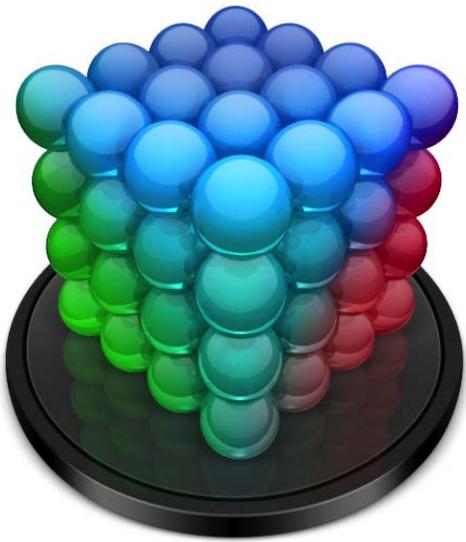




Final Cut Server

Setup and
Administration Guide



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Welcome to Final Cut Server Administration

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- Welcome to Final Cut Server (p. 7)
- Resources for Learning About Final Cut Server (p. 8)
- Contacting AppleCare Support (p. 10)

Welcome to Final Cut Server

Final Cut Server is powerful media asset management and workflow automation software. Final Cut Server makes it easy to manage large collections of media files. Its capabilities also extend to tracking job status, orchestrating reviews and approvals, and automating complex sequences of tasks—all in a single product designed to work seamlessly with Final Cut Pro.

Installing Final Cut Server also installs Compressor. This powerful transcoding application provides Final Cut Server with a large variety of preconfigured transcode settings that you can use when uploading or copying media files to Final Cut Server devices. You can also create custom settings in Compressor that you can add to the Final Cut Server transcode settings list.

Resources for Learning About Final Cut Server

There are a variety of resources for you to use when learning about your Final Cut Server system.

Final Cut Server Printed Documentation

This guide is one of two printed documents that are included with Final Cut Server.

- *Final Cut Server Setup and Administration Guide*: This guide describes how to install, configure, and administer most components of the Final Cut Server system. It does not describe day-to-day use of the system, such as browsing assets and managing jobs, productions, and orders, which are described in the *Final Cut Server User Manual*.

Important: An understanding of the material in the *Final Cut Server User Manual* is assumed in the *Final Cut Server Setup and Administration Guide*.

- *Final Cut Server User Manual*: The user manual describes how to use the Final Cut Server client for the day-to-day use of the system, such as browsing assets, managing jobs, and managing productions.

Final Cut Server Onscreen Manuals

Onscreen versions of each of the printed documents are also available while using or administering Final Cut Server.

- *From the Final Cut Server client*: The *Final Cut Server User Manual* is available for all users from the client's Help menu. The *Final Cut Server Setup and Administration Guide* is also available from the client's Help menu if you are logged in with administration privileges.
- *From the Final Cut Server server's System Preferences*: The *Final Cut Server Setup and Administration Guide* can be accessed from the server's Final Cut Server System Preferences by clicking the question mark located in the lower-right corner.

The content of the onscreen versions of this documentation is identical to the printed versions. The onscreen versions, however, are fully hyperlinked and enhanced with many features that make locating information quick and easy:

- The access page provides quick access to various features, including the index and other relevant documents and websites.
- A comprehensive bookmark list allows you to quickly choose what you want to see and takes you there as soon as you click the link.

In addition to these navigational tools, the onscreen documents give you other means to locate information quickly:

- All cross-references in the text are linked. You can click any cross-reference and jump immediately to that location. Then, you can use the Preview Back button to return to where you were before you clicked the cross-reference.
- The table of contents and index are also linked. If you click an entry in either of these sections, you jump directly to that section of the document.
- You can use the Find dialog to search the text for specific words or phrases.

Apple Websites

There are a variety of Apple websites that you can visit to find additional information.

Final Cut Server Website

Go here for general information and updates as well as the latest news on Final Cut Server.

To access the Final Cut Server website, go to:

- <http://www.apple.com/finalcutserver>

There are also a variety of discussion boards, forums, and educational resources related to Final Cut Server on the web.

Apple Service and Support Website

Go here for software updates and answers to the most frequently asked questions for all Apple products, including Final Cut Server. You'll also have access to product specifications, reference documentation, and Apple and third-party product technical articles.

To access the Apple Service and Support webpage, go to:

- <http://www.apple.com/support>

To access the Final Cut Server support page, go to:

- <http://www.apple.com/support/finalcutserver>

To access the Apple discussion pages, go to:

- <http://discussions.info.apple.com>

Contacting AppleCare Support

Information about the support options available from Apple is included in your Final Cut Server box. Several levels of support are available.

Whatever your issue, it's a good idea to have the following information immediately available when you contact Apple for support. The more of this information you have to give to the support agents, the faster they will be able to address your issue.

- The Final Cut Server Support ID number found on the front of the serial number sheet included in your Final Cut Server box.

Note: The 11-digit Support ID number is different from the product serial number used to install Final Cut Server.

- The version of Leopard or Leopard Server you have installed. To find the version, choose Apple menu > About This Mac.
- The version of Final Cut Server you have installed that you have a question about. To find the version of Final Cut Server on your computer, choose Final Cut Server > About Final Cut Server.
- The model of computer you are using.
- The amount of RAM installed in your computer. You can determine this by choosing Apple menu > About This Mac.
- What other third-party hardware is connected to or installed in the computer, and who the manufacturers are. Include hard drives, graphics cards, and so on.

