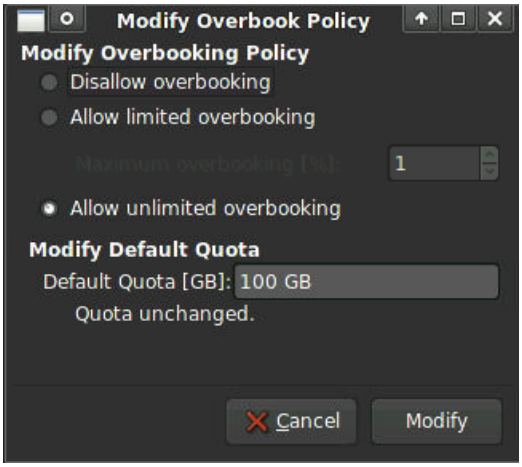
   Information specific to that Media Space appears in the Media Space Details area on the right side of the window.
4. Click the Modify button in that area.

   The Modify Media Space Quota dialog box opens.



5. Type the quota in gigabytes and click Modify.
6. To change the default quota set when you create a Media Space on a particular RAID, select a RAID in the Disk Usage and Quotas area, then click the Modify button in that area.

   The Modify Overbook Policy dialog box opens.



7. Type the default quota in gigabytes in the Default Quota text box and then click Modify.

Setting Quota Overbooking Policy

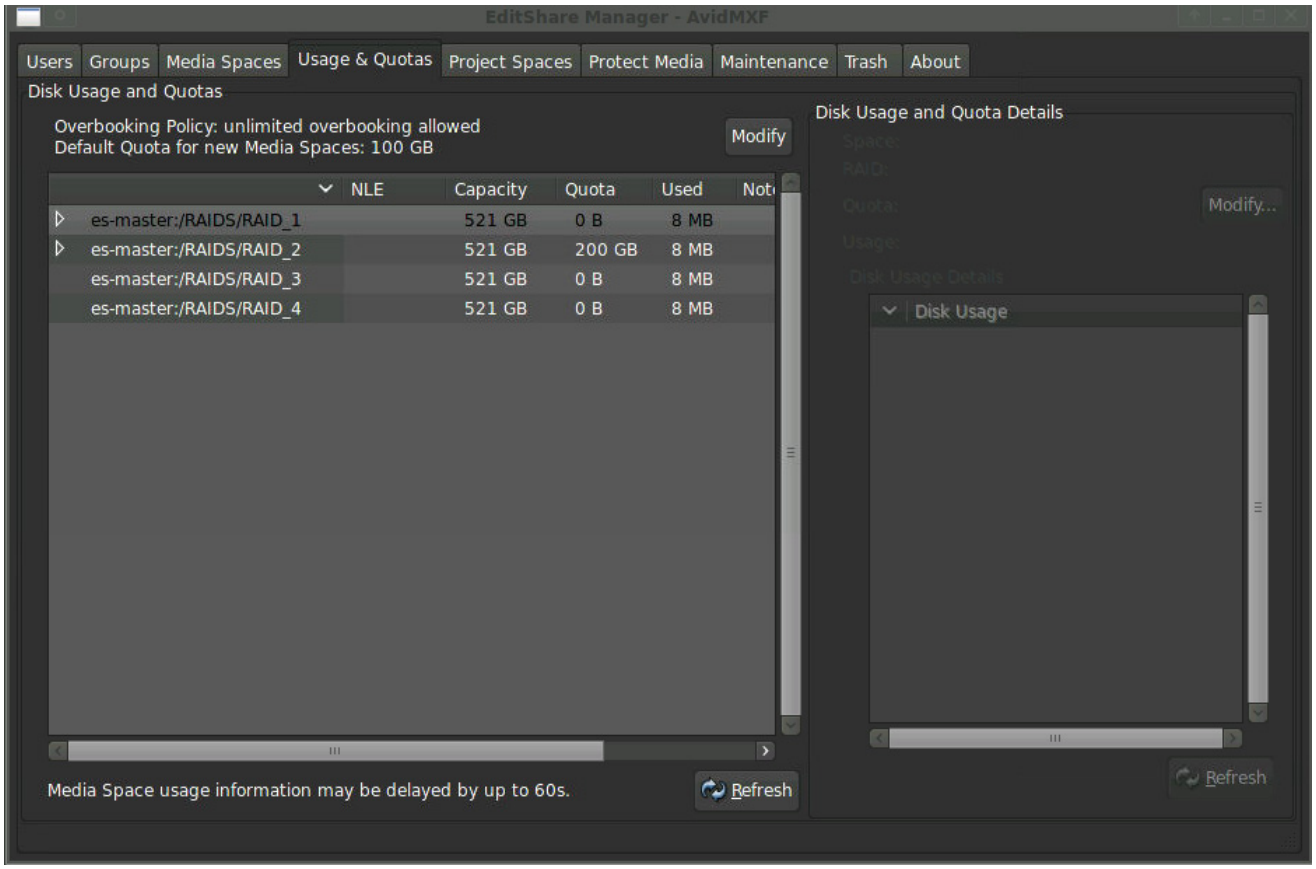
You can also set the RAID's overbooking policy here. (For more on overbooking, see "Quota Overbooking System" on page 150.) The overbooking system allows you to set overbooking in a manner that is consistent with your users' practices. You can allow unrestricted overbooking, restrict overbooking to a set level such as 10%, or allow no overbooking at all.

To set quota overbooking, do the following.

TASK

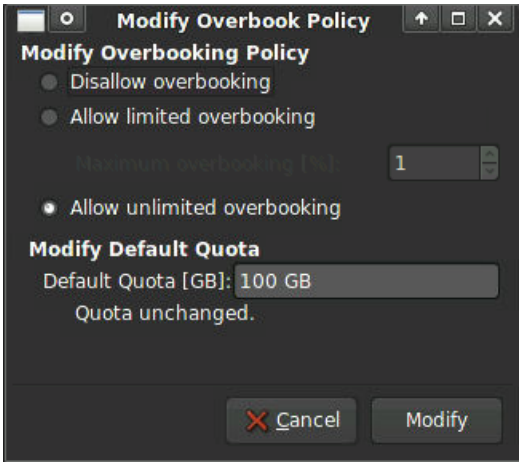
1. Open the EditShare Manager for the Media Space for which you want to set quota overbooking and click the Usage & Quotas tab.

   The overbooking policy for the Media Space is displayed.



2. Click the Modify button in the Disk Usage and Quotas area.

   The Modify Overbook Policy dialog box opens.



3. Select an overbooking policy for that RAID and then click Modify.

Chapter 11: Managing Media Spaces

As EditShare Administrator, you are the person ultimately in charge of managing all the Media Spaces for users. Although you can grant specific capabilities to other users for certain Media Spaces, you are the only person who always has the ability to do whatever needs to be done to support the editors using the system.

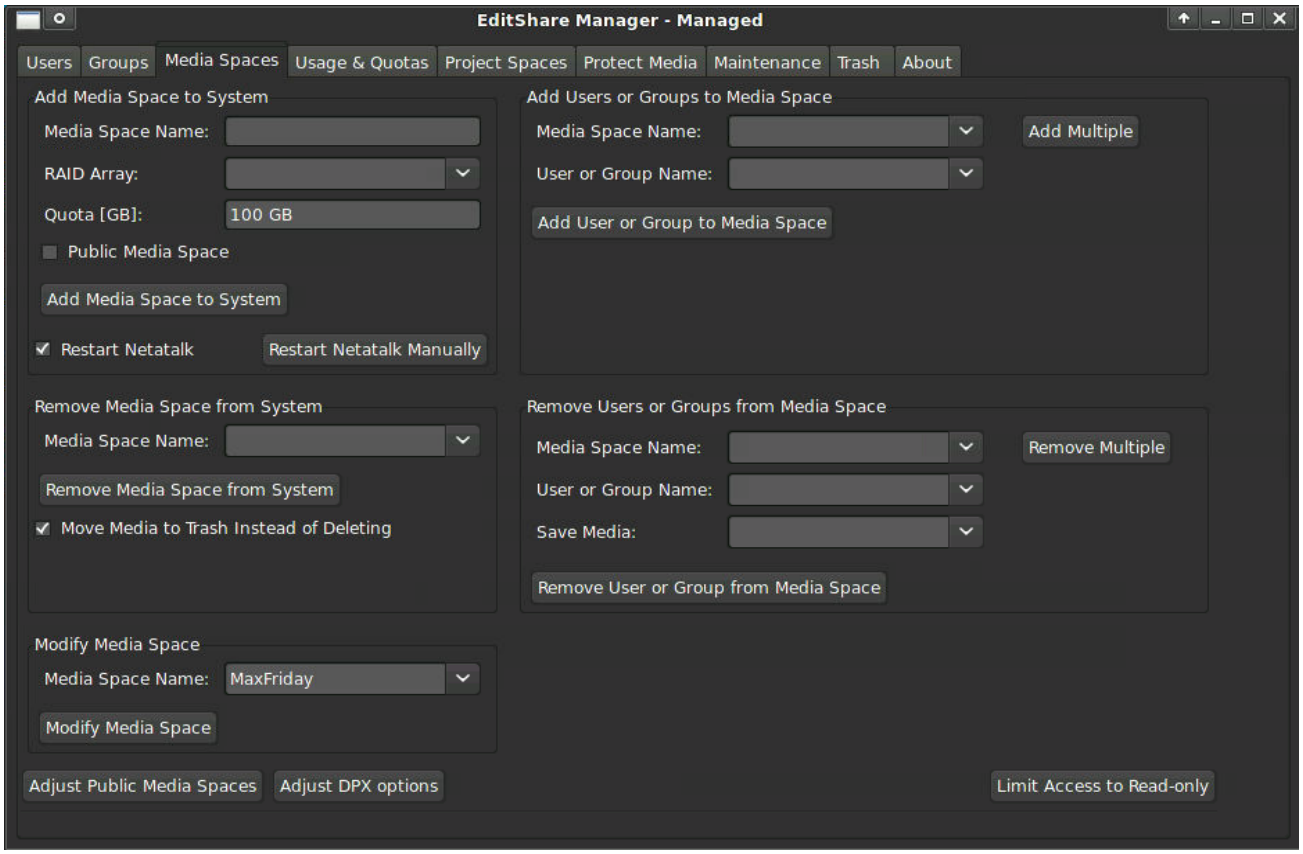
See the following sections:

Renaming Media Spaces

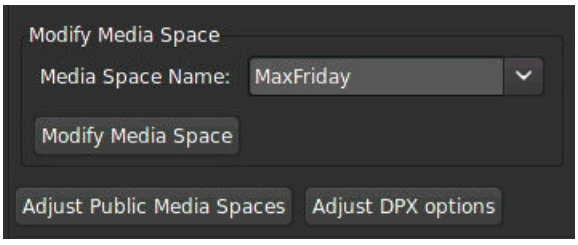
You can rename Media Spaces by doing the following.

TASK

1. Open the EditShare Manager for the kind of Media Space you want to modify, and then click the Media Spaces tab.

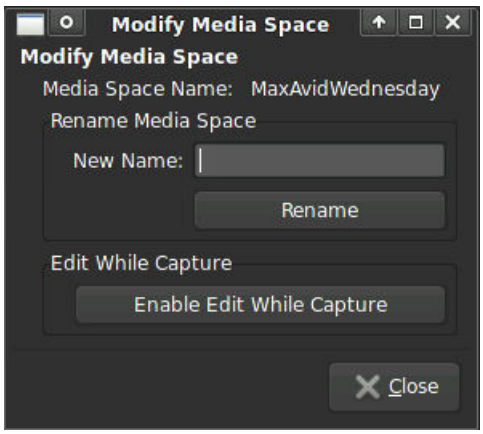


2. In the Modify Media Space area, select a Media Space name.



3. Click Modify Media Space.

   For all Media Space types except Managed, the Modify Media Space dialog box opens.



4. Type a new name for the Media Space, and then click Rename.

   NOTE: For details on how to name a Media Space, see *"Naming Media Spaces" on page 155*.

   NOTE: *For Managed Media Spaces only, the Modify Media Space dialog box includes a Change Space Type option. See "Converting Managed Media Spaces to Unmanaged" on page 177.*

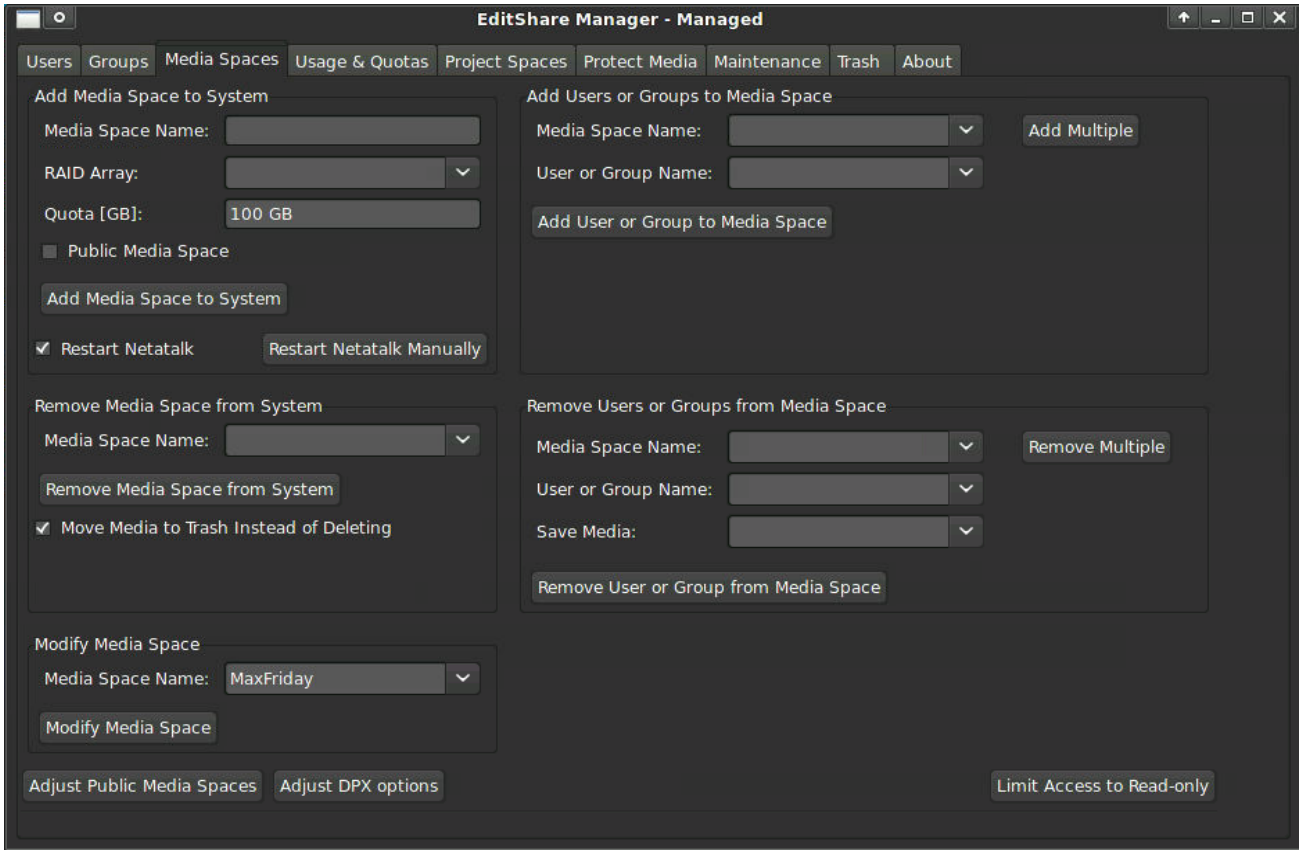
Enabling Edit While Capture

You can enable the Edit While Capture feature for a Media Space. You must have the Flow v2.0 application to use the feature. For more information about Edit While Capture, see the *Flow Version 2.0 Setup and User's Guide*.

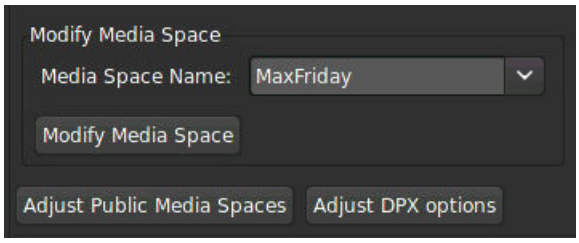
To enable Edit While Capture, do the following.

TASK

1. Open the EditShare Manager for the kind of Media Space you want to modify, and then click the Media Spaces tab.

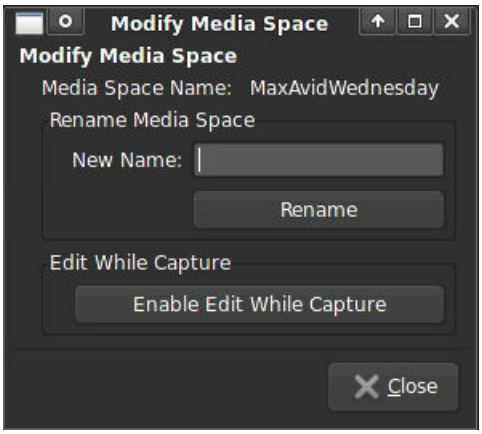


2. In the Modify Media Space area, select a Media Space name.



3. Click Modify Media Space.

   For the Modify Media Space dialog box opens.



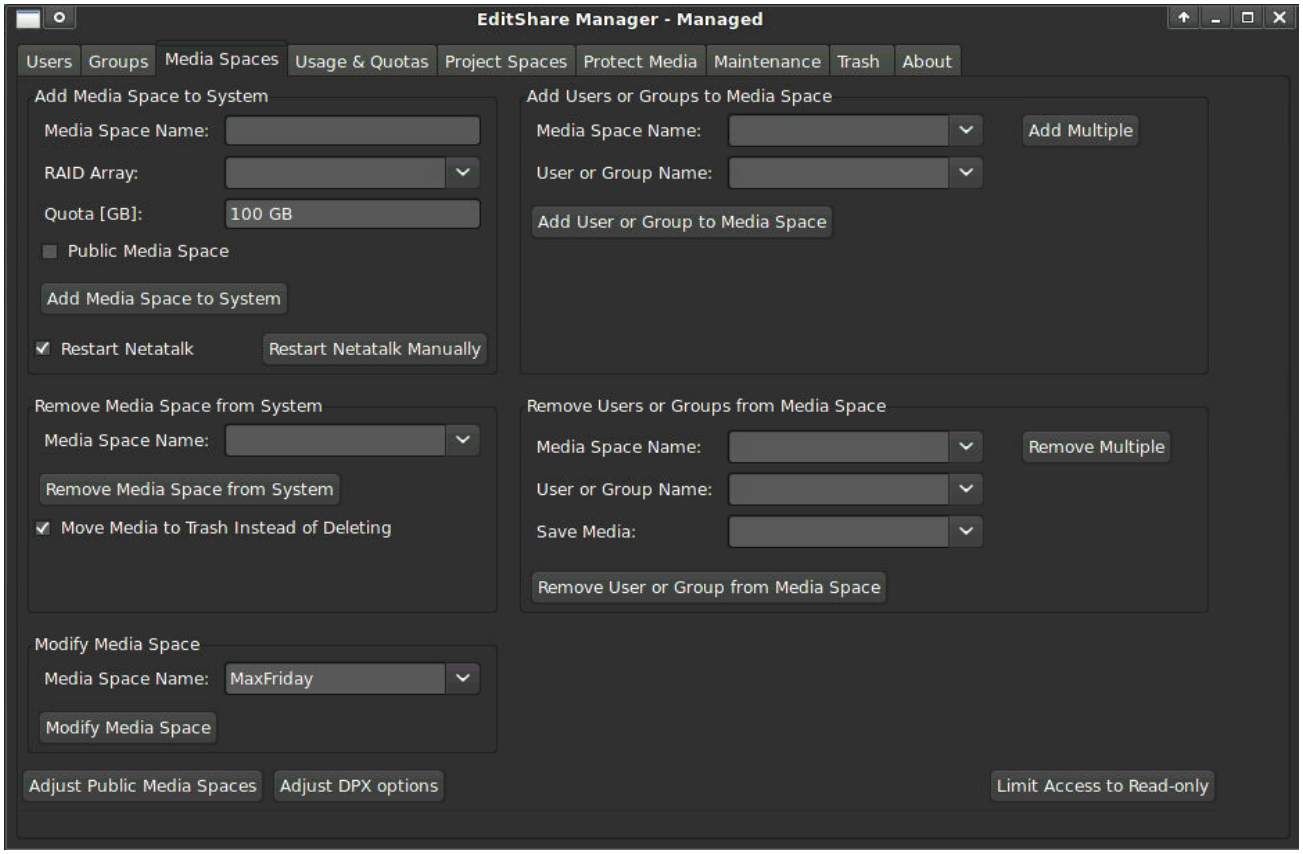
4. Select Enable Edit While Capture, and then click Close.
   The feature is enabled for that Media Space.

Converting Managed Media Spaces to Unmanaged

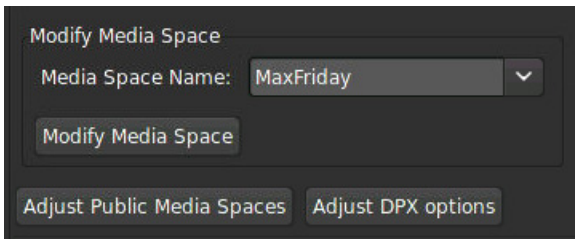
You can convert a Managed Media Space to an Unmanaged Media Space by doing the following.

TASK

1. Open the EditShare Manager for a Managed Media Space, and then click the Media Spaces tab.

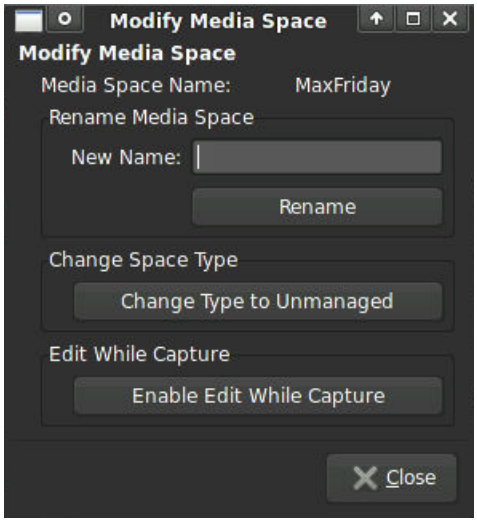


2. In the Modify Media Space area, select a Media Space name.



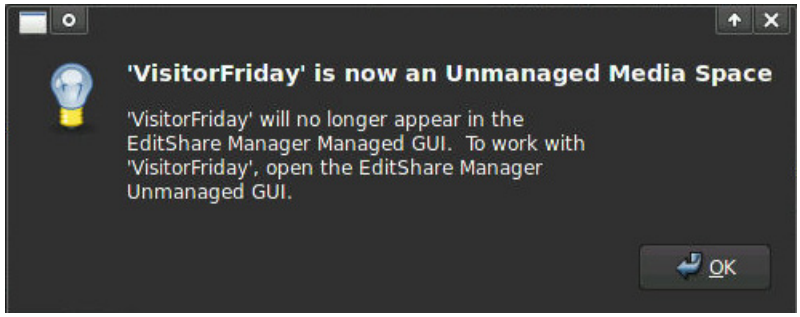
3. Click Modify Media Space.

   The Modify Media Space dialog box opens.



4. Click Change Type to Unmanaged.

   A message box confirms the change.



5. Click OK, and then click Close.

Removing Users or Groups from Media Spaces

If an editor stops working on a particular project, you might want to remove the user from the Media Space for that project. This section describes how to gracefully remove a user such that their files and media are preserved. See the following topics:

- "How a User's Media is Handled" on page 180
- "Removing Multiple Users or Groups from Media Spaces" on page 181
- "Removing Individual Users or Groups from Media Spaces" on page 183

How a User's Media is Handled

When you remove a user from a Media Space, you have several options to deal with the media that user owned. Each type of Media Space offers slightly different options.

See the following topics:

- "Avid MXF Media Space" on page 180
- "Managed Media Space" on page 181
- "Unmanaged Media Space" on page 181

Avid MXF Media Space

When removing a user from an Avid MXF Media Space, you have three options for what to do with the media inside the user's numbered MXF folders:

- Move Media To Trash – removes the media from the media space, but allows later recovery.
- Delete Media – removes the media from the system and recovers the space used.
- Give media to <user> – causes the user's numbered MXF folders to be given to the specified user. The folders are renamed to ensure that the user taking ownership of the media understands where it came from. For example, if you were removing the user john and giving his media to patrick, john's 1 folder would be renamed patrick_trashfrom_john_1. Since the folder does not have a numeric name, Patrick cannot immediately capture into this folder or modify files in it with the Media Tool. (In fact, some versions of Avid might crash on startup when they see this folder.) In order to be able to do this, Patrick must do one of the following:
  - Rename the patrick_trashfrom_john_1 folder to a numeric name, like 2.
  - Move the files from the patrick_trashfrom_john_1 folder into his existing numbered MXF folders and delete the patrick_trashfrom_john_1 folder, then allow Avid to update the media databases in his numbered folders.

If you are removing users from multiple media spaces at once, you can only give the media to a user who is a member of all of those Media Spaces, and who is not being removed. If there are no other users who are members of all of the

Media Spaces from which you are removing users, none are offered as options in the list.

Managed Media Space

When you remove a user from a Managed Media Space, the media created by that user is Protected. In order to rename, move, delete, or modify files created by a user who has been removed from the Media Space, you need to put the Media Space into Maintenance Mode (see "Maintenance Mode" on page 198).

Unmanaged Media Space

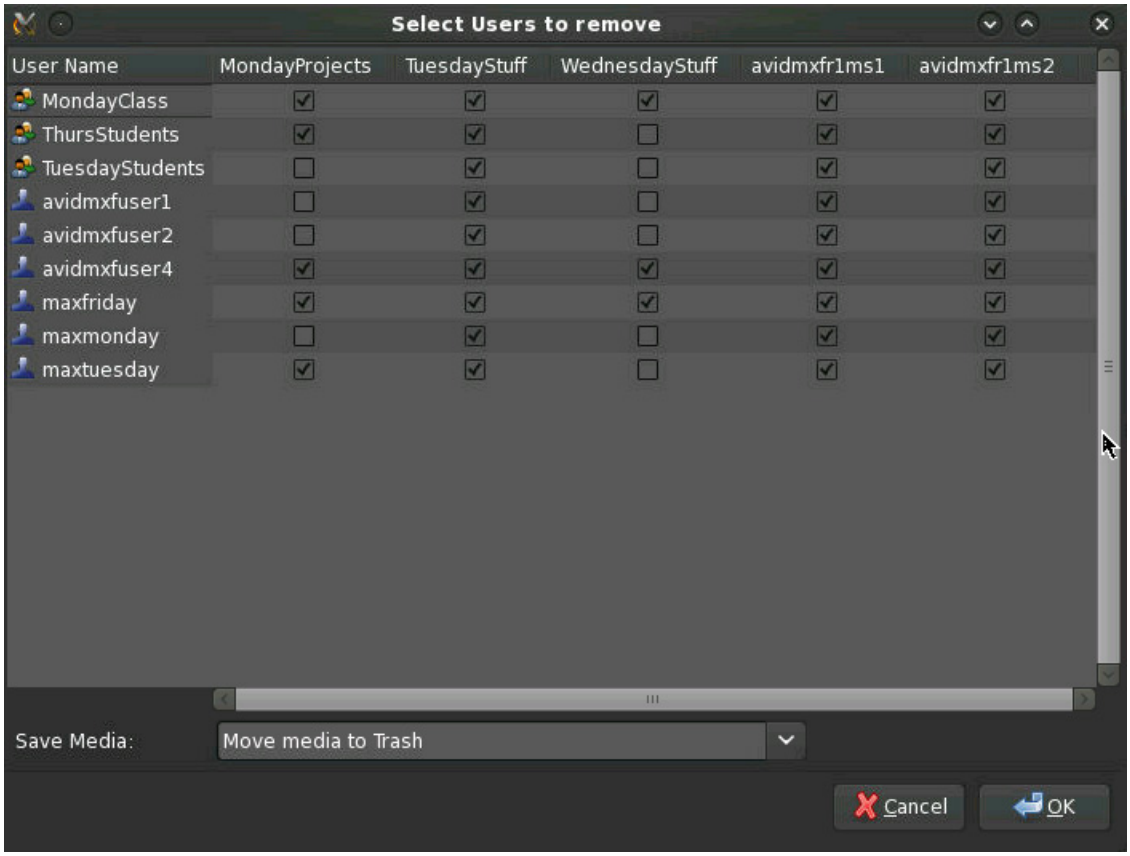
When you remove a user from an Unmanaged Media Space, no media is deleted or moved to the Trash.

Removing Multiple Users or Groups from Media Spaces

TASK

1. Start the EditShare Manager for the Media Space and click the Media Spaces tab.
2. Click Remove Multiple in the Remove Users or Groups from Media Space area.

   A spreadsheet-like window opens. Each row is a group or a user, each column is a Media Space. Check marks appear for users who have access to a particular Media Space.



3. Select a Media Space for the user or group you want to remove as follows:
   - To remove all users and groups from a given Media Space, click the name of the Media Space at the top of the window.
   - To remove a given user or group from all Media Spaces of that type, click the user or group's name at the left side of the window.
   - If the window is not big enough to show the entire table, scrollbars appear. You can resize the window.
   - For Avid MXF and Traditional Media Spaces, use the Save Media list to select how files owned by the user being removed should be treated.
   - To remove users or groups from a different type of Media Space, close the EditShare Manager you are using and open the EditShare Manager for the new type of Media Space.

   NOTE: *You cannot add users or groups to Media Spaces using this window.*

4. Click OK.

Removing Individual Users or Groups from Media Spaces

TASK

1. Start the EditShare Manager for the Media Space and click the Media Spaces tab.
2. Select a Media Space name and user or group name in the Remove Users or Groups from Media Space area.
3. For Avid MXF and Traditional Media Spaces, use the Save Media list to select how files owned by the user being removed should be treated.
4. Click Remove User or Group from Media Space.

   Confirmation that the user has been removed appears at the bottom of the window.

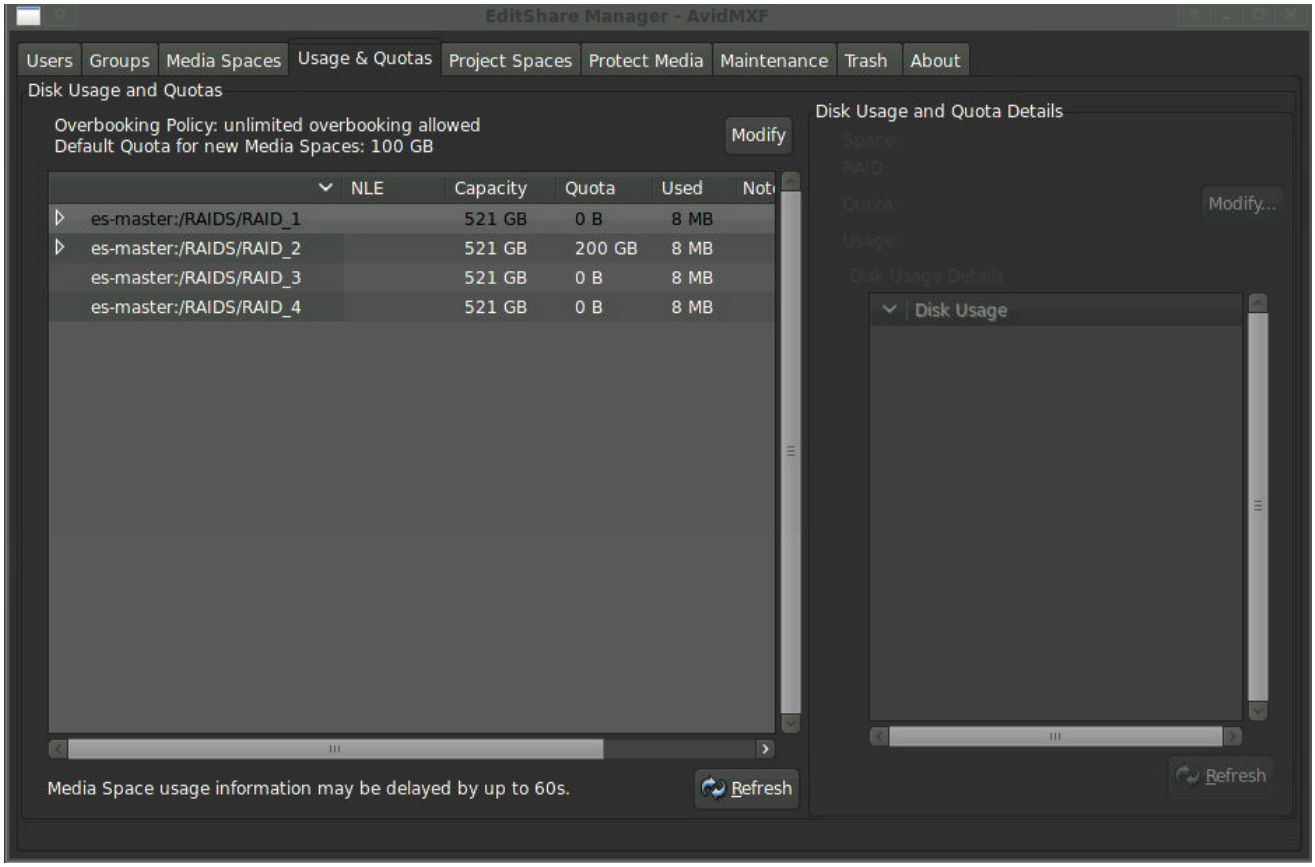
Monitoring Disk Usage and Quotas

You can monitor disk usage and quotas on all RAID filesystems. Do the following.

TASK

1. Start the EditShare Manager for the Media Space.

2. Click the Usage & Quotas tab.



The left area shows the disk usage and quota policy.

NOTE: *EditShare allows you to set a quota that is smaller than the amount of space already in use. This does not delete anything from the Media Space, but it prevents users from writing anything new to it. EditShare warns you when you do this and allows you to decide whether or not to proceed. You could set a small quota on a Media Space as a quick way to make it read-only in order to prevent users from adding new media to the wrong Media Space while still leaving the media already there accessible.*

Protecting Media Spaces

As discussed in the *EditShare Editor's Guide*, editors who capture, render, transfer, or otherwise create media files in an Avid MXF Media Space or a Managed Media Space normally have full power to move, rename, delete, or

modify those files. Once other editors start using those files in their sequences, such modifications can have consequences that the original editor might not be aware of, such as causing another editor's sequence to go offline or change without warning.

You can prevent such problems by using the Protect function to make all files created by a particular user in a Media Space read-only, even to the user who originally captured them. When you Protect a user's files in a Media Space, you are only protecting the files that are present at the moment you run the Protect function. Any additional files captured or rendered by the user subsequently are unprotected until the Protect function is run again.

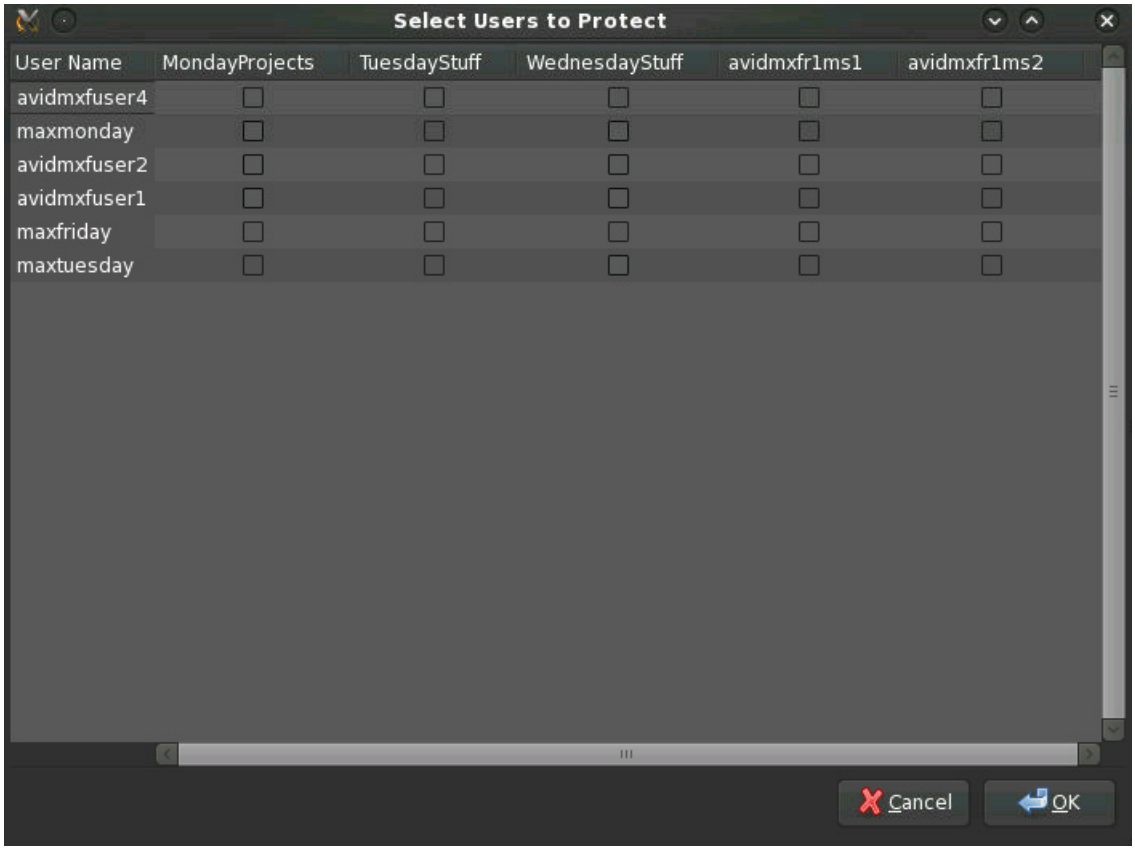
NOTE: *You can protect only Avid MXF Media Spaces and Managed Media Spaces.*

To Protect all the media files created by users that are already present in a Media Space, do the following.

TASK

1. Open the EditShare Manager for the Media Space (Avid MXF or Managed) and click the Protect Media tab.
2. Click Protect Multiple.

   The Select Users to Protect window opens. Each row is a user, each column is a Media Space.



3. Select users for a particular Media Space whose media should be Protected. (There is no way to see whether the user actually has any media files that need to be Protected.)
4. Click OK.

   Once you Protect a user's media files in a particular Media Space, no one can move, rename, delete, or modify them, including the person who created them.

5. (Option) If the person who originally created the media files needs to modify them, do one of the following:
   - Use the Unprotect function to return control of media files to the user who originally created them (see "Unprotecting Protected Media" on page 190).
   - Place the Media Space into Maintenance Mode to give one user full control over all files in the Media Space (see "Maintenance Mode" on page 198).

Adjusting DPX Options

EditShare supports rendering, writing, and storing files in the Digital Picture Exchange (DPX) format. For Managed and Unmanaged Media Spaces, you can adjust DPX options to increase performance for Digital Intermediate (DI) workflows. After you select the DPX optimization for one or more Media Spaces, global optimizations are also implemented for the server on which the Media Spaces reside.

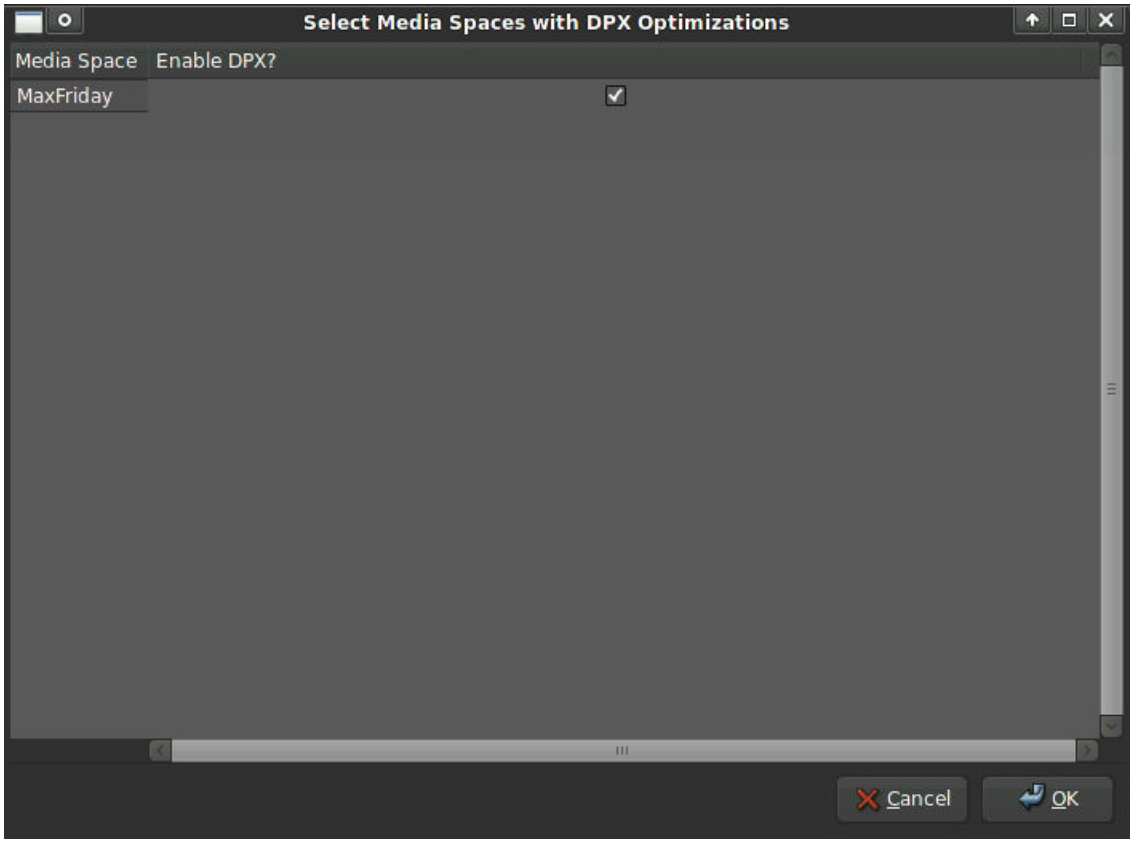
To adjust DPX options, do the following.

TASK

1. Open a Managed or Unmanaged EditShare Manager, and click the Media Spaces tab.
2. In the Modify Media Space area, select a Media Space from the Media Space Name list.

3. Click Adjust DPX Options at the bottom of the tab.

   The Select Media Spaces with DPX Optimizations dialog box opens.



4. Select the Media Spaces you want to optimize, and then click OK.

   The optimizations are implemented for the Media Spaces you selected, and global optimizations are also implemented for the server.