To access AppleCare Support for Final Cut Server, go to:

- <http://www.apple.com/support/finalcutserver>

There is also an item in each Final Cut Server client's Help menu that will take you directly to the AppleCare website.

To go to the AppleCare website from within a Final Cut Server client:

- Choose Help > Final Cut Server Support.

Part I: Installation and Configuration

This part of the manual contains the information you need to install and configure Final Cut Server for a basic system.

- Chapter 1 Overview of Final Cut Server
- Chapter 2 Using the Installer
- Chapter 3 Configuring System Preferences
- Chapter 4 Adding Users and Groups
- Chapter 5 Using Device Setup Assistant
- Chapter 6 Using Automation Setup Assistant
- Chapter 7 Backing Up Final Cut Server
- Chapter 8 Installing Final Cut Server Clients

This chapter covers the following:

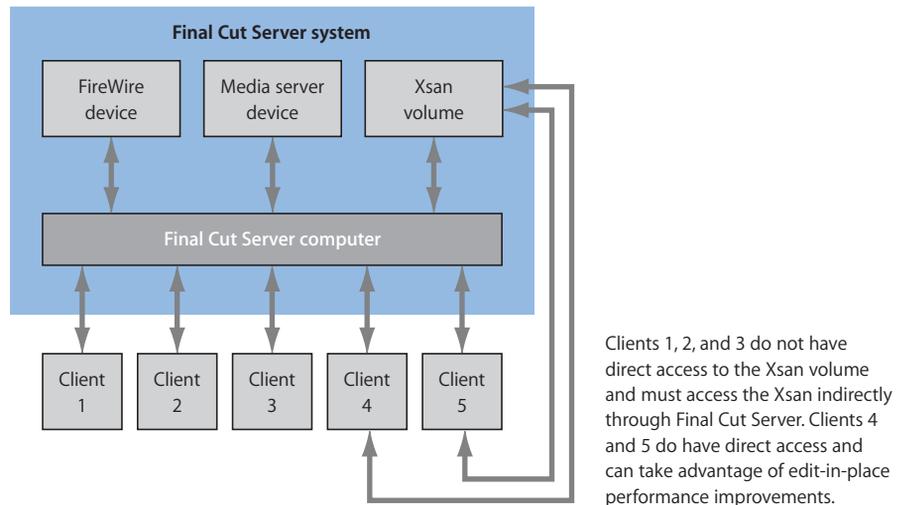
- About Servers and Clients (p. 13)
- Building a Final Cut Server System (p. 15)
- Storage Device Strategy (p. 16)
- Basic Final Cut Server Administration Tasks (p. 17)

This chapter provides a general overview of Final Cut Server, including information on storage strategies and basic administration tasks.

About Servers and Clients

Final Cut Server is based on a client/server model. This allows many people using Final Cut Server clients to simultaneously access the Final Cut Server catalog (which contains all media files and information about the assets and productions Final Cut Server is managing). Clients can lock and check out assets used in productions (which are collections of assets and Final Cut Pro projects), preventing others from making unexpected changes.

The computer used as the server for Final Cut Server needs to have Mac OS X v10.5 Leopard or Mac OS X Server v10.5 Leopard or later installed. This computer can be used to store your assets and productions, or it can be connected to a variety of external devices that contain the assets, such as media servers or an Apple Xsan volume.



Because the Final Cut Server client is a Java-based application, the client computers can be of a wide variety of types. Also, depending on what the user needs to do with the client (for example, using Final Cut Studio with a direct connection to an Xsan or only using the client to review assets), the client computers do not have to be as powerful as the server computer. Clients can be installed on operating systems other than Mac OS X—Final Cut Server clients are also compatible with Windows XP and Windows Vista operating systems.

There are two versions of Final Cut Server: one that supports up to 10 clients logged in at one time and another that supports an unlimited number of clients logged in at the same time. In all other ways, the two versions of Final Cut Server are identical, and this manual applies to both.

Building a Final Cut Server System

A Final Cut Server system requires a Macintosh computer, such as an Intel-based Xserve or a Mac Pro computer, with Mac OS X v10.5 Leopard or Mac OS X Server v10.5 Leopard Server or later installed. In general, while Leopard provides sufficient administration tools for smaller Final Cut Server systems, Leopard Server is recommended for most installations. This is because it has many more administration tools and is better suited for providing for general server needs.

For the best performance, the computer used as the server should not be used for other duties. Managing assets, particularly transcoding the assets and creating the proxy files (low resolution versions of the original asset), can require significant computer resources. You can, however, use the server computer for other tasks, including using the Final Cut Studio applications, if needed. You just need to keep in mind that the computer's performance is affected by any Final Cut Server activity.

Additionally, you may find that configuring Spotlight to avoid searching the folders you are using as devices can improve your performance. This is especially true for the Proxies and Edit Proxies devices, which can have a lot of activity, causing Spotlight to spend a lot of time trying to keep up with the changes. You can use the Spotlight pane in System Preferences to identify which folders and volumes to make private.

The media that Final Cut Server manages requires access to a large amount of storage space. You can use the computer's internal and external drives as well as many supported network devices and file formats for this purpose. Larger facilities may use an Apple Xsan storage area network (SAN) for asset and production storage. See "Storage Device Strategy," next, for more information.

You can run Final Cut Server clients on the following computers and operating systems:

- Any computers with Mac OS X v10.4 or later installed
- Any computers with Microsoft Windows XP or Windows Vista installed

See Part I of this manual, "Installation and Configuration," for details on installing and setting up your Final Cut Server system. Also see the *Before You Install Final Cut Server* document, located on the Final Cut Server installation disc, for details on supported computers and operating systems.

Storage Device Strategy

Before you install Final Cut Server, you need to decide how you want to store your media.

About Devices

Final Cut Server uses the term *devices* to refer to media storage locations that you configure Final Cut Server to use. Devices can be folders on the computer's boot hard disk, a second hard disk, a FireWire drive, or on a network-connected volume.

When you install Final Cut Server, several default devices are created. Once the installer finishes, you can also configure other devices. These can include existing folders on volumes that already contain media that you would like to include in the Final Cut Server catalog. Using Device Setup Assistant, you can configure a scan automation that will add a device's existing media to the Final Cut Server catalog.

One thing to keep in mind is that using separate hard disks for some devices can be more efficient. For example, when you upload assets to the catalog, a variety of proxy files are created and placed in the Proxies device that the installer created. Having the Proxies device on a different physical hard disk than the device the asset is stored on (not just on a different partition on the same hard disk) can make the proxy transcoding process more efficient—one hard disk can focus on reading the asset and the other can focus on writing the proxy (as opposed to the same hard disk jumping back and forth between reading and writing).

About RAIDs and SANs

While Final Cut Server can use a wide variety of local and network volumes as devices for storing and working with your media, a couple of storage solutions work particularly well with Final Cut Server.

A Redundant Array of Independent Disks (RAID) can have some advantages:

- *Increased performance:* One of the primary limiting factors in transferring large media files is the hard disk's input/output speed. By splitting the data among several hard disks, you can reduce the impact of this limitation.
- *Increased reliability:* Hard disks have the potential to fail at any time. RAIDs can be configured to supply protection against a hard disk failure, making it possible to recover the media lost when a hard disk fails.

Having a fast reliable RAID connected directly to the Final Cut Server computer allows that computer to take advantage of the RAID's performance, but that does not benefit the Final Cut Server clients, which must still get the video data over an Ethernet cable. This is where a SAN can help.

A storage area network (SAN) allows multiple computers to connect to a storage device as if it was a locally connected device. This allows you to use the media on the storage device (typically a RAID) exactly as if it was on a local hard disk.

Final Cut Server includes the ability to configure a storage device that is part of a SAN as an edit-in-place device. Clients that are directly connected to edit-in-place devices have the advantage of direct access to the device's media—the clients do not need to cache a local copy of an asset before being able to use it in a Final Cut Pro project. This can be a huge advantage when working with large video files.

Note: SAN-connected devices are not the only ones that can be configured as edit-in-place devices. However, they are the most common types of devices that can support the high performance required.

Apple has available a set of products that can be easily configured to provide these features. These include Xserve, Xserve RAID, and Xsan. See <http://www.apple.com/xserve> for more information.

See “Using the Final Cut Server Installer” on page 21 for more information on creating the default devices using the Final Cut Server installer, Chapter 5, “Using Device Setup Assistant,” on page 59 for information on creating devices using Final Cut Server System Preferences, and Chapter 12, “Managing Devices,” on page 163 for information on creating devices using the Administration window of the Final Cut Server client.

Basic Final Cut Server Administration Tasks

An administrator must configure a variety of settings in Final Cut Server before the system can be used. Additionally, other settings need to be changed as additional users, resources, and productions are added to your workflow. These include settings that relate to the following tasks:

- *Installing and setting up Final Cut Server:* See Part I of this manual, “Installation and Configuration,” for details on installing and setting up Final Cut Server.
- *Managing users and groups:* Final Cut Server can use either local users and groups or groups based on Mac OS X Open Directory to validate users. You use either the Accounts pane in System Preferences or the Mac OS X Server Workgroup Manager to add users and groups to the computer. You then import the groups into Final Cut Server, applying a suitable permission set to each group to define its level of access to the Final Cut Server catalog. See Chapter 4, “Adding Users and Groups,” on page 47 and Chapter 10, “Groups and Permissions,” on page 125 for more information.
- *Managing devices:* Final Cut Server uses devices to store all the assets and productions in its catalog. Devices can be as simple as folders on the computer's internal hard disk or they can be from a wide variety of networked computers. See Chapter 12, “Managing Devices,” on page 163 for more information.

- *Managing metadata and metadata sets:* A very powerful feature of Final Cut Server is its ability to use metadata to help manage a large collection of assets and productions. You can work with default metadata formats as well as add custom fields and create custom groups of metadata fields. See Chapter 11, “Managing Metadata,” on page 135 for more information.
- *Managing watch and respond behaviors:* Final Cut Server includes a variety of features that help automate your workflow. These include the ability to set up watch folders that have their contents automatically added to the catalog. Final Cut Server also includes scheduling, subscription, and response features. See Chapter 14, “Managing Automations,” on page 193 for more information.

You use four main areas to administer your Final Cut Server system. The one you use depends on what you need to change. In some cases, you can perform the same administration task using more than one area.

- *Accounts pane of System Preferences:* When running Final Cut Server on Leopard or Leopard Server you can use the user and group settings that you configure here.
- *Mac OS X Server Workgroup Manager:* When running Final Cut Server on Leopard Server you can use the user and group settings that you configure here.
- *Final Cut Server System Preferences:* These panes allow you to configure the most common Final Cut Server settings. These panes also include several setup assistants to make it easy to add devices and automation.
- *Final Cut Server Administration window:* This window, accessible from a Final Cut Server client when you are logged in as an administrator, contains extremely detailed settings and configurations covering all aspects of Final Cut Server. You should need to access this window only for your more complex configurations.

See Chapter 9, “General Settings and Preferences,” on page 107 for more information about using these areas.