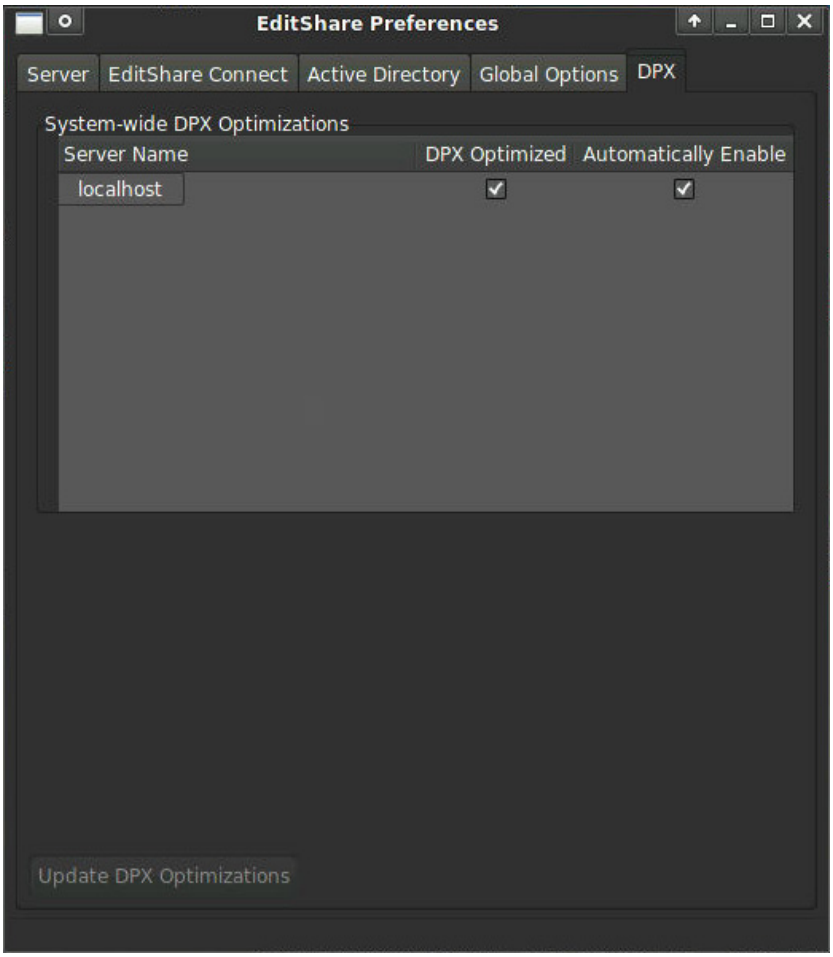
   NOTE: *If you remove DPX optimizations, the global options are also removed.*

5. To update the optimizations, do the following:

   a In the EditShare Control Panel, double-click EditShare Preferences.

   The EditShare Preferences dialog box opens.

   b Click the DPX tab.



   For each server listed, the Automatically Enable option is selected by default. If you selected to optimize in the preceding steps, the DPX Optimized option is also selected.

   c To disable system-wide optimizations, deselect DPX Optimized.

   d To disable system-wide optimizations in the future, deselect Automatically Enable.

   e Click Update DPX Optimizations.

Unprotecting Protected Media

Once you have Protected a user's media files in a particular Media Space, no one can move, rename, delete, or modify them, including the person who originally created them. You can return these abilities to the original creator by Unprotecting the media.

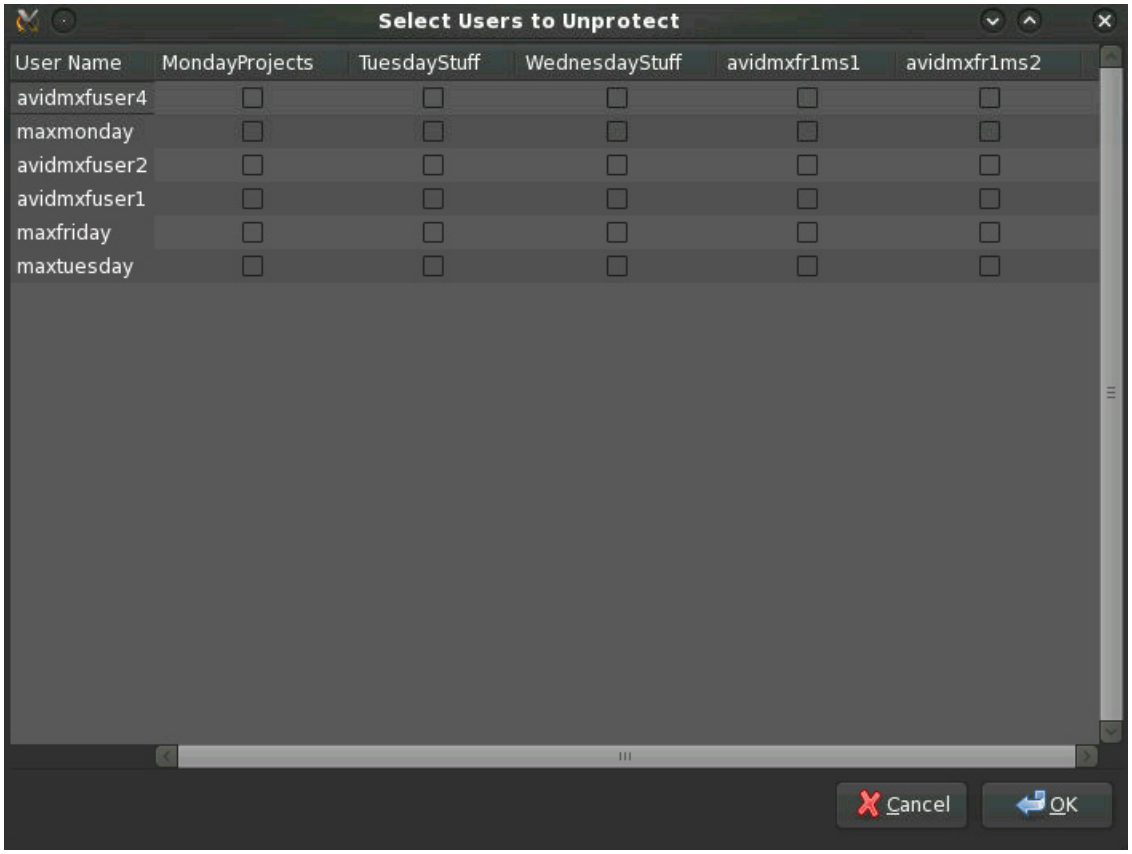
NOTE: *You can Unprotect only Avid MXF Media Spaces and Managed Media Spaces.*

To Unprotect Protected media files, do the following.

TASK

1. Open the EditShare Manager for the Media Space (Avid MXF or Managed) and click the Protect Media tab.
2. Click Unprotect Multiple.

   The Select Users to Unprotect window opens. Each row is a user, each column is a Media Space.



3. Select users for a particular Media Space whose media should be Unprotected. (There is no way to see whether the user actually has any media files that are Protected.)
4. Click OK.

   Any files not created by the specified users in the specified Media Spaces are not touched – they remain Protected if they were already Protected, and are not Protected if they were not already Protected

Deleting Media Spaces: Basic Method

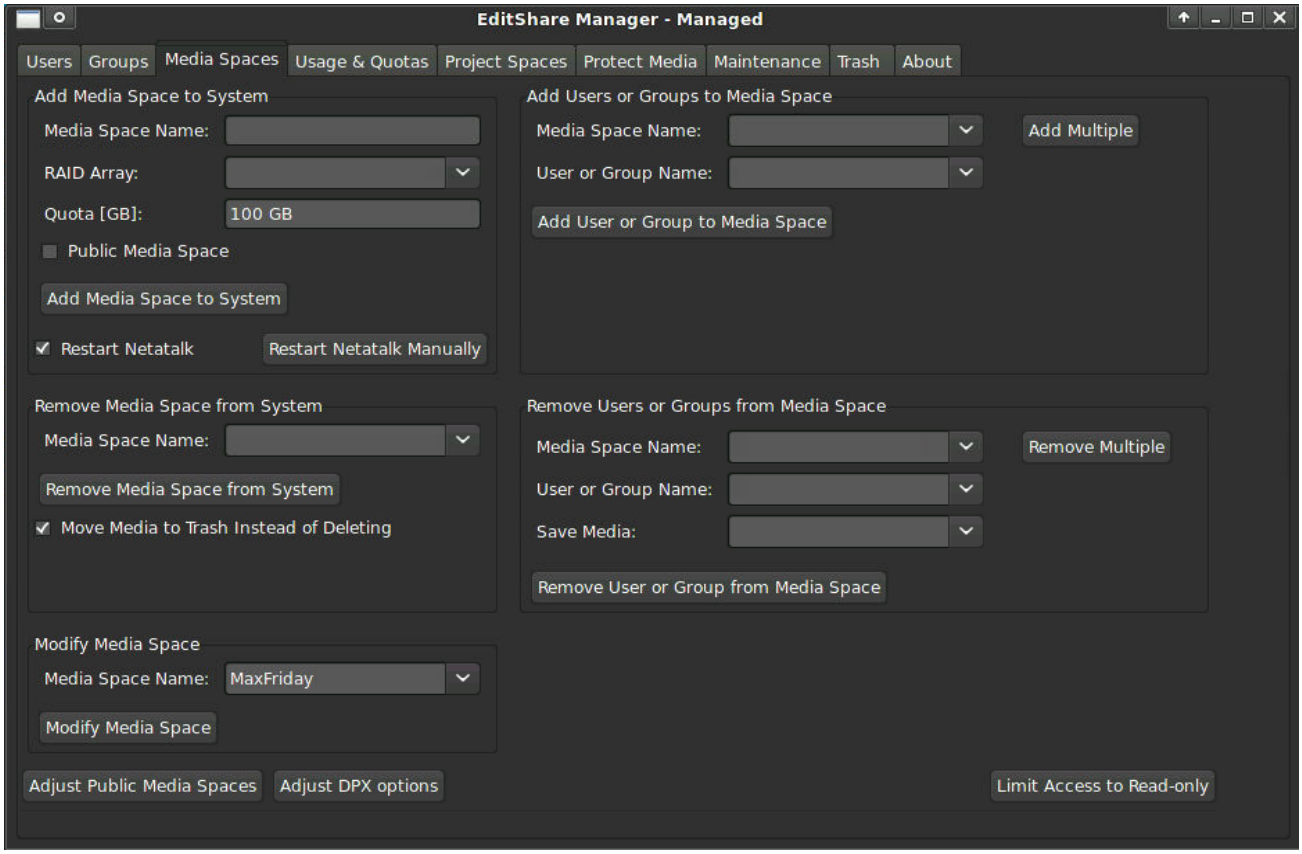
When a project is finished, you can delete the Media Space for that project to reclaim the disk space to use for the next project. Deleting a Media Space from the EditShare server removes all files from that Media Space, including any rendered files and media database files that might be in those folders.

CAUTION: The Delete Media Space function should be used only when you are finished with a Media Space and you want to delete all media from it. If you want to save a small amount of media from a Media Space before deleting the rest, you might want to create a new EditShare Media Space and consolidate the media you want to save to that new Media Space, before deleting the old Media Space.

To delete a Media Space from the server, do the following.

TASK

1. Open the EditShare Manager for the Media Space and click the Media Spaces tab.



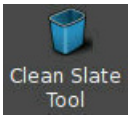
2. Select the Media Space to be deleted from the list in the Remove Media Space from System area.
3. Select the Move Media to the Trash Instead of Deleting option, unless you are absolutely certain that you want the media deleted permanently and immediately. (See "EditShare Trash" on page 203 for more information.)
4. Click the Remove Media Space from System button.

Deleting Media Spaces: Clean Slate Tool

The Clean Slate tool enables you to delete all the ongoing work on your system in a single operation. It is designed specifically for a classroom setting, where it is typically used to delete all the existing Media Spaces, Shared Projects, and

Users at the end of a semester, restoring the system to a "Clean Slate" for the next group of students. However, it can be valuable in any situation where many users or Media Spaces are to be deleted at once.

To delete items with the Clean Slate tool, do the following.



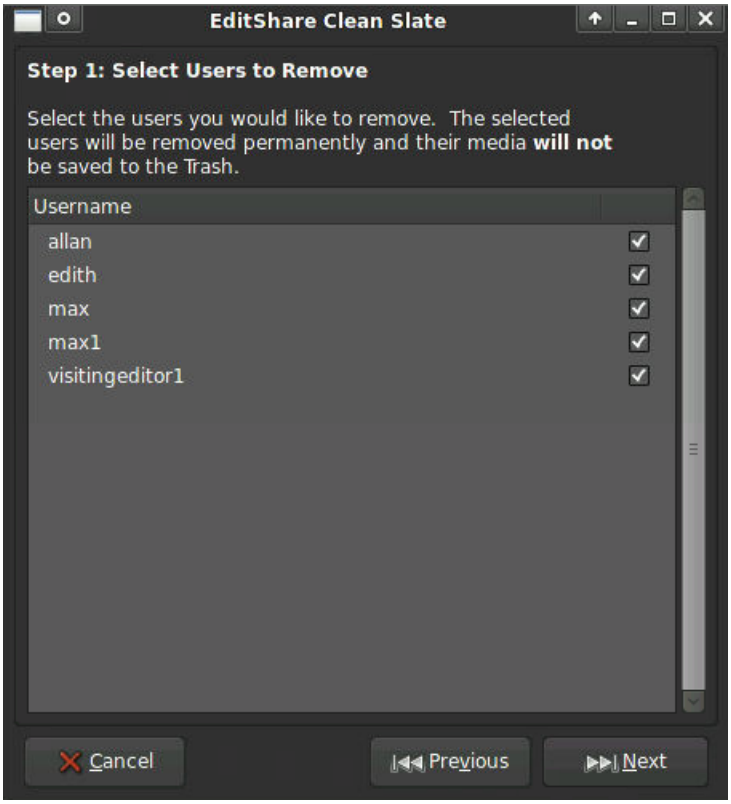
TASK

1. Double-click Clean Slate Tool in the EditShare Control Panel.

   The EditShare Clean Slate wizard opens.

2. Click Next.

   The Select Users to Remove dialog box opens.



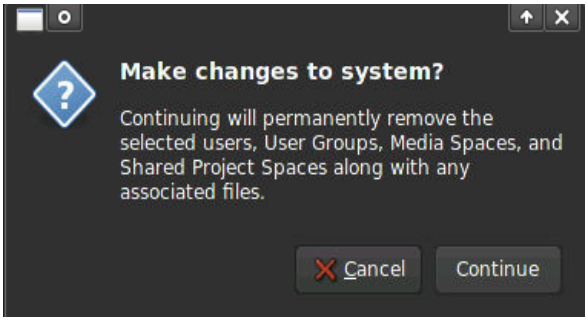
3. Deselect any item do you do not want to delete, and click Next.
4. Proceed through the wizard, deselecting items you do not want to remove and then clicking Next.

   You are queried about removing Media Spaces, user groups, Shared Project Spaces, and Trash.

   A final window opens listing everything that will be deleted.

5. Click Next.

   A message box opens asking if you want to make changes to the system.



This is your last chance to stop – after you click Continue, you cannot restore the deleted data. Media and other files deleted by the Clean Slate tool are not left in the Trash, and any existing Trash (except any options you deselect) is deleted permanently.

6. Click Continue.

   A message box opens indicating that the files were removed successfully.

7. Click OK.

Avid Media Space Issues

Avid Media Spaces involve several special considerations. See the following topics:

- "Avid Scan Issues" on page 194
- "Using the Archive Folder" on page 195

Avid Scan Issues

On versions of EditShare earlier than v5.5.4, some Macintosh Avid systems tended to scan AvidMXF Media Spaces unnecessarily. As of v5.5.5 and later, EditShare implemented a feature that prevents this.

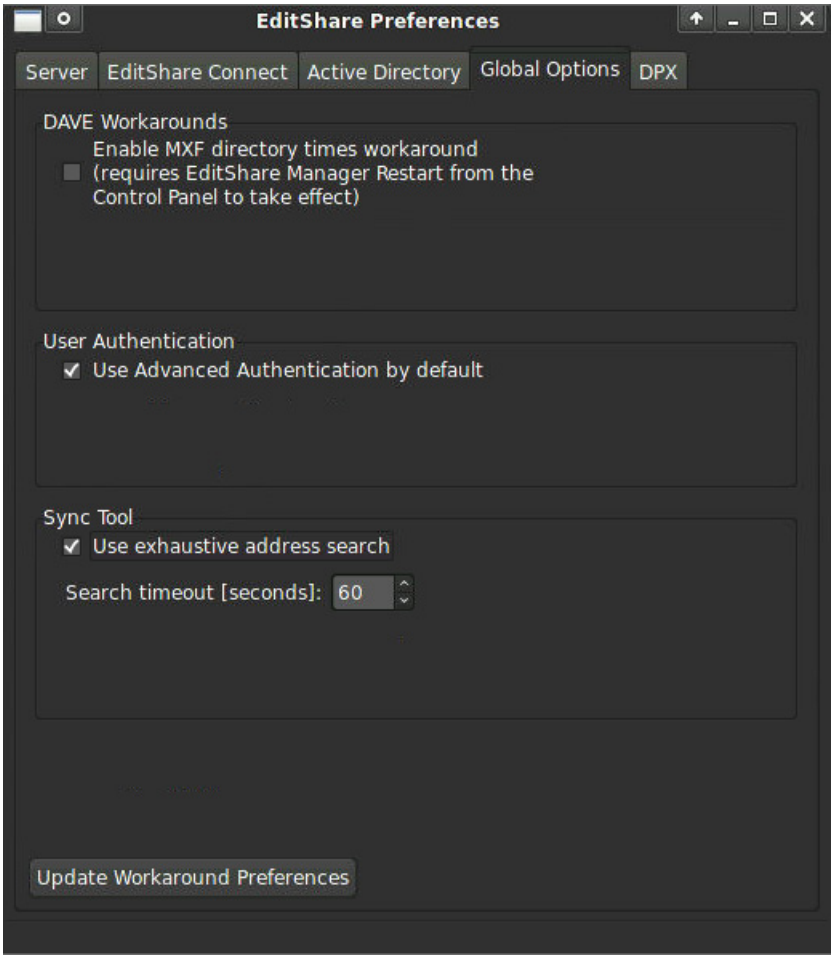
This feature might occasionally result in Avid failing to scan a Media Space when it needs to. You can force the scan by selecting File > Refresh Media Directories in the Avid editing application.

This feature is deselected by default. If you are using DAVE version 7, you should enable it.

Do the following.

TASK

1. Open the EditShare Control Panel, and double-click EditShare Preferences.
2. Click the Global Options tab.



3. Select Enable MXF directory times workaround.

4. Click Update Workaround Preferences, and then close EditShare Preferences.
5. In the Control Panel, double-click Restart EditShare Mgr.

Using the Archive Folder

Each Project Space includes an Archive folder by default. You can use this to reduce the time the server takes to scan the project space.

Whenever a user asks the server to find unshared Avid projects in an Avid Shared Project Space (for example, when clicking Update on the Avid

Management tab of ESC, or when selecting a project space in the Share Project Files area of the Project Spaces tab in EditShare Manager), EditShare Manager must scan the project space to look for possible unshared projects. If there are many (over a hundred) projects in the Project Space, this can take longer than people want to wait. It also slows down other tasks the server might be doing.

Anything inside the Archive folder is not included in this scan. You can move any projects that are no longer being worked on (but should not be deleted) into the Archive folder to speed up that scan. If the user has few enough or small enough projects that the delay is not a hinderance, use of the Archive folder is optional.

Non-Avid project spaces include an Archive folder for consistency, but you don't need to use it, as non-Avid projects are not scanned.

Chapter 12: Organizing and Deleting Media

The fundamental purpose of EditShare is to facilitate sharing media files among multiple users. Sharing media opens up new possibilities for working collaboratively, but it also makes media management a little more complex. One editor might want to reorganize a large folder of media files into a hierarchy of subfolders, but other editors might then have trouble finding the media they need. One user might no longer need a particular file and assume it's okay to delete it, but other users might still need that file. To help avoid such miscommunication, EditShare places restrictions on when an individual user can unilaterally move, rename, delete, or modify shared media.

See the following sections:

Restrictions on Modifying Media

For an Avid MXF Media Space:

- Users can normally modify files inside their own numbered MXF folders.
- You can prevent users from moving, renaming, deleting, or modifying these files by using the Protect function.
- You can return control of Protected files to the owner of the numbered MXF folder containing it by using the Unprotect function.
- You can temporarily give one user full control over all files, and allow files he or she deletes to be saved to the Trash for possible future recovery, by placing the Media Space in Maintenance Mode.

For an Avid-Style Media Space:

- All files are owned by the members of the Media Space—including media files, media database files, project settings and bins—and any user can modify or delete the files at the Explorer level.

- Any bin can be opened Read-Write by the first user who opens it. Any subsequent users who open it after it is opened have only Read access. This is represented by a green lock icon on the bin opened by the first user, and a red lock icon for subsequent users.

For a Managed Media Space:

- Users can normally modify files that they have created.
- Users can move, rename, or delete empty folders that they created, but not folders containing files or subfolders.
- You can prevent users from moving, renaming, deleting, or modifying these files by using the Protect function.
- You can return control of Protected files to the original creator using the Unprotect function.
- You can temporarily give one user full control over all files, and allow files he or she deletes to be saved to the Trash for possible future recovery, by placing the Media Space in Maintenance Mode.

For an Unmanaged Media Space:

- Any user can modify any file.
- There is no way to prevent such modification, except by limiting users' access to read-only, which prevents additional capturing or rendering as well.

Maintenance Mode

As discussed in the *EditShare Editor's Guide*, the Administrator can temporarily place an Avid MXF or Managed Media Space into Maintenance Mode to allow one specified user (the maintenance user) to reorganize or delete media from the Space. This has a number of advantages over simply Unprotecting media or relying on the users who captured the media to organize it:

- The maintenance user has full access to all files, regardless of who created them.
- The Media Space is automatically placed in read-only mode for all other users, giving the maintenance user the opportunity to clean up without worrying about other editors' actions.
- When exiting Maintenance Mode, any files the maintenance user deleted can be saved to the EditShare Trash for possible later recovery.

This is a lot of power to give one user, so the maintenance user should be selected carefully, as he or she has the ability to do great damage to the media.

NOTE: *Users cannot be added to or removed from a Media Space that is in Maintenance Mode. Remove the Media Space from Maintenance Mode first before trying to add or remove users.*

Entering or leaving Maintenance Mode can disrupt editors. Placing a Media Space into Maintenance Mode, or removing it from Maintenance Mode, is a fairly intensive operation for the server. If several large Media Spaces were to be placed into Maintenance Mode at once, it is possible that editing operations could be briefly affected for the short time it takes to complete the transition.

Some administrators make a practice of having all users disconnect from the server when entering or leaving Maintenance Mode (see "Issues with Maintenance Mode" on page 201). If you choose to enter or leave Maintenance Mode while users are still connected, it is wise to make sure that no one is in the middle of an important capture, output, or screening at the moment you do it.

See the following topics:

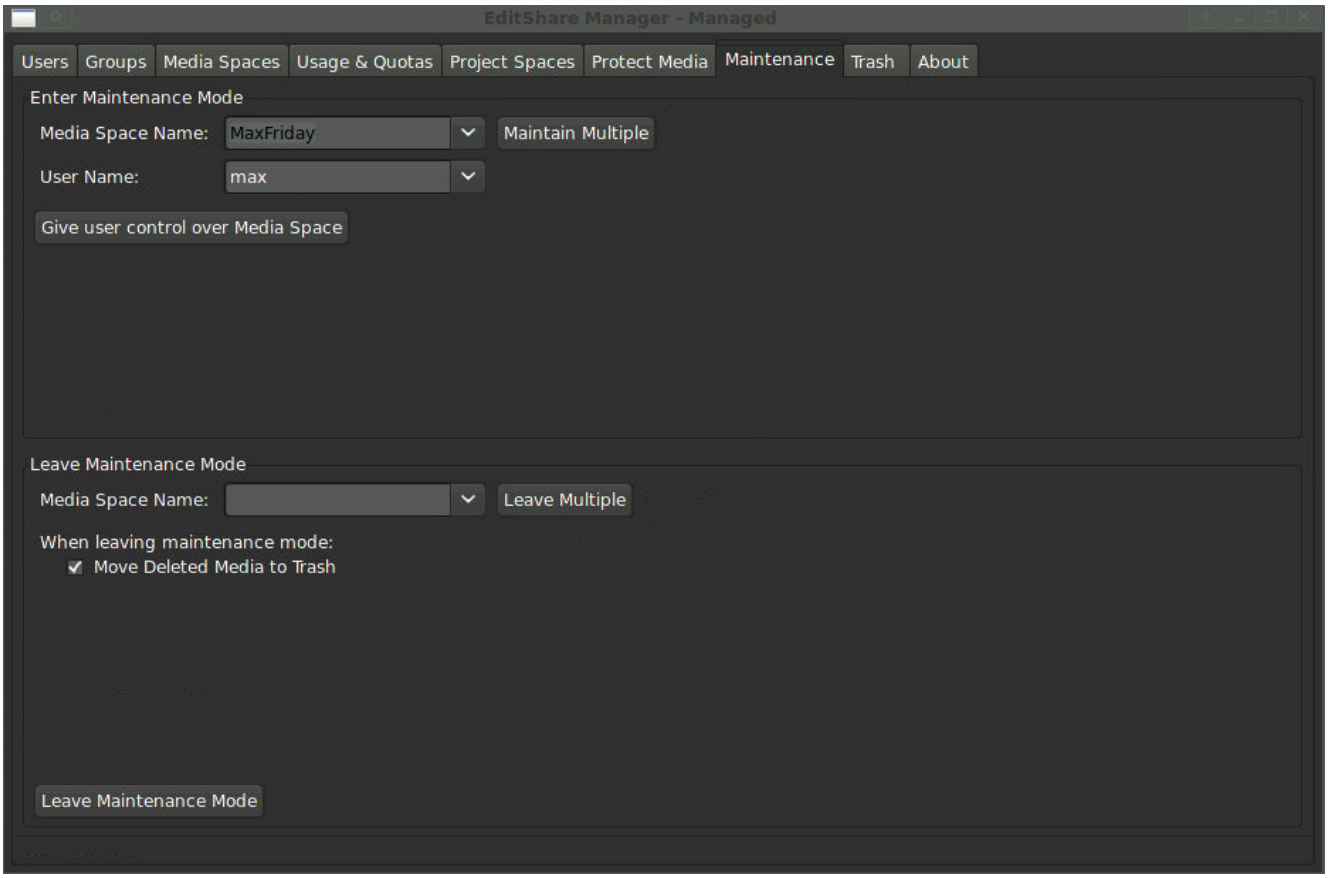
- "Entering Maintenance Mode" on page 199
- "Issues with Maintenance Mode" on page 201
- "Taking a Media Space out of Maintenance Mode" on page 202

Entering Maintenance Mode

To place an Avid MXF or Managed Media Space into Maintenance Mode, do the following.

TASK

1. Open the Avid MXF or Managed EditShare Manager and click the Maintenance tab.



2. Do one of the following:
   - In the Enter Maintenance Mode area, select the Media Space to place into Maintenance Mode, and the user who is the maintenance user and then click Give user control over Media Space.
   - Click the Maintain Multiple button, select the Media Spaces you want to place in Maintenance Mode and the user who is the maintenance user for each (a Media Space can only have one maintenance user at a time), and then click OK.

EditShare checks to make sure that no editors are capturing or rendering files into the Media Space at that time. If they are, that Media Space is not placed into Maintenance Mode, and an error message box opens. You can try again when they finish. If you are placing multiple Avid MXF Media Spaces into Maintenance Mode at once, any Media Spaces into which no editor is capturing is placed into Maintenance Mode, even if some other Media Spaces

could not be placed into Maintenance Mode because users were capturing into them.

Issues with Maintenance Mode

You should check with the editors to ensure that nobody is capturing or rendering before placing a Managed Media Space into Maintenance Mode, as the capture or render fails when the user loses the ability to write to the Media Space.

It is generally best to have all other users besides the maintenance user disconnect from the Media Space before maintenance begins, if that is feasible. If any users remain connected during maintenance, the following effects might be noticed:

- All other users are restricted to read-only access. As mentioned above, an Avid MXF Media Space cannot be put into Maintenance Mode while any files are being captured or rendered into it. While in Maintenance Mode, it is not be possible for anyone other than the maintenance user to save any new files into the Media Space.
- Other users immediately see the changes being made by the user who is doing maintenance. Files might disappear or be moved without warning to them. This might be confusing.
- If an editor has a file open (that is, if they are playing the media from it) when the maintenance user attempts to move or delete it, the operation might not happen as intended. A file is not deleted while it is open.
  - If the Media Space is mounted using SMB: The file should be deleted once it is closed (that is, the user playing the media stops playback) but this might not be 100% reliable.
  - If the Media Space is mounted using AFP: The file is not deleted, and no warning is given to the maintenance user. The file appears to have been deleted, but it is still present.
- When editors delete files they created from an Avid MXF, Managed, or Unmanaged Media Space that is not in Maintenance Mode, these files are not saved to the Trash. Such deletions are permanent and cannot be undone. If you are concerned about editors accidentally deleting files, use the Protect function (see "Protecting Media Spaces" on page 184) regularly to prevent them from doing so.

You can keep the time the Media Space is in Maintenance Mode to a minimum by preparing ahead of time. For example, if your goal is to delete many files from the Media Space, one or more editors can prepare a bin called “Media to Delete”

in Avid or Final Cut, and move or copy the clips to be deleted into this bin before entering Maintenance Mode. You can place the Media Space in Maintenance mode just long enough to delete all the files in that bin, and then exit Maintenance Mode quickly so normal operations can resume. See "Taking a Media Space out of Maintenance Mode" on page 202.

Taking a Media Space out of Maintenance Mode

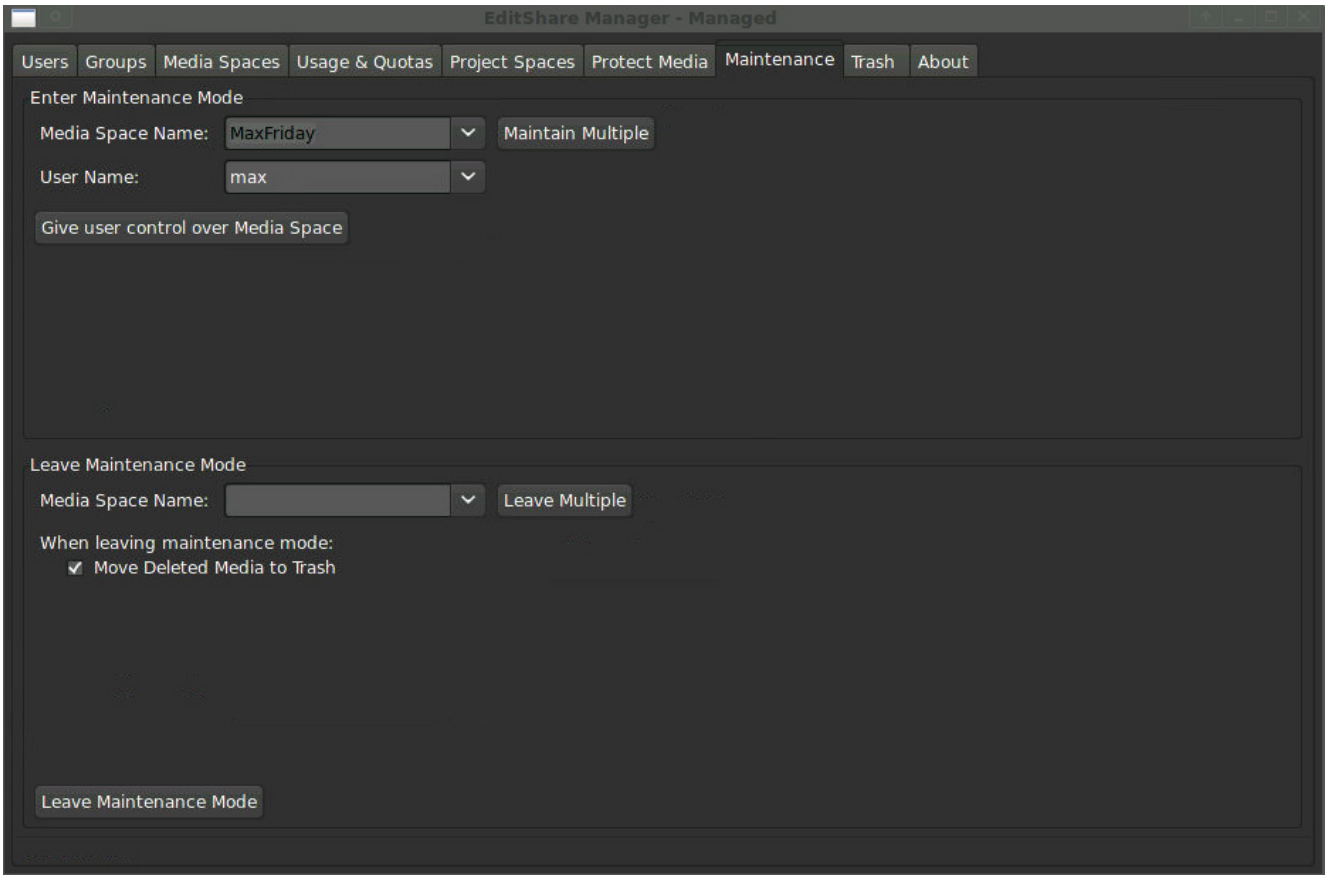
To take a Media Space out of Maintenance Mode, do the following.

TASK

1. Be sure that the maintenance user closes the Avid application first.

   After deleting clips, Avid might not modify its media databases until the application is closed. If you take the Media Space out of Maintenance Mode first, the maintenance user can no longer modify the media database files in other users' numbered MXF folders.

2. Open EditShare Manager for the type of Media Space (Avid MXF or Managed) you want, and then click the Maintenance tab.



3. In the Leave Maintenance Mode area, do one of the following:
   - Select the Media Space to remove from Maintenance Mode.
   - Click Leave Multiple, then select all Media Spaces you want to remove from Maintenance Mode.
4. Select Move Deleted Media to Trash to preserve the option of recovering any files deleted in Maintenance Mode.
5. Click Leave Maintenance Mode.
6. Click OK to remove the selected Media Spaces from Maintenance Mode.

EditShare Trash

Under many circumstances when files can be deleted, you have the option of saving the files to the Trash instead of actually deleting them. This allows you the chance to recover them if you realize you shouldn't have deleted the media, but it also means the media continues to take up space on the server. See the following details.

Action	Saved to Trash
Delete a Media Space	All contents of the Media Space
Remove a user from an Avid MXF Media SPace	All files in that user's numbered MXF folders (unless you give them to another user)
Remove a user from a Managed Media Space	Nothing (the user's files are Protected)
Delete files in Maintenance Mode	Files that were deleted
Delete files while Unshared	Files that were deleted
Remove a user from an Avid Shared project Space	Any bins the user had not moved into his or her own user folder (bins inside the user folder are moved to Group bins)
Delete files while not in Maintenance mode or Unshared mode	Nothing. Such deletions are permanent.
Remove a user from Final Cut Project Space	Any project files the user had not moved into his or her own user folder (project files inside the user folder are moved to Group bins)
Remove a user from the system	All files that would be deleted if the user were removed from each Media Space and Shared Project Space of which he or she is a member, plus all files in the user's Private Files Space

If you delete files, they cannot be recovered. In general, EditShare recommends that you always select Move Media to the Trash, so you have the opportunity to recover the files if you realize an error was made. The following situations can result in files being deleted immediately, with no possibility for recovery:

- Deleting files from an Avid MXF or Managed Media Space that is not in Maintenance Mode (even if files were Unprotected).
- Deleting files from an Unmanaged Media Space.
- Deleting files from a user's Private Files Space or a File Exchange Space.

See the following topics:

- "Viewing Files in the Trash" on page 204
- "Selecting Trashed Spaces to Restore or Remove" on page 205
- "Removing Files from the Trash" on page 207
- "Restoring Files from Avid MXF Media Spaces" on page 207
- "Restoring Files from Managed Media Spaces" on page 209
- "Restoring Files from Unmanaged Media Spaces" on page 209
- "Restoring to a Different Server" on page 210

Viewing Files in the Trash

If you opted to move files to Trash during a delete operation, they are still available for recovery until you delete them from the Trash or restore them. It is not possible to see a detailed list of all the files and folders saved in the Trash except by restoring them and then looking at what has been restored. You can restore media files from the trash to the Media Space from which they were originally deleted, which is what you usually do when files have been deleted in error. Alternatively, you can restore them to a brand-new Media Space.

For example, perhaps you deleted a group of clips from a Media Space, and now an editor has informed you that some important clips are missing. You want to look through the Trash and see if the clips are there, but you don't want to restore the clips back to their original Media Space because then you have to go through the whole procedure of deleting them again.

The solution is restore to the clips to a new Media Space. You might name the space Media Space Temp (substitute the name of the original Media Space for “Media Space”). After you restore the deleted clips to Media Space Temp, add one user to Media Space Temp. Mount Media Space Temp on one workstation to see what's there. If you find the clip you're looking for, consolidate it back to

the original Media Space where it's missing. Then delete the Media Space Temp space to Trash, or permanently delete it if you are sure there aren't any more clips there that might be needed.

Selecting Trashed Spaces to Restore or Remove

Once you have selected the files to work with, you can remove or restore them. For restoring, different types of Media Spaces you might want to restore offer different options.

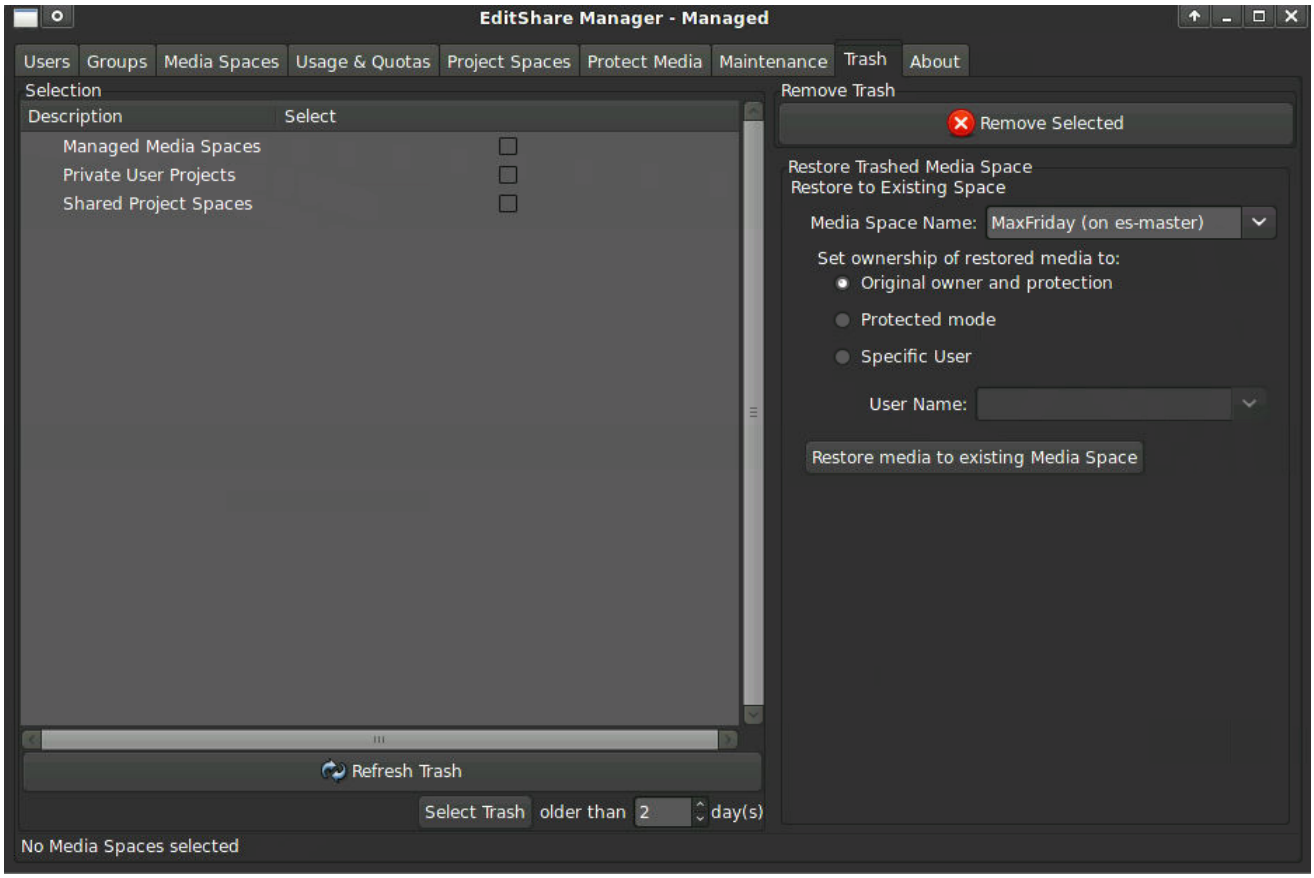
NOTE: *Files deleted from Private Files Spaces and Shared Projects Spaces cannot easily be restored at this time. In the event you need to restore such files, contact EditShare Technical Support for assistance.*

To select the Spaces to restore or remove from the Trash, do the following.

TASK

1. Click the Refresh Trash button see all folders that are in the Trash.

2. Open the EditShare Manager for the type of Media Space you want to restore, and click the Trash tab



3. Select the files you want to recover.

   Whenever you select a folder, you also select everything at the levels under that box.

4. If you have deleted clips from a Media Space, and you want to permanently delete them, select the name of the Media Space.

   Everything within that Media Space is selected, including any Shared media and any Unshared media you might have deleted.

5. If you have deleted clips from a Media Space and, for example, you only want to permanently delete or restore unshared clips from a “user's folder”, then select that user's name under the Media Space. All other items inside the Trash are unaffected by the action you choose.

Removing Files from the Trash

TASK

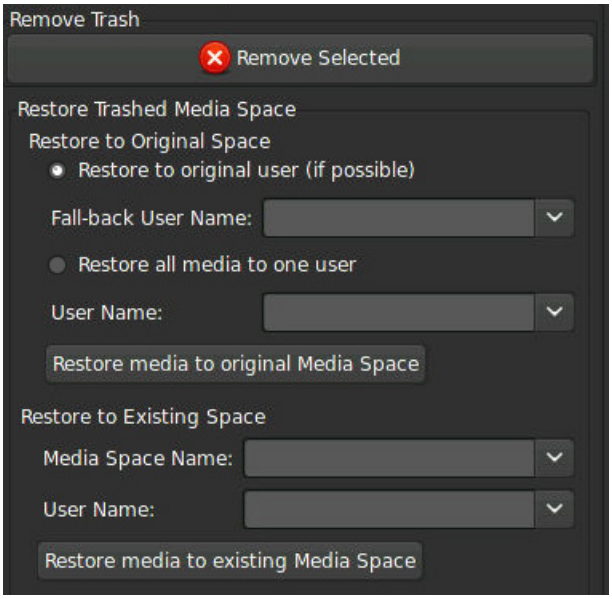
1. Select files in the Trash that you are sure you have no further need for.
2. Click Removed Selected.