This chapter covers the following:

- About Installing and Setting Up Final Cut Server (p. 19)
- Using the Final Cut Server Installer (p. 21)
- About the Customer Profiles (p. 29)
- About Final Cut Server and Compressor (p. 32)
- Updating Your License (p. 35)
- Registering Final Cut Server (p. 37)

About Installing and Setting Up Final Cut Server

The first step in installing Final Cut Server is to use the Final Cut Server installer.

Before you use the Final Cut Server installer, be sure to familiarize yourself with the application's system requirements. You can read about them in the *Before You Install Final Cut Server* document, located on the Final Cut Server installation disc.

Important: Final Cut Server can only be installed on a system with Mac OS X Server v10.5 Leopard or Mac OS X v10.5 Leopard installed.

Note: The installation disc contains the files required to install Final Cut Server on either PowerPC-based or Intel-based Macintosh computers that have Leopard or Leopard Server installed. The installation process is identical for both.

You should also familiarize yourself with all of the chapters in this part (Part I) of the *Final Cut Server Setup and Administration Guide*. In general, you should install and set up Final Cut Server in the following order:

Step 1: Use the installer

This installs Final Cut Server on your system. It also configures Final Cut Server to match the customer profile you select. This profile customizes the installation so that Final Cut Server automatically includes the items best suited to your workflow needs and leaves out those that are not necessary. See “About the Customer Profiles” on page 29 for details about the customer profiles from which you can choose.

Important: Be sure you know which profile you want to use before you start the Final Cut Server installer. You cannot change this profile selection later. However, you can manually make changes and additions to the installed Final Cut Server application after the installer has finished, allowing you to combine attributes from the profiles.

Step 2: Configure System Preferences

Once the Final Cut Server installer has finished, you can configure the Final Cut Server System Preferences panes. These panes include:

- *General:* This pane includes a variety of general Final Cut Server settings.
- *Permissions:* This pane is where you add Mac OS X groups to Final Cut Server. See Chapter 4, “Adding Users and Groups,” on page 47 for more information.
- *Devices:* This pane includes an automated assistant to step you through the process of adding devices to your Final Cut Server system. These devices include a variety of popular file storage systems. See Chapter 12, “Managing Devices,” on page 163 for more information.
- *Automations:* This pane includes an automated assistant to step you through the process of configuring watch folders and respond behaviors. See Chapter 14, “Managing Automations,” on page 193 for more information.

See Chapter 3, “Configuring System Preferences,” on page 39 for more information about all of the Final Cut Server System Preferences settings.

Step 3: Add users and groups

Final Cut Server uses the user and group accounts you configure in the Accounts pane of System Preferences or in Leopard Server Workgroup Manager. You also assign each group a permission set. By creating groups of users and applying different permission sets to each group, you can control the level of access for the users. See Chapter 4, “Adding Users and Groups,” on page 47 for more information.

Step 4: Install Final Cut Server clients on other computers

Once you have configured Final Cut Server System Preferences and added users and groups, you are ready to install the Final Cut Server client software on your users' computers. You install the client across a network connection. See Chapter 8, "Installing Final Cut Server Clients," on page 99 for more information.

Using the Final Cut Server Installer

Once you are ready to install Final Cut Server, you can insert the Final Cut Server Installation disc into the computer you are using as the server for Final Cut Server.

Note: You must install Final Cut Server directly on the computer you are using as its server. You cannot remotely install the application onto a different computer.

Important: The Final Cut Server installer enables the computer's web services (when installing on Mac OS X Server v10.5) and web sharing (when installing on Mac OS X v10.5) if they are not already enabled.

About the Final Cut Server Installation Disc

The Final Cut Server Installation disc contains:

- *Before You Install Final Cut Server:* This document provides system requirements and things to do before you install Final Cut Server and its accompanying content.
Important: To ensure that your system meets the minimum requirements, be sure to read this document before you begin the installation process.
- *Final Cut Server installer:* Double-click the Final Cut Server installer icon to begin the installation process.
- *Documentation folder:* The folder contains the *Final Cut Server Setup and Administration Guide* (a PDF of this document) and the *Final Cut Server User Manual*.

Before You Install Final Cut Server

Before you install Final Cut Server, you must make sure you have the latest versions of Leopard or Leopard Server and QuickTime installed.

Important: Even if you bought and installed Leopard or Leopard Server to use Final Cut Server, you should still run Software Update to ensure that your computer has the latest version.

To update Leopard or Leopard Server and QuickTime:

- 1 Choose Apple menu > Software Update.

A dialog appears showing new or updated software available for your computer.

- 2 Follow the onscreen instructions to update Leopard or Leopard Server and QuickTime to the latest versions.

It is also a good idea to install and update Final Cut Studio and other applications if you intend to use them on the computer you are using as your Final Cut Server server.

Did You Upgrade Your Computer from Tiger Server to Leopard Server?

When you upgrade a computer from Tiger Server to Leopard Server, Apache is not upgraded automatically. You can verify its version and manually upgrade it if needed.

Important: You must have Apache version 2.2 installed on a computer using Leopard Server before installing Final Cut Server. If not, you will not be able to install any Final Cut Server clients.

Note: If you are installing Final Cut Server onto a non-server version of Leopard, you can skip this section.

To verify and upgrade Apache on a Leopard Server computer:

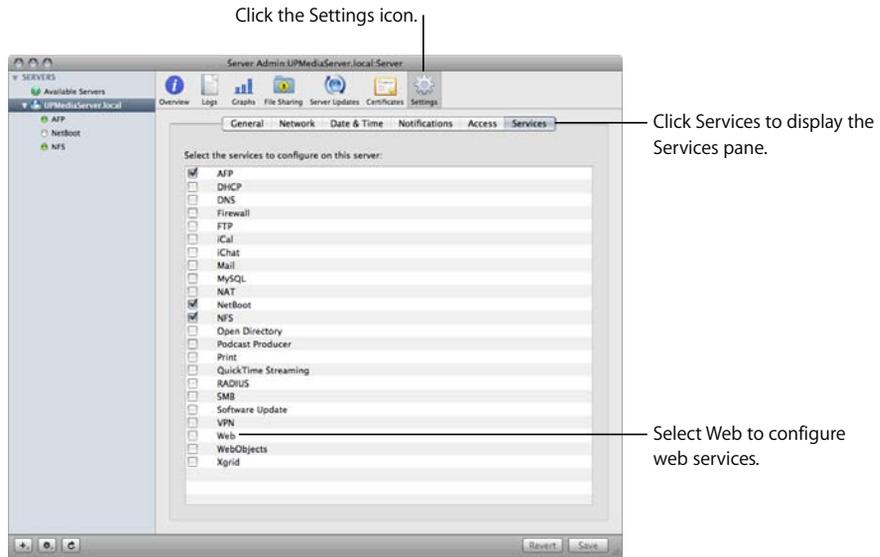
- 1 Open the Server Admin application.
- 2 Click the disclosure triangle next to the computer's name, look on the left side of the window to see if an item named Web is listed, then do one of the following:
 - If Web is listed, skip to step 4.



- If Web is not listed, go to the next step.

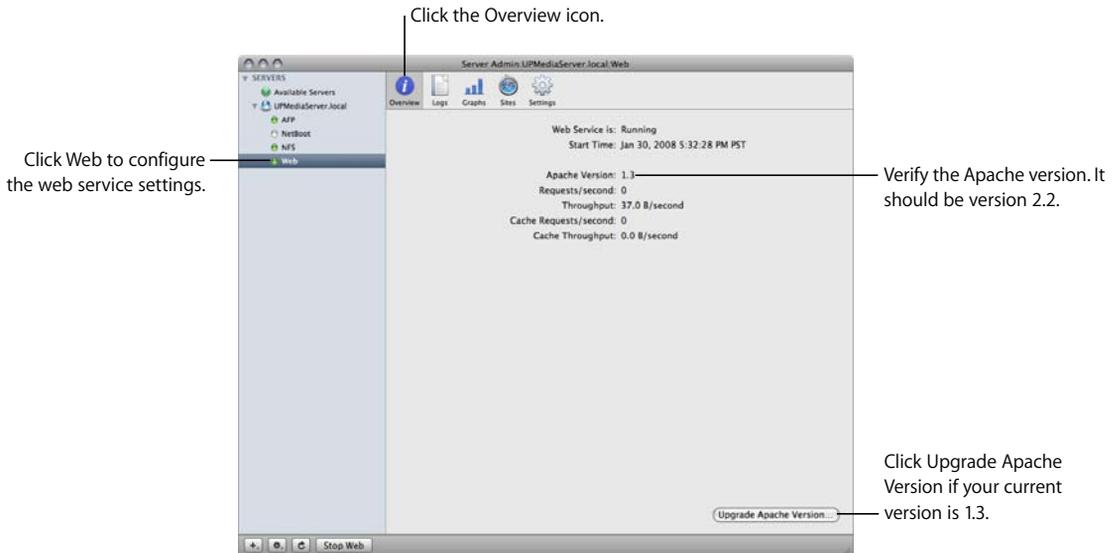


- 3 To get the Web item to appear, click the Settings icon, open the Services pane, and select the Web item.



The Web item appears on the left side of the window.

- 4 Select the Web item, then click the Overview icon.



The version of Apache is listed. If it is version 1.3 you need to upgrade it by clicking the Upgrade Apache Version button. If it is 2.2, you can proceed with installing Final Cut Server.

Starting the Final Cut Server Installer

When you install Final Cut Server, it is installed and configured based on the customer profile you choose.

Important: Refer to the *Before You Install Final Cut Server* document on the Final Cut Server installation disc for a list of minimum system requirements for Final Cut Server.

Note: Before you can install the software, you need to log in to your computer with a computer administrator account, using an administrator password. See Mac Help for more information.

Important: Do not remove the administrator's user account that you use to install Final Cut Server from the server computer. Final Cut Server requires this account to continue to be available on the computer. To reduce the chances of this user account being deleted (for example, due to personnel changes), you can create a local special user account that has administration privileges to use when installing Final Cut Server.

To enter the serial number and install Final Cut Server:

- 1 Insert the Final Cut Server installation disc into your computer's DVD drive.
- 2 Double-click the Install Final Cut Server icon, then follow the onscreen instructions.
- 3 The installer performs a system requirements check to determine if Final Cut Server can be installed. Click Continue.
- 4 Read the Welcome information, then click Continue.
- 5 Read the Software License Agreement, click Continue, then (if you agree) click Agree.
- 6 Select the startup disk, then click Continue.
- 7 In the User Information pane, enter your first and last name. Entering an organization is optional.