   You are prompted to confirm the deletion.
3. Press OK.

   The files are deleted permanently.

Restoring Files from Avid MXF Media Spaces

When restoring files from an Avid MXF Media Space, you can restore the media either to the original Media Space from which it was deleted or to another Avid MXF Media Space. You select options in the Trash tab of the AvidMXF EditShare Manager.



If you choose to restore the files to the original Media Space, you might choose to restore the media files to their original owners if possible (and select a user who will own any media files that cannot be restored to their original owner – for example, if the original owner has been removed from the system), or you can restore all the media files to a single specified user.

If you choose to restore the files to an existing space other than the original space, you must select a user to whom all the restored media files will be given.

When media is restored to a user other than the original owner, the numbered MXF folders are renamed to ensure that the user taking ownership of the media understands where it came from. For example, if you were restoring media originally owned by the user john and choose to restore it to the user patrick, John's 1 folder would be renamed patrick_trashfrom_john_1. Since the folder does not have a numeric name, Patrick cannot immediately capture into this folder or modify files in it with the Media Tool. In order to be able to do this, Patrick must do one of the following:

- Rename the patrick_trashfrom_john_1 folder to a numeric name, like 2,
- Move the files from the patrick_trashfrom_john_1 folder into his existing numbered MXF folders and allow Avid to update the media databases in those folders.

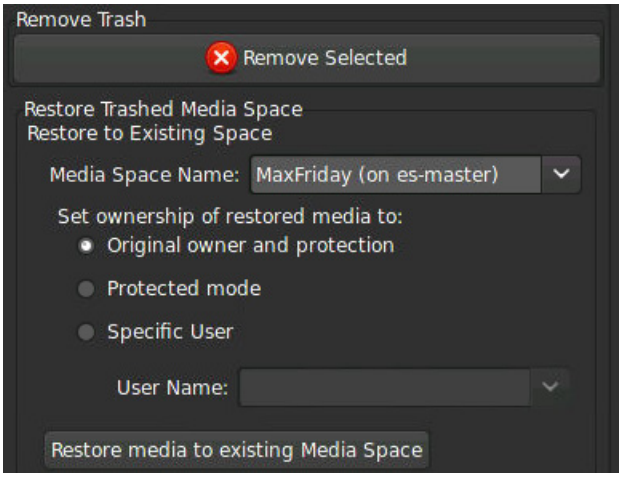
Failure to rename this folder might cause Avid to crash. Therefore, Patrick should remember to rename that folder before starting Avid.

If you are attempting to restore an entire deleted Media Space, you must Restore to Existing Media Space. The Restore to Original Media Space option is used only when restoring individual files that were deleted from a Media Space that still exists. If you attempt to restore a deleted Media Space using Restore to Original Media Space, you receive an error because the original Media Space does not exist to be restored to.

Restoring Files from Managed Media Spaces

TASK

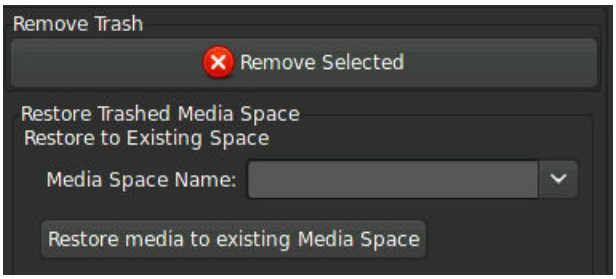
1. Select the name of the Media Space into which to restore the trashed files. This can be the same Media Space you originally deleted them from or a different Managed Media Space.



2. Select the new ownership of the files:
   - Original owner and protection: Each file when restored is owned by the person who originally created it, before it was deleted. If it was Protected before it was deleted, it is Protected after being restored; if it was not Protected before it was deleted, it is not Protected after being restored.
   - Protected mode: Each file when restored is Protected.
   - Specific user: Allows you to specify a user who owns the files once restored.
3. Click Restore media to existing Media Space.

Restoring Files from Unmanaged Media Spaces

You can restore files from Unmanaged Media Spaces into any existing Media Space.



Restoring to a Different Server

If you have more than one EditShare server running in an ESA Group, you can only restore deleted files to a Media Space on the same server from which they were deleted.

Setting Up Automatic Trash Reminders

Each time you open EditShare Manager, a check is made to see if any media has been in the Trash for a long time. If so, an alert opens to remind you to manage it. You can click OK to go directly to the Trash tab to delete the files from the trash, or Cancel to leave the files alone and proceed with whatever you were doing. (The files are NEVER automatically deleted from the trash – this is only a reminder.)

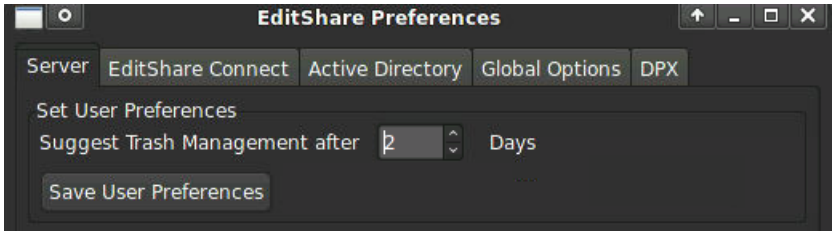
You need not wait for this reminder; you can go to the Trash tab at any time to delete files from the Trash.

To set the number of days to wait before reminding the Administrator to manage the Trash, do the following.

TASK

1. Open the EditShare Control Panel.
2. Double-click EditShare Preferences.

3. Click the Server tab.



4. Select or type the number of days to Suggest Trash Management after.
5. Click Save User Preferences.

Chapter 13: Limited Administrative Capabilities

You can grant limited administrative capabilities to specific users, enabling them to perform certain management functions for the Media Spaces and Shared Project Spaces they use without needing to involve the EditShare Administrator.

See the following topics:

Understanding Limited Admin

Users authorized to have limited administrative capabilities access these capabilities from EditShare Connect on their own desktops from their own user accounts. They do not require that the users have EditShare Administrator password access to the EditShare Desktop. See the following examples:

- If you have a project that involves a rotating set of freelance editors led by a senior editor with plenty of EditShare experience, you might grant that lead editor the capability to add users to the Media Spaces associated with that project and to place the Media Spaces in Maintenance Mode to organize and delete files.
- If you have several assistant editors capturing media overnight into specific Media Spaces, you might grant their supervisor the capability to Protect those Media Spaces in the morning when they finish.
- If you have a team of student editors working on a single project, you might grant their instructor the ability to move bins into and out of the students' folders in the project.

Since even these limited administrative capabilities sometimes allows a user to cause significant amount of disruption on the system whether through ignorance or through malice, you should think carefully about who should have

such capabilities. EditShare strongly recommends granting administrative capabilities only to users who have a good working understanding of the EditShare server and can be trusted to use their capabilities properly. You can easily grant capabilities later to a user who needs them, but cleaning up some mistakes made through careless use of administrative capabilities can be expensive.

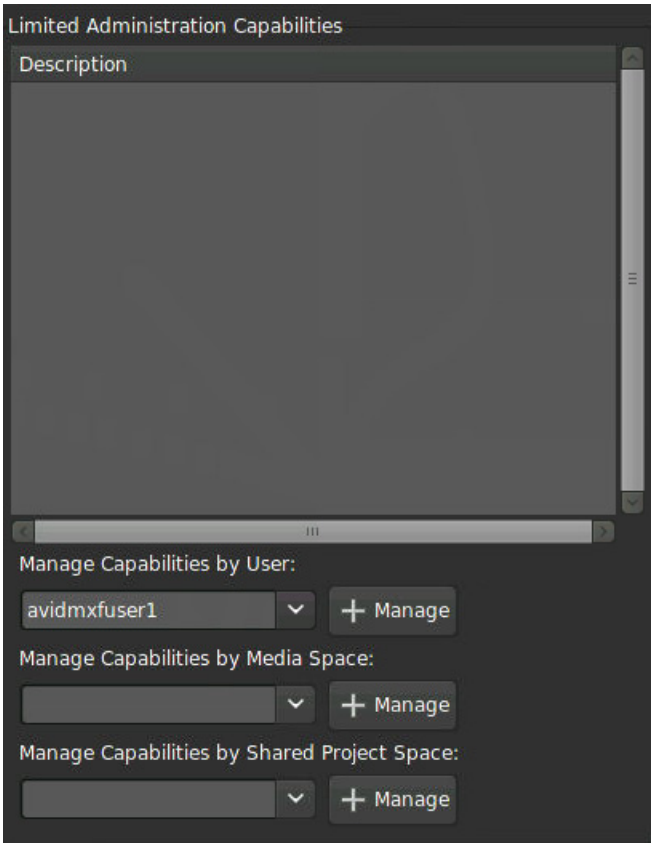
Limited administrative capabilities must be assigned for each individual Media Space or Shared Project Space. Thus, an editor might have administrative capabilities for Spaces for a project she runs but only normal user access for other Spaces.

Granting Limited Administrative Capabilities

TASK

1. Open the EditShare Manager for the Media Space type you want.
2. Click the Users tab.

3. Work in the area on the right side of the tab.



Available Limited Administrative Capabilities

The following Limited Administrative capabilities are currently supported.

Media Space Type	Available Capabilities
Avid MXF	• Add Shared Project Space or Media Space to system • Change Media Space Quota • Remove Users • Add Users • Protect or Unprotect Media • Enter or leave Maintenance mode

Media Space Type	Available Capabilities
Managed	• Change Media Space Quota • Remove Users • Add Users • Enter or leave Maintenance mode
Unmanaged	• Change Media Space Quota • Remove Users • Add Users
Shared Project	• Remove Users • Add Users • Take a bin from other user

You can grant capabilities even to a user who is not a member of a Space. This might be useful in situations where an individual might be assigned responsibility for managing certain Spaces even though they are not themselves doing any editing.

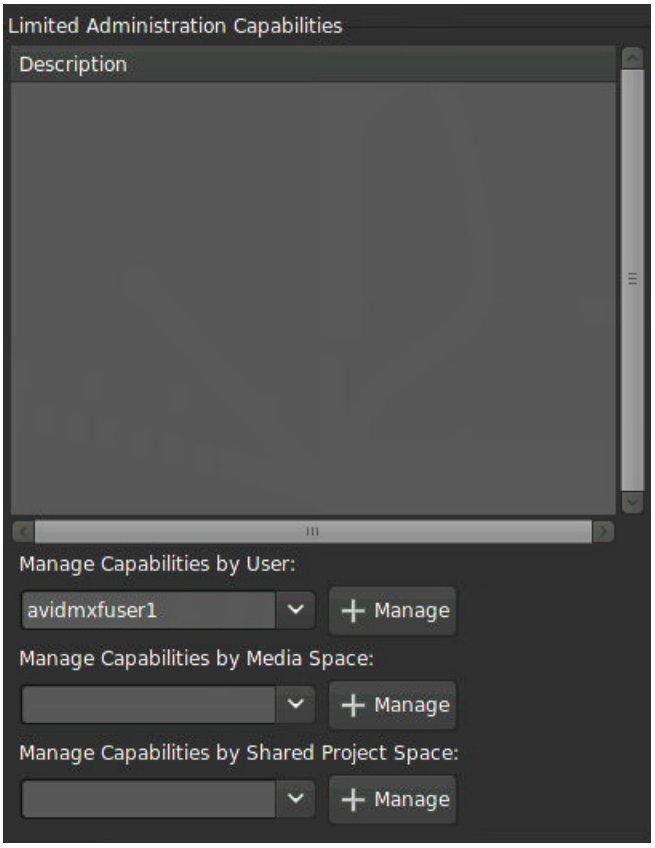
All such capabilities are granted to editors using one of the procedures in "Managing Limited Administrative Capabilities by User" on page 216, "Managing Capabilities by Media Space or Shared Project Space" on page 218, and "System-Wide Capabilities" on page 219.

Managing Limited Administrative Capabilities by User

TASK

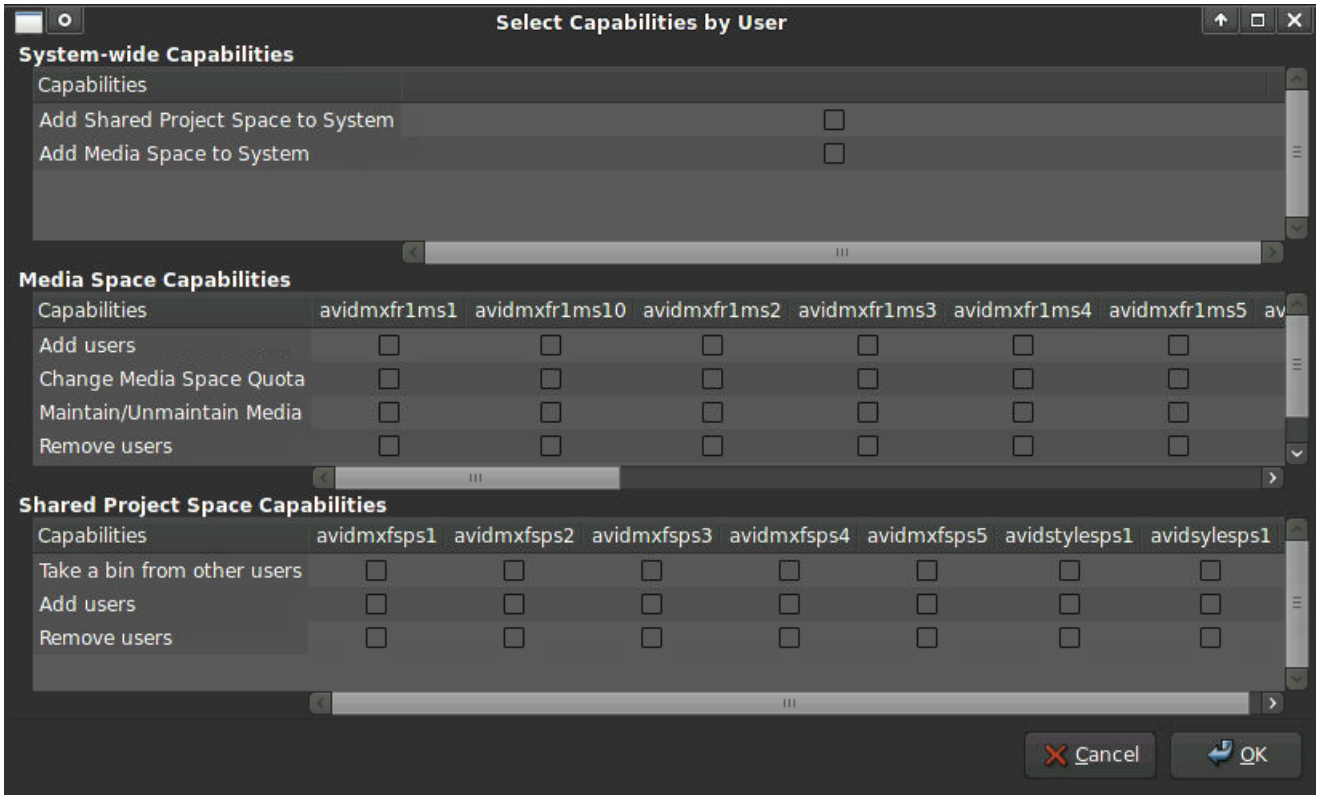
1. Open EditShare Manager for your type of Media Space.
2. Click the Users tab.

3. In the Limited Administration Capabilities area, select the user whose capabilities you want to manage in the Manage Capabilities by User list.



4. Click Manage.

   The Select Capabilities by User dialog box opens.



5. In the System-wide Capabilities area, select the options you want to grant the user over the system.
6. Select the capability you want to grant the user over each Space, or deselect to remove a capability.

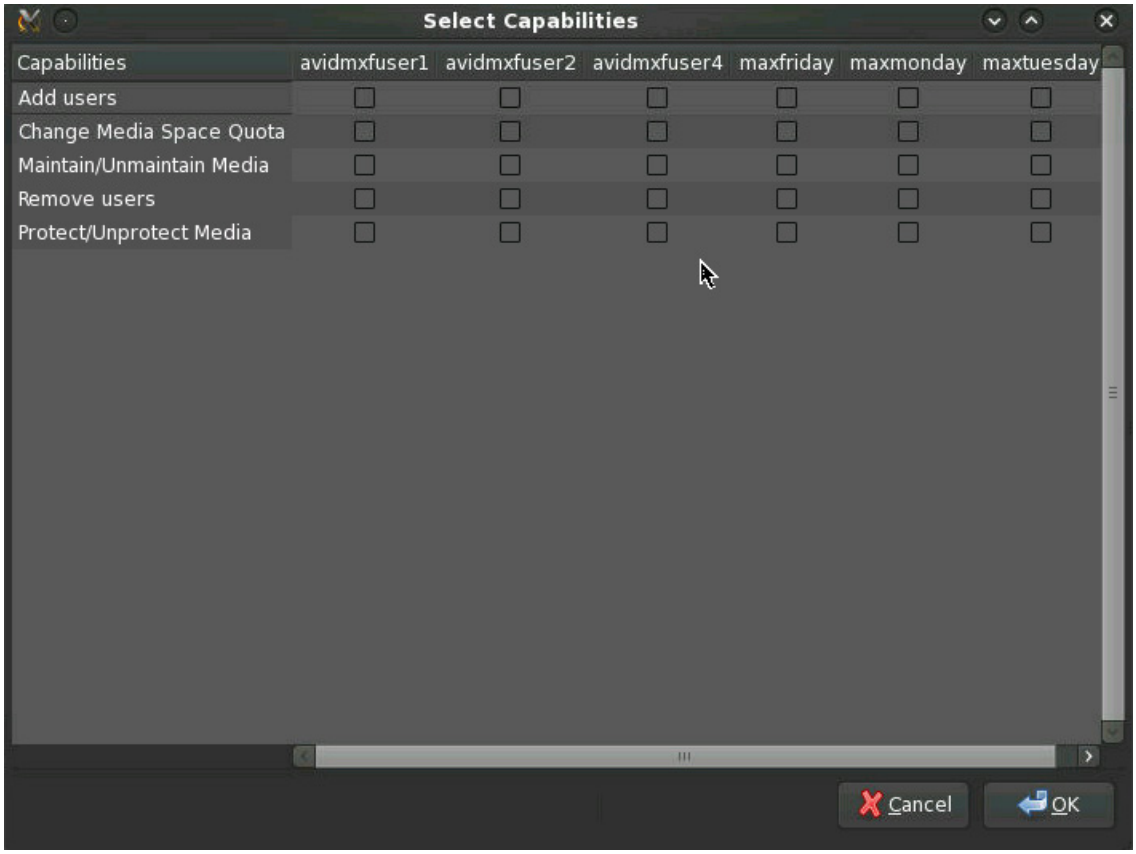
   This is the easiest way to give a specific user administrative capabilities on several different Spaces.
7. Click OK.

Managing Capabilities by Media Space or Shared Project Space

TASK

1. Select one of the following:
   - Manage Capabilities by Media Space
   - Manage Capabilities by Shared Project Space
2. Select the Space whose capabilities you want to manage and click Manage.

   A grid opens showing the capabilities for each user.



3. Select the capability you want each user to have over that Space, or deselect to remove a capability.

   This is the easiest way to give several users administrative capabilities for a specific Space.

4. Click OK.

System-Wide Capabilities

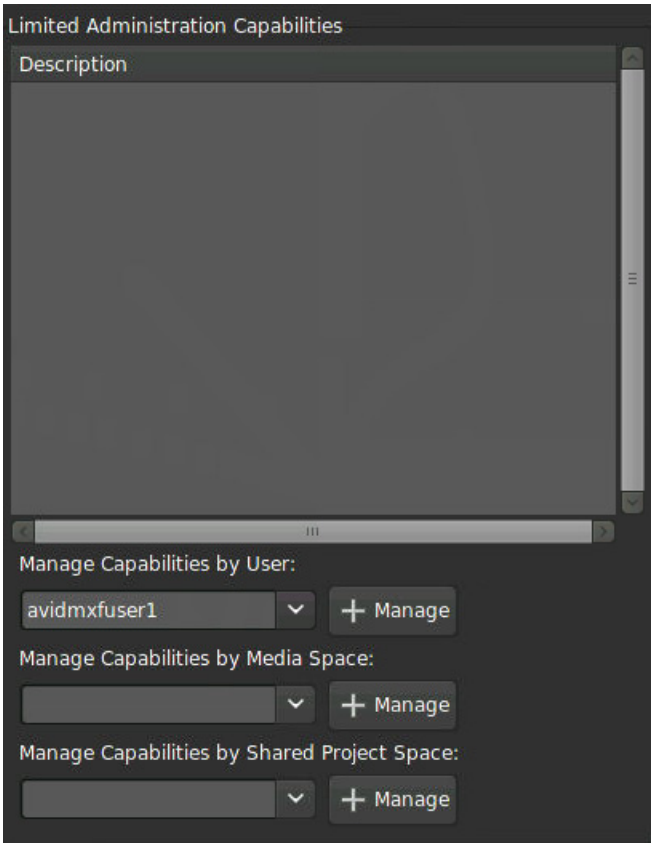
In EditShare Manager, an Administrator can give a user Limited Administrator permissions to add Shared Project Spaces or Media Spaces to the system. The user can then add these kinds of Spaces from within EditShare Connect, and can add users to them.

Do the following.

TASK

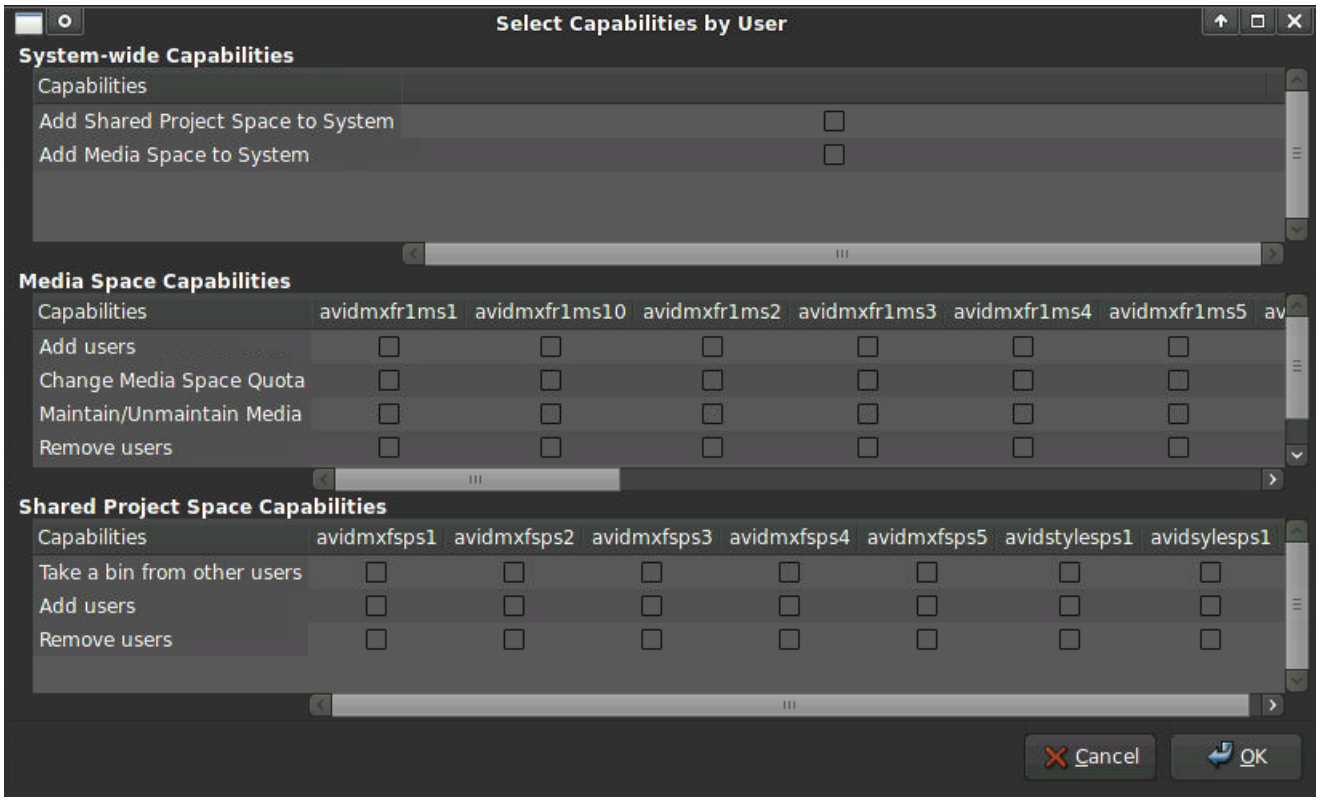
1. Open EditShare Manager for your type of Media Space.

2. Click the Users tab.
3. In the Limited Administration Capabilities area, select the user whose capabilities you want to manage from the Manage Capabilities by User list.



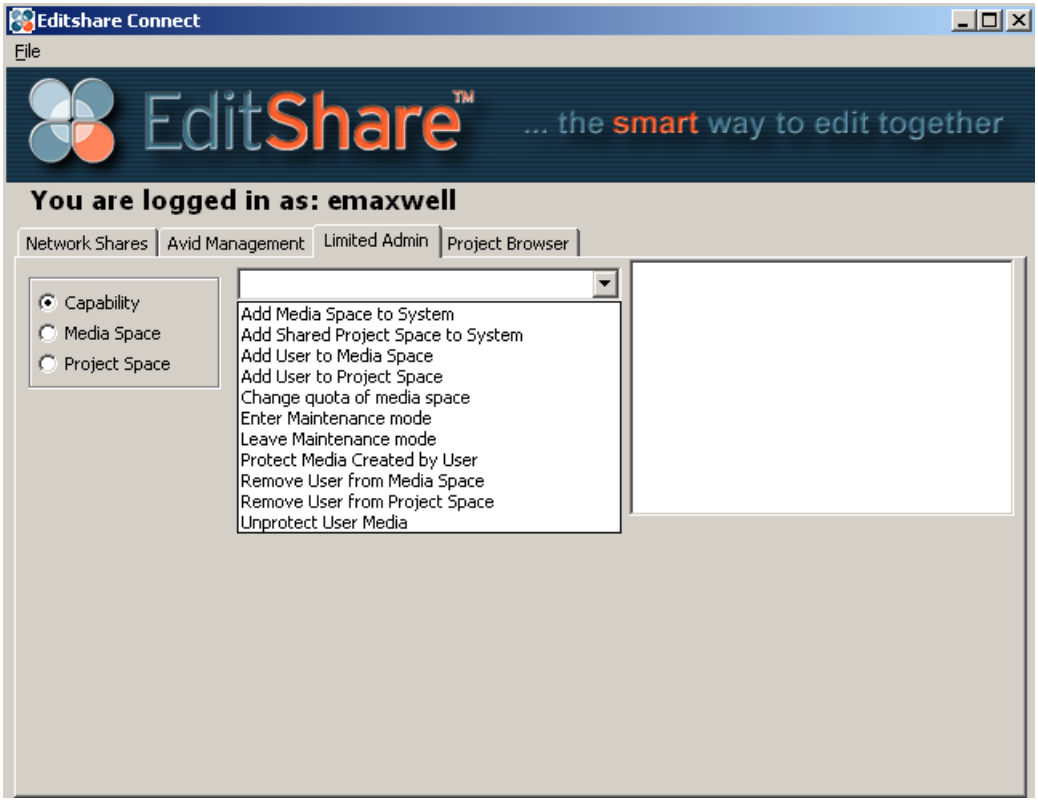
4. Click Manage.

The Select Capabilities by User dialog box opens.



5. In the System-wide Capabilities area, select the options you want, and then click OK.
6. Log into EditShare Connect using a login name you previously gave Limited Admin privileges to, and click the Limited Admin tab.

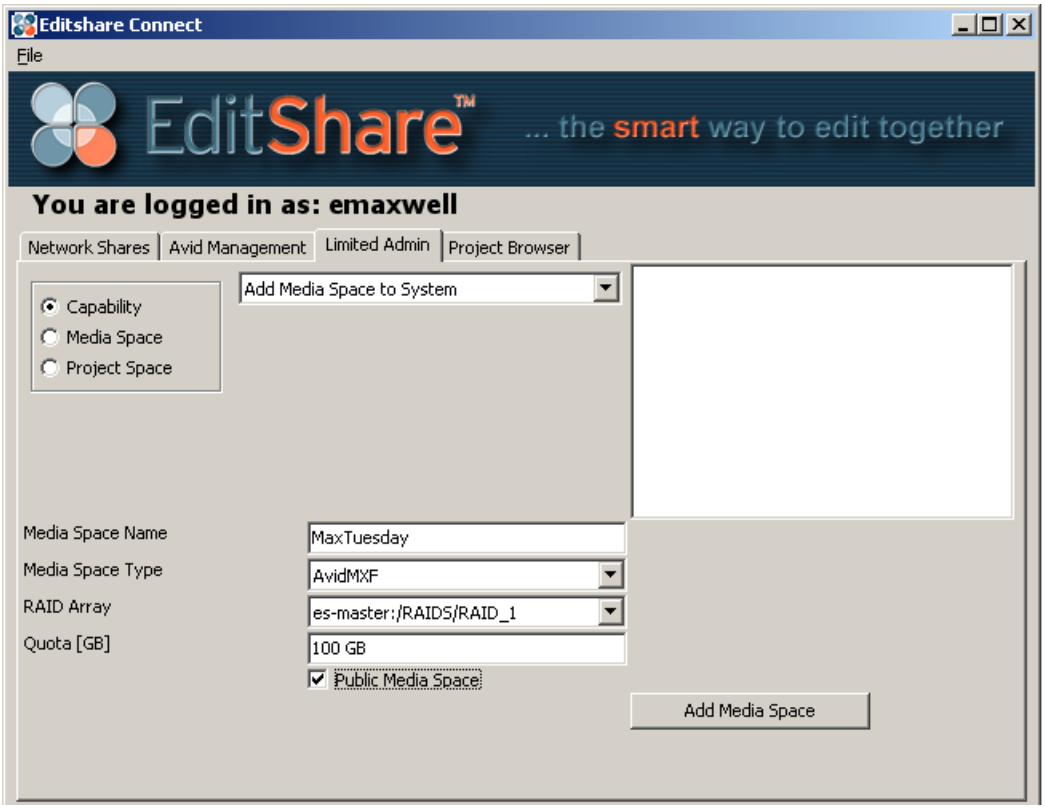
7. Select Capability.



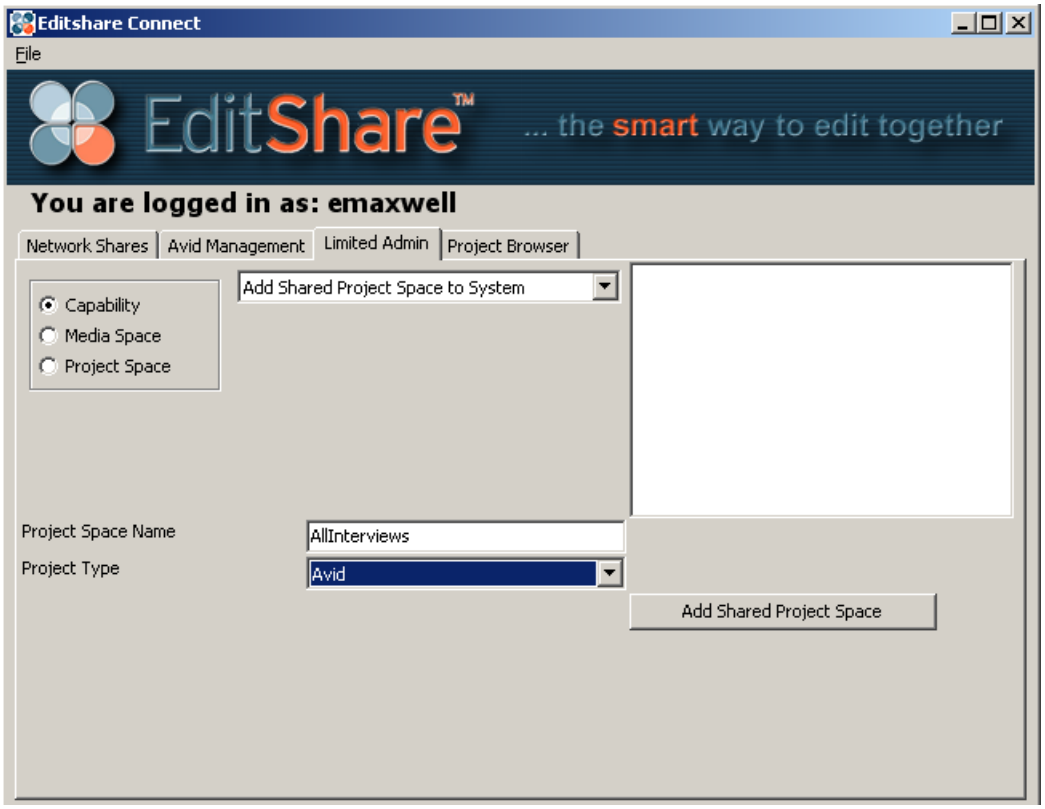
8. Select the capability you want from the list.

   Each opens a different set of options:

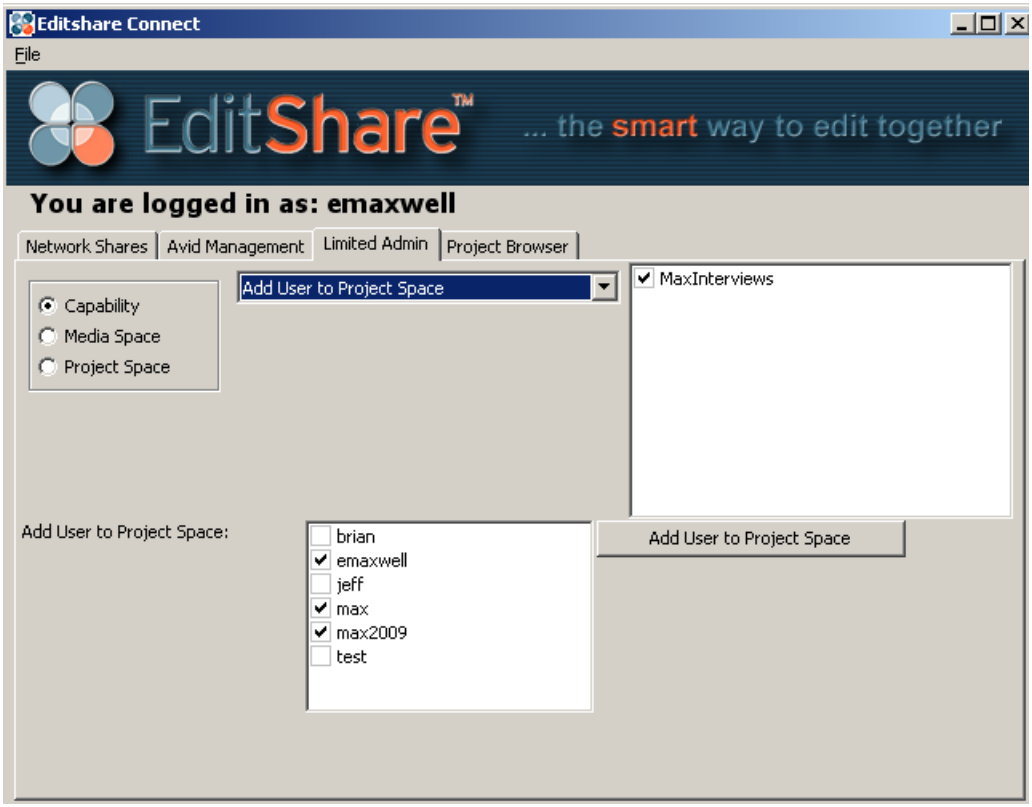
   - Add Media Space to System. Type a name, select a type and a RAID array, type a quota, and then click Add Media Space.



- Add Shared Project Space to System. Type a name, select a Project type, and then click Add Shared Project Space.



- Add User to Media Space, and Add User to Project Space. Select the Space, select one or more users, and then click the Add User button



9. Click Save Current Setup, and then click Logout.

Chapter 14: Project File Sharing

This chapter is relevant only in organizations where Avid and/or Final Cut Pro is being used. If your editors are not using Avid or Final Cut Pro, you can skip this entire chapter. If your editors are using Avid or Final Cut Pro, also read the *EditShare Editor's Guide* sections on Project File Sharing.

Project File Sharing allows multiple editors to work simultaneously on the very same project metadata files. When you use this EditShare feature, each editor in your group can have instant access to the bins and sequences of other colleagues in the group.

If you choose to use Project File Sharing in your organization, you as the EditShare Administrator are responsible for setting up and managing Shared Project Spaces.

See the following sections

Reasons to Share Projects

When a group of editors works together, the ideal workflow allows everybody to instantly see what everybody else has created. But in order to work collaboratively in this manner, it is important to have a way to lock and manage project files so that one editor cannot overwrite the work of another.

EditShare provides a very clear and efficient file locking mechanism to keep everyone's work safe. When Editor 1 opens up the work of Editor 2, Editor 1 one has read-only access to Editor 2's work. That is, Editor 1 can see, copy or “save as” what Editor 2 has done. In fact, Editor 1 can copy clips or sequences or parts of sequences from Editor 2 and paste them directly in his/her own timeline. But Editor 1 can never modify Editor 2's work.

Setting up Project File Sharing

Project File Sharing is set up and managed under the Project Spaces tab found in the EditShare Managers. The Project Spaces tab allows you to create and

manage Project File Spaces on the EditShare server, where specific groups of editors (as defined by the Administrator) can share their Project Files.

Shared Project Spaces can be created and managed from any type of EditShare Manager.

NOTE: *If you have large numbers of users or a large number of projects in a Shared Project Space, you might experience slow system performance. In this case, EditShare recommends creating multiple Shared Project Spaces and apportioning projects among them. You can also keep the number of users down by creating generic Temp users for visiting editors who don't need their own permanent user names.*

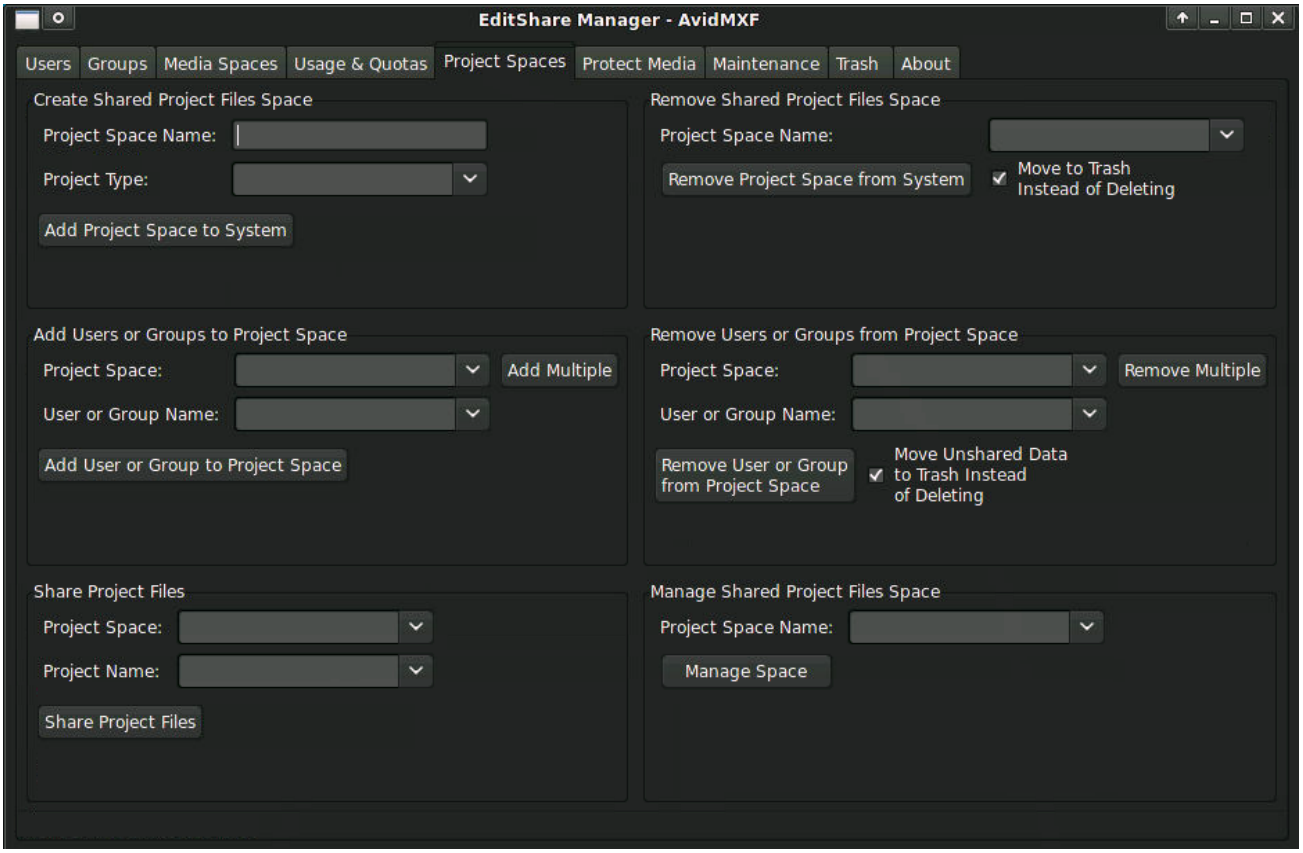
See the following topics:

- "Creating a New Shared Project Space" on page 229
- "Adding Users to the Shared Project Space" on page 230
- "Creating a Shared Project for Final Cut Pro" on page 231
- "Sharing Avid Project Files" on page 231
- "Organizing Project Files" on page 232
- "Removing an Entire Shared Project File Space" on page 233
- "Removing Users from a Shared Project Space" on page 233

Creating a New Shared Project Space

TASK

1. Open the EditShare Manager for your Media Space and click the Project Spaces tab.



2. Type a name in the Project Space Name text box.

   NOTE: *If you work in a small production company and you tend to edit only one program at a time, you might create a space simply called "Your Company's Name." If you work in a large production house, you might create a separate space for each series or program.*

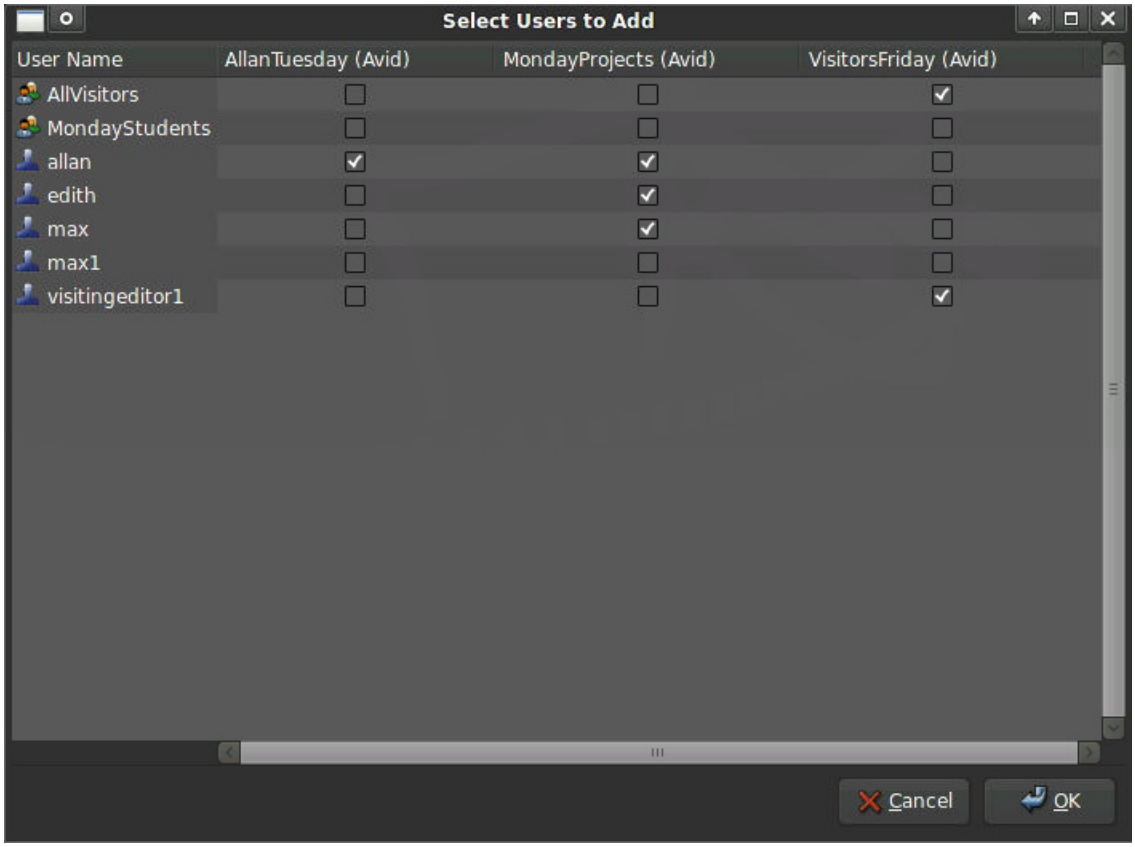
3. Click Add Project Space to System.

Adding Users to the Shared Project Space

TASK

1. Open the EditShare Manager for your Media Space and click the Project Spaces tab.
2. Do one of the following:
   - To add a single user to a single Project Space, select a Project Space in the Add Users or Groups to Project Space area, select a User Name, and then click the Add User or Group to Project Space button.
   - Click Add Multiple in the Add Users to Project Space area.

     The Select Users to Add window opens.



Select users for Spaces, and then click OK.

For more information, see "Adding Users to Media Spaces" on page 156.

NOTE: *Every time you create an Project within this Shared Project Space and then share the Project, all of the editors you included in this group get their own folders within the Project. If you want different groups of editors to collaborate on different*

sets of Projects, you should set up multiple Shared Project Spaces and add different groups of editors to each of those spaces.

Creating a Shared Project for Final Cut Pro

You can create a Shared Project for Final Cut Pro in EditShare Connect or in EditShare Manager. For information about creating it in EditShare Connect, see "Using the Project Browser to Create a New Project" in the *EditShare Editor's Guide*. To create one using EditShare Manager, do the following.

TASK

1. Open a non-Avid EditShare Manager.
2. Click the Project Spaces tab.
3. In the Manage Shared Project Files area, select the Space in which you wish to create the Shared Project Space, and click Manage.
4. Select the folder in which you want to create the folder that represents the new project.
5. Click Create Shared Project.
6. Type the name for the new shared project and click OK.

   A new folder structure is created in the Shared Project Space to store the new project. Each editor can now save their own Final Cut project files into their own folder, and can open other users' project files with read-only access to view their work.

   NOTE: *If the new project does not appear in the Space, click the Refresh button.*

Sharing Avid Project Files

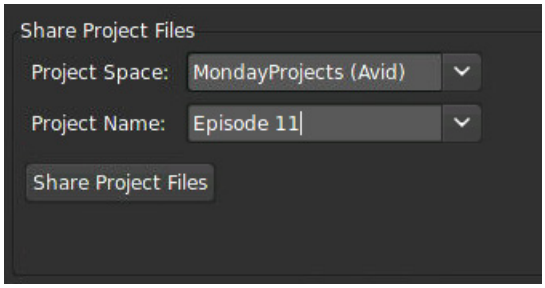
Avid editors can use Avid to create their own projects in the Shared Project Space, then Share them from EditShare Connect without the need for intervention from the Administrator. See the *EditShare Editor's Guide* for further information. However, if you want, you can Share an unshared Avid project using the EditShare Manager.

To share an unshared Avid project, do the following.

TASK

1. Open the EditShare Manager for the Media Space you want, and click the Project Spaces tab.

2. In the Share Project Files area, select the Project Space and the Project Name.



3. Click Share Project Files.

Organizing Project Files

If your organization works with a large number of projects, you might find it useful to organize the projects in folders and subfolders. Editors can create subfolders inside the Shared Project Space and create new projects inside these subfolders. However, once a project is created, it must not be moved to a new folder using Windows Explorer or Macintosh Finder.

You can create folders inside an Project Files Space and organize projects inside those folders. You can also delete a shared project from the Organize Projects window.

If an editor has a project open when you move or delete it, it is very likely that the project will not be completely moved or deleted. Furthermore, that editor will probably not be able to save any bins he might have open.

Always make sure that all editors have closed a project before moving or deleting it.

There is no way to rename a project stored in an Avid or Final Cut Pro Shared Project Space.

To organize project files, do the following.

TASK

1. Open the EditShare Manager for the Media Space you want, and click the Project Spaces tab.
2. In the Managed Shared Project Files Space area, select the Project Space to be organized, and click Manage Space.

   The Shared Project Space Manager window opens.

3. To create a new folder, click the folder in which you want to create a new folder, then click Create Directory. (You can also create folders inside the Space using Windows Explorer or Macintosh Finder.)

   The Shared Project Space Manager dialog box opens.

   NOTE: Do not move or delete a project while an editor has it open.

4. To move a project into a different folder, select the project from the Source list on the left, select the desired folder from the Destination list on the right, and click Move.

5. Select the project to be deleted, then click Delete.

   If the Save to Trash option is selected (highly recommended), the project is moved to the Trash for possible restoration. If it is not selected, the project is deleted permanently.

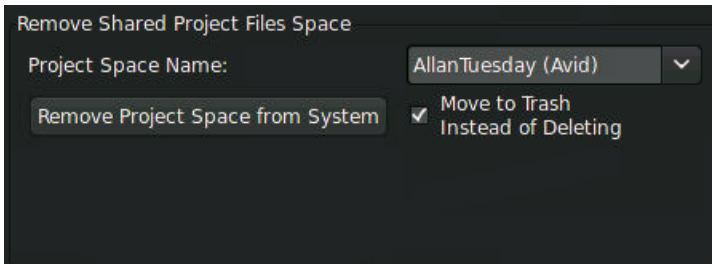
Removing an Entire Shared Project File Space

If you want to clear out an old Shared Project Space so it no longer takes up room, do the following.

TASK

1. Make sure you are finished with all Projects stored in the Shared Project Space. You might want to make a backup copy of each Project before deleting the Project Space).

2. Select the name of the Project Space from the list at the upper right of the Project Spaces tab.



3. Click Remove Project Space from System.

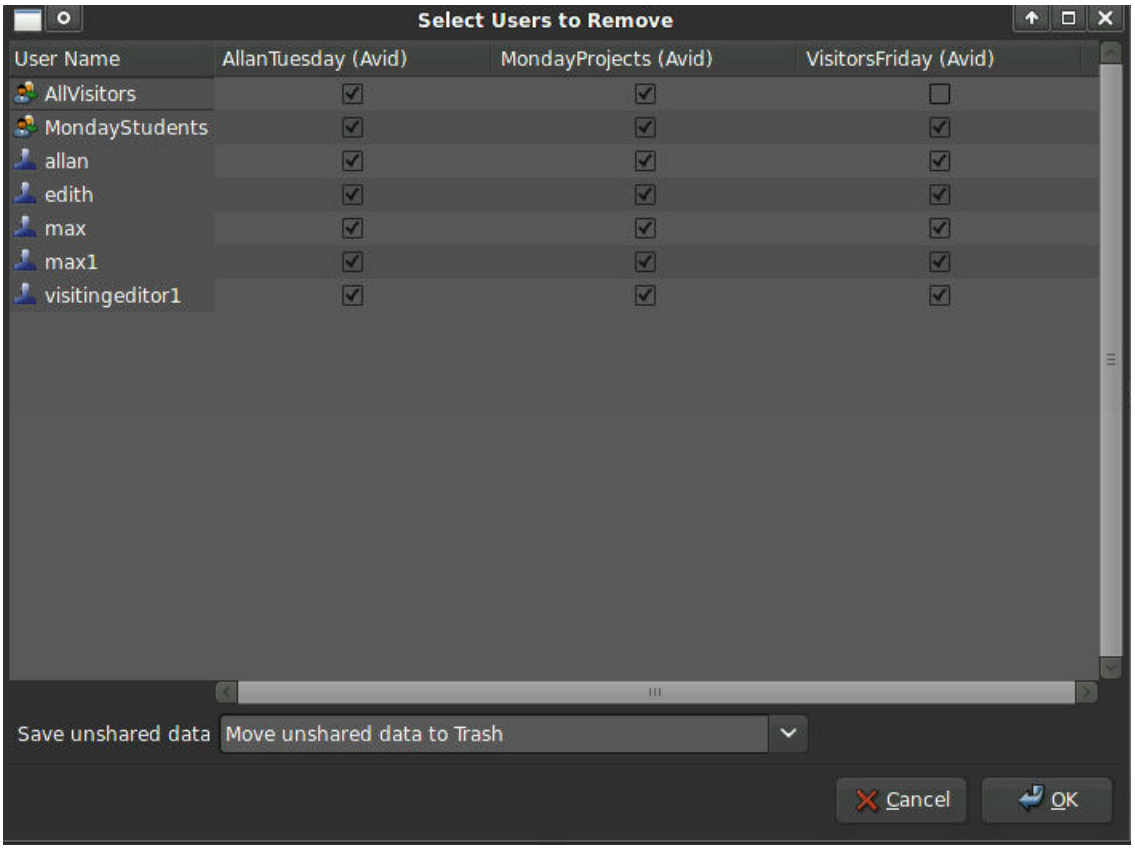
   NOTE: *Use caution when deleting an entire Shared Project Space. All Projects inside that Space are deleted immediately.*

Removing Users from a Shared Project Space

If an editor stops working on a group of projects, you might want to remove that user from the Project Space for that project. Do the following.

TASK

1. Open the EditShare Manager for the Media Space you want, and click the Project Spaces tab.
2. In the Remove User from Project Space area, do one of the following:
   - Click Remove Multiple. Select users you want to remove and then click OK. For more information, see "Removing Multiple Users or Groups from Media Spaces" on page 181



   - Select a Project Space name and user name, select or deselect Move Unshared Data to Trash Instead of Deleting, and then click Remove User from Media Space.

Any shared bins the deleted user had are moved into Unprotected status.

Chapter 15: General EditShare Maintenance

As EditShare Administrator, you often want to monitor the general performance of your EditShare server (or servers) and perform general maintenance tasks. This chapter describes some of the tools you use for these purposes.

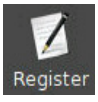
See the following sections:

Registering Your EditShare System

EditShare requests that after installing, upgrading, or making other significant changes to your EditShare server configuration, you register your server. This helps ensure that EditShare Technical Support has up-to-date information about the configuration of your server and contact information for the EditShare Administrator, allowing us to respond more quickly to help you resolve any technical support issues you might have, and to keep you informed of the latest updates for your EditShare system.

To register your EditShare system, do the following.

TASK



1. Double-click the Register icon in the EditShare Control Panel.
2. Follow the instructions.

   If your EditShare system is connected to the Internet, your registration is automatically sent to EditShare once you have filled out the necessary

information. If it is not, a registration file is created in your SMB File Exchange Space.

3. Mount this Space on one of your editing workstations and email the registration file to register@editshare.com.

Daily Status Report

Your EditShare Master server generates a Daily Status Report email each morning at roughly 3 am. It gives you a snapshot of the status of your EditShare server, with particular attention to any issues that might lead to problems in the near future. See "EditShare Status Report Contents" on page 236.

EditShare strongly recommends that you set up your alert email to send you the Status Report (see "Configuring Alert Email" on page 32) and that you assign someone responsibility for monitoring the email. The subject line includes a status keyword so you can set up an email filter for it. The status keywords are the following:

- CRITICAL
- WARNING
- Information

You can also view your Status Report in a web browser or send a Status Report manually by email at any time. This allows you to see any system issues without waiting for the next automatically generated report. See "Viewing EditShare Status in a Web Browser" on page 238 and "Sending the Status Report Manually" on page 242.

You (or someone you designate) should examine the Status Report daily and address any issues that might cause problems for editors in the near future.

If your system is experiencing quota problems, you are sent hourly Quota Reports. See "Viewing Quota Reports" on page 245.

EditShare Status Report Contents

The Status Report includes a Status Summary at the top. The summary is categorized by severity and is followed by each report, listed alphabetically, in detail.

The Status Summary area gives you, for each report, a short description of problems or, in the Information category, normal status. To view each detailed report. you can click its link in the Summary area or scroll down to it.

Each Status Report provides information as described in the following table. The Limit column describes the threshold that triggers a CRITICAL message or a WARNING message.

Status Report	Description	Limit
Avid File Count	A list of the number of files in an AvidMXF Media Space or Universal Media Space when the number has exceeded the maximum allowed, and notification of the maximum.	WARNING: Over 5000 files in a single folder
Battery Backup Events	A list of warnings from the Battery Backup (or UPS, the uninterruptible power supply), which can initiate power failures or a need to replace the battery.	WARNING: Any messages in the last 24 hours
EditShare Server Notifications	A list of any errors the EditShare Manager Services have encountered that might make one or more Spaces temporarily unavailable. Such problems are uncommon and usually require assistance from EditShare Technical Support to resolve. ***NOTE:*** *After you read a notification, it is deleted. You do not see it again in subsequent Status Reports.*	CRITICAL: Any notifications since the last Server Notifications report (including web views)
File System Usage	A list of all filesystems mounted, their sizes, the amount of space used and available, and percent used. If any filesystem is more than 85-95% full, do not allow editors to add much media to it until more space has been made available (for example, by emptying the Trash, deleting unneeded files from Media Spaces, or deleting entire Media Spaces that are no longer needed).	CRITICAL: More than 95% full WARNING: More than 85% full
Media Space Mode	A list of any Media Spaces in Maintenance mode or Unshare mode. Spaces should not be in either mode for more than a few minutes.	WARNING: Any space in Maintenance mode or Unshare mode
Media Spaces Quota	A graphic display of Media Spaces and how close each one is to filling its quota, which can warn you that you need to increase a Media Space's quota or create an additional Media Space for a project.	CRITICAL: Over 90% of quota WARNING: Over 75% of quota
OMFI MediaFiles	For AvidMXF and Universal Media Spaces, a list of any files that should not be in the OMFI MediaFiles folder. The folder is used by Avid; you should not put any files into it.	WARNING: Non-database files in OMFI MediaFiles folder
OS Drive Large Files	A list of any extremely large files on the OS drive (that is, in a user's Private Files Space, a Shared Project Space, a File Exchange Space, or the system log area) which might cause that drive to fill up.	WARNING: Any files over 100 MB

Status Report	Description	Limit
RAID Events	A list of recent alerts from the RAID controllers, which could provide early warning of dead or dying hard drives which should be replaced. Alerts reported include either all messages from the last 7 days or the last 50 messages, whichever number is smaller.	CRITICAL: Any 3ware error WARNING: Any 3ware warning
RAID Status	A list of RAIDS that are not running properly.	CRITICAL: Any current 3ware error or any RAID that has not completed a verification in the last 7 days WARNING: RAID arrays that are currently building
Server Uptime	The length of time the server has been up, which can alert you of system crashes that might have occurred while the server was not in use.	N/A
Sync Log	A list of sync job errors. Run the Synchronization tool and look at the job log for more details.	CRITICAL: Error messages in the log
Trash	A list of what in the EditShare Trash is taking up space and is probably no longer needed.	WARNING: Any trash that has been in the Trash longer than the limit specified in the Server tab of the EditShare Preferences

Viewing EditShare Status in a Web Browser

You can generate reports about your system status at any time in a web browser. You can also view client software and the documentation for your system. The reports are generated dynamically when you navigate to the EditShare Status web page. EditShare recommends doing this at a time when you are not capturing or playing back. Do the following.

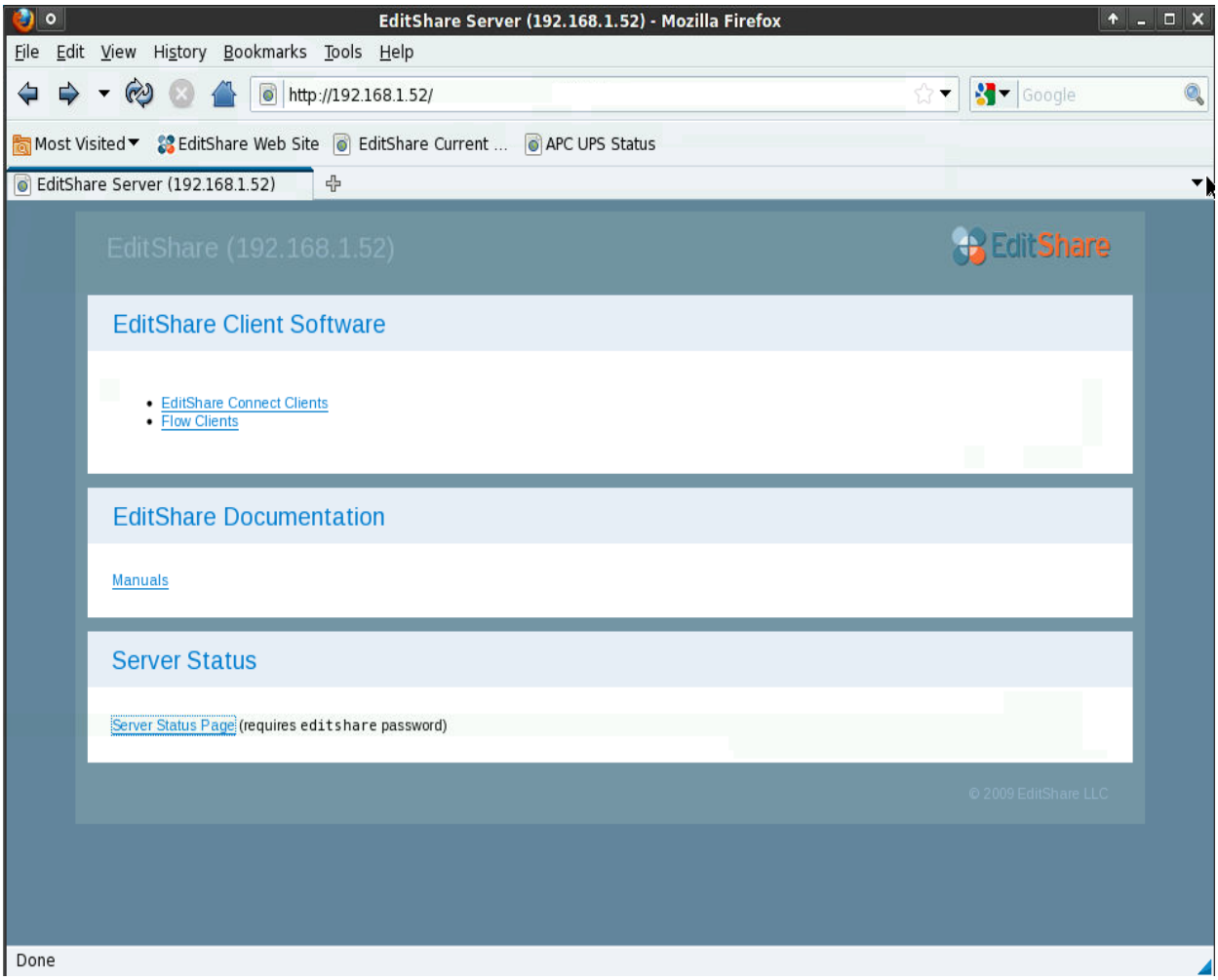
TASK

1. Open a browser.
2. In the URL line, type the following:

   http://*Master Server IP Address*

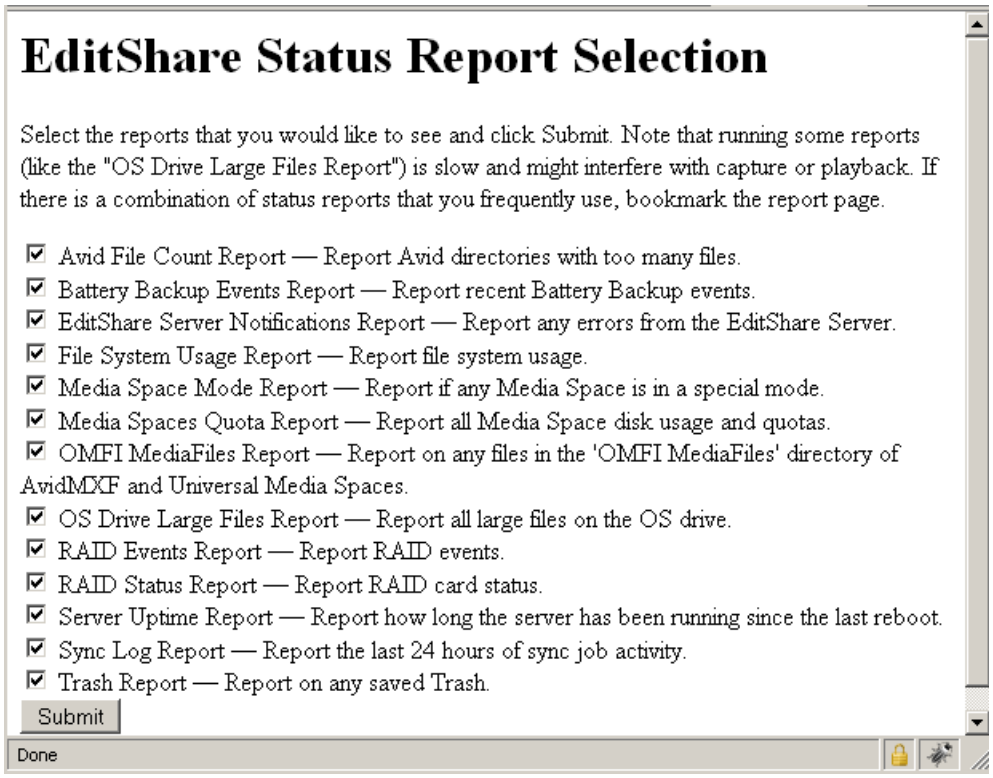
   where *Master Server IP Address* is the IP address of your EditShare master server.
3. Press Enter.

   The EditShare status web page opens.



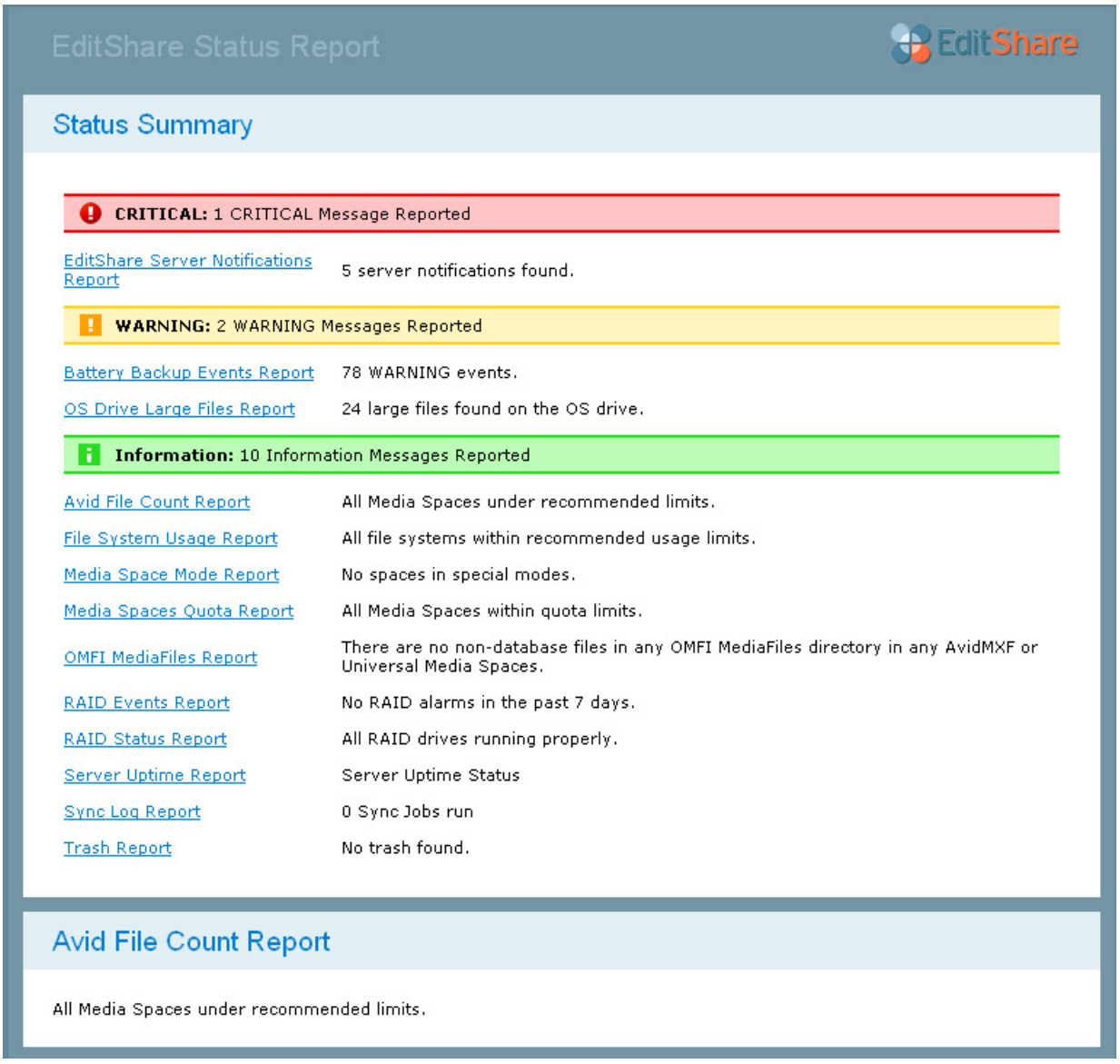
4. To view client software, click EditShare Connect Clients or Flow Clients.
5. To view pdfs of available user guides, click Manuals.
6. To view the server status, click Server Status Page.

   The EditShare Status Report Selection dialog box opens.



7. Select the reports you want to generate and click Submit.

   The EditShare Status Report opens, with a summary at the top categorized by severity, followed by each report you selected in detail. The detailed reports are displayed alphabetically.



8. To view each report in detail, do one of the following:
   - Click the report name in the Status Summary area.
   - Scroll down through the file.
9. (Option) Print the report from your browser toolbar.
10. (Option) Bookmark the page so you can find it easily the next time you want to see your system status.

Sending the Status Report Manually

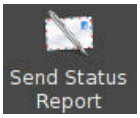
You can generate and send a Status Report by email at any time. EditShare recommends doing this at a time when you are not capturing or playing back.

NOTE: *You also can generate the web-based Status Report at any time (see "Viewing EditShare Status in a Web Browser" on page 238).*

To generate and send the Status Report by email, do the following.

TASK

1. On the EditShare Master server, open the Control Panel.

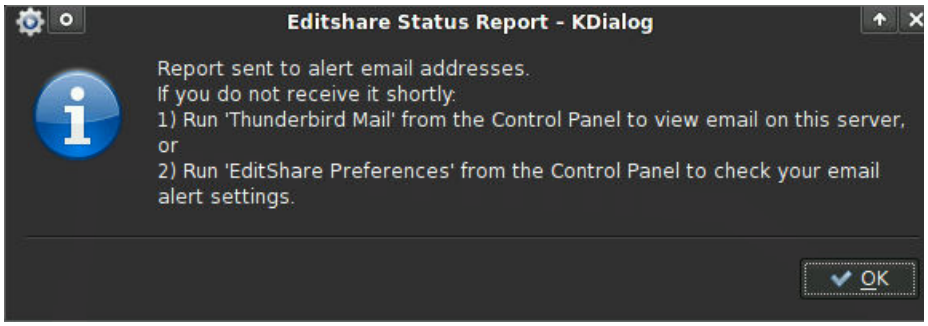


2. Double-click Send Status Report.

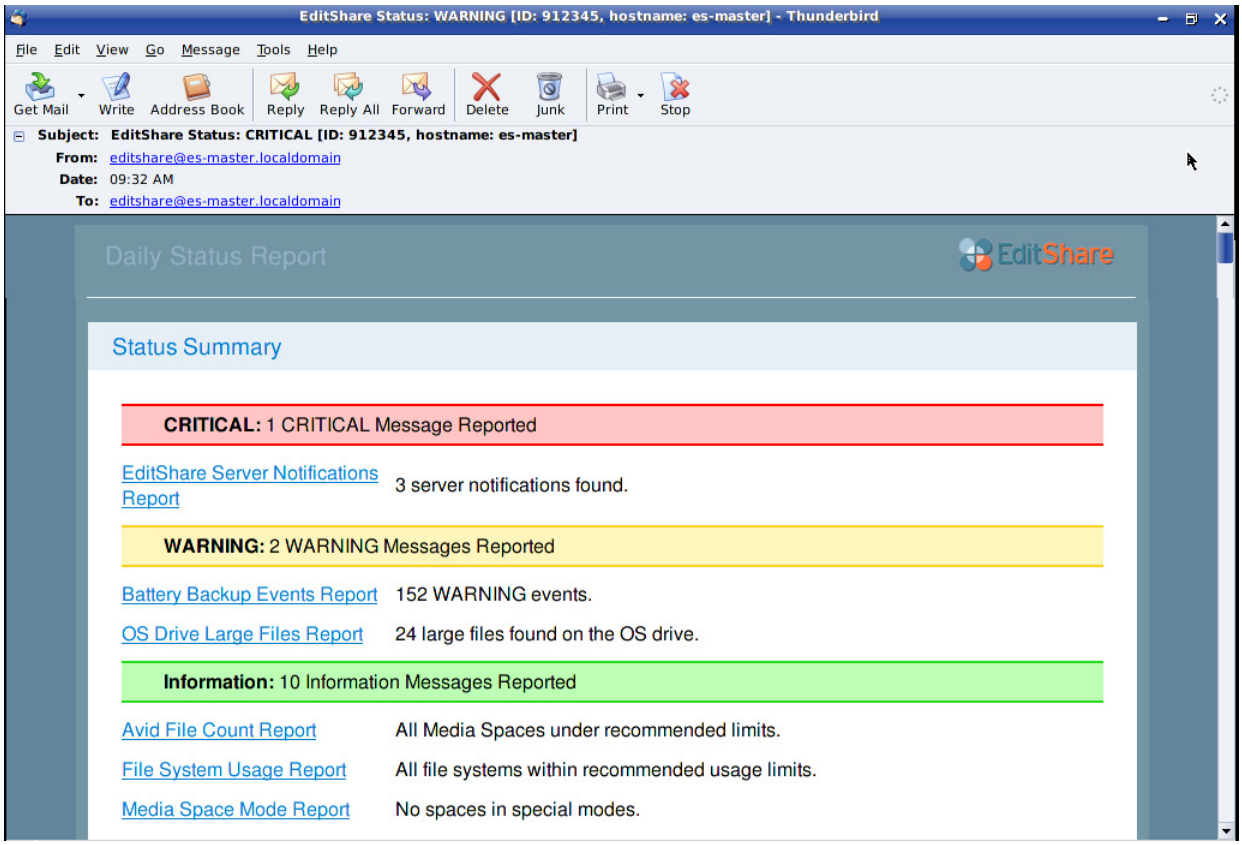
   A message box opens informing you that generating the report might take up to a minute and can sometimes cause dropped frames during capture or playback.

3. Click Continue.

   When the report is finished, a message box opens.



4. Click OK, and then do one of the following:
   - Open your email application to see the report.
   - View the report in the Thunderbird email client. See "Viewing the Status Report in Thunderbird" on page 244.



NOTE: If the report doesn't appear in your email, open EditShare Preferences and check your alert email settings. See "Configuring Alert Email" on page 32.

Viewing the Status Report in Thunderbird

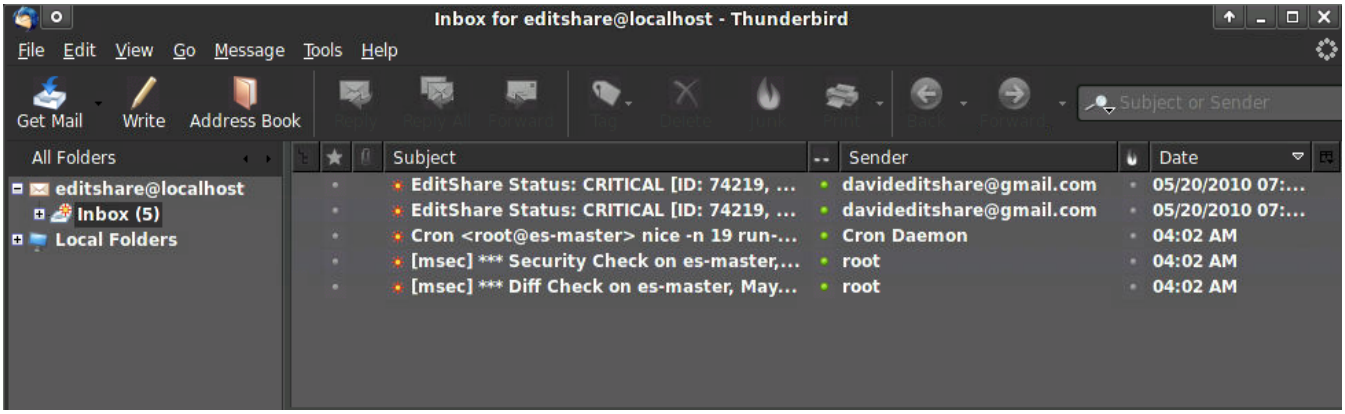
To view the Status Report email using Thunderbird on the EditShare server, do the following.

TASK

1. Open the Control Panel.
2. Double-click Thunderbird mail.

   The Mail Server Password Required dialog box opens.
3. Type your password and click OK.

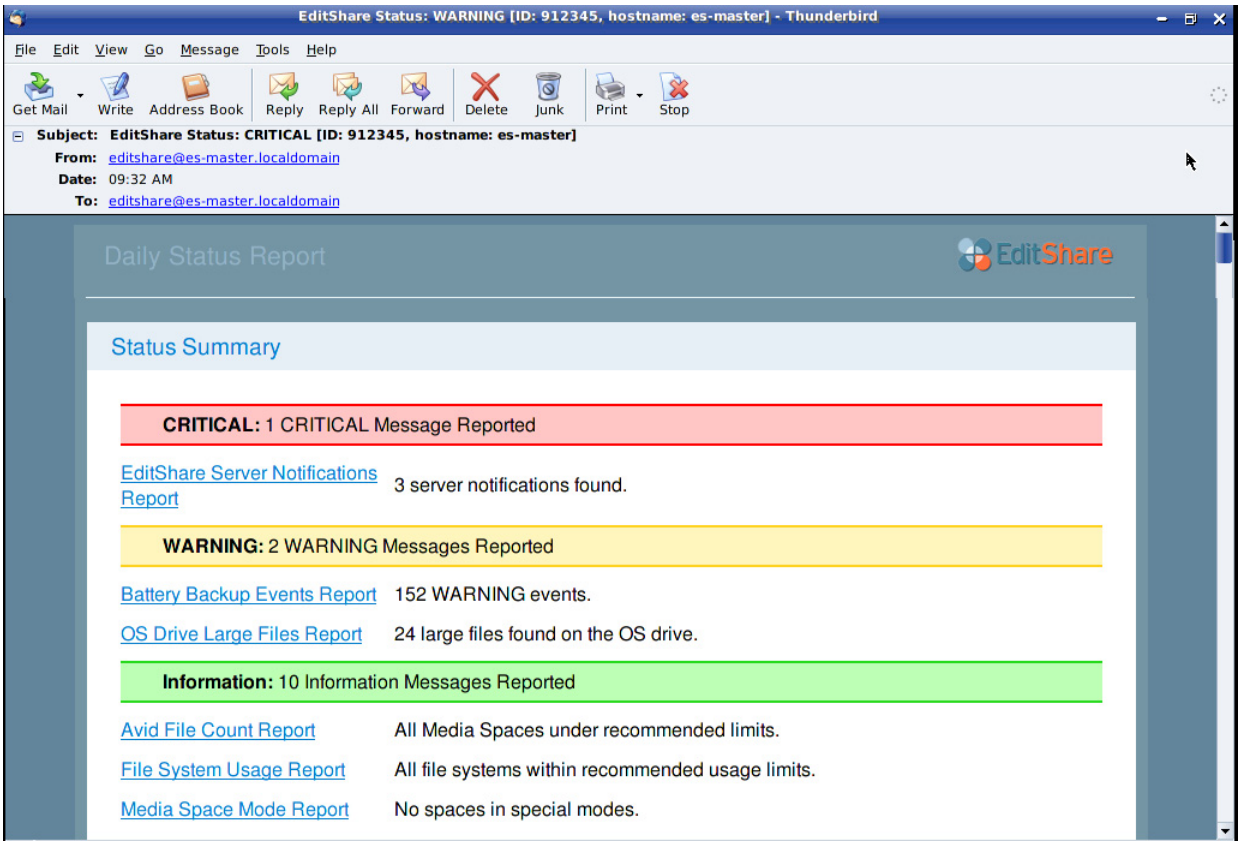
   The Thunderbird Inbox opens.



The subject line of the EditShare Status email includes a status keyword so you can set up an email filter for it. The status keywords are the following:

- CRITICAL
- WARNING
- Information

4. Open the EditShare Status email and read the reports you want.



5. To view each report in detail, do one of the following:
   - Click the report name in the Status Summary area.
   - Scroll down through the email.

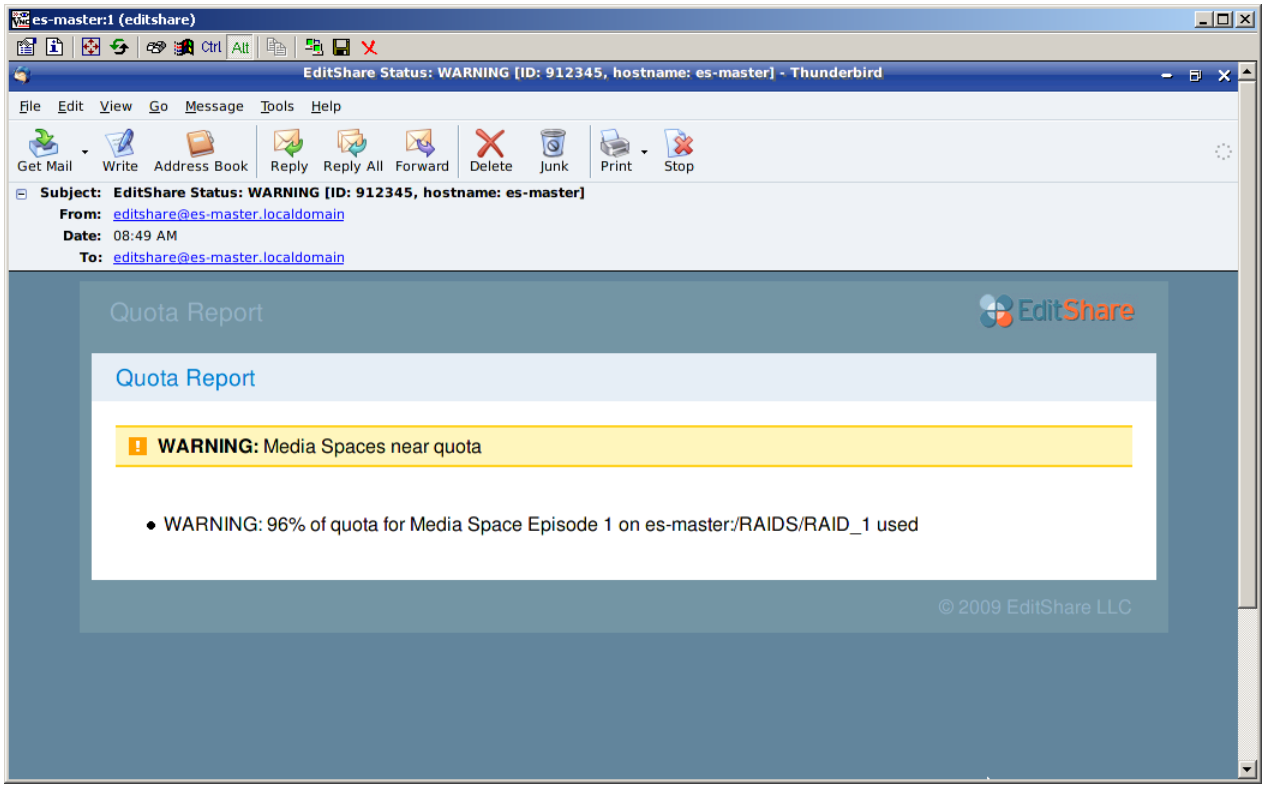
Viewing Quota Reports

If your system is experiencing quota problems, you are sent a Quota Report email. EditShare sends the first Quota Report when the problem reaches the Warning level. If the problem worsens, you receive an additional Quota Report. After that, the report is included in the Daily Status Report, as usual. To view the Quota Report, do the following.