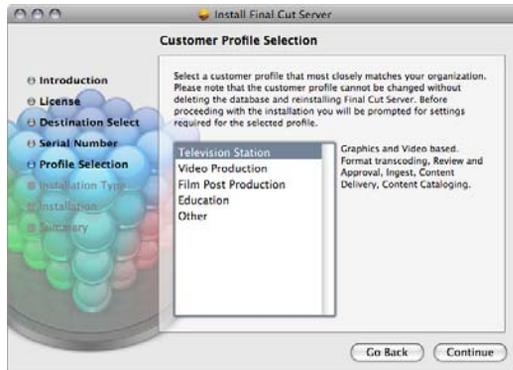
- In the Serial Number field, enter the Final Cut Server serial number printed on the Software Serial Number label attached to the serial number sheet included in your Final Cut Server box, then click Continue.

Following are some tips for entering your serial number correctly:

- Make sure you are copying the original serial number that is on the front of the serial number sheet.
- Make sure you enter the software serial number, not the Support ID number.
- Make sure you enter a zero and not an O, a 1 and not a lowercase L, where appropriate.
- Include dashes in the serial number.
- Don't enter spaces before or after the serial number.
- Verify that you have typed the serial number correctly.

Important: After three incorrect serial number entries, the installer quits. To begin the installation process again, return to step 2.

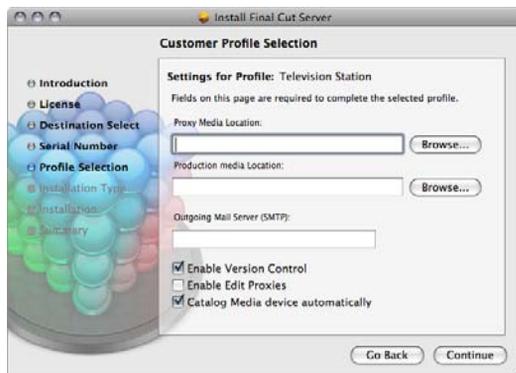
The Customer Profile Selection pane appears.



- 9 Select one of the customer profiles, then click Continue.

See “About the Customer Profiles” on page 29 for details on the available customer profiles.

The Settings for Profile pane appears.



- 10 Enter the following information, then click Continue when finished.

- *Proxy Media Location*: Enter the location to store the proxy files created for the media assets. While the proxy files are generally much smaller than the original media files, this location contains the proxy files from all devices. Be sure to choose a location with plenty of hard disk space.

Important: It is strongly suggested that you do not choose a location on the server computer’s startup disk. The devices created by this setting and the Production Media Location contain large media files and can use all of the available disk space on their hard disk, which causes serious issues if that hard disk is also the startup disk.

See “Storage Device Strategy” on page 16 for more information on choosing locations for both of these settings.

- *Production Media Location*: Enter the location to store your production media. This can be a folder on this computer or a networked device, such as an Xsan or Xserve RAID. The installer creates the following devices based on this location: Library, Watchers, Media, Edit Proxies, and Version.

Note: Although it is not typical or suggested, you can make the proxy and production media locations the same place. Keep in mind that the production media location can require a large amount of disk space. Also, you can add more locations for the storage of media once the installer has finished.

Important: You cannot easily change the proxy and production media locations later.

- *Outgoing Mail Server (SMTP)*: Enter the outgoing email server address. You can change this in Final Cut Server System Preferences later.

Note: If left blank, this setting defaults to “localhost,” which you can use if this computer has Mac OS X Server v10.5 and is configured as an SMTP email server.

- *Enable Version Control*: Select this checkbox to configure Final Cut Server to automatically enable version tracking of assets and Final Cut Pro projects uploaded to the Final Cut Server catalog.

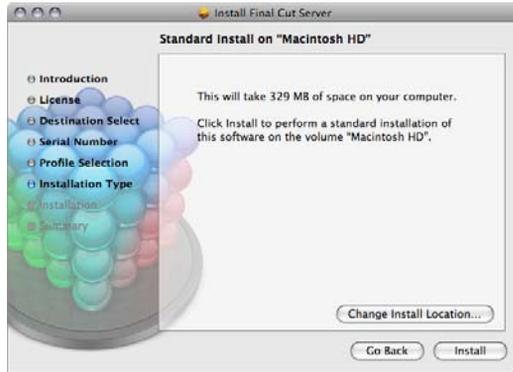
Important: This setting does not apply to assets and Final Cut Pro projects added to the catalog by a scan response created with Final Cut Server System Preferences. See “About Scan Responses” on page 200 for more information. Also see “Setting Up the Version Device” on page 170 for more information about setting up a version device.

- *Enable Edit Proxies*: Select this checkbox to have Final Cut Server automatically generate Apple ProRes 422 codec proxy files (in addition to the normal proxy files stored at the proxy media location) whenever a Final Cut Pro project is added as an asset. Due to the potentially large size of the files, the Apple ProRes 422 codec files are stored in a special device named Edit Proxies at the production media location. In general, this option is most useful when you are working with Final Cut Pro projects using uncompressed SD or HD content since the Apple ProRes 422 codec can provide significantly smaller file sizes at nearly the original media quality. You are able to change this setting in the Preferences pane of the Final Cut Pro client’s Administration window. See “Proxies Preference Settings” on page 117 for more information.

- *Catalog Media device automatically*: Select this checkbox to have Final Cut Server automatically configure and enable a schedule automation that includes a full and add only scan of the Media device. If this checkbox is not selected, the schedule and responses are not created; however, you can use Device Setup Assistant in the Final Cut Server System Preferences or the Final Cut Pro client’s Administration window to create these automations. See “Editing an Existing Device” on page 73 for information on using Device Setup Assistant and Chapter 14, “Managing Automations,” on page 193 for information on using the Administration window.

Important: If you are installing Final Cut Server as part of a recovery process where you will restore the system from a previous backup, be sure to not select this checkbox. This will prevent the automation from trying to scan an empty Media device, which can lead to issues with proxies and the Final Cut Server catalog. See Chapter 7, “Backing Up Final Cut Server,” on page 91 for more information.

The Standard Install pane appears.



11 Do one of the following:

- Click Install or Upgrade.

This automatically installs Final Cut Server on the computer's startup disk.

Important: You may see the Upgrade option even on computers that do not have previous versions of Final Cut Server installed. This is because the installer has detected at least one file on your system in common with the files it installs; this is considered normal.

- Click Change Install Location.

This opens a pane that allows you to choose the volume on which to install Final Cut Server. This volume must be this computer's startup disk.



- 12 A dialog appears requiring you to authenticate yourself by typing your name and password. Click OK when finished.

The installer displays a progress bar to indicate its status. Once the installer finishes, a pane appears that confirms the installation was successful.



- 13 Click Close to close the installer.

After you have finished the installation, you are ready to begin configuring Final Cut Server System Preferences. See Chapter 3, “Configuring System Preferences,” on page 39 for more information.

About the Customer Profiles

During the installation process, you must select a customer profile that best describes your intended use of Final Cut Server. These customer profiles are intended to customize your Final Cut Server installation by adding items (metadata sets, permission sets, and automations) you are most likely to need and eliminating those you won't.

Important: You cannot later select a different profile; however, you can manually customize Final Cut Server, once the installation finishes, to contain any specialized settings you need.

Following is a list of the five customer profiles to choose from, including a list of the production metadata sets used by each (see “About the Production Metadata Sets,” next, for more information about the production metadata sets):

- *Television Station*: This profile is graphics and video based. It includes provisions for format transcoding, review and approval, content delivery, and content cataloging. The Television Station profile uses the Show, Promotion, Commercial, and Package production metadata sets.
- *Video Production*: This profile is video based. It includes provisions for asset creation, review and approval, application integration, content cataloging, and archiving. The Video Production customer profile uses the Show and Package production metadata sets.
- *Film Post Production*: This profile is video and still sequence based. It includes provisions for asset creation, production creation, application integration, review and approval, still sequence conversion, and content cataloging. The Film Post Production customer profile uses the Trailer and Package production metadata sets.
- *Education*: This profile is video based. It includes provisions for asset creation, production creation, application integration, review and approval (assessment), still sequence conversion, archiving, offlining, and content cataloging. The Education customer profile uses the Commercial and Package production metadata sets.
- *Other*: This profile is for general cataloging. It includes provisions for asset creation, production creation, and application integration. The Other customer profile uses the Article, Commercial, and Package production metadata sets.

About the Production Metadata Sets

The primary difference between the customer profiles is the production metadata sets they offer. All other aspects, such as devices, automations, permission sets, and the asset metadata sets are identical.

There are six possible production metadata sets that the installer can create. Each production metadata set is made up of one or more metadata groups. All of the metadata groups are installed on all Final Cut Server systems, regardless of which customer profile you choose. This means that you can easily create any of these production sets and add the appropriate metadata groups to them. Additionally, you can create your own custom production metadata sets and groups as needed. See “Managing Metadata Sets” on page 154 for details on creating metadata sets.

Note: Many of the metadata group names are used multiple times. Be sure you match the metadata group ID (for example, PA_GRP_CUST_PRODUCTION_RIGHTS) to ensure you are using the correct metadata group name when attempting to match any of these metadata sets.

Package Production Metadata Set

The Package production metadata set is available in all five customer profiles. It includes two metadata groups:

- Production (PA_GRP_CUST_PRODUCTION_PACKAGE)
- Rights (PA_GRP_CUST_PRODUCTION_RIGHTS)

Show Production Metadata Set

The Show production metadata set is available in the Television Station and Video Production customer profiles. It includes two metadata groups:

- Show (PA_GRP_CUST_PRODUCTION_SHOW)
- Rights (PA_GRP_CUST_PRODUCTION_RIGHTS)

Promotion Production Metadata Set

The Promotion production metadata set is used only by the Television Station customer profile. It includes two metadata groups:

- Promotion (PA_GRP_CUST_PRODUCTION_PROMOTION)
- Rights (PA_GRP_CUST_PRODUCTION_RIGHTS)

Commercial Production Metadata Set

The Commercial production metadata set is used by the Television Station, Education, and Other customer profiles. It includes one metadata group:

- Commercial (PA_GRP_CUST_PRODUCTION_COMMERCIAL)

Trailer Production Metadata Set

The Trailer production metadata set is used only by the Film Post Production customer profile. It includes two metadata groups:

- Trailer (PA_GRP_CUST_PRODUCTION_TRAILER)
- Rights (PA_GRP_CUST_PRODUCTION_RIGHTS)

Article Production Metadata Set

The Article production metadata set is used only by the Other customer profile. It includes one metadata group:

- Article (PA_GRP_CUST_PRODUCTION_ARTICLE)

About Final Cut Server and Compressor

Final Cut Server relies on Compressor for most of its transcoding needs. These include obvious jobs like converting a video file to a format with a smaller file size that is easier to review. However, these transcoding needs also include a variety of other jobs that happen in the background, such as creating the clip proxy files used to preview an asset.

For this reason, it is important to make sure Final Cut Server and Compressor are configured to work together efficiently and reliably.