TASK

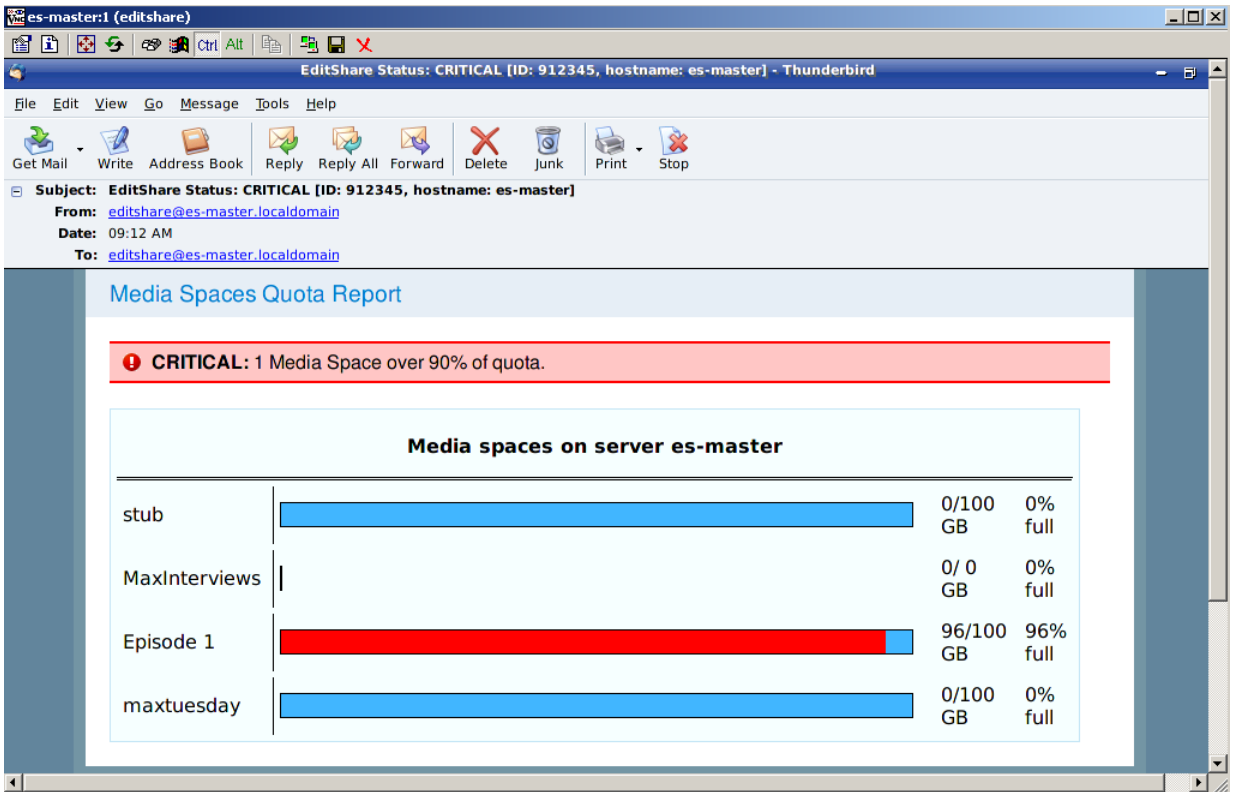
1. On your EditShare server, open Thunderbird mail.
2. Double-click the Quota Report email.

   The email opens.



3. Fix the problem by changing the quota in EditShare Manager or reduce the size of the files in the Media Space. For more information on quotas, see "Using Quotas to Control Storage Space" on page 150.

   If you don't correct the problem, the Daily Status Report includes the error message in the Media Spaces Quota Report section.



Shutting Down and Restarting the Server

It is rarely necessary to shut down or reboot your EditShare server, even after changing configuration files. However, in some situations, it might be necessary to restart the server.

To protect your server, you should shut it down any time you are connecting or disconnecting cables from the server (except network or USB cables), moving the server, or adding or removing drives.

TASK

1. To shut down the server, access its desktop, double-click the Shutdown icon, and then type the EditShare password.

   This cleanly turns off the system. The EditShare password is required to shut down the system.

2. Wait at least 30-60 seconds before turning on the server again.

3. To reboot the operating system, access the server's desktop, double-click the Linux Reboot button, and type the EditShare Administrator password.
4. In the rare event that your system becomes unresponsive and cannot be shut down or restarted, using this procedure, press the Power button once. If that does not work, press and hold the Power button for five seconds.

   CAUTION: ***This last method of shutting down the server can result in data loss, so do not use it until all other methods have failed.***

Monitoring Activity

From time to time you might want to check on the activity on your server. The Activity Monitor application allows you to monitor various aspects of the activity on that server: the reading and writing activity on the RAID partitions, CPU usage, and the flow of information over Ethernet connections.

To monitor activity, do the following.

TASK

1. To open the Activity Monitor, double-click the Activity Monitor icon in the Control Panel.

   A message box opens warning you about the potential drain on performance and asks if you want to continue.
2. Click OK.

   The Activity Monitor opens.

3. To close the Activity Monitor, right-click (Windows) or Ctrl+click (Macintosh) the frame of the Monitor and select Quit.

   Because the Activity Monitor consumes CPU resources, EditShare recommends keeping this application closed whenever you don't actively need it for diagnostic purposes.

Internet Access

If you have connected your EditShare server to the Internet and configured it properly, you can access the World Wide Web using the Mozilla Firefox web browser.

TASK

1. To open the Firefox web browser, click the small round icon at the bottom left of the EditShare Desktop.

   NOTE: *The Linux operating system on which EditShare runs is susceptible to very few viruses, but that doesn't mean there aren't other ways a malicious or badly-designed web site could interfere with the proper operation of your EditShare server. Use the web browser on the EditShare server only when absolutely necessary, and close it as soon as you are finished with it.*

   NOTE: *If you leave Firefox open on the console, you cannot open it from a RealVNC session, and vice versa*

2. To open an FTP client, open the Control Panel and double-click the FTP Client icon.

   The Filezilla FTP client opens.

EditShare Updates

From time to time, EditShare makes updates available to address issues, add minor new features, and keep your system secure. These updates are pushed to your server by EditShare. They are also made available on the EditShare web site, http://www.editshare.com/updates, for servers without access to the Internet. (The Firefox web browser includes a bookmark to the Software Updates page.)

You need to run the Role Assistant to properly configure roles for your machines, expansion servers in an ESA group, and your Ark and Flow systems, if you have them.

See the following sections:

- "Update Check List" on page 250
- "Updating your EditShare Software" on page 251
- "Installing on More Than One Primary Server" on page 252
- "Using the EditShare Role Assistant" on page 253

NOTE: *The software updates for the latest versions of the Ark and Flow applications are included in the EditShare updater.*

Update Check List

The following check list presents the order in which you should perform update tasks. Depending on your configuration, one physical server might be playing several roles. You select these roles in the new Role Assistant, described in "Using the EditShare Role Assistant" on page 253.

Make sure you install the same software version on all the servers at your site before using any of them with the new version.

Do the following (ignoring steps for applications you did not purchase):

1) Update your EditShare Master server. Make sure it has completely restarted.

   NOTE: *Always upgrade your EditShare Master server first, and always restart it after upgrading.*

2) Update your ESA Expansion servers, following the procedures in "Updating your EditShare Software" on page 251.

3) Select Troubleshooting > Stop Ark services in the Ark Assistant before you upgrade any Ark systems. If backups are running while you update, you could lose data.

4) Update your Ark servers. If you have a separate Ark Master server, upgrade it before other servers in your Ark Group. See "Installing on More Than One Primary Server" on page 252.

5) If you have a standalone Flow Admin server, upgrade it.

6) Update your Flow Ingest servers. See "Installing on More Than One Primary Server" on page 252.

7) On client workstations, access the EditShare Connect software from the status web page, and then install it.

   NOTE: *If your existing EditShare Connect software is earlier than this version, you might not be able to connect to the Master server SMB File Exchange area. You can use Windows Explorer, the Mac Finder, or a USB device to copy the software to your client workstations. If you need help, contact EditShare Technical Support.*

8) (Macintosh only) Run the Mandatory scripts in the EditShare Mac Utilities folder on any Mac workstation that connects to EditShare. Also run the recommended Performance scripts. See "EditShare Mac Utilities (Macintosh Only)" on page 105.

9) On client workstations, access the Flow client software from the status web page, and then install it.

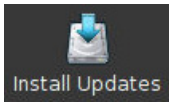
Updating your EditShare Software

EditShare pushes updates to the software to your server (if it has Internet access). A notification appears on your server desktop when updates are available.

To install an update, do the following.

TASK

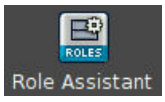
1. Connect to the EditShare by using RealVNC, or log in at the server console itself.



2. Open the Control Panel and double-click Install Updates.
3. Type the EditShare password when you are prompted for it.

   The editshare-install-updates window opens and asks if you want to proceed with the installation of the packages.
4. Type Y, and then press Enter.

   The installation process begins.
5. When it finishes, click Y to restart the server.
6. When the server restarts, connect to it again and open the Control Panel.



7. Double-click the Role Assistant icon.

   The EditShare Role Assistant opens.
8. Proceed through the Role Assistant.

   For detailed information about using the Role Assistant, see"Using the EditShare Role Assistant" on page 253.
9. Log into each expansion server (using a keyboard and monitor or RealVNC), open the Control Panel, and double-click the Install Updates icon to install the update on that server.
10. Read the ReadMe file for additional information about the contents of the update.

Installing on More Than One Primary Server

If you have more than one primary server in your configuration, for example, if you have separate Ark or Flow hardware, you need to update each server manually.

To install the updater on your other servers, do the following.

TASK

1. Log into each server (using a keyboard and monitor or RealVNC) and double-click the Install EditShare Updates icon to install the update on that server.
2. Run the Role Assistant as described in "Using the EditShare Role Assistant" on page 253.

Using the EditShare Role Assistant

The EditShare Role Assistant makes sure each of your EditShare products is configured correctly. This ensures that newer EditShare products, such as EditShare Ark and EditShare Flow, are configured correctly along with your storage products.

NOTE: *If you are running a standalone EditShare server without expansion servers or the Ark or Flow applications, you do not need to run the Role Assistant.*

The Role Assistant, which you access from the Control Panel, asks you questions about the EditShare software products you use and about the roles each physical server plays. For example, you might have a single server that provides EditShare storage as well as EditShare Flow functions, or those functions might be provided by separate servers.

If an option does not apply to your site because you have not purchased that product, leave it deselected.

NOTE: *Selecting options for products you have not purchased does not enable them.*

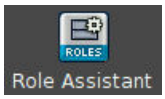
If you need help with the Role Assistant questions, contact EditShare Technical Support.

The Role Assistant also provides access to the ESA Assistant and the Ark Assistant. If you are setting up a new ESA Group, you need to run the ESA Assistant (see "Setting up Multiple Servers with ESA Assistant" on page 63). If you are setting up an Ark system for the first time or you want to change your Ark configuration, you need to run the Ark Assistant (see the *EditShare Ark Setup and User's Guide*).

NOTE: *If you already configured your ESA group, or if you already set up your Ark system, you do not need to use the Assistant applications to set up these systems again after you update them with the new software.*

CAUTION: ***In Ark Assistant, select First-time Setup only for configuring new Ark systems. First-time Setup removes all backed-up files.***

To provide the Role Assistant with the information it needs, do the following.

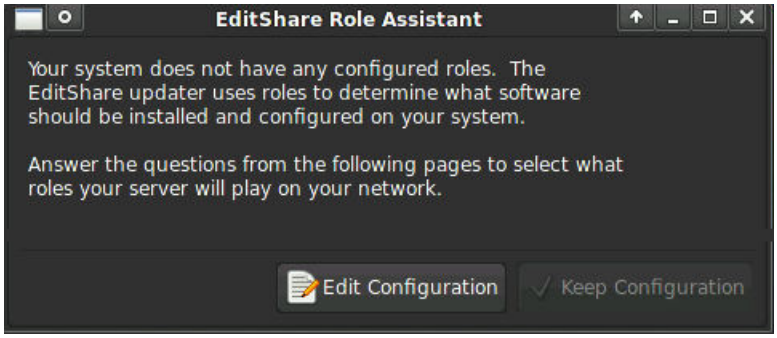


TASK

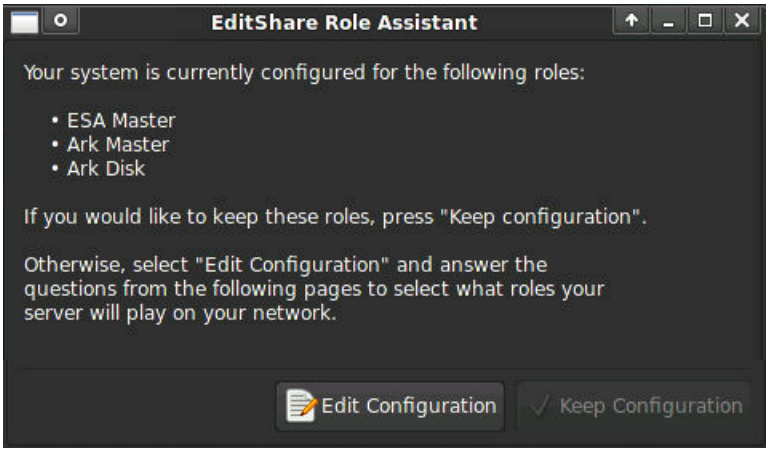
1. Open the Control Panel and double-click the Role Assistant icon.
   The EditShare Password dialog box opens.
2. Type your Administrator password and click OK.
   An introductory window for the EditShare Role Assistant opens.

3. Read the window and click Forward.

   If you have never configured your system with the Role Assistant, the following window opens.

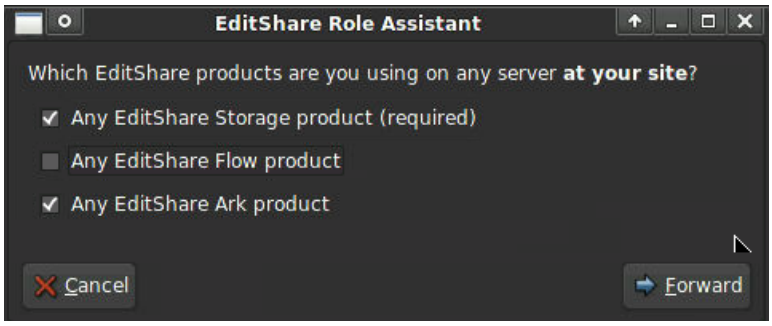


   If you have configured your system with the Role Assistant, a version of the following text appears:



4. Do one of the following:
   - If you have used the Role Assistant before and your system roles have not changed, click Keep Configuration.
   - If you have never used the Role Assistant or you want to change your system roles, click Edit Configuration.

   A window opens asking which EditShare products you are using at your site.

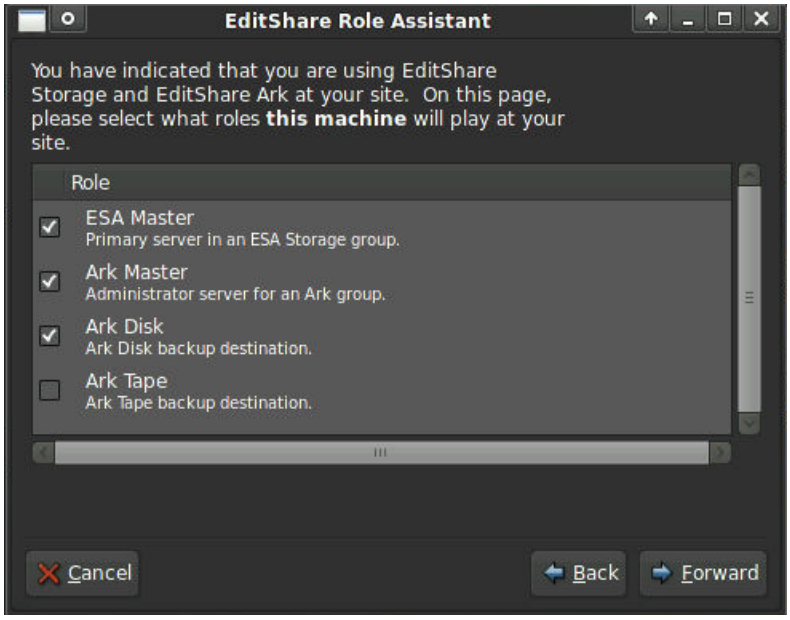


NOTE: *This window asks which EditShare products you use overall at your facility, not which products are running on this particular server.*

NOTE: *If you have not purchased Ark or Flow, selecting them here does not enable them.*

5. Select your products, and then click Forward.

A window opens asking which role this particular machine will play.



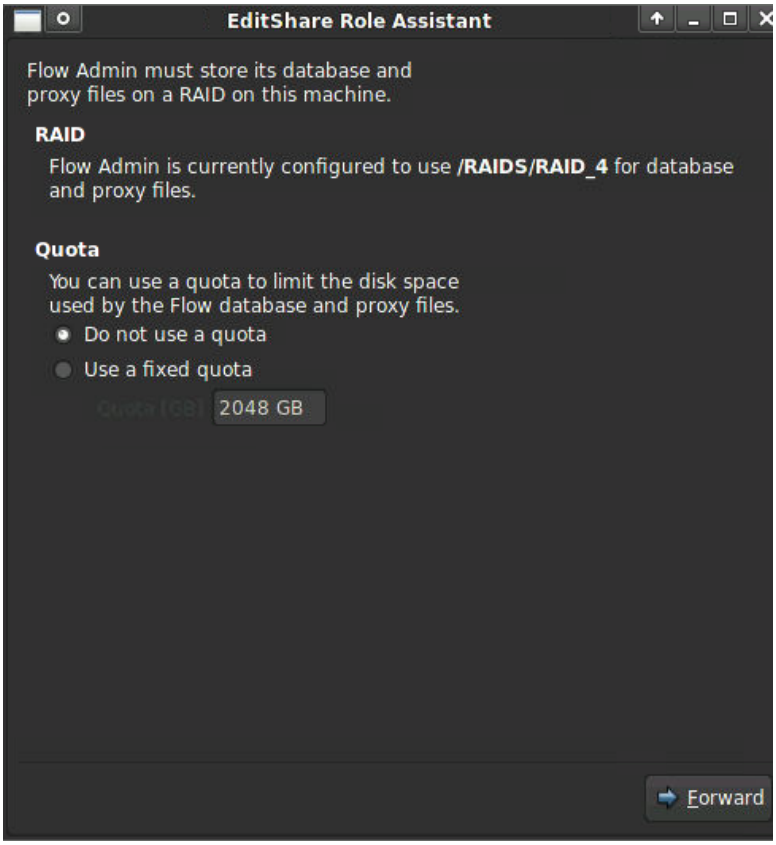
NOTE: *If you use Flow, only one server at your site may play the role of Flow Scan. Flow Scan normally runs on your Flow Admin server. If you already selected this role on another server, you will experience difficulties.*

6. Select roles, and then click Forward.

   A window opens asking if this is the configuration you want.

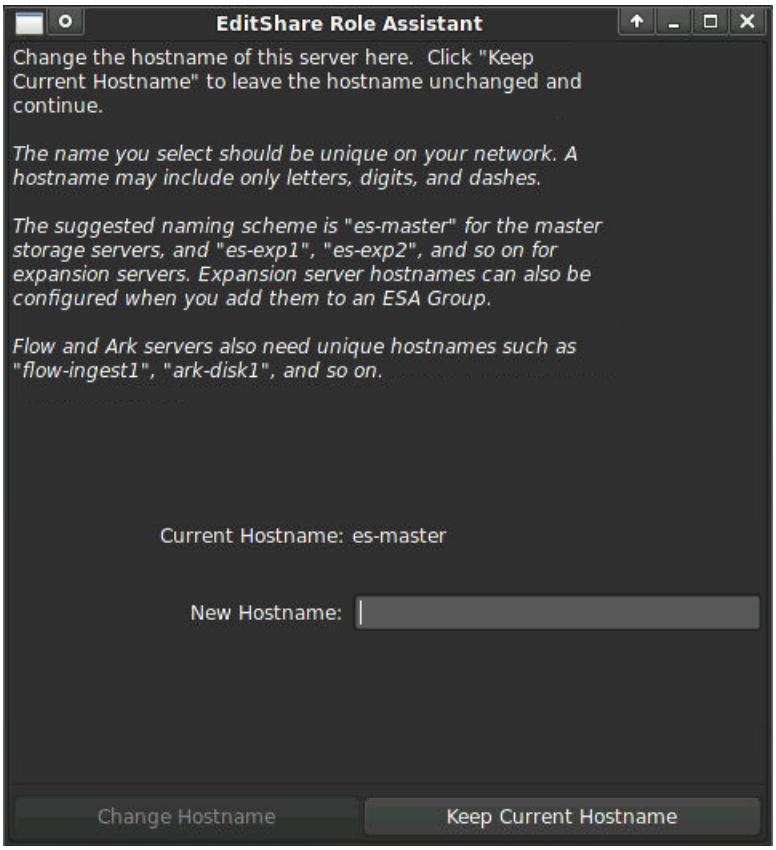
7. Do one of the following:
   - If the configuration is correct, click Save Configuration.
   - If the configuration is not correct, click Back, change the options you want, click Forward, and then click Save Configuration.

   If you selected Flow products and roles, a window opens asking you to configure your Flow quota.



8. Do one of the following, and then click Forward:
   - Select "Do not use a quota."
   - Select "Use a fixed quota," and then type a quota for the database and proxy files.

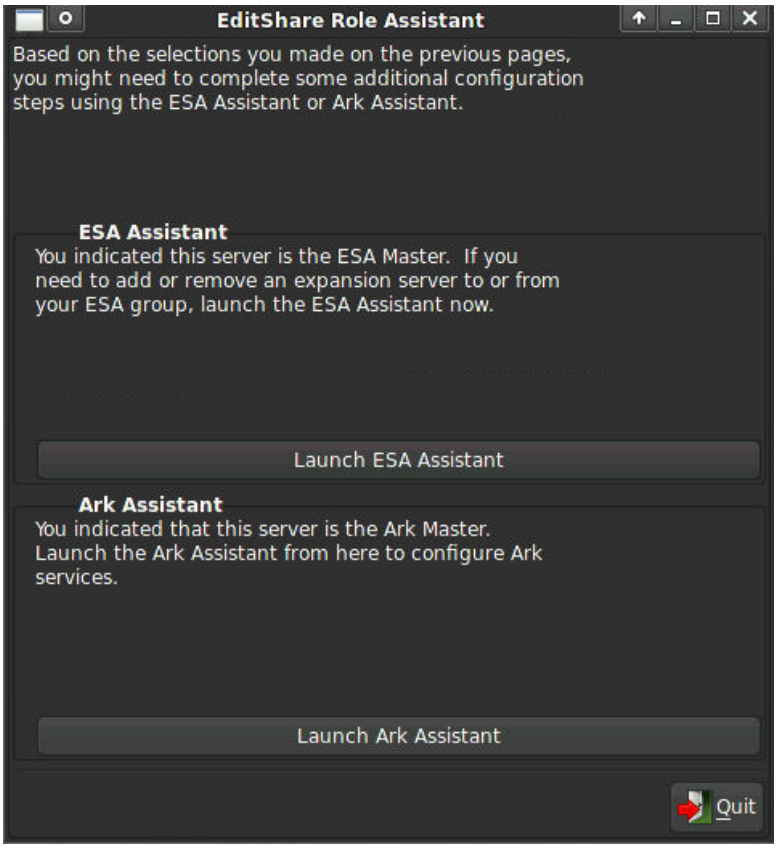
   A window opens asking if you want to change the hostname for this machine.



9. Do one of the following:
   - Keep the same hostname by clicking Keep Current Hostname.
   - Type a new hostname, and then click Change Hostname.

     A confirmation window opens. Click Continue.

   A window opens that includes buttons for the ESA Assistant and the Ark Assistant.



NOTE: *The Ark Assistant button is available only on the server you select as your Ark Master.*

10. To configure an ESA group, click the Launch ESA Assistant button and proceed through the prompts until you return to this page. For detailed information, see "Setting up Multiple Servers with ESA Assistant" on page 63.
11. To configure an Ark system, click the Launch Ark Assistant button and proceed through the prompts until you return to this page. For detailed information, see “Configuring Ark with Ark Assistant” in the *EditShare Ark Setup and User’s Guide* or the Ark Help.
12. Click Quit to exit the Role Assistant.

Tools for Troubleshooting

For tools to help you resolve system problems while working with your dealer or EditShare Technical Support, see the following topics.

- "Restarting EditShare Manager Services" on page 260

Restarting EditShare Manager Services

If the server is operational but the EditShare Manager seems unresponsive or produces errors, you might need to restart the EditShare Manager services.

Restarting the EditShare Manager this way is often preferable to completely rebooting the server; rebooting the entire server disconnects anybody who is editing, while restarting just the EditShare Manager services allows editors to continue working uninterrupted.

If any errors are detected during this scan, the EditShare services do their best to make everything operational that can be made operational. However, sometimes this might not be possible: a RAID might not be mounted, an expansion server might not be reachable, or a Space might be missing necessary files. In this case, the affected Spaces are not available until the problem is corrected. Depending on the nature of the problem, an email alert might be sent immediately, or the condition might simply be noted in the next Daily Status Report.

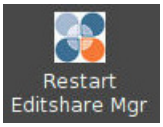
If EditShare Manager is restarted while a you are connected through EditShare Connect, you cannot mount a new Space until you have unmounted all currently mounted Spaces. You can accomplish this by closing the editing application, logging out of EditShare Connect, and logging back in, but you can also unmount all Spaces manually. See “Managing Connections to Spaces” in the EditShare Editor’s Guide.

To restart EditShare Manager services, do the following.

TASK

1. Make sure editors are not logged in through EditShare Connect.

   NOTE: *Users connected with EditShare Connect might need to log out and log back in to be able to Share and Refresh Media Spaces again.*



2. In the Master Server's Control Panel, double-click Restart EditShare Mgr.
3. Type the Administrator's password.

   The system scans Shared Project Spaces and Media Spaces. On systems with many users and many files in these Spaces, this scan can take several minutes, during which it is not possible to log in to EditShare Manager or EditShare Connect.

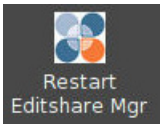
   The system reports that the EditShare Manager service restart is complete.
4. If you experience errors when restarting EditShare Manager services, wait a few minutes and try again. If it still fails, contact EditShare Technical Support.

When the ESA Service Fails

When the ESA service fails on an expansion server, you cannot use the EditShare Manager Restart icon on the Master server to restart the ESA service on the expansion server.

Do the following.

TASK



1. Log directly into the expansion server, using a keyboard and a monitor, or RealVNC, where the ESA service failed.
2. Double-click the Restart EditShare Mgr icon.

   The ESA service restarts.

   NOTE: *The EditShare Manager Restart icon has no other purpose on expansion servers.*
3. Restart all services using the EditShare Manager Restart icon on the Master server. See "Restarting EditShare Manager Services" on page 260.

Restarting Samba

If Windows users, or Macintosh users using SMB (with or without DAVE), are unable to mount Media or other Spaces, it might be necessary to restart Samba. This sometimes happens if you have been doing a lot of unplugging and replugging of Ethernet cables, or if you have just changed the IP addresses of your EditShare server.

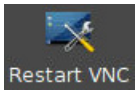
To restart Samba, do the following.

TASK

1. Wait until all essential activities (such as long captures or demos) are finished.
2. Double-click the Restart Samba icon on the Control Panel.

Restarting the VNC Server

If you find that you are unable to connect to an EditShare server using RealVNC, but the EditShare server is otherwise responsive (you can connect with EditShare Connect, for example), it is possible that the VNC server might have accidentally been shut down. To restart the VNC server, do the following.



TASK

1. Connect a monitor and mouse directly to the EditShare server.
2. Double-click the Restart VNC icon on the Control Panel.

   NOTE: *Using this icon from within a RealVNC session immediately terminates your VNC connection. You might not be able to reconnect until you repeat this from a monitor and mouse connected directly to the EditShare server.*

Checking Hardware Components

If you have questions about whether the EditShare server is seeing your USB dongle, your RAID controllers, or your network adapters – for example, if any of these components gets damaged by mishandling or an electrical surge – the Hardware Probe can verify that a component is still visible and functioning. Do the following.

TASK

1. Double-click the Hardware Probe icon on the Control Panel.

   The Hardware window opens.
2. Click the arrow next to an item in the Detected Hardware list, and then select a specific piece of hardware.

   Details about the hardware appear in the Information area on the right. Depending on the hardware you select, additional options appear.

Running Diagnostics

When reporting a problem to EditShare, Technical Support often asks you to run the Diagnostics application. This causes the EditShare server to produce a file of diagnostic information that can help EditShare Technical Support to

troubleshoot your system. If you have one or more expansion servers, the diagnostics file includes information about all servers that can be contacted.

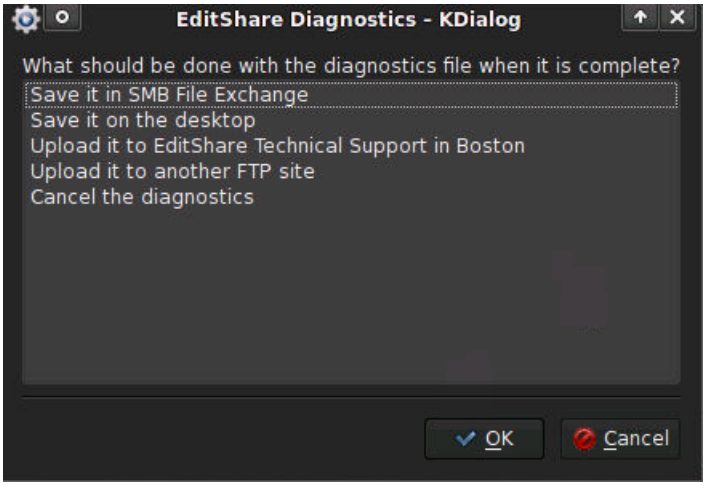
To run the Diagnostics application, do the following.

TASK

1. Double-click the Diagnostics icon on the Control Panel.

   If you have not yet registered your system, a message box opens and allows you to register.

   You are asked where you want to send the output.



2. Select an option and click OK.

   You are asked what kind of diagnostic you want to run:

   - EditShare Diagnostic – provides EditShare logs, configuration files, basic RAID information, and other information EditShare uses for trouble-shooting most server problems.
   - 3ware RAID Diagnostic – provides information to troubleshoot RAID problems.

3. Select a diagnostic and click OK.

   The diagnostic runs and sends the results to the location you specified. If you did not specify sending it directly to Technical Support, contact Technical Support for further instruction.

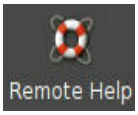
4. When the diagnostic finishes, click OK.

Konsole

For diagnostics and troubleshooting, it is sometimes necessary to open a command-line terminal program where you can type Linux commands.

EditShare is designed to make sure you don't need to do this often, but when you do, you can open the terminal program called Konsole by clicking the monitor-shaped icon in the lower-left of your EditShare Desktop.

Remote Help



If you call EditShare Technical Support to help you resolve a problem with your EditShare, you might be asked to initiate a Remote Help session. This allows you to give access to your EditShare server to an EditShare technician so he or she can see your EditShare Desktop and help solve your problem. (EditShare cannot access your server unless you do this while on the phone with technical support.)

In order to make this work, your EditShare server must have access to the Internet. Usually, if you can view web pages using Firefox, Remote Help works. If you have a firewall, you might need to open it up so your EditShare server can connect out to port 5500 or a different port as requested by the support technician. It is not necessary to allow anything to connect in.

The EditShare support technician gives you the VNC Listener address to use.

RAID Toolkit

The RAID Toolkit, available from the EditShare Control Panel, provides a variety of advanced functions that are not needed in the course of everyday use, but are very helpful for installing, upgrading, and troubleshooting an EditShare system. It is most often used by, or at the instructions of, an EditShare Technical Support specialist or experienced installer. They guide you in its proper use when it is needed. Do not use it unless you know what you are doing.

Chapter 16: Disk Space, RAIDs, and Folders

Your EditShare system includes two types of storage: the Operating System drive and the media drives (or RAIDs).

See the following sections:

Operating System Drive

The Operating System (OS) drive for currently shipping EditShare servers is usually a single 160-GB or 320-GB Serial Advanced Technology Attachment (SATA) hard drive. (Earlier EditShare systems, sold before about April, 2009, shipped with an 80-GB drive.) This drive includes the Linux operating system and EditShare software, as well as users' Private Project Files spaces, the File Exchange spaces, and any Shared Project Spaces.

Most systems shipped prior to Version 4.1 included Parallel ATA (IDE) OS drives instead of SATA. Some older EditShare systems, and EditShare Field systems have 60-GB OS drives.

NOTE: *All XStream systems have mirrored OS drives.*

The OS drive is not nearly as fast or large as the media drives. It is quite sufficient for running the server and storing project metadata files, but media files cannot be stored and accessed there.

CAUTION: ***If you keep bins and projects on your OS drive, you might fill the drive. The OS drive is not large enough to store unlimited files.***

The most important portions of your OS drive are backed up on the RAID. See "Chapter 18: Backups" on page 293 for more information.

If so ordered, the OS drive might actually be a mirrored pair of SATA hard drives in a redundant RAID 1 configuration (mirrored OS drives) to provide continued operation in the event of a drive error. It is possible to upgrade a

5U or 8U EditShare server which was originally configured with a single SATA OS drive to a mirrored OS drive configuration Contact your dealer or EditShare Sales for more information and pricing.

Media Drives

For media storage, your EditShare server uses RAID (Redundant Array of Independent Disks) technology. Each RAID controller manages a hardware RAID array (sometimes just called "a RAID"), which is a collection of disks that, to the operating system, can look like a single large hard drive. Instead of writing and reading to one hard drive at a time, with a RAID you read and write to many drives simultaneously.

RAID arrays have two main advantages:

- Speed: the RAID array operates nearly at the combined speed of all the disks added together.
- Redundancy: If one of the hard drives in a RAID array is damaged, your data is still safe. The data on the remaining drives allows the RAID system to recalculate the missing data. Different levels of RAID take different approaches to achieving redundancy.

See the following topics:

- "Hardware RAIDS" on page 266
- "RAID Partitions" on page 267
- "Software RAIDS" on page 267
- "RAID Filesystems" on page 268

Hardware RAIDS

Each EditShare server includes one or more multi-drive physical disk arrays (often called hardware RAIDs) preconfigured to RAID Level 5 (RAID 5). With RAID 5, the space of one entire hard drive is used to store parity information that makes it possible to calculate what data is missing. If one disk fails in a physical array, you should always be able to replace the hard disk and reconstruct the data.

CAUTION: If a second disk in that physical array fails before you have replaced the first, you lose data. Reading your daily status report is critical to finding out about any drive issues as soon as they occur. See "Daily Status Report" on page 236.

On the EditShare system, your hardware RAIDs are sometimes identified by controller number (Controller 0, Controller 1, and so on), and other times with a Linux device name like /dev/sdb or /dev/sdc.

RAID Partitions

On most EditShare servers (those with more than about 3TB of storage), the hardware RAIDs are divided into multiple partitions, usually 3. Each such partition is spread across all the drives in the RAID, so it has the speed and redundancy of the full RAID. This partitioning helps to protect your media from the uncommon problem of filesystem corruption. Smaller partitions are much easier to repair in the event of a filesystem corruption error, and, in the event that such corruption could not be repaired, only a fraction of your media would be lost. These partitions are identified on the EditShare system by a Linux device name: for example, if /dev/sdb were divided into three partitions, they would be named /dev/sdb1, /dev/sdb2, and /dev/sdb3.

On EditShare RAIDs with multiple partitions, the partitions are not all equally fast. The lowest-numbered partition is the fastest, with higher-numbered partitions being slightly slower. In most environments, the difference in performance is minimal, but if you need every last bit of speed, you can sometimes take advantage of this by carefully planning the locations of your Media Spaces. Place Media Spaces used by more editors simultaneously, and those with the highest data-rate media files, on the faster, lower-numbered RAID partitions, and use the slower, higher-numbered partitions for Media Spaces with lower-resolution and more compressed media, audio files, Spaces used by fewer editors, and the daily backups folder.

If your system has any striped devices, a 20-GB partition is left on each hardware RAID out of the main partition scheme, unstriped and unformatted. This partition is available for doing diagnostic testing in case of problems. Striped devices are named /dev/md3, /dev/md4, and so on.

Software RAIDS

If you have two identical hardware RAID arrays, the partitions on each can be striped together using RAID 0, creating a RAID 50 (RAID 5 + RAID 0 = RAID 50) array. This provides the maximum throughput, since all data is written to all the drives on both RAID arrays, rather than just one. Partitions striped together in this way are sometimes called software RAIDs, and on your EditShare system, they are identified by Linux device names like /dev/md1, /dev/md2, and so on.

Lower-numbered software RAIDs always correspond to lower-numbered partitions.

In a RAID 50 array, potentially one drive could fail in each physical RAID 5 array without resulting in data loss.

RAID Filesystems

However your RAIDs are partitioned and striped, they must then be mounted on your EditShare system so that the operating system can see them. Just as a drive is mapped to a specific drive letter in Windows, or to a desktop icon in Mac OS X, in Linux it is mapped to a folder on the EditShare system. These folders are always located in the /RAIDS folder, and given names like /RAIDS/RAID_1, /RAIDS/RAID_2, and so on.

Lower-numbered RAID folders almost always correspond to lower-numbered partitions, except in the case of fully-populated 8U servers. Such servers have two separate groups of partitions, requiring a slight modification of this rule. For example, if you have five partitions on a 40-drive 8U, RAID_1 and RAID_2 are usually the 16-drive RAID, and RAID_1 is the faster partition; while RAID_3 through RAID_5 are the two 12-drive RAIDs striped together, with RAID_3 being the fastest of those partitions. Check with EditShare Technical Support for the details of your configuration.

The main XStream server chassis has its own RAID controller. XStream servers with multiple JBODs have one hardware RAID for each JBOD and are often configured with pairs of controllers striped together (typically, Controllers 2 and 3 form one 24-drive RAID, Controllers 4 and 5 form a second 24-drive RAID, and so on), but in some scenarios a different configuration might have been used. Contact EditShare Technical Support if you require more information.

Filesystem Maintenance

If you have properly configured your email notifications, EditShare notifies you whenever a volume reaches 95 percent of capacity.

CAUTION: *Never allow an entire RAID filesystem (for example, /RAIDS/RAID_1 or /RAIDS/RAID_2) to become more than 95 percent full, or to have less than 5 percent free space remaining.*

Filling the volume beyond 95% results in serious degradation of performance, as it does not allow the filesystem to distribute new data in an orderly and advantageous way. If possible, it is best to keep your RAID volumes under 90 percent full.

To check the amount of free space on any RAID filesystem, do the following.

TASK

1. Open the EditShare Manager and click the Media Spaces tab.
2. Select the RAID as if you were going to select the RAID to place a Media Space on (see "Adding Media Spaces" on page 154).

   All the mounted RAID filesystems are listed with the amount of space available on each.
3. For more complete details of the space available on each RAID filesystem, look at the EditShare's Daily Status Report (email is sent at 3 AM each morning if you have properly configured Email Alerts; see "Daily Status Report" on page 236).

   This report shows the total space available and used on each filesystem, including those on your OS drive and your RAIDs. If any of them are nearly full, they are highlighted. At that point, you should start considering how to delete some data or move it to RAID filesystems that are less full.
4. You can view the same report at any time by opening a Konsole window on the EditShare Desktop and typing the command `df`.

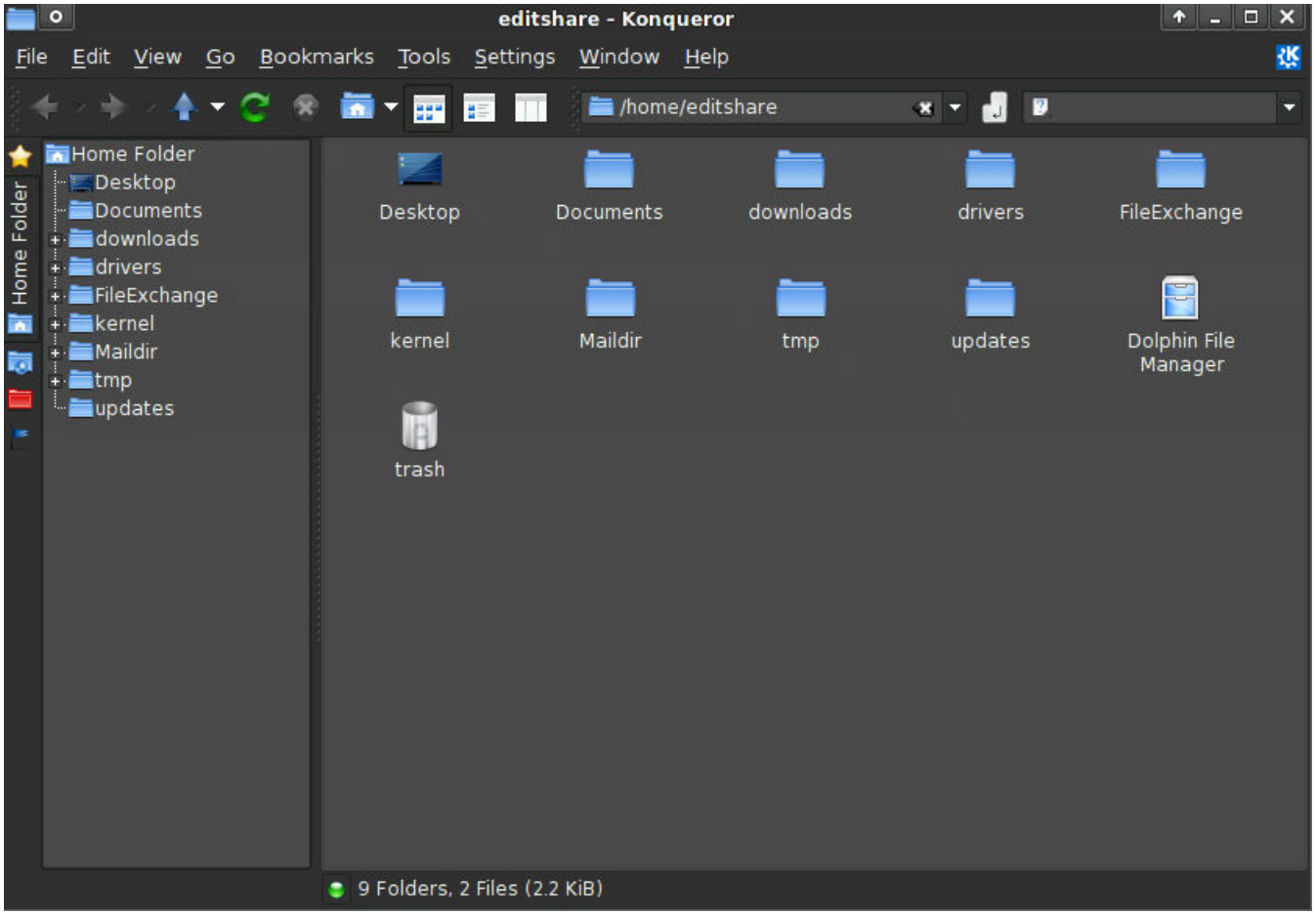
Navigating the Filesystem

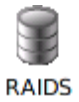
It is rarely necessary to look directly at the filesystem on the EditShare server. Almost all tasks can be done from EditShare Manager or by mounting the spaces you need on a workstation using EditShare Connect. However, some tools are provided for the times when you do want to look at files directly.

To look at files directly, do either of the following.

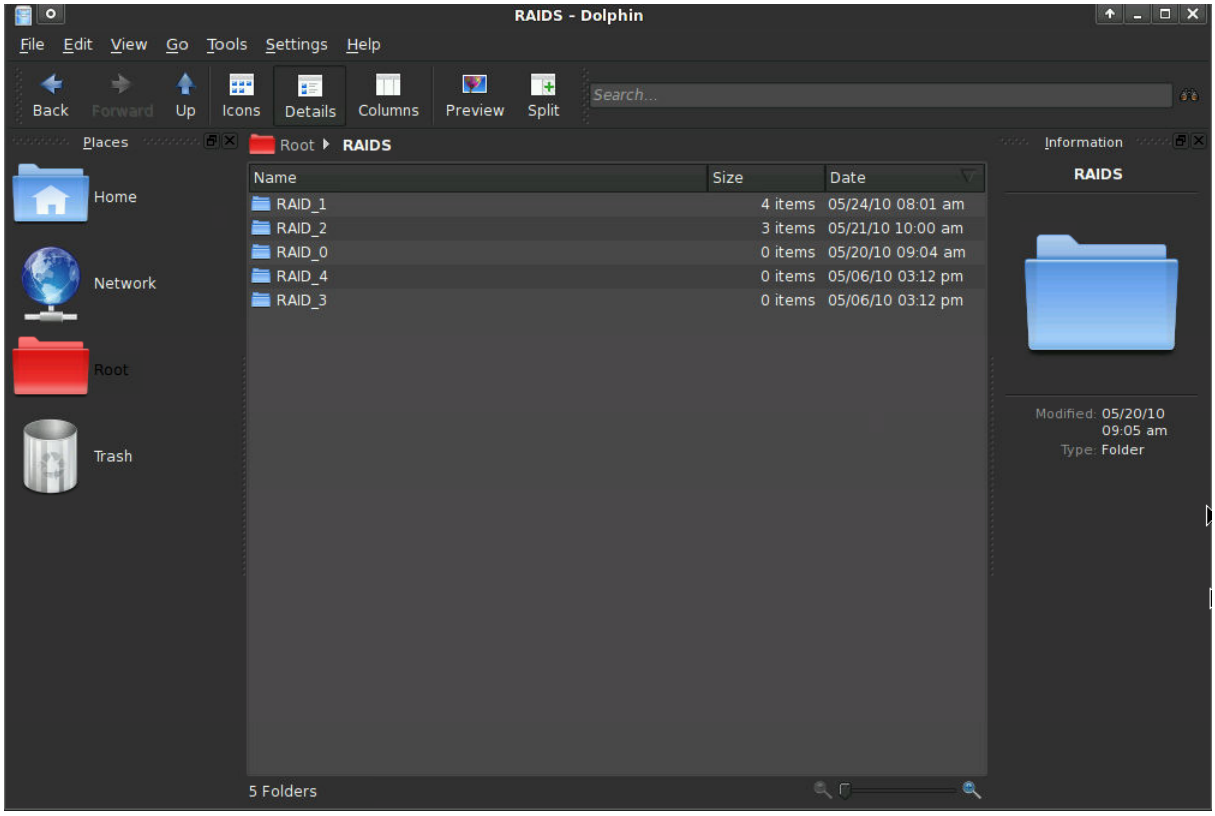
TASK

- Double-click the Home icon on your EditShare desktop. The EditShare Konqueror displays the default EditShare home folder.





- Double-click the RAIDS icon in the Control Panel. A display of your RAID filesystem opens.



Location of EditShare Folders

The following table details the locations on the EditShare filesystem where the different shared folders are actually located. You won't need this information in the course of everyday usage and management of EditShare, but it might be helpful on occasion.

Folder	Location
User's Private Files Space	/home/*username*/Projects
SMB File Exchange	/home/editshare/FileExchange/SMB
AFP File Exchange	/home/editshare/FileExchange/AFP

Folder	Location
Avid MXF Media Space	/RAIDS/RAID_#/Avid MXF/*MediaSpaceName*_1
Managed Media Space	/RAIDS/RAID_#/Managed/*MediaSpaceName*_1
Unmanaged Media Space	/RAIDS/RAID_#/Unmanaged/*MediaSpaceName*_1
Avid Shared Projects Space	/home/shared_project_spaces/*SpaceName*
Backups of OS drive	/RAIDS/RAID_#/Backups (usually on the highest-numbered RAID filesystem)

Chapter 17: RAID Array Maintenance

It is imperative that you check the health of your RAID arrays daily and practice good preventative maintenance in order to protect the important media you store on your media drives. This chapter contains important information on maintaining peak RAID-5 performance through verification, configuring automatic email alerts to inform you when problems arise, and what to do when problems arise.

See the following sections:

Logging into the RAID Manager

Most RAID maintenance is performed from within the 3ware RAID Manager, called 3dm2. To log in to the RAID Manager, do the following.

TASK

1. Double-click the RAID Manager icon on the EditShare Desktop.

   If you have one or more Expansion servers, the RAID Manager icon brings up a list of all servers in the ESA Group and allows you to connect to the RAID Manager on whichever server you need. If you have only one EditShare server, the RAID Manager icon opens the RAID Manager for that server directly.

   NOTE: *You might see a This Connection is Untrusted message box when you try to connect to the RAID Manager on a remote server. This does not indicate an actual error. Click I Understand the Risks, and then click Add Exception in the message box. An Add Security Exception dialog box opens. Click Confirm Security Exception.*

2. Select Login >Administrator and type your EditShare Administrator's Password (see "Changing Your Administrator Password" on page 24).

   The RAID Manager runs as a web application that you use through a web browser on the EditShare desktop.

3. (Option) Access the RAID Manager from any browser on any workstation that can access the server by navigating to https://[server's ip address]:888/. (Use the IP address to which the workstation on which you are doing this is connected.)

   CAUTION: ***Use the RAID Manager with care. The RAID Manager gives you total control of your system's RAIDs. It is entirely possible to use it to destroy a RAID completely. If you do so, you lose all of your stored media and cannot resume use of the RAID without help from EditShare Technical Support. This is not recommended. Be careful only to use the RAID Manager functions as described in this document.***

Controlling Access to the RAID Manager

If you only have a single server and want to prevent anyone from connecting directly to the RAID Manager through a browser, you can disable logging in from a browser (see step 4 of "Logging into the RAID Manager" on page 273) by doing the following.

TASK

1. Log into RAID Manager.
2. Click the 3DM 2 Settings tab.
3. Scroll down to Remote Access and select Disabled.

   You can only access RAID Manager from the browser on the EditShare desktop.

Verification

Verification literally reads each sector of every disk in your RAID-5 arrays. If an unreadable sector is encountered on any of the disks in an array, 3ware's RAID-5 algorithm calculates what data was on the bad sector and writes that data to a "spare area" on the damaged disk (even if the data is just zeros). From that point forward, the bad sector of the disk is avoided.

See the following topics:

Why Verification Is Important

It is normal for any hard drive to develop some bad sectors (that is, areas where data cannot be correctly written or read) over the course of its life. Under normal daily usage of your EditShare Server, 3ware's RAID program automatically repairs any bad sectors encountered when users are accessing data. This is one of the strongest features of the 3ware RAID cards used in EditShare servers.

However, regular verification is still necessary in order to check the integrity of every area of every disk.

If you do not regularly verify your disks, bad sectors might never get detected because nobody tries to read them. Without detection, those bad sectors never get repaired. If you then ever need to replace a failed disk and rebuild your array, the bad sectors on the remaining "good disks" might result in data loss as your 3ware program attempts to rebuild the array. In fact, the rebuild process fails unless you force it to ignore the bad sectors.

CAUTION: ***Don't let your RAID develop bad sectors that never get detected. Schedule automatic verification and configure automatic email alerts. See "Setting up RAID Verification" on page 28 and "Configuring Alert Email" on page 32.***

Any time a bad sector is detected and repaired, a record of that appears in the Alarms page of your RAID management program, and if you have properly configured EditShare manager's alert email feature, you receive an email telling you that a bad sector was encountered and fixed. An occasional bad sector is normal and does not require action. However, if you find that the same hard drive has developed many bad sectors that had to be repaired, that's a strong sign that the hard drive is getting close to total failure, and that the drive should be replaced. For instructions on replacing a faulty drive, see "Replacing a Faulty Drive" on page 279.

When to Verify

All EditShare servers come preconfigured to run verification on Sunday mornings at 12 AM for a period of 8 hours, and again Wednesday mornings at 12AM for a period of 1 hour. The one-hour time period scheduled for

Wednesdays is not sufficient to complete a full verification, but it helps to guard against the possibility that an error in the RAID Controller might prevent a single verification slot from being recognized properly. If your editing schedule allows it – for example, if your system is not busy on Wednesday mornings, EditShare encourages you to reprogram the Wednesday slot so that verification runs for 6 or 8 hours. Fully verifying your RAIDs twice a week – or even more – is a good practice. Regardless, one full verification and one short verification is the minimum required schedule.

If the Sunday/Wednesday scheduling does not meet your needs (for example, your system is very busy during those hours), you should change the verification schedule to different times that do not interfere with your work. You must set up at least two verification slots each week, however, even if one of them only runs for an hour.

The duration of the verification process varies depending on the following three factors:

- The size of your drives.
- Whether users are reading or writing data to your arrays at the same time.
- How much priority you give to the verification process versus responding to the read and write requests of users.

If you don't have many editing systems trying to capture to or read from the server during this verification time, the process only takes two to five hours, depending on the size and brand of your hard drives. If the verification process begins at 12:01 AM on Sunday, it should be finished by 6 AM.

You should schedule automatic verification when you set up your EditShare server. See "Setting up RAID Verification" on page 28 for instructions on scheduling automatic verification.

Confirming that Verification Took Place

If you have properly set up email notifications in EditShare Preferences, you should receive a pair of emails twice each week for each controller that verification started and either completed or paused. You can also confirm that verification has taken place by looking at the Alarms page of the RAID Manager. If for some reason you are not getting messages that verification took place, and if you are not seeing messages in the Alarms page that verification took place, you should contact EditShare Technical Support immediately. In the meantime, you can start verification manually.

Performing Verification Manually

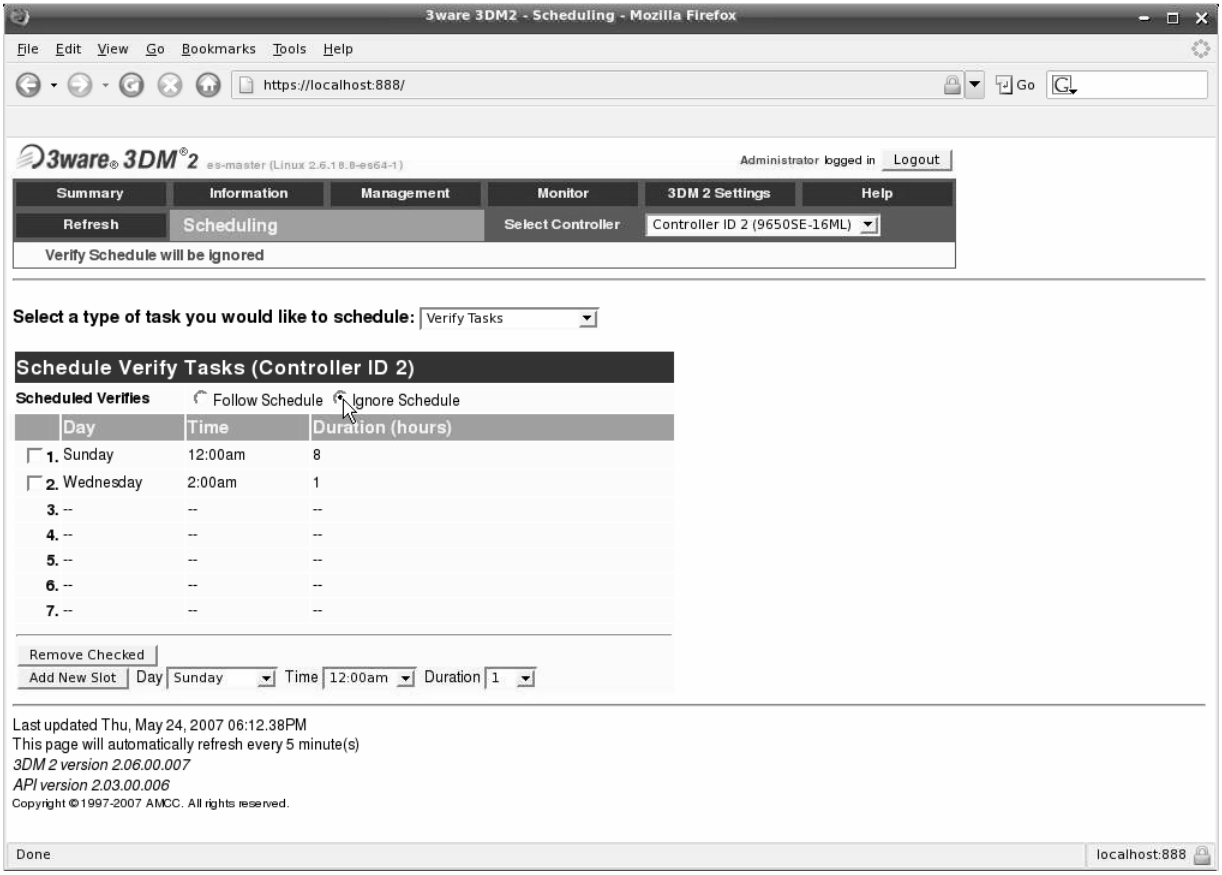
The following procedure should be considered an emergency procedure and should not need to be used on a regular basis.

To initiate an immediate verification process, do the following.

TASK

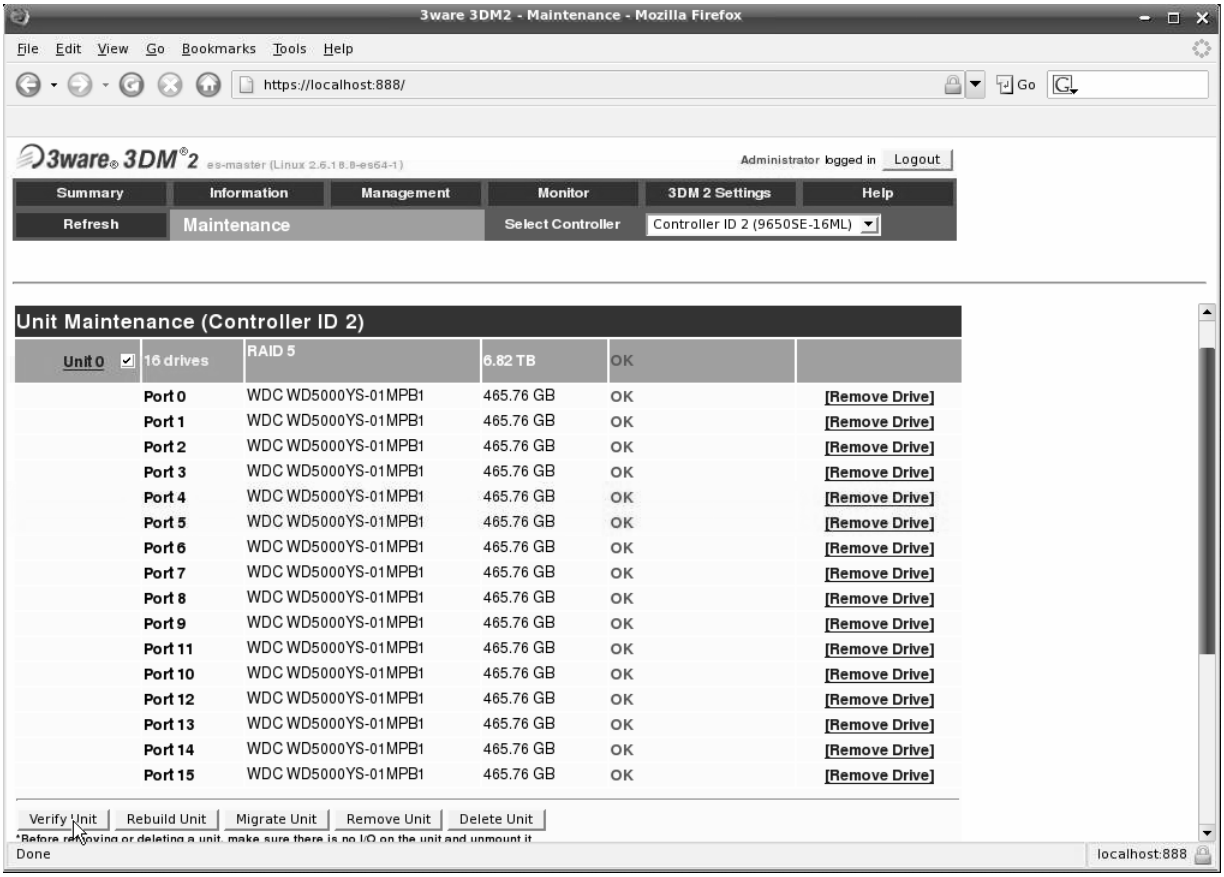
1. Open and log in to the RAID Manager (see "Logging into the RAID Manager" on page 273).
2. On the top menu bar, select Management > Scheduling.

3. Select a RAID controller from the Select Controller list.



4. Select Verify Tasks, and wait for the page to reload.
5. Select Ignore Schedule, and wait for the page to reload.
6. Repeat Steps 3-5 for each RAID Controller.
7. Go back to the main Management menu and select Maintenance.
8. Select one RAID controller from the menu immediately to the right of the yellow Maintenance tab.
9. Select the unit by selecting it at the top of the list of drives.
10. Click Verify Unit.

    Verification should start immediately, and you should see the hard disk activity lights on the front of the server begin to blink.



11. Repeat steps 8-10 again for each additional RAID controller.
12. When verification has finished, go back to the Scheduling page and select Follow Schedule again. If you do not do this, future verification events could occur at any time and potentially disrupt editing.

When Errors Are Detected

If a disk develops a serious read or write error, and the 3Ware RAID Controller cannot compensate for the error, the disk is removed from the array and the array goes into degraded mode. In degraded mode, redundancy is lost.

While you shouldn't lose any data under these circumstances, it is important to be alerted as soon as possible. You need to replace the bad drive, rebuild the array, and get the array out of degraded mode and back into protected mode. See "Replacing a Faulty Drive" on page 279 for information about how to replace a damaged hard disk and rebuild a RAID array.

NOTE: *You must set up the Email Notification feature in the EditShare Manager Program before it will function. For instructions, see "Configuring Alert Email" on page 32.*

Timeout Errors

Errors that require immediate disk replacement are “timeout errors” (when the disk doesn’t respond to the RAID Card’s read or write requests) and complete disk failures (for example, when the motor stops spinning or the electronics become damaged). In the case of these errors, the 3ware RAID card automatically removes the faulty drive from the RAID array and put the array into degraded mode.

Degraded Mode

Once a RAID-5 array goes into “degraded mode,” it no longer has any redundancy. If you were to lose another drive, you would lose all of the data on your array. It is very important to repair a degraded array as soon as possible.

Replacing a Faulty Drive

Replacing a faulty drive is a straightforward procedure. It is not even necessary to shut down the EditShare server while replacing the drive – editors can continue to work as normal during the procedure. However, accidentally removing the wrong drive while the server is running results in the loss of all

data on the affected RAID. Therefore, if you are at all uncertain of which drive needs to be replaced, you should instead shut down the server as indicated during the replacement process.

See the following topics:

- "Preparing to Replace a Drive" on page 280
- "Identifying the Faulty Drive" on page 281
- "Preparing the 3ware Card to Remove the Drive" on page 282
- "Locating the Faulty Drive" on page 283
- "Physically Replacing the Drive" on page 286
- "Rescanning the Array" on page 287
- "Rebuilding the RAID Array" on page 288

Preparing to Replace a Drive

TASK

1. Make sure you have obtained a spare drive identical to the faulty one (or a newer but equivalent model). If you have not, contact EditShare or your dealer to obtain a spare drive.
2. Locate a Phillips screwdriver.
3. Remove the grille from the front of the affected EditShare server and spend a few moments observing the indicator lights on the drives while playing back a long clip or sequence from the degraded RAID.

   Each drive has an activity indicator. Depending on the type of chassis you have, activity on each drive might be indicated in one of two ways:

   - On older EditShare servers, each drive has two lights. One indicates that the drive is present and powered up, and is on continuously. The other indicates when the drive is busy.
   - Some newer EditShare servers use the top light to indicate both power /and activity. The light is on continuously when the drive is powered up, and flickers when the drive is busy.

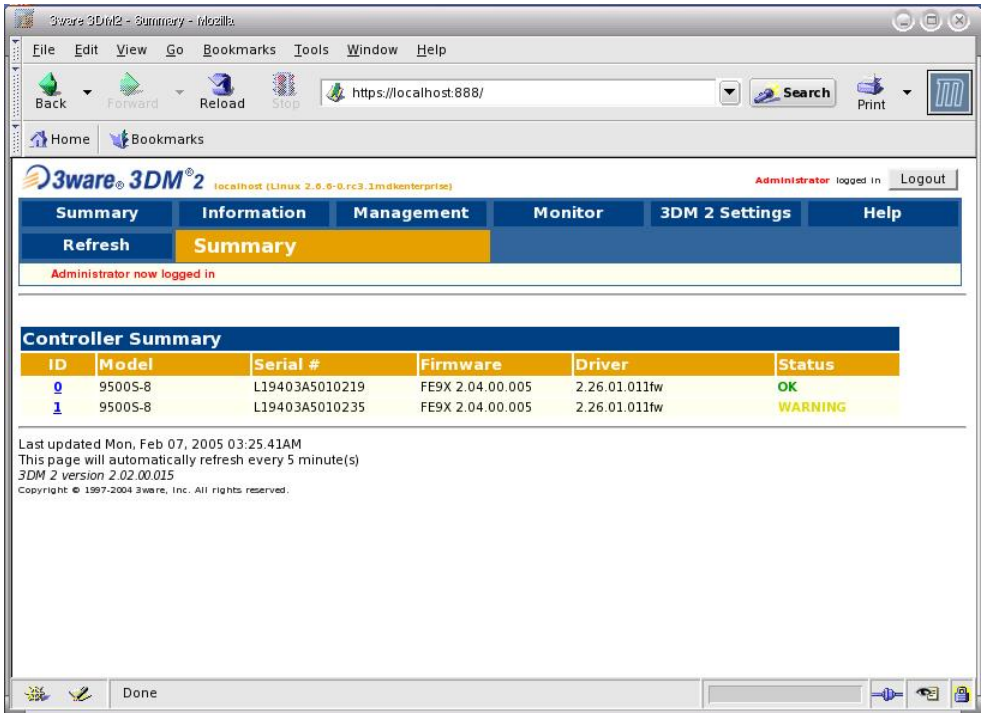
   The activity lights should flicker for all drives on the RAID while you play back or capture a long clip to that RAID.
4. If any of the lights does not flicker, consult your dealer or EditShare Technical Support, as it might be more difficult to be certain which drive requires replacement.

Identifying the Faulty Drive

TASK

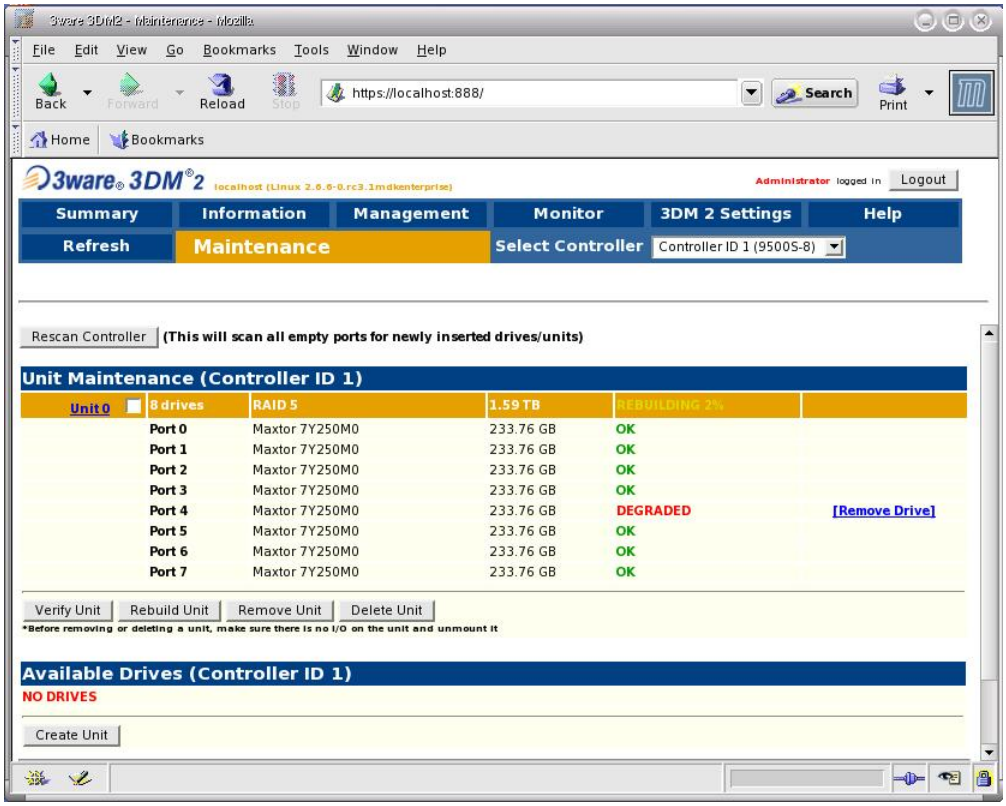
1. Start the 3ware RAID manager (see "Logging into the RAID Manager" on page 273), and look at the Summary Screen.

   The following illustration is an example of the Summary Screen showing a RAID array that has gone into degraded mode because of a timeout error. This is a typical error you might encounter.



NOTE: The illustrations from the 3ware RAID Manager shown here indicate an example of a specific problem on a specific drive on an older version of EditShare. Your problem is likely be a little different, and the screens look a little different in EditShare Version 5.5 and later. However, the instructions apply to any situation in which you need to replace a drive.

The Summary Screen shows that there's a warning on RAID Controller Number 1. This does not necessarily mean the first controller – on most EditShare servers, the first controller is numbered either 0 or 2.



2. Click the Maintenance tab and select the faulty controller to get detailed information about which drive is faulty:

   In this example, we can see that the problem is on the drive connected to Port 4 on the 3ware card.

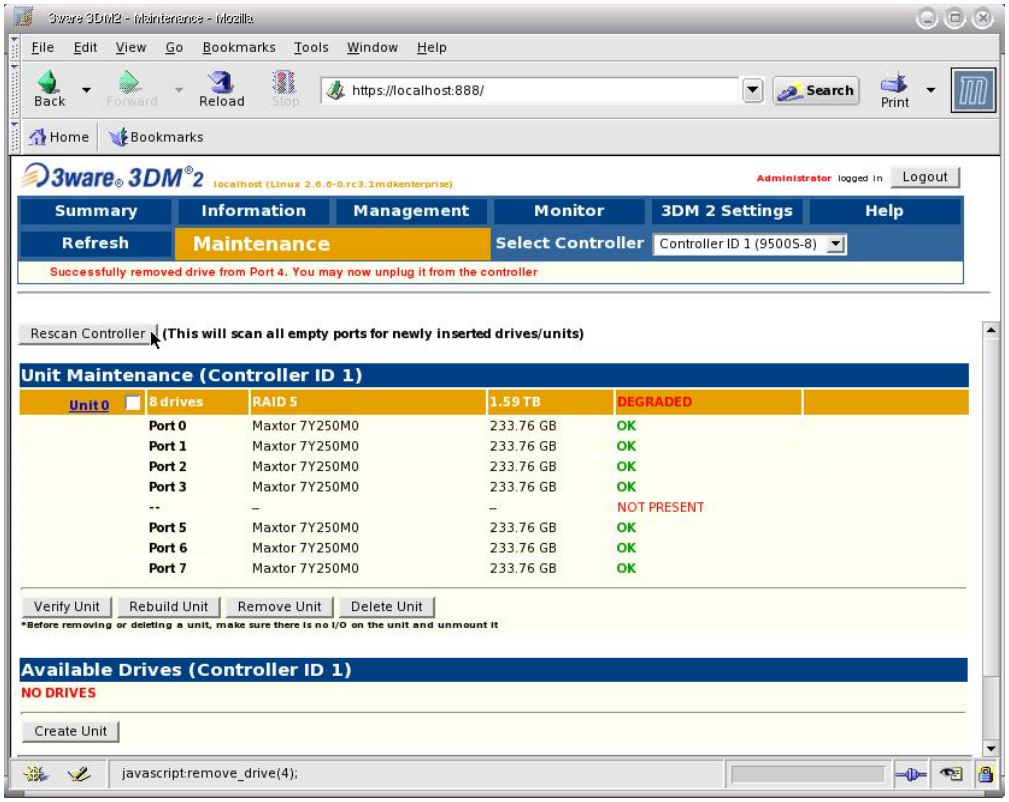
3. Do one of the following:
   - Go to the Information > Drives page to see the serial number of the faulty drive This information allows you to confirm beyond all doubt, once you have removed the drive, that you've removed the correct one.
   - If the drive is malfunctioning so badly that its serial number cannot be read, record the serial numbers of all the good drives, so you can verify that the drive you remove is not one of them.

Preparing the 3ware Card to Remove the Drive

You need to tell the 3ware card that you are going to remove it by doing the following.

TASK

1. Navigate to Management > Maintenance.



2. Click the Remove Drive link next to the bad drive.

   A message box confirms that the drive is not present. The system no longer writes data to the drive or reads data from it, and its activity light does not flash.

Locating the Faulty Drive

The following tables describe the typical arrangement of drive units on the different types of EditShare servers.

NOTE: *The Xstream server controller can have any number.*

Some units use alternate arrangements. Before you actually take the faulty drive out, confirm that you are removing the correct drive by reading and writing some data to the degraded RAID array. When you perform the reading and writing test, the activity lights should blink on and off for all drives in the array except the one you are about to remove.

Once you are sure you know which drive to remove, make careful note of it, and be sure you've written down its serial number. Then shut down the server if you are able to do so without interfering with ongoing work.

The following illustration shows the drive arrangement for a 3U 16-drive unit consisting of two 8-port controllers.

EditShare Logo		On Button	DVD Drive	
1 or 3	Port 0	Port 1	Port 2	Port 3
	Port 4	Port 5	Port 6	Port 7
0 or 2	Port 0	Port 1	Port 2	Port 3
	Port 4	Port 5	Port 6	Port 7
Controller				

The following illustration shows the drive arrangement for a 3U storage sereies/Xstream WFD or Xstream Expansion (JBOD) 16-drive unit consisting of one 16-port controller.

EditShare Logo		On Button	DVD Drive	
(various numbers)	Port 0	Port 1	Port 2	Port 3
	Port 4	Port 5	Port 6	Port 7
	Port 8	Port 9	Port 10	Port 11
	Port 12	Port 13	Port 14	Port 15
Controller				

The following illustration shows the drive arrangement for a 5U 24-drive unit consisting of two 12-port controllers.

Controller				
1 or 3	Port 0	Port 1	Port 2	Port 3
	Port 4	Port 5	Port 6	Port 7
	Port 8	Port 9	Port 10	Port 11

Controller				
0 or 2	Port 0	Port 1	Port 2	Port 3
	Port 4	Port 5	Port 6	Port 7
	Port 8	Port 9	Port 10	Port 11
DVD Drive		On Button	EditShare Logo	

The following illustration shows the drive arrangement for an older, black 40-drive unit consisting of one 16-port controller plus two 12-port controllers.

RAID				
2	Port 0	Port 1	Port 2	Port 3
	Port 4	Port 5	Port 6	Port 7
	Port 8	Port 9	Port 10	Port 11
1	Port 0	Port 1	Port 2	Port 3
	Port 4	Port 5	Port 6	Port 7
	Port 8	Port 9	Port 10	Port 11
0	Port 0	Port 1	Port 2	Port 3
	Port 4	Port 5	Port 6	Port 7
	Port 8	Port 9	Port 10	Port 11
	Port 12	Port 13	Port 14	Port 15
DVD Drive		On Button	EditShare Logo	

The following illustration shows the drive arrangement for a newer, silver 8U 40-drive unit consisting of one 16-port controller plus two 12-port controllers.

RAID				
2	Port 0	Port 1	Port 2	Port 3
	Port 4	Port 5	Port 6	Port 7
	Port 8	Port 9	Port 10	Port 11
	Port 12	Port 13	Port 14	Port 15
3	Port 0	Port 1	Port 2	Port 3
	Port 4	Port 5	Port 6	Port 7
	Port 8	Port 9	Port 10	Port 11
4	Port 0	Port 1	Port 2	Port 3
	Port 4	Port 5	Port 6	Port 7
	Port 8	Port 9	Port 10	Port 11
DVD Drive		On Button	EditShare Logo	

NOTE: *Some older 40-drive systems had two 8-port controllers instead of one 16-port controller. These systems have a different layout.*

Physically Replacing the Drive

TASK

1. Confirm that you are removing the correct drive by reading and writing some data to the degraded RAID array.
2. Make careful note of the faulty drive, be sure you've written down its serial number, and then shut down the server if you are able to do so without interfering with ongoing work.

   NOTE: *If you have any doubts about which drive is the faulty one, do not physically remove any drive while the server is running. Shut down the server, and replace the drive while the server is turned off. If this is impossible, contact your dealer or EditShare technical support for assistance.*
3. Open the hinged lock on the drive tray and slide the whole tray out.
4. Look at the serial number printed on the drive's label and confirm that it is the faulty drive. If it is not, replace it immediately and repeat the preceding steps to try to confirm the correct drive, or, if you have shut down the server, you can remove other drives and check their serial numbers.

5. Once you are sure you have taken out the correct drive, remove the four screws at the bottom of the drive tray.
6. Remove the faulty hard drive from the tray and replace it with a new one.
7. Secure the new drive into position with the four screws.
8. Slide the drive tray back into the server.
9. If you have shut down the server, turn it back on. If you have a monitor connected to the server, watch it as the server boots up.

   After a few seconds, you see one or more screens (one for each RAID controller), each listing the drives connected to a RAID controller.
10. (Option) Press the Pause button on the keyboard to keep this page on the screen longer.

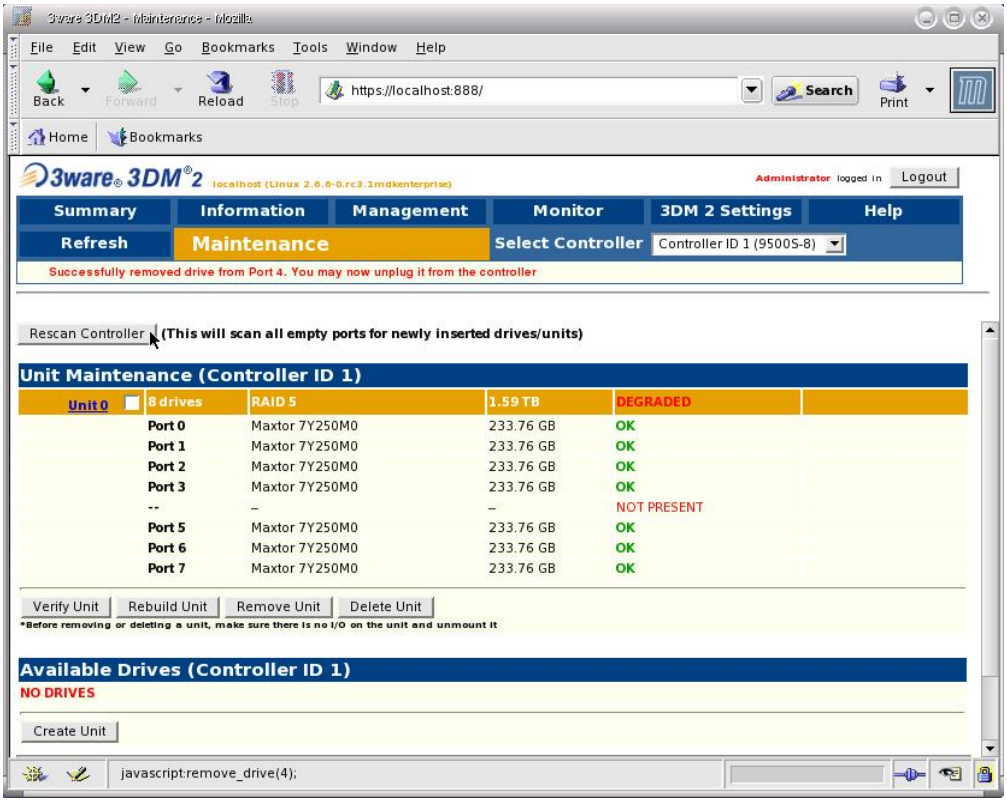
    It shows all the drives in place except for the one you just replaced, which is indicated as "Not In Use."
11. If you see anything suspicious, press the power button to turn off the server before it starts the operating system, and contact EditShare Technical Support.

Rescanning the Array

If the drive does not appear in the 3ware RAID Manager, you need to rescan the array. Do the following.

TASK

1. Select the drive's controller, which should be the only controller showing a drive with Not Present in the Degraded column.



NOTE: *Some EditShare systems automatically detect the new drive.*

2. Click Rescan the Controller.

   The scan takes a few seconds, then the display refreshes.

Rebuilding the RAID Array

After you replace a drive, you need to rebuild the array. Rebuilding the array should take two to three hours, depending on the particular hard drives in your system.

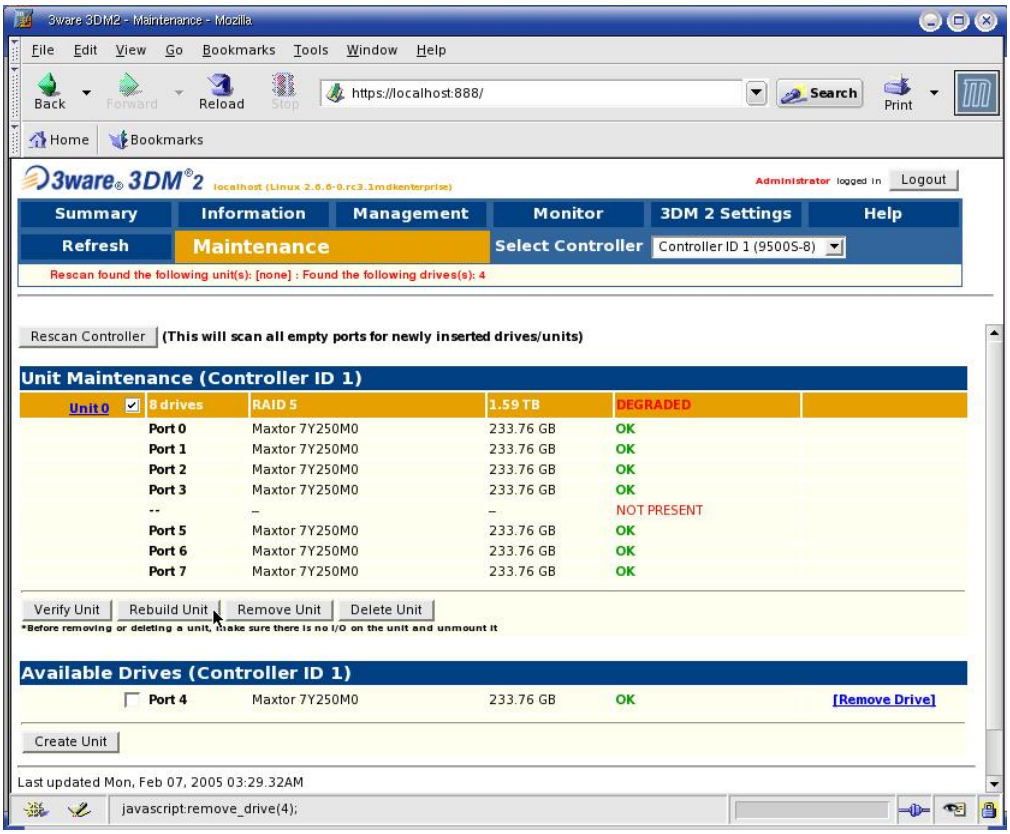
NOTE: *Some EditShare systems automatically detect the new drive and then begin rebuilding the array. If yours does this, you can skip the following procedure.*

NOTE: *Rebuilding impacts the server performance for users who are trying to read and write data to and from the array. For best performance, rebuild the array after work hours.*

Do the following.