The Final Cut Server installer installs Final Cut Server, Compressor, and Apple Qmaster on the computer. Once the installation is complete, there are two approaches you can take in preparing to use Final Cut Server with Compressor:

- *Use the This Computer cluster:* Compressor creates a cluster named This Computer when it is installed, and by default, this is the cluster that Final Cut Server uses. For some installations, this will be sufficient; however, there are several shortcomings to using the This Computer cluster. See “About the This Computer Cluster,” next, for more information.
- *Create a Final Cut Server-specific QuickCluster:* This method requires you to use the Apple Qmaster System Preferences pane to create a custom QuickCluster. While involving a bit more time during the initial configuration of your Final Cut Server system, this method greatly reduces the chances of unexpected issues causing problems later on. See “About Creating a Custom QuickCluster” on page 33 for more information.

About the This Computer Cluster

The This Computer cluster that Compressor creates when it is installed is used by default by Final Cut Server. There are several issues with using it that you need to be aware of.

- *Potential permission issues:* When you install Final Cut Server, it remembers and operates using the name of the user that was logged in when it was installed. For this reason, it is strongly recommended that you create a local special user account that has administration privileges to use when installing Final Cut Server. This is to reduce the chances of this account being removed due to personnel changes later on.

The This Computer cluster operates using the name of the current user that is logged in to the computer. This means that it is possible that there will be times when Final Cut Server and Compressor will not have the same access permissions for a folder or file, which could result in issues such as Compressor being unable to access a file that Final Cut Server needs to have transcoded.

If you intend to use the This Computer cluster with Final Cut Server, it is recommended that you always log in to the server computer using the same account that was used when you installed Final Cut Server.

- *The This Computer cluster requires you to log in:* Since the This Computer cluster operates using the name of the current user that is logged in, it cannot be used until a user logs in. This means that if your server computer is restarted, for example, after a power interruption, Final Cut Server will not be able to use Compressor. If you create a custom QuickCluster, as described next, the cluster uses the name of the person who created it, meaning that it can be used even if no one is logged in to the computer.
- *The This Computer name can be confusing:* You actually choose the cluster to use with Final Cut Server in the Compressor Preferences pane of the client's Administration window. The name of this cluster is always This Computer, no matter which computer you are currently using to choose the cluster. The This Computer cluster always refers to the computer Final Cut Server is installed on. See "Compressor Preference Settings" on page 117 for more information.

About Creating a Custom QuickCluster

Creating a custom QuickCluster in Apple Qmaster avoids the issues that exist with the This Computer cluster. Creating a QuickCluster requires you to open the Apple Qmaster pane of System Preferences once you have completed installing Final Cut Server.

Important: Install Final Cut Server before going through this procedure.

Note: The following steps describe a simple procedure for configuring a cluster to use with Final Cut Server. You can create much more sophisticated clusters that include password protection and other features. See the *Distributed Processing Setup* document, available from the Compressor Help menu, for more information.

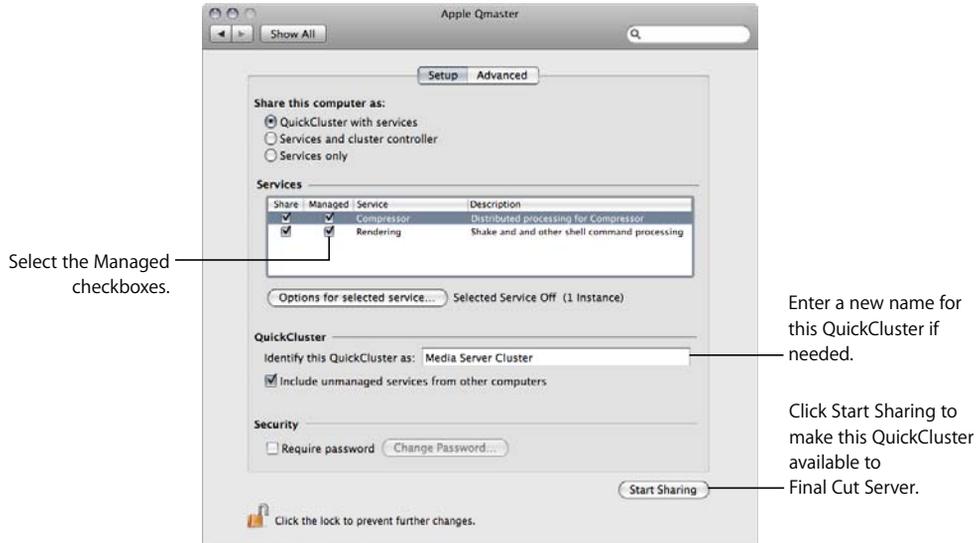
To create a custom QuickCluster:

- 1 Log in to the server computer using the same user account that was used to install Final Cut Server.

Important: For this new QuickCluster to have the same permissions as Final Cut Server, it is important that you log in as the same user that installed Final Cut Server.

- 2 Open System Preferences, then click the Apple Qmaster icon, located in the Other section at the bottom of the window.

The Apple Qmaster System Preferences pane appears.



- 3 To make sure that the cluster services will only be used by this computer, select the Managed checkboxes for Compressor and Rendering.

- 4 Enter the name you want this cluster to use in the "Identify this QuickCluster as" field.

This is the name that will appear in the Compressor Preferences pane of the Final Cut Server client's Administration window. The default name is based on your computer's name in the Sharing pane of System Preferences.

- 5 Click Start Sharing.

The custom QuickCluster is now available in the Compressor Preferences pane of the Final Cut Server client's Administration window. You can now set this QuickCluster as the one that Final Cut Server uses.

Important: While this QuickCluster defaults to the permissions of the user that configured it, it will change those permissions to any user that manually starts the QuickCluster later. If you need to restart this QuickCluster, be sure to log in using the same user account that was used to install Final Cut Server.

To choose the custom QuickCluster in Final