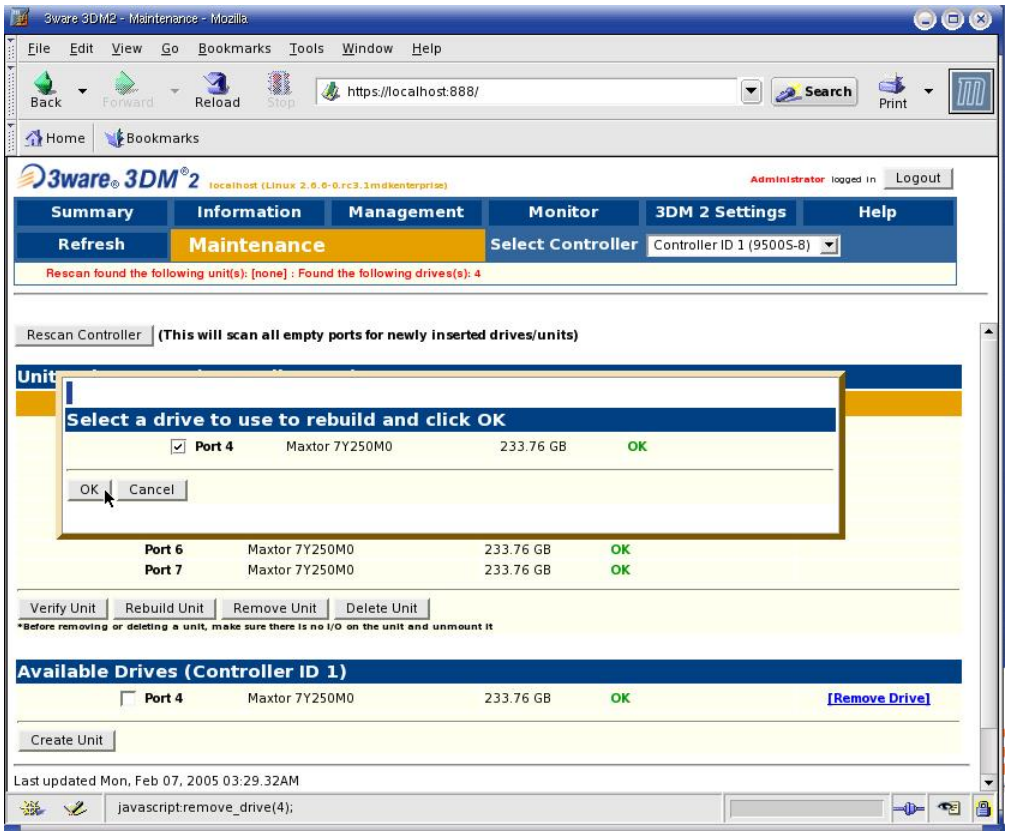
TASK

1. Click Rebuild Unit.



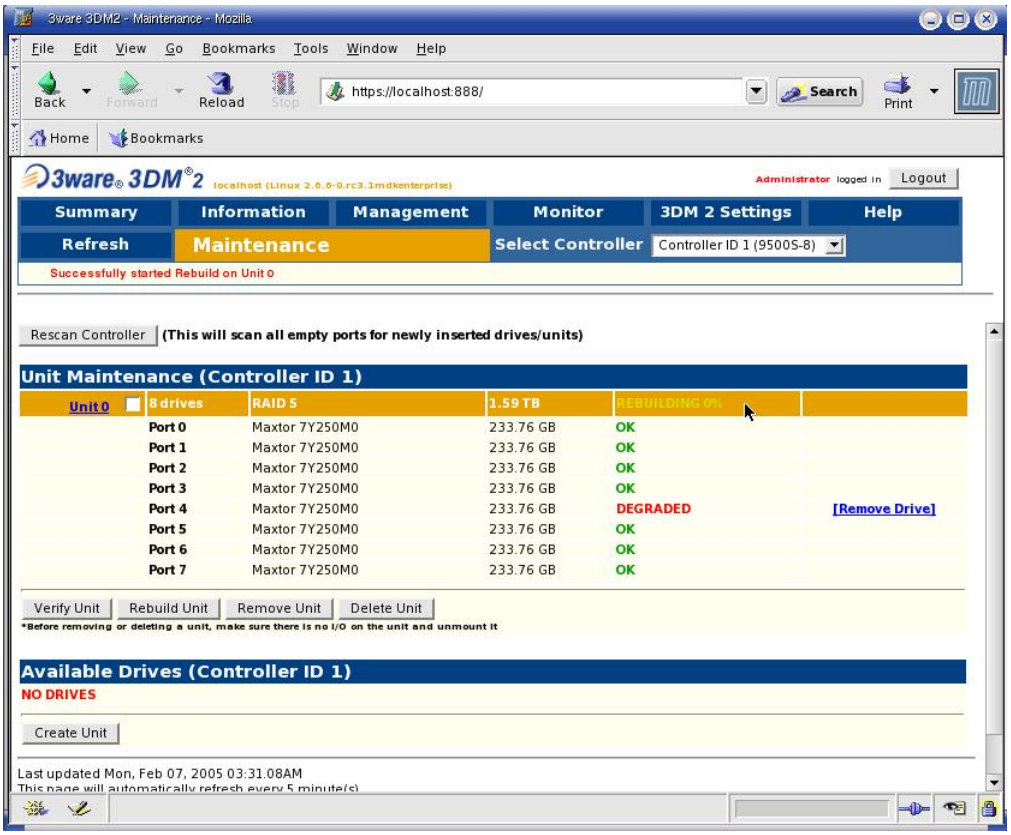
2. Select Unit Maintenance > Unit0.

   A window opens that asks you to choose a drive to use for the rebuilding. There should only be one drive to choose from – the drive that you just replaced.



3. Select the Port that corresponds to the new drive and then click OK.

   Your RAID array now starts rebuilding. You see a display in the middle of the Maintenance screen indicating its progress. Rebuilding takes two to three hours, depending on the particular hard drives in your system.



4. (Option) If you want your array to rebuild faster, you can change the settings in Management >Controller Settings to give higher priority to rebuilding than to input/output activity.

   NOTE: *This impacts the server performance for users who are trying to read and write data to and from the array. For best performance, rebuild the array after work hours. Don't forget to reset priority control back to faster I/O after the rebuild is done*

5. Reset priority control back to faster I/O after the rebuild is done.

Chapter 18: Backups

For information about backup, see the following sections:

- Backing up Configuration and Projects
- Backing up Media
- Synchronizing Servers

Backing up Configuration and Projects

The EditShare software automatically backs up your OS drive to the RAID every night at approximately 4am. This includes all users' Private Files Spaces, the File Exchange Spaces, and Avid Shared Projects Spaces, as well as the operating system and EditShare software and configuration files. The contents of these folders are copied to a Backups folder on one RAID filesystem – normally the highest-numbered system.

This backup protects you in the case of a failure of your OS drive. If that were to happen, you could copy the EditShare Image onto a replacement OS drive, mount the RAID filesystems, then restore the /etc and /home directories to bring your system back to the state it was in when your last backup was performed. Contact EditShare Technical Support for further instructions should this become necessary.

NOTE: *This backup is not designed to help you recover projects or files that you or a user deleted unintentionally.*

See the following topics:

- "Customizing Nightly Backups" on page 294
- "About Backup Size" on page 294

Customizing Nightly Backups

TASK

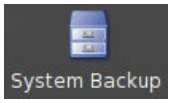
1. To change the maximum amount of size allocated for OS drive backups, or to change which RAID the backups are saved on, do the following:

   a Double-click the Konsole icon in the lower left corner of the desktop.

   A Konsole Terminal window opens.

   b Type `sudo /scripts/setup-filesys.pl`.

   c Change the settings you want.



2. If you want to make other changes in the OS drive backup strategy (for example, to skip the default 4 AM time, or to back up more or less frequently than once nightly), double-click System Backup in the Control Panel.

   CAUTION: ***The default settings are best for most users, and EditShare strongly discourages making such changes.***

About Backup Size

The backup default size is set to use up to 160 GB of space on your highest-numbered RAID array. If the size of your backups exceeds the quota set for it, the OS backup script renames the folder to backups.old and performs a new full backup.

Backing up Media

Because of the protection offered by the RAID-5 storage technology used by all EditShare servers, and the fact that, in many environments, media can simply be recaptured from tape in the unlikely event of data loss, many EditShare users do not keep separate backups of the media drives.

However, some customers want the added security of maintaining a second copy of their media files. There are a few ways do this.

- Use third-party backup software running on a workstation. Many commercial or open-source backup systems back up mounted network drives such as Media Spaces just as they back up local drives.
- Use EditShare's Synchronize Servers function. The Synchronize Servers function (see "Synchronizing Servers" on page 295) is not specifically designed as a backup tool, but it nevertheless meets the backup needs of

many users. Be sure to read and understand what the tool does and does not do before deciding to use it for your backup needs.

- Use EditShare Ark. EditShare Ark is a true backup solution for EditShare servers. Contact your dealer or EditShare Sales for more information.

Synchronizing Servers

The EditShare Synchronize Servers tool creates and maintains a duplicate copy of one or more Media Spaces on another EditShare Storage server, or on another RAID partition on the same server. This can be useful in the following circumstances:

- If you have many users who must work with a common set of media files (for example, a large classroom setting, in which many students are independently making their own cuts based on the same clips), it might not be possible to provide enough bandwidth for all users to access the files on a single server. The Synchronize Servers tool allows you to duplicate Media Spaces on a second server, so that half the users can access one server and half can access the other, thereby providing a level of load balancing.
- If you have editors who are located different geographic locations (whether across town or across the world), it is unlikely that you have a fast enough network connection between the various locations such that editors can edit in real time material that is stored on a server in a different location. However, the Synchronize Servers tool allows you to create copies of Media Spaces on a server in each location so that editors in each location can access all the media locally.
- The Synchronize Servers tool can be used to copy media from an EditShare Field unit that has been taken off site back to the larger EditShare rack-mount server used by the main editing team, so that the EditShare Field can be emptied and used to store new material, or so the same media files can be used in both locations.
- When you have finished working on a project, you can use the Synchronize Servers tool to archive a Media Space onto a second server.
- The Synchronize Servers tool can be used to provide a backup of your media to guard against a disaster on your primary server. If your primary server should fail, editors could simply switch to using the backup server, and very quickly be back to work with most of their original media intact. Care should be taken in using the Synchronize Servers tool as a backup

system, as it does not always maintain the same permissions and ownerships of files.

The Synchronize Servers workflow is as follows:

1) Create one or more Synchronization Jobs in which you define the following:
   - The Media Spaces to be copied
   - The Server and RAID Partition to which you will copy the Spaces
   - The bandwidth (speed) to use for copying
   - A policy so that the tool knows how to handle files that have been deleted
2) Schedule the Job to run at a particular time or times, or run the Job manually.

See the following sections:

- "Synchronization Jobs" on page 296
- "Creating a Synchronization Job" on page 298
- "Scheduling and Running a Synchronization Job" on page 304
- "Maintaining Synchronization Jobs" on page 306
- "Managing the Job Queue" on page 308
- "Viewing the Job Log" on page 310

Synchronization Jobs

A Synchronization Job is a set of instructions to tell the server to copy a particular set of Spaces in a particular way, to a particular place. You can create one or more Synchronization Jobs as necessary to create and maintain the media copies you want. Once a synchronization job is created, you can run it any time you want, or schedule it to run automatically at specific times or intervals.

You can include a Space in more than one Synchronization Job. For example:

- You might create one job to synchronize a set of Media Spaces at a very low bandwidth every hour, or even every ten or fifteen minutes, so that whenever a small number of files are added to the “source” location, they are copied to the destination. In general, setting up a job this way has minimal impact on the bandwidth and CPU utilization on each server,

while still maintaining the two severs such that the files on each end are the same.

- If a lot of capturing occurs in a short time, the low-bandwidth synchronization might not be sufficient to copy all the new media. You could create a second job with the same Spaces that runs at full speed overnight or at a time when nobody will be bothered by the network traffic.
- You might have three (or more) servers to keep synchronized. To do this, you would create two (or more) Synchronization Jobs with the same Spaces: one job to copy the media to each other server.

If you know that media will only be captured, modified and or deleted on one "primary" server, with the other "remote" server used only for playback or backup purposes, you only need to create a Synchronization Job on the "primary" server and synchronize to the "remote" server.

If you want users to be able to add, modify, and/or delete files on any server and have the changes propagated to the others (in other words, if you don't have a "primary" and "remote" server, but instead ALL servers are "primary"), you need to set up a Synchronization Job on each server that copies files to the other. For example, in the case of two servers, A and B, you would have to set up a job on A that copied files over to B, and a different job on B that copied files over to A.

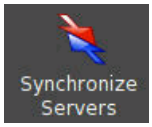
Some limitations on what exactly is copied when a Space is synchronized to another server are as follows:

- For Avid MXF: All files are copied. On the remote server, the files are placed in the same user folders where they were located on the primary server (within Avid MediaFiles/MXF/). The files are automatically Protected (see "Protecting Media Spaces" on page 184). The files can be Unprotected so long as there is a user account on the remote server with exactly the same name. The files can also be put under the control of a single user by putting the Media Space on the remote server into Maintenance Mode.
- For Managed Media Spaces: All files are copied. On the remote server, they are Protected and cannot be Unprotected. The only way to delete or modify such files on the remote server is to do one of the following:
  - Make the change on the same server where the file was first created, and let the synchronization job copy the change.
  - Put the remote Media Space in Maintenance Mode.
- For Unmanaged Media Spaces: All files are copied.

- Shared Project Spaces, Private File Spaces, and File Exchange Spaces cannot be copied by a Synchronization Job.

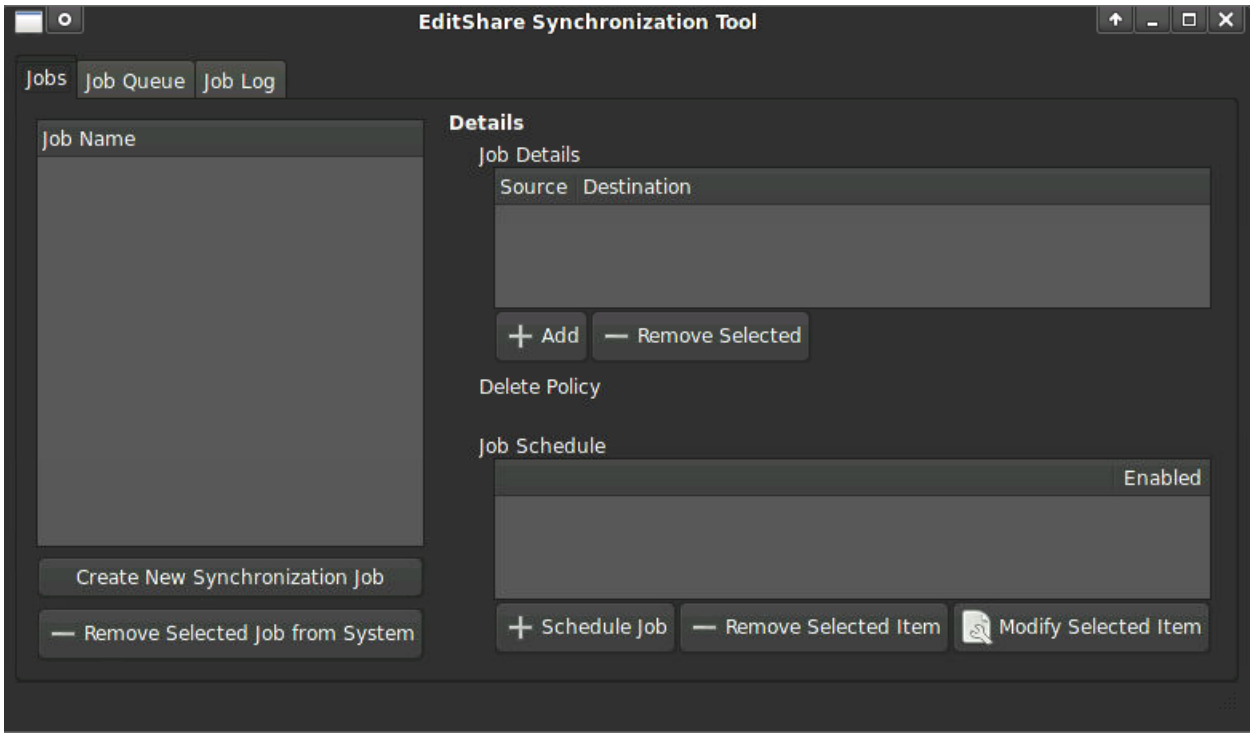
When a Synchronization Job runs, only the files that have been added or modified since the last synchronization are copied. Thus, it is safe to schedule a Synchronization Job to run fairly frequently, without concern that you will constantly be tying up bandwidth copying the same files over and over. However, the process of checking for such modifications places a small load on the server, so scheduling synchronization of many Media Spaces with many files to happen too often might cause some degradation of performance. If you want very frequent synchronization – more often than about once per hour – you might need to do some experimentation to determine the impact of different frequencies of synchronization in your particular editing environment.

Creating a Synchronization Job



TASK

1. From the EditShare Control Panel, double-click Synchronize Servers.
   The Login to EditShare dialog box opens.
2. Type the Administrator password.
   The Synchronization Tool opens.



3. Click Create New Synchronization Job.

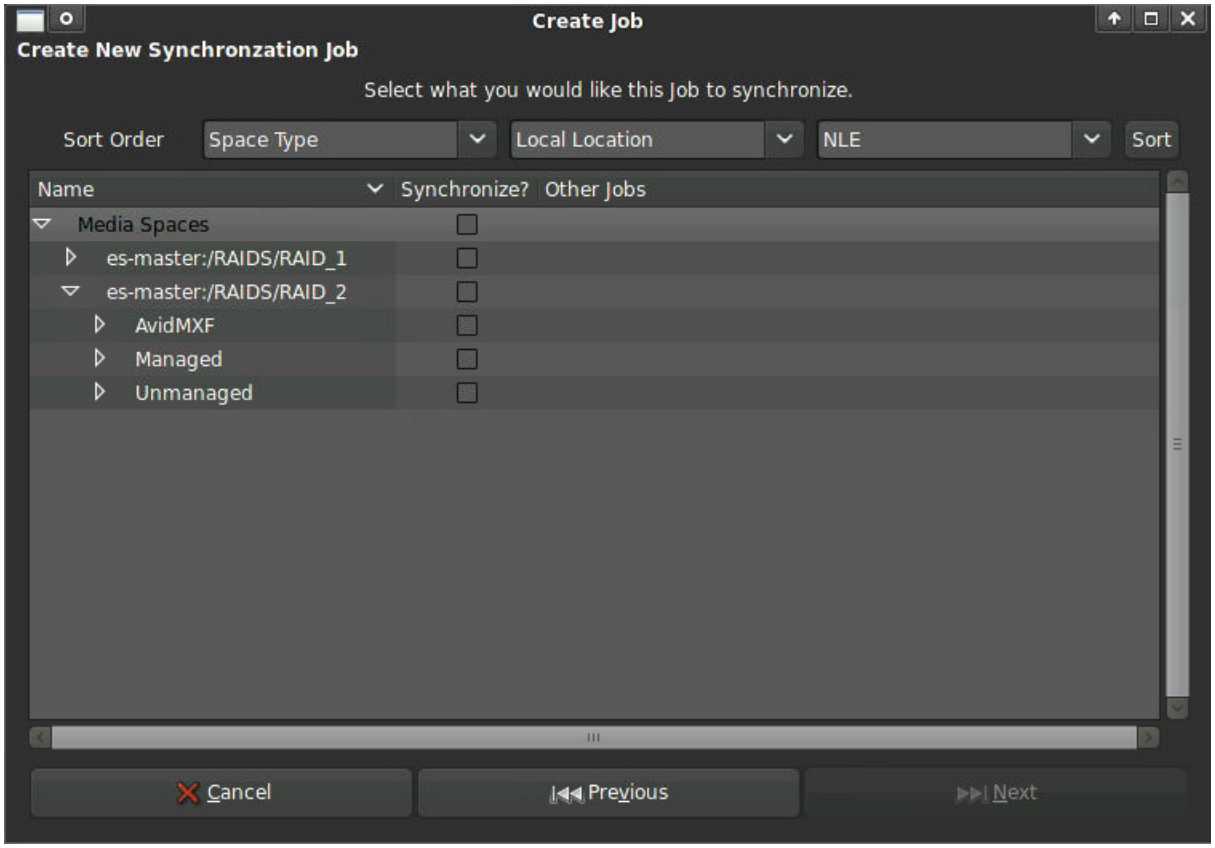
   This starts a wizard that walks you through the process. The first page of the wizard reminds you of some basic information about synchronization jobs.

4. Click Next.

5. Type a name for the job. Use something meaningful to you, like "Daily 2am backup of dailies," so you can easily find the job again if you need to add new Media Spaces to it or modify it in other ways.

6. Click Next.

   The Create New Synchronization Job window opens.



7. Select the Media Spaces that are included in this job by doing the following:
   - Click the triangular openers to open each section to reveal the Media Spaces and select the ones you want to synchronize in this job.
   - Sort and group the spaces by different criteria by using the lists at the top of the window and clicking Sort.

   If a Media Space is already included in another Synchronization Job, you see it listed in the right hand column labeled Other Jobs.

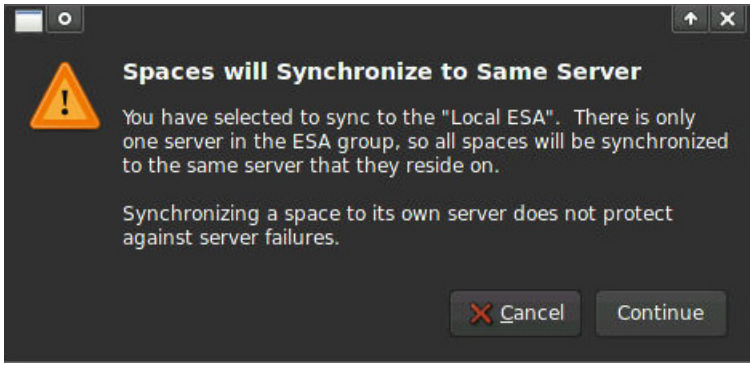
8. Click Next.

9. Select the type of server to which you will be synchronizing these spaces:
   - Local EditShare ESA: This synchronizes the media to an EditShare server in the same ESA Group. It can even be the same server you're synchronizing from – this might be useful for copying a Media Space from one RAID to another, for example – although it is more common and more useful to synchronize to another server.
   - Remote EditShare ESA: This synchronizes the media to another EditShare server that is not in the same ESA Group. The remote server may be located anywhere, even on the other side of the world, so long as it is directly accessible to the primary server (for example, using a virtual private network (VPN) that is always active). If you select this option, you are prompted for the IP address of the remote ESA's Master Server, and the Administrator password on that server.

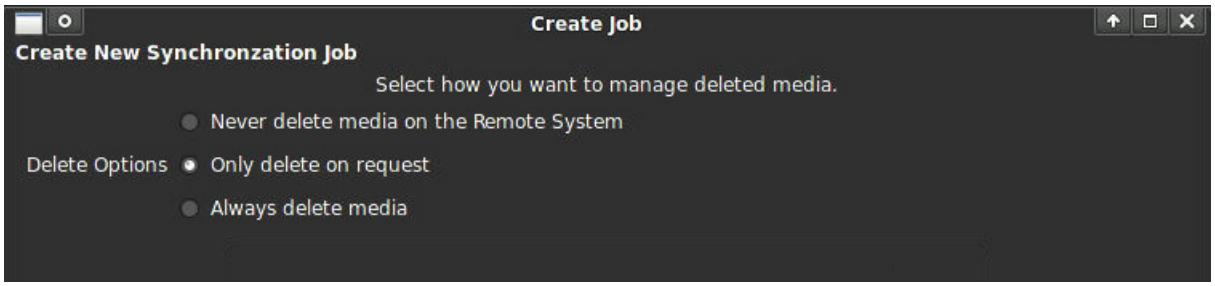
   NOTE: *If your Media Space and the location you want to synchronize with are on different networks, the Sync Tool might have difficulties. To make it work correctly, see* *"Synchronizing Across Different Networks" on page 303*.

10. Click Next.

    The tool verifies that it can contact that server. If you selected Local EditShare ESA, a message box opens.



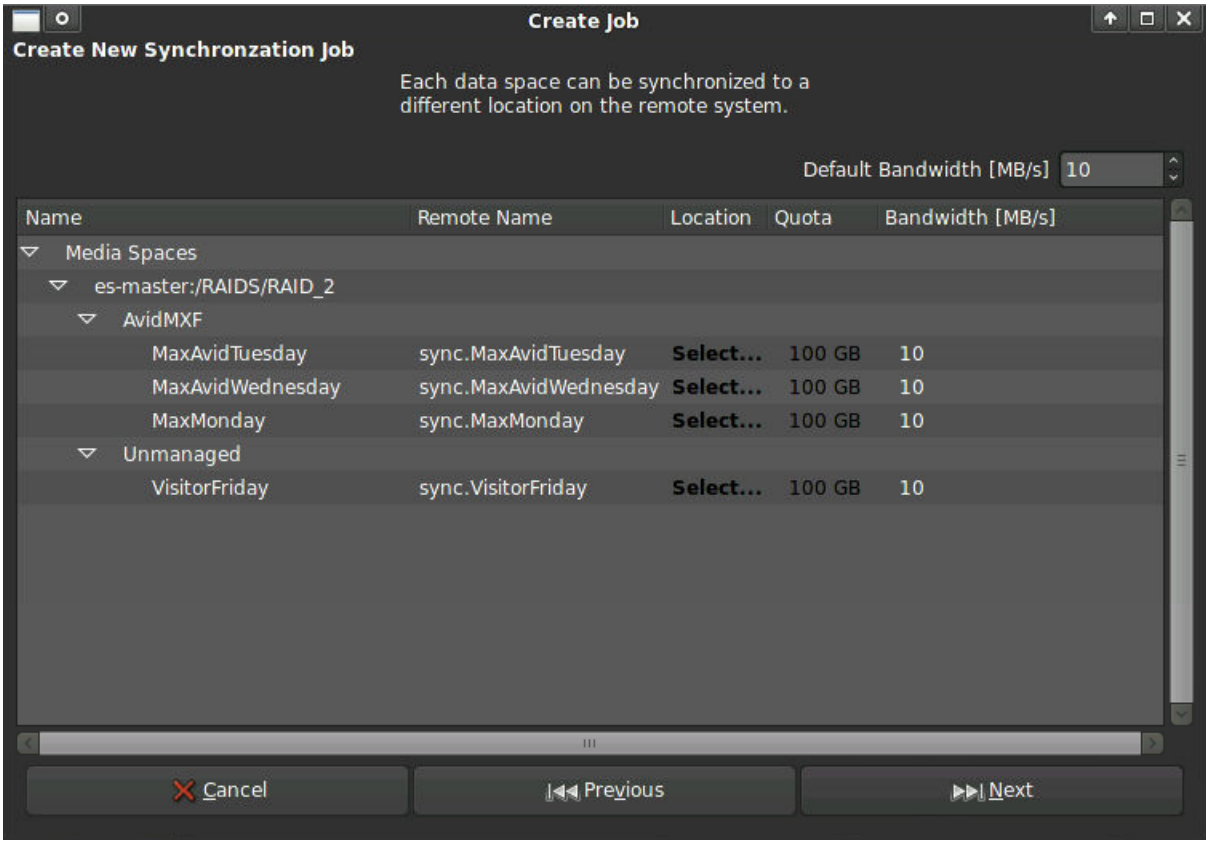
11. Click Continue.
12. Decide what the synchronization tool should do about files that have been deleted from the local server.



If you want the remote system always to have only the latest media, you probably want to delete such files from the remote server. However, if you use the remote copy to keep copies of old files to protect against accidentally deleting them, it would defeat that purpose to have the synchronization tool automatically delete them from the remote server every time the Job runs. In this case you would not want the Job to automatically delete the such files from the remote system.

13. Select one of the following options, and then click Next:
    - Never delete media on the Remote System: This might result in an accumulation of old media on the remote server, but it ensures that you always have a copy in case something is accidentally deleted from the local server.
    - Only delete on request: This is like "never delete," except that you can at any time run the job and, for that run of the job only, delete such files from the remote server. You might want to do this a few days after a careful cleanup of a Media Space, once you're sure you've only deleted what should have been deleted, to avoid wasting space on the remote server. In addition, if you intend to add and subtract files on both local and remote servers, setting a policy of "Only delete on request" is the ONLY way you can use the Synchronize Servers tool.
    - Always delete media: This keeps the remote server as closely synchronized with the primary as possible.
14. Select which RAID filesystem on the remote server each Media Space will be copied to, what it will be named, and how fast it will be copied. (The Remote Name and Bandwidth columns are text boxes you can type into, and the

Location option has a list from which to select a RAID filesystem.) Click the table cell you intend to modify, and the field becomes editable.



- Default Bandwidth: This allows you to easily limit the speed of the synchronization job. You can choose a transfer rate from 1 to 1000 MB/sec. If you specify a higher bandwidth than is actually available (for example, gigabit Ethernet cannot provide more than about 120 MB/sec), the transfer uses as much bandwidth as is available to it. This might be acceptable if you're doing synchronization in the early morning hours when no one is ever using the network, but if people were trying to use the network at the same time as such a job is going on, this would certainly interfere with their work. In that case, you should limit the backup to a lower bandwidth, such as 5 or 10 MB/sec, to ensure that other people can use the network at the same time. You might need to experiment a little to see how high a bandwidth you can use without interfering with your other work.

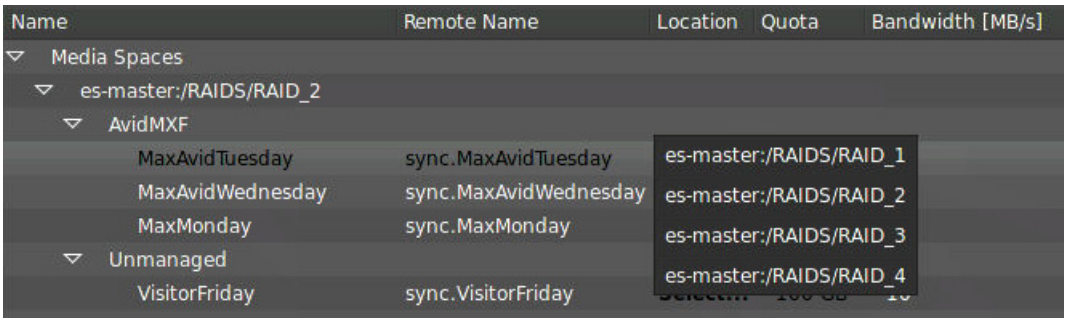
NOTE: *If your Media Space and the location you want to synchronize with are on different networks, the Sync Tool might have difficulties. To make it work correctly, see* *"Synchronizing Across Different Networks" on page 303*.

- Remote Name: The Media Spaces you are copying need to have unique names on the backup server. If the remote server is a Remote ESA that is

not used for anything else, the remote copies of the Media Spaces can have the same names as the original Media Spaces, and the Synchronization Tool fills this in automatically. If the destination is the Local ESA, the backups must have a different name, and the Synchronization Tool fills this in as well (by adding "sync." to the start of the original name). To change the default, click the name in the Remote Name column and select the name of an existing Media Space from the list that appears or type a new name.

- Location: Click the Location column for each Media Space to be synchronized, and select the RAID to which the space should be copied.

NOTE: *You cannot see the list showing the RAIDS on the remote system until you click in the Location column in the area next to the Space you are synchronizing.*



- Quota: Type a quota that is similar in size to the quota of the original Media Space.
- Bandwidth: To override the default bandwidth setting for any particular Media Space, click the bandwidth setting and type the bandwidth you want.

15. Click Next.

    The synchronization job is then created, along with all the appropriate destination Media Spaces on the destination device (although no files are copied to them initially).

16. Click Close.

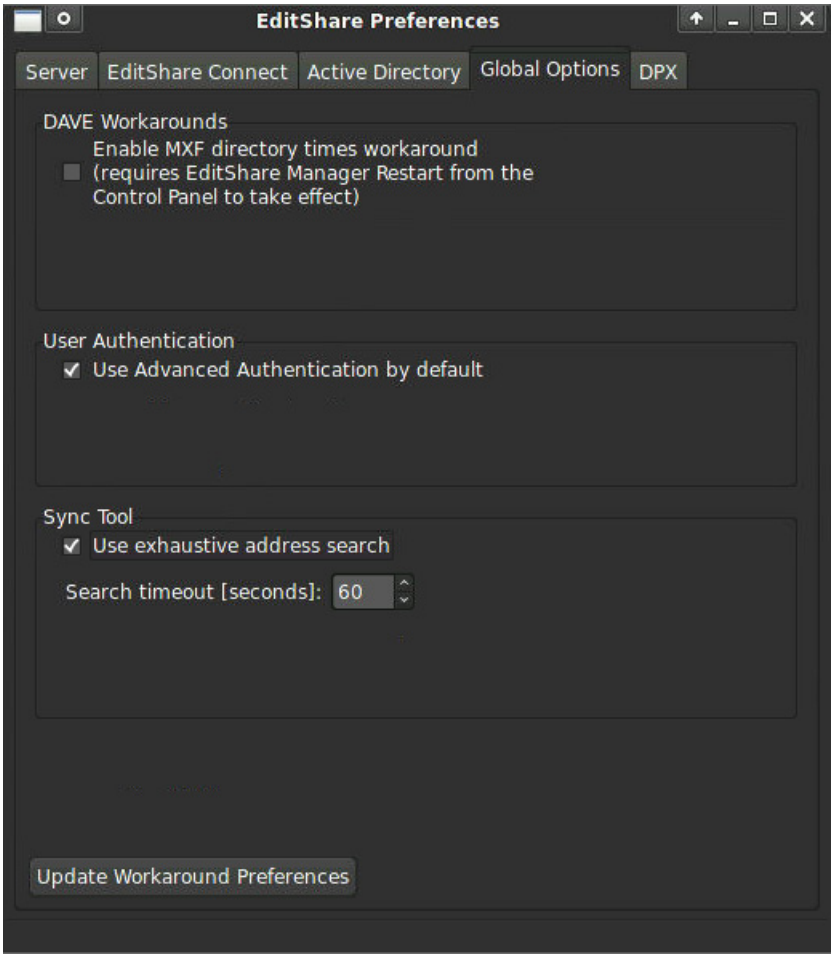
Synchronizing Across Different Networks

If your Media Space (source) and remote synchronization location (destination) are on different networks, the Sync tool might not be able to work correctly. To fix this, you need to enable exhaustive search. Do the following.

TASK

1. Open the EditShare Control Panel, and double-click EditShare Preferences.

2. Click the Global Options tab.



3. In the Sync Tool area, select Use exhaustive address search.

   Select a search timeout period, from 1-300 seconds.

4. Click Update Workaround Preferences.

   You can now synchronize across networks.

Scheduling and Running a Synchronization Job

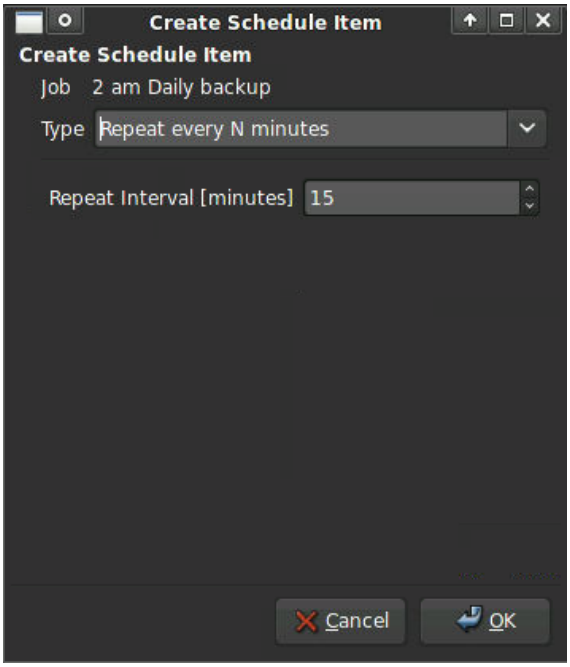
Once you have added Synchronization Jobs to the system, you can see them in the main Synchronize Servers window. You can click on one to see which Media Spaces it includes in the Job Details window (it might help to make the window larger in order to actually see the details). From this window, you can do a number of things with a Synchronization Job, but the first thing you probably want to do is to schedule it. Until a Synchronization Job has been scheduled, it does not run unless you run it manually.

To schedule a job, do the following.

TASK

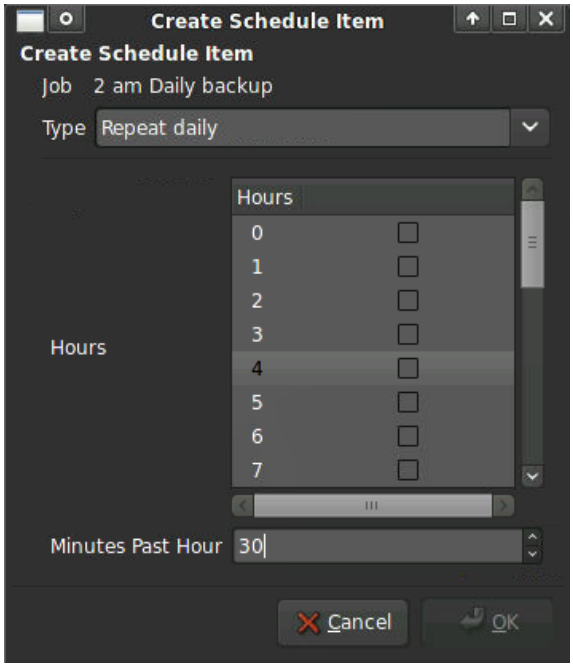
1. Select the job you want to schedule, and click Schedule Job at the bottom of the window.

   The Create Schedule Item dialog box opens.



2. Select one of the following scheduling options:
   - Repeat every N minutes (then type the interval between synchronizations, in minutes).
   - Repeat daily (then select the hours at which you want the synchronization to occur. For example, to have the job run daily at 10pm, you would Select 22. To have it run every three hours except during the busiest part of the day, you might select 0, 3, 6, 9, and 21. You can also set the

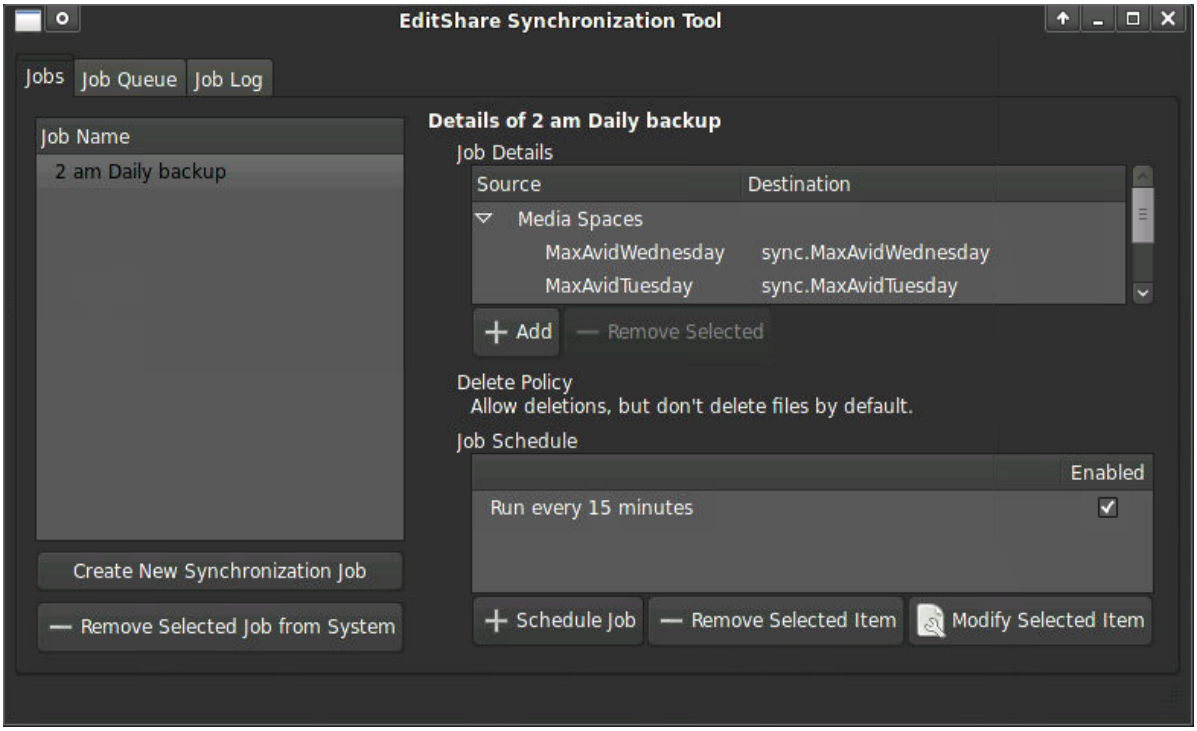
number of minutes past the hour, so a job might be set to run at 3:30 rather than 3:00).



- Repeat weekly (then select the days on which the job should run, and the time at which it should run on each selected day).
- You can have the same job to run on two or more different schedules. For example, you might schedule a job to run every 4 hours, but also have it run at 8am every day (perhaps the editors come in at 9 AM, and you want to make sure they have the last clips captured by the assistant editors working overnight).

Maintaining Synchronization Jobs

From the main Synchronize Servers window, you can also do any of the following with a Synchronization Job once you have selected it.



- Add a Space to a job: New Spaces are not automatically added to Synchronization Jobs. To add another Media Space to a job, click Add. The Add Pairs to Synchronization Job dialog box opens listing all the Spaces available except those that are already part of the job. Select any additional Spaces you want to add. Click Next, then specify the destinations for those new Spaces.
- Remove a Space from a job: When a Media Space is deleted, it is not automatically removed from all Synchronization Jobs it is in. This is so that if you restore or recreate the Space, it is still part of the job. To remove a Space that has been deleted from a job, or to remove an existing Space from a job without deleting the Space, just select the Space you want to remove in the Job Details window, and click Remove Selected.
- Remove a scheduled item: To make a job stop running on a particular schedule, select the scheduled item, then click Remove Selected Item.
- Modify a scheduled item: To change the schedule on which a job runs, select the scheduled item, then click Modify Selected Item. The Create Schedule Item dialog box opens. See "Scheduling and Running a Synchronization Job" on page 304.
- Remove a Synchronization Job: If a Synchronization Job is no longer necessary at all, select it, then click Remove Selected Job from System.

Managing the Job Queue

In order to prevent multiple jobs from trying to run at the same time, and allow the Administrator to monitor what jobs are running and waiting to run, EditShare maintains a Job Queue. Every time a Synchronization Job is to be run – either because its scheduled time has arrived, or because it was added manually by the Administrator – it is added to the Job Queue. EditShare continuously monitors the Job Queue and, when a job is added to it, runs the first job. That running job must finish (or be canceled) before the next job can run.

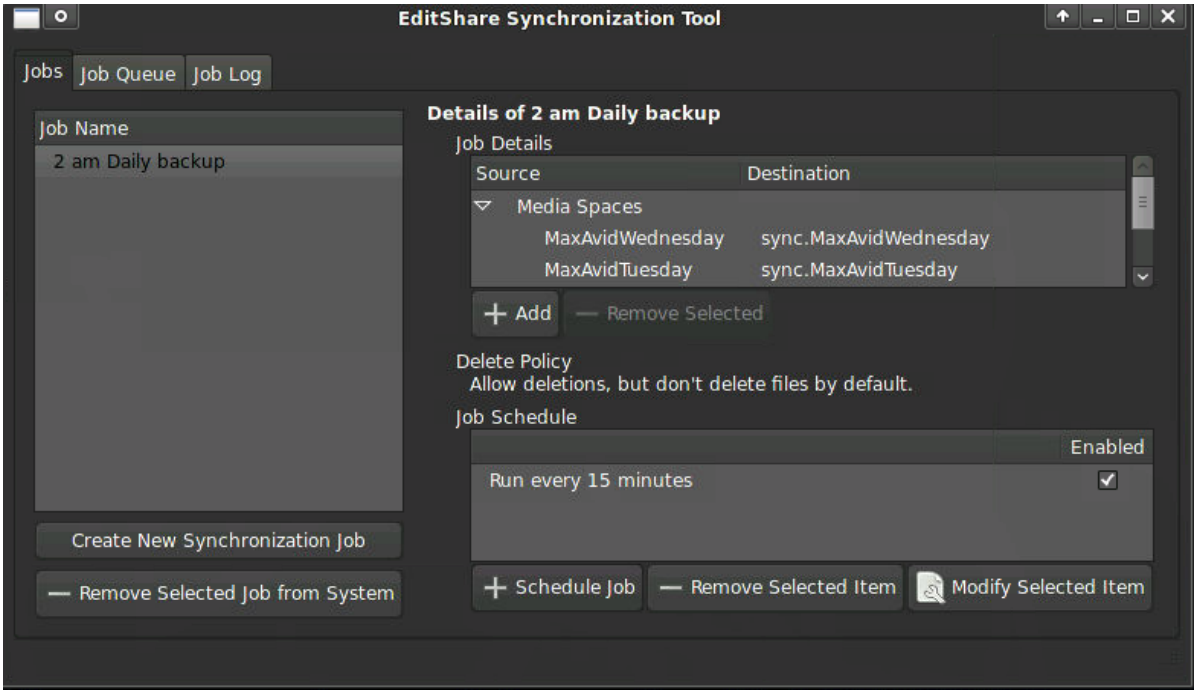
NOTE: *Jobs scheduled to run at some point in the future do not appear on the Job Queue, because it is not yet time for them to run. Only jobs that should run as soon as possible appear on the Job Queue.*

The Job Queue normally manages itself, but you can work with it yourself if you need to. This allows you to run a job manually at a time it is not normally scheduled to run, or to pause or cancel a job that is already running or about to run.

To manage the Job Queue, do the following.

TASK

1. Click the Job Queue tab on the Synchronize Servers tool.



If any job is currently running, it is shown at the top of the window under Current Job.

If any jobs are on the Job Queue waiting to run, they appear in the large field under Job Queue. It is not unusual for there to be no jobs on the queue – that just means that there are no jobs waiting to be run.

NOTE: *If the status of the Job Queue changes while you are looking at this screen, the change is usually not reflected immediately.*

2. Click the two Refresh buttons to refresh the Current Job and the Job Queue.
3. To stop the current job, click the Cancel button to the right of the current job.

   Unless the Job Queue has been paused, the next job on the Job Queue begins running (if there is one).
4. To stop all jobs, click Finish current job, then click Pause or Pause immediately. When you are ready for jobs to resume, click Resume running jobs.

   NOTE: *If the scheduled time for a job arrives while the Job Queue is paused, that job is still added to the Queue.*
5. To run a job manually, do the following:
   a From the bottom right corner of the window, select a job to be run from the Job list. If that job was set to Only delete on request, then you can specify whether or not to delete media from the remote server that has been deleted locally.
   b Click Add to end of queue to cause the job to run when all other jobs already on the queue have finished, or Add to front of queue to have it run immediately after the currently-running job finishes, before any other jobs waiting on the queue. If the queue is empty, both buttons the same thing: they cause the job to start running immediately.
6. To remove a job from the queue, select the job on the Job Queue, and click Remove Selected Job.

   The job does not run.

NOTE: *If it is a scheduled job, the job is added to the queue again when it is time for it to run. To prevent a job from ever being run, you must remove its schedule or remove the job entirely.*

NOTE: *If you open the Synchronize Servers Tool log and watch it while a Sync Job happens, you do not see errors immediately. The log viewer only updates when you restart the Sync Tool.*

Viewing the Job Log

TASK

1. Click the Job Log tab.

   The Synchronization Tool displays a summary of Sync Jobs that have been run in the last 30 days.

2. Expand any row to see more detailed information.

   When you drill down far enough to see individual Media Space, you see the amount of data transferred and any errors that occurred during the transfer. The actual amount of data transferred might be much less than the total amount of data in the Media Space because only changes are transferred. If no changes were made to a Media Space between runs of the Job, the amount of data transferred is small.

   If a job runs while the Synchronization Tool is open, its results are not automatically added to the Job Log.

3. To add a job's results to the Job Log, click the Refresh button in the lower right corner of the window.

Chapter 19: UPS Maintenance

You should check your UPS about once a month to ensure that it is still functioning correctly. UPS batteries do fail, and once that happens, your system is not protected.

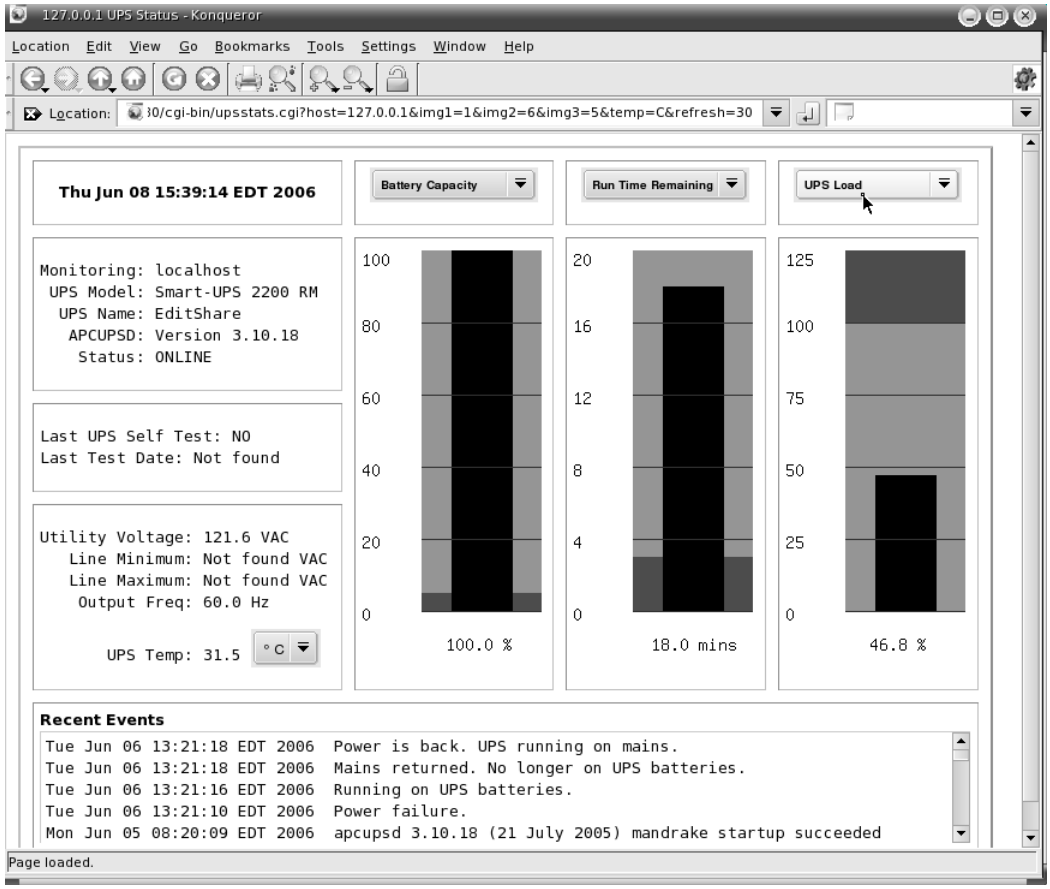
See the following topics:

Monitoring an APC UPS

TASK

- Double-click Battery Backup on your EditShare desktop.

  The UPS monitor window opens.



The following table describes the areas.

Display	Description
Status	If the UPS is not online, your system is not protected.
Battery Capacity	If the capacity is much lower than that when there has not been a recent outage, it might be time to think about replacing the battery.
Run Time Remaining	The amount of time for which the backup could keep the system operating if power were lost. By default, the EditShare server is configured to shut down the system after 2 minutes of power loss, so 18 minutes is plenty. If this number drops below 5-10 minutes, it's time to think about replacing the battery.
Recent Events	A log of recent activity such as system startups and shutdowns, and power failures.

Responding to Power Failures

In the event of a power loss that lasts for more than three minutes, your EditShare system automatically shuts down.

Approximately 60 seconds after the shutdown is completed, the Battery Backup itself shuts down. It stops supplying power to the computer and hard drives. This is a preprogrammed feature to ensure that your Backup Battery does not get completely drained during a power failure.

To restore power to your computer and hard drives, do the following.

TASK

1. Wait several minutes until the Battery Backup completes its preprogrammed shutdown.
2. Press the On button on the front of the Battery Backup.
3. Turn your EditShare server back on.

Chapter 20: Notes

For convenient reference, fill out the following tables with information to help you remember the configuration of your EditShare servers. You might want to copy these tables if you have more than one server or switch, or more editing workstations than the chart has room for.

See the following tables:

EditShare Server: Switch Mode

EditShare Port	Speed/Type	IP Address	Jumbo Frames	Connected to
br0	N/A	192.168.1.3		N/A
eth0		N/A	Same as br0	
eth1				
eth2				
eth3				
eth4				
eth5				
eth6				
eth7				
eth8				
eth9				

EditShare Server: Manual Mode

EditShare Port	Speed/Type	IP Address	Jumbo Frames	Connected to
eth0		192.168.0.3		
eth1		192.168.1.3		
eth2		192.168.2.3		
eth3		192.168.3.3		
eth4		192.168.4.3		

EditShare Port	Speed/Type	IP Address	Jumbo Frames	Connected to
eth5		192.168.6.3		
eth6		192.168.6.3		
eth7		192.168.7.3		
eth8		192.168.8.3		
eth9		192.168.9.3		

8-Port or 16-Port Switch

Switch Port	Connected to	Switch Port	Connected to
1		9	
2		10	
3		11	
4		12	
5		13	
6		14	
7		15	
8		16	

24-Port SMC Smart Switch

Switch Port	VLAN	Connected to	Switch Port	VLAN	Connected to
1			13		
2			14		
3			15		
4			16		
5			17		
6			18		
7			19		
8			20		
9			21		
10			22		
11			23		
12			24		

HP ProCurve 2900 Switch

Switch Port	Connected to	Switch Port	Connected to
1		2	
3		4	
5		6	
7		8	
9		10	
11		12	
134		14	
15		16	
17		18	
19		20	
21		lf. 10G	
22		rt. 10G	
23			
24			

Appendix A: Traditional Media Spaces

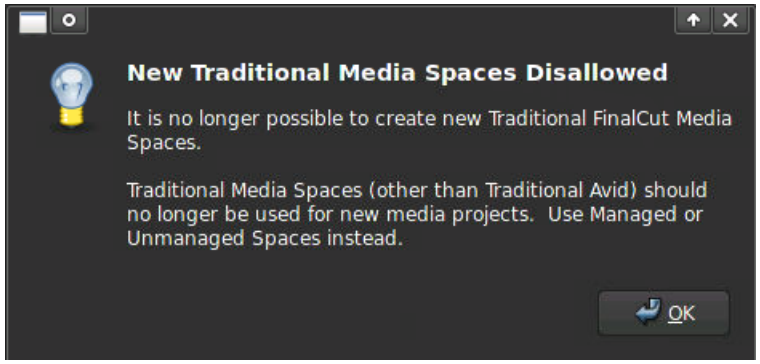
EditShare recommends that organizations working with EditShare for the first time with Version 5 or later, or those where there is frequent turnover among editors, use the new, simpler Avid MXF or Managed Media Spaces in preference to Traditional Media Spaces. The simplicity of these new Media Space types makes them more user-friendly and easier for new editors to use effectively.

Reasons to use Traditional Media Spaces are as follows:

- They are familiar to users of older EditShare versions.
- They give editors complete control over when other editors see what they have captured, and when they see what other editors have captured.
- They allow editors to use Avid media that must be stored as OMF.

NOTE: *You can store OMF, MXF, or both in a Traditional Avid space. If you need to store OMF, you must use Traditional Avid. If you only have MXF, then you can choose to use Avid MXF or Traditional Avid. Avid MXF is almost certainly going to provide a better solution because you do not need to Share and Refresh manually.*

As of EditShare version 6.0, you can no longer create new Traditional Media Spaces other than Traditional Avid. If you open a Traditional EditShare Manager, the following message box opens.



Click OK. You can, however, continue to work with existing Traditional Media Spaces if you need to.

For specific information about working with Traditional Media Spaces, see the following sections:

- File Locations

File Locations

Traditional Media Space files are kept here:

/RAIDS/RAID_#/NLE/*MediaSpaceName*_1

Avid Network Protocol Considerations (Macintosh Only)

If you work with Avid on a Macintosh, consider that Traditional Avid Media Spaces are not accessible via AFP.

Using the Synchronization Servers Tool

Care should be taken in using the Synchronize Servers tool as a backup system, as it does not copy over some types of media files from Traditional EditShare Media Spaces, and it does not always maintain the same permissions and ownerships of files.

For Traditional Media Spaces, all Shared files are copied. UnShared files are not copied. (If you are relying on the Synchronize Servers tool for media backups of Traditional Media Spaces, you should consider implementing local procedures that encourage editors who capture media to Share frequently, so that a minimal number of files are omitted from the backup.)

Restrictions on Modifying Media

The following are restrictions on modifying media in Traditional Media Spaces:

- Users can normally modify files they have not yet Shared.
- Once a user Shares files, they should not be moved, renamed, deleted, or modified by any user. In some cases it might appear to be possible to make such changes, but this produces undesired results the next time the Media Space is Shared or Refreshed.
- You can temporarily give one user full control over all files, and allow files he or she deletes to be saved to the Trash for possible future recovery, by Unsharing them to a specified user.

Avid Discrepancy Handling

When files are added to or removed from a Traditional Avid Media Space by Avid, it automatically updates its Media Database in that Media Space (for that user) to reflect the new contents of the Media Space.

If Avid notices a discrepancy between its Media Database and the Space it is in, it takes action. If there are new files in the Space that are not in the Media Database, it indexes the new files. This normally takes just a few seconds, although if there are thousands of new files, it can take minutes.

However, if there is even one file listed in the Media Database that is not in the Space, Avid rescans the entire Media Space. This can take hours.

EditShare's Copy Media Database function can help because, if you use it properly, only one user (for example, Edit1) needs to scan the Media Space, and other users (Edit2, Edit3, and so on) can then copy the Media Database from Edit1 and not have to rescan independently.

Be careful. If Edit1 has even one file in the Media Space (and thus in its version of the Media Database) that Edit2 and Edit3 can't see (for example, Edit1 rendered an effect into the Media Space since the last time she Shared), then when Edit1's Media Database is copied to Edit2 and Edit3, Edit2 and Edit3 behave as if that rendered effect file had been deleted and rescan the whole Media Space. To avoid this problem, make certain that all files have been Shared. See "Sharing and Refreshing Media" on page 324 for more information.

Sharing and Refreshing Media

NOTE: Share and Refresh is relevant to Traditional Media Spaces only.

The Share and Refresh system is the core of EditShare's patented traditional system for protecting shared media files from being accidentally or maliciously erased. Manual Sharing and Refreshing gives editors total control over exactly when these functions occur. Automatic Sharing and Refreshing is available as an option to simplify these procedures in some cases for editors who do not want to manage them manually. Administrators have the ability to enable, require, or disable this feature for each user and/or Media Space on the system.

In addition, Administrators have the ability to manually Share and Refresh Media Spaces for any user by using the EditShare Manager interface.

Finally, if users make the mistake of attempting to modify Shared files in a Media Space, you might be called upon to fix the problem.

The Share and Refresh system has been in use since EditShare's inception and works very well. However, it does require some adaptation on the part of editors new to EditShare, who must come to understand a new and unfamiliar workflow.

See the following topics:

- "Sharing as Administrator" on page 324
- "Copying Avid Media Database Files through Refresh" on page 326
- "Media Space Conflict Resolution" on page 327
- "Intentionally Modifying Files" on page 328
- "About Automatic Share and Refresh" on page 329
- "Configuring Automatic Share and Refresh" on page 329
- "Unsharing and Resharing" on page 332

Sharing as Administrator

From time to time you might be called on to manually Share Media Spaces for other users. You can do this using the EditShare Manager interface. This should not normally be considered an everyday workflow, but can be useful on occasion.

Share Media Spaces by doing the following.

TASK

1. Open the Traditional EditShare Manager and click the Share Media tab.
2. Select the Media Space that needs to be Shared and the user for whom to Share in the lists.
3. Click the Share Media button.

   If that user had unShared media files in the Media Space, a confirmation message shows how many files were Shared.

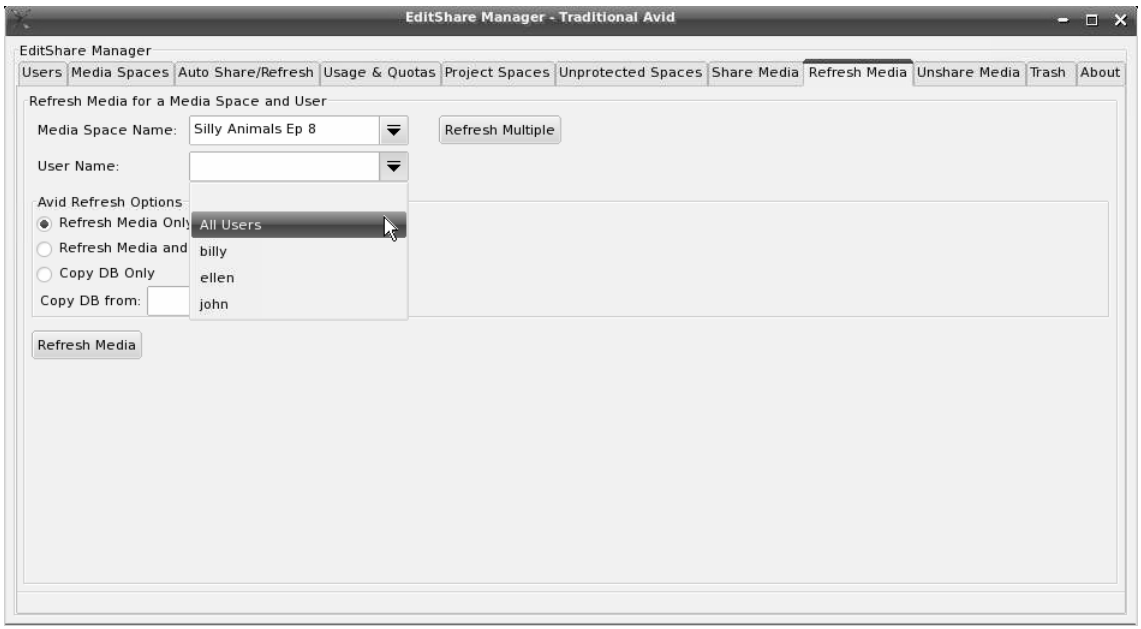
Refreshing as Administrator

From time to time you might be called on to manually Refresh Media Spaces for other users. You can do this using the EditShare Manager interface. This should not normally be considered an everyday workflow, but can be useful on occasion.

Refresh Media Spaces by doing the following.

TASK

1. Open the Traditional EditShare Manager and click the Refresh Media tab.



2. Select the Media Space that needs to be Refreshed and the user for whom to Refresh in the lists.
3. In the Avid Refresh Options area, select Refresh Media Only.

4. Click the Refresh Media button.

   A confirmation message shows how many files were Refreshed.

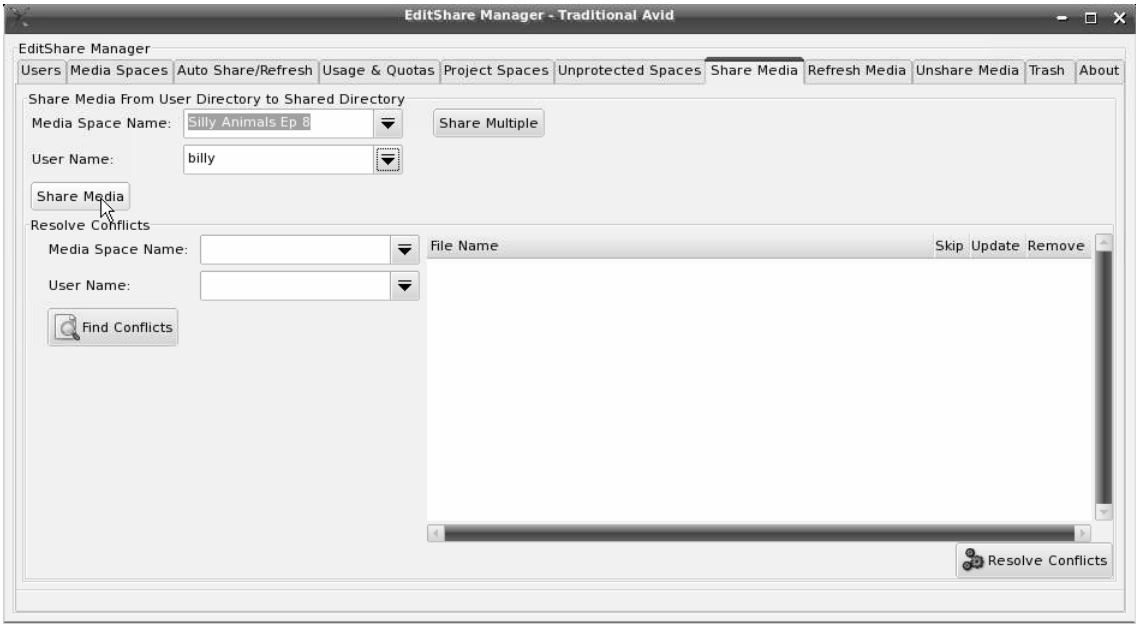
Copying Avid Media Database Files through Refresh

When you add new users to an existing Traditional Avid Media Space, you need to copy the Avid Media Database to that user from an existing user with an up-to-date Media Database, so that the new user's workstation does not need to rescan the Media Space.

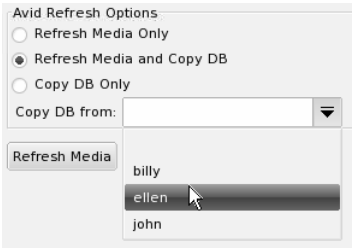
You can copy Avid media database files from one editor to another at the same time you Refresh a Traditional Avid Media Space, or without Refreshing. (See the *EditShare Editor's Guide* for more information on why this is useful.) Do the following.

TASK

1. Open the Traditional EditShare Manager and click the Refresh Media tab.
2. Select the user whose Media Space will receive the copy of the media database. You can select All Users or a single user.
3. Select the Media Space for which the database will be Refreshed.



4. Select an Avid Refresh Option:
   - Refresh Media and Copy DB
   - Copy DB Only



5. From the Copy DB from list, select the editor from whom the media database will be copied.
6. Click Refresh Media.

Media Space Conflict Resolution

As described in the *EditShare Editor's Guide*, if users accidentally modify a Shared file in a Traditional Media Space, a conflict can occur that prevents proper Sharing and Refreshing of the affected file. For example, if a user were to change the color of a shared Photoshop file, or recapture a clip without the Administrator deleting the clip first, a modified version of the file can end up in the user's view of the Traditional Media Space, while the original version still remains in the Shared view of the Traditional Media Space. If this situation occurs, when the user tries to Share or Refresh, EditShare detects that there are two versions of the same file and skips over the file until the EditShare Administrator tells it which version to keep and which to throw away,

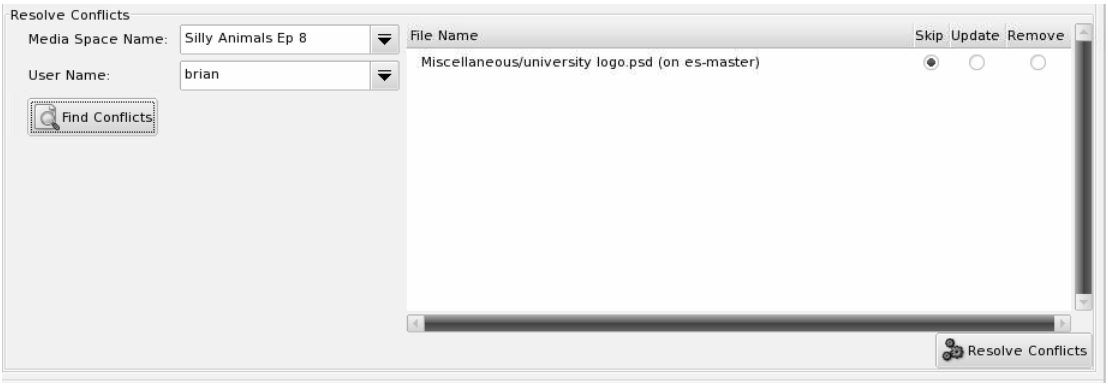
Users are informed of the conflict when they try to Share or Refresh, but they do not have the authority to cause a modified file to replace a Shared file in a Traditional Media Space. Only you as EditShare Administrator have that authority.

To manage file conflicts, do the following.

TASK

1. Start the EditShare Manager for the appropriate NLE.
2. Click the Share Media tab.

   Conflicting files are listed.



3. Select one of the following options for each conflicting file:.
   - Skip: Does not resolve the conflict. The original file remains in the shared part of the Media Space, and the modified file remains in the user's private view of the Media Space. (You might then rename the modified file in the user's private view, so that it can be shared and coexist with the original files.)
   - Remove: Deletes the modified file from the User's folder of the Media Space, preserving the original file.
   - Update: Replaces the original file with the user's new version of the file.

Intentionally Modifying Files

There are times when you might want to intentionally modify a file that has been Shared. For example, you might recapture a clip with improved color or brightness settings, or import a graphic or animation or piece of music that has been modified but still has the same duration and timecode. If the clips or graphic or music have already been edited into a show or sequences, it is convenient to have the modified files replace the original ones, keeping the same names as the original so that any sequence that refers to the original file now automatically refers to the modified file (because it has the same name).

Before Version 5.0 of EditShare, it was possible to use the Conflict Resolution feature to cause the modified file to take the place of the original. However, it is better to use the Unshare feature to give one user the ability to freely modify files, as if they had not yet been Shared. See "Unsharing and Resharing" on page 332 for more information about Unsharing files.

About Automatic Share and Refresh

To use the Automatic Share and Refresh feature, you must configure it on each Media Space you want to be automatically Shared or Refreshed.

A Traditional Media Space can be set to Share only, to Refresh only, to both Share and Refresh, or to do neither, for each user in the Media Space. Each user can have distinct settings. For example, a particular Traditional Media Space might have one user who does lots of capturing, for whom automatic Sharing will be turned on, but other users rarely capture and do not need to automatically Share. One editor might want the Media Space to automatically Refresh, to save her the trouble of having to manually Refresh whenever new media is captured, but another might prefer to have control over when new files appear in his media folders, and so not want to automatically Refresh.

The Automatic Share and Refresh feature was instituted in EditShare Version 4, before the introduction of Avid MXF, Managed, and Unmanaged Media Spaces, which do not need to be Shared or Refreshed. As a result, very few users need to use the Automatic Share and Refresh features. For new users, we strongly recommend that you use other Media Space types for the sheer convenience of use.

See the following topics:

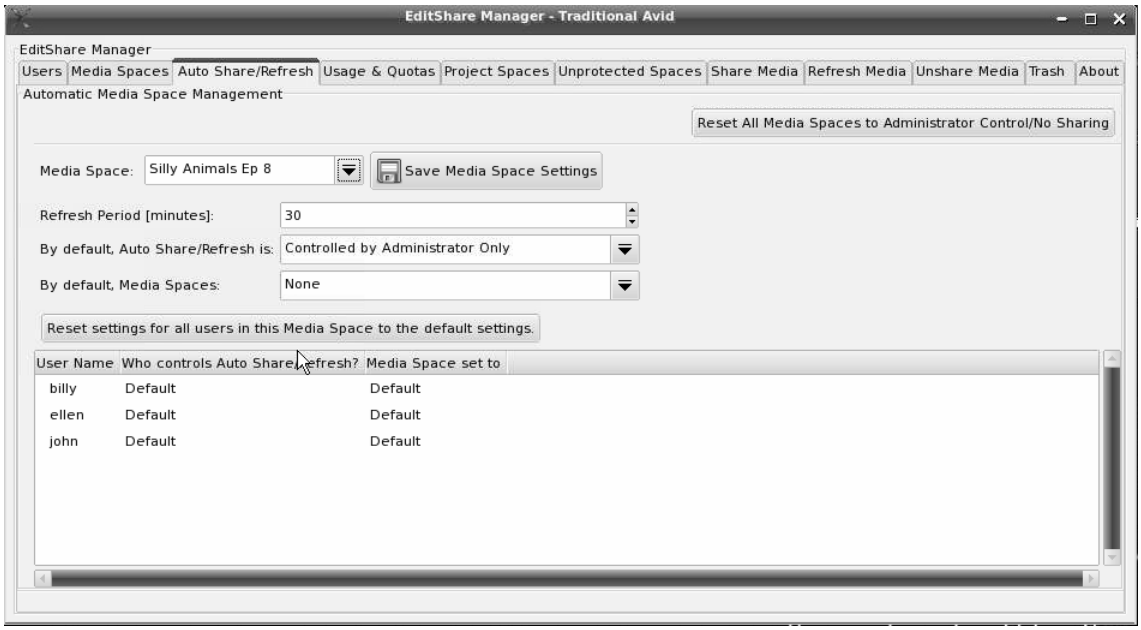
- "Configuring Automatic Share and Refresh" on page 329
- "Considerations for Avid Users" on page 331
- "Considerations for Final Cut Pro Users" on page 331
- "Additional Shortcuts" on page 332

Configuring Automatic Share and Refresh

To set up Automatic Share and Refresh, do the following.

TASK

1. Open the Traditional EditShare Manager and click the Auto Share/Refresh tab.



2. Select the Media Space for which you want to configure settings.
3. Select a Refresh Period in minutes.

   The refresh period specifies the frequency with which the Media Space Shares and Refreshes. For example, if the refresh period is set to 30, then automatic Sharing and Refreshing occurs every 30 minutes. (You cannot set the specific times when this occurs.) This setting applies to all users and can only be changed by the Administrator. Be careful – if you set the refresh period to be too small, EditShare might spend all of its time Sharing and Refreshing, and not have time to handle other functions. Five minutes is probably the shortest refresh period you should set. If you have many users in many Media Spaces, you might do better with a longer Refresh Period.
4. Select who controls Auto Share/Refresh from the “By default, Auto Share/Refresh is” list as follows:
   - Disabled: Ensures that this Media Space does not automatically Share or Refresh for most users.
   - Controlled by Administrator only: Users can change their settings from EditShare Connect.
   - Controlled by User or Administrator: Users can change their settings from EditShare Connect.
5. Select a default action for each Media Space from the “By default, Media Spaces” list.

6. (Option) Override the default action setting for one or more individual users, different from the default, by selecting an option in the Media Space Set To column for the user in the grid at the bottom of the window.
7. (Option) Override the default control setting for one or more individual users, by selecting an option in the Who controls Auto Share/Refresh column for the user in the grid.
8. To force the change to take effect immediately, restart the EditShare Manager in the EditShare Control Panel.

Considerations for Avid Users

While it's fine to enable Auto Share for Avid Media Spaces, in general, EditShare does not recommend enabling Auto Refresh for Avid Media Spaces.

Each time an Avid application sees new media files (that is, due to Refreshing), it scans the files to update the media database. If just a few clips are added with each Auto Refresh, the interruption is short, but there is nevertheless an interruption. Furthermore, Auto Refreshing could cause project corruption on Avid systems that are rendering or capturing at the moment when Auto Refresh occurs. Avid is simply not prepared to cope with new files that suddenly appear from Refreshing if it is simultaneously creating new files from capturing or rendering. EditShare strongly advises not enabling Auto Refresh for Avid Media Spaces.

However, there are exceptions to every rule. Auto Refresh is still available for Avid Media Spaces because, in some instances, you might want to enable Auto Refresh for a specific user. For example, you might have a workstation running an application that automatically transcodes Avid QuickTime Reference files, creates proxy files for all new clips. The workstation could be logged into EditShare as a special user for whom Auto Refresh could safely be enabled, because that user would never be running Avid. That way, the application always sees new media files without anybody having to manually Refresh that user.

Considerations for Final Cut Pro Users

In general, Auto Share and Auto Refresh are safe to use with Final Cut Pro, with one known exception.

If you are using DAVE, do not enable Auto Sharing. There is a minor bug in DAVE that results in any clip that is being captured when a Share operation occurs being corrupted so it is not readable by Final Cut Pro.

Additional Shortcuts

If you have overridden the settings for a number of users, and want to set them all back to the defaults for that Media Space, select "Reset settings for all users in this Media Space to the default settings."

If you want to disable automatic Sharing and Refreshing on all Media Spaces, select "Reset all media spaces to Administrator Control/No Sharing." (This is the default to which new Media Spaces are set when they are created.)

EditShare encourages you to experiment with Auto Share and Refresh settings. Except as mentioned above, the Automatic Share and Refresh feature is safe and effective. However, there are many different environments and many different workflows used in different editing facilities, and you might find that particular settings do not work well for you. If you enable Automatic Share and Refresh and begin encountering glitches in capturing or playing media, or if users frequently encounter delays logging in, try changing the frequency of updates. More frequent updates result in less work being done each time, while less frequent updates cause more work to be done but less often.

To reduce the burden of automatically Sharing and Refreshing, you could try having users who only rarely capture media to a particular Media Space not be set to automatically Share there, and those who rarely use a particular Media Space at all to not automatically Share or Refresh.

In the worst case, you can always disable Automatic Share and Refresh entirely on any troublesome Media Space and have all users Share and Refresh manually.

Unsharing and Resharing

As discussed in the EditShare Editor's Guide, the Administrator can Unshare a Traditional Media Space, allowing a user to reorganize or delete media from the Space. When a Traditional Media Space is Unshared to a specific user, all previously Shared files become owned by that user, just as if he or she had captured them and not Shared them yet. This allows that specific user to freely move, rename, delete, or modify such files. Other users do not see the changes immediately (unlike Maintenance Mode for Avid MXF and Managed Media Spaces). This provides an opportunity to cancel the changes, if necessary.

While a Media Space is Unshared, the following conditions apply:

- The maintenance user has full access to move, rename, delete, or modify all previously Shared files, regardless of who created them.
- The maintenance user does not see and cannot work with any files not yet Shared.

Users can mount the Media Space while it is in Unshare mode; however, they do not see any previously Shared media files. They can capture media and work with any media they have not previously Shared. EditShare recommends that users wait until maintenance is completed and the Media Space is removed from Unshare Mode.

See the following topics:

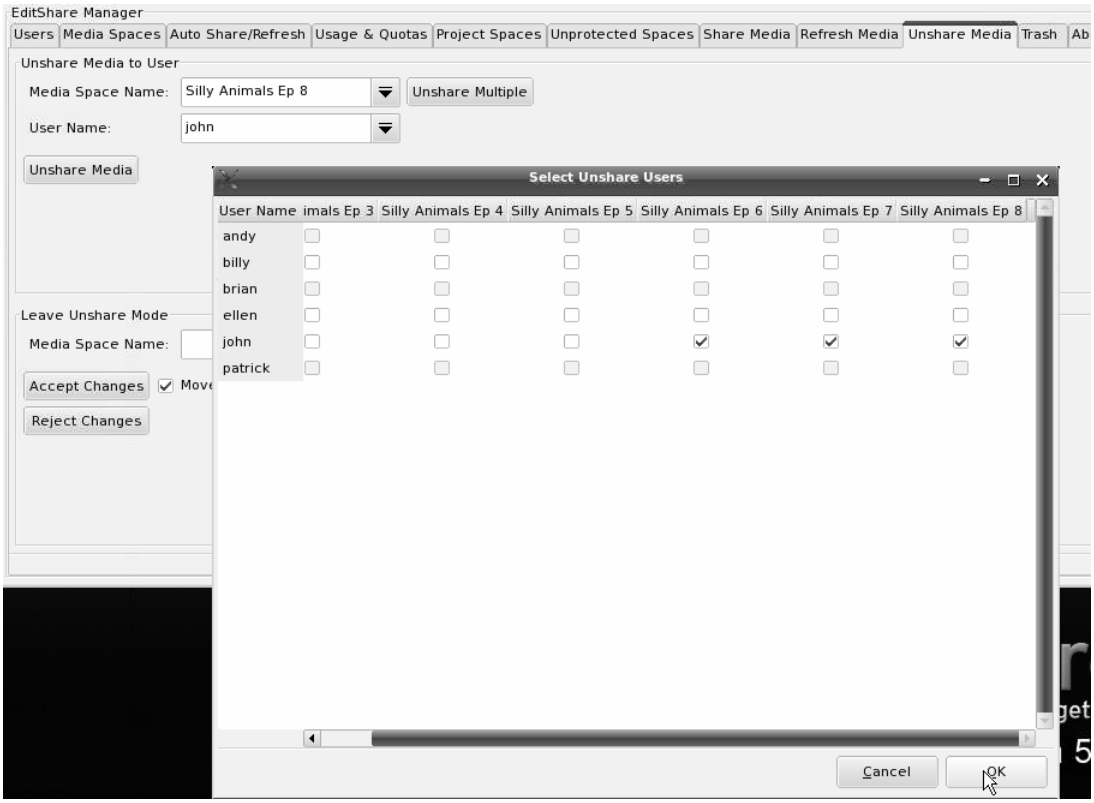
- "Unsharing a Traditional Media Space" on page 333
- "Rejecting Changes While Media Space is Unshared" on page 334
- "Issues with Resharing" on page 335
- "Resharing the Media Space" on page 336

Unsharing a Traditional Media Space

TASK

1. Have all users unmount the Media Space to be Unshared. The user who is given control of the space can keep it mounted if desired.
2. (Traditional Avid Media Spaces only) Ensure that the user to whom you are Unsharing has closed their Avid application. (If the user's Avid application is open, it rescans the entire Media Space, even if nothing has changed.)
3. Open EditShare Manager for the type of Media Space you want, and then click the Unshare Media tab.

4. Do one of the following:
   - Select the Media Space to Unshare. The Select Unshare Users dialog box opens. Select the user to whom to Unshare that Media Space, and then click OK.



   - Click the Unshare Multiple button, then select the Media Spaces you want to Unshare. The Select Unshare Users dialog box opens. Select the user to whom you Unshare for each one, (a Media Space can only be Unshared to one user at a time) then click OK.

5. Click Unshare Media.

Rejecting Changes While Media Space is Unshared

If the editor to whom the Media Space is Unshared makes errors, you can reject the changes. Do the following.

TASK

1. Open EditShare Manager for the type of Media Space you want, and then click the Unshare Media tab.

2. Do one of the following:
   - In the Leave Unshare Mode list, select the Media Space that was Unshared, then click Reject Changes.
   - Click the Leave Multiple button, then select the Unshared Media Spaces in which you want to cancel changes. Select Reject Changes from the Leave Unshare Action list at the bottom of the window, and then click OK.

When you reject changes in a Media Space, the Media Space is taken out of Unshare mode. The view of the Media Space for the specific user to whom it was Unshared is restored to a fresh view, as though it had just been Refreshed. Other users are not affected.

Issues with Resharing

All users should disconnect from the Media Space before Resharing an Unshared Media Space. If any users mounted the Media Space while it was Unshared, it is best to have them unmount it before Resharing it. If any users remain connected when the Media Space is Reshared, you might see the following:

- Media files might temporarily go offline while the changes made in Unshare mode are incorporated into other users' views. This happens even if very few files were actually changed and lasts longer for Media Spaces with more files in them.
- For Traditional Avid Media Spaces, Resharing the Media Space causes the media files to be Refreshed in each user's view, but does not automatically update the Avid media databases. It is recommended, after Resharing a Traditional Avid Media Space, that you copy the media database from the user who did the maintenance to all other users.
- If a user has a file open that was deleted in Unshare mode (that is, if they are playing the media from it) when the Media Space is Reshared, the file might not be properly deleted.
  - If the Media Space is mounted using SMB: The file should be deleted once it is closed (that is, the user playing the media stops playback) but this might not be 100% reliable.
  - If the Media Space is mounted using AFP: The file is not deleted, and no warning is given to the maintenance user. The file appears to have been deleted, but it is still present.

Resharing the Media Space

TASK

1. Make sure all users are disconnected from the Media Space.
2. Open EditShare Manager for the type of Media Space you want, and then click the Unshare Media tab.
3. Do one of the following:
   - In the Leave Unshare Mode list, select the Media Space that was Unshared, select the Move Deleted Media to Trash option, and then click Accept Changes.
   - Click the Leave Multiple button, then select the Unshared Media Spaces in which you want to cancel changes. Select Accept Changes and Move Deleted Media to Trash or Accept Changes and Permanently Remove Deleted Files from the Leave Unshare Action list, and then click OK.

Limitations on Read-Only Mode for Traditional Avid Media Spaces

After you limit a user's access to read-only in a Traditional Avid Media Space, the user might still be able to transfer files into the Media Space using Windows Explorer or Macintosh Finder. They cannot capture or render files into the Media Space using Avid. This limitation is necessary in order to allow the user to update his media database file when new files are added by Refreshing, or to delete and rebuild the media database in case that should become necessary.

EditShare Trash

When you remove a user from a Traditional Media Space, any media created by that user and not yet Shared can be either deleted from the system or moved to the Trash. All media that has already been Shared is preserved, even if it was created by a user being removed from the Media Space. All files created by the user and not yet Shared are saved to the Trash.

Under many circumstances when files can be deleted, you have the option of saving the files to the Trash instead of actually deleting them. This allows you the chance to recover them if you realize you shouldn't have deleted the media, but it also means the media continues to take up space on the server. See the following details.

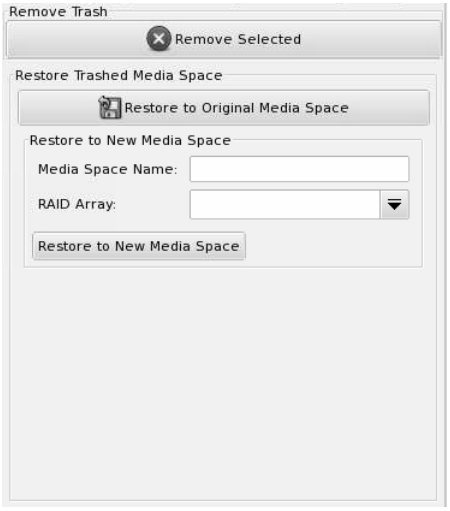
If you delete files, they cannot be recovered. In general, EditShare recommends that you always select Move Media to the Trash, so you have the opportunity to recover the files if you realize an error was made. If you delete files that have not yet been Shared from a Traditional Media Space, it can result in files being deleted immediately, with no possibility for recovery:

As explained in the *EditShare Editor's Guide*, Avid editing programs have difficulty maintaining their databases when there are too many files in a Traditional Avid Media Space (or on any hard drive that contains Avid media files). If you discover you have too many files in a media space, one way to split them up is to delete a large number of files to Trash and then restore them to a new Media Space. The easiest way to do this is to delete the clips from a file manager outside of Avid. Confirm the deletion with EditShare Manager, being sure to delete to Trash. Then restore the clips to a new Media Space.

Restoring Files from Traditional Media Spaces

TASK

1. To restore the files to the original Media Space, click Restore to Original Media Space.



2. To create a new Media Space to hold the restored files, do the following:
   a Type the name of the new Media Space, and the RAID on which to create it.
   b Click Restore to New Media Space.

   All the restored files are Shared, even if they had not been Shared before they were deleted.

   NOTE: *If you are attempting to restore an entire deleted Media Space, you must Restore to New Media Space. Use the Restore to Original Media Space option only when you are restoring individual files that were deleted from a Media Space that still exists. If you attempt to restore a deleted Media Space using Restore to Original Media Space, you receive an error because the original Media Space does not exist to be restored to.*

Available Limited Administrative Capabilities

The following Limited Administrative capabilities are currently supported for Traditional Media Spaces:

- Change Media Space Quota
- Remove Users
- Add Users
- Share Media
- Refresh Media
- Unshare or Reshare Media

Index

Numerics

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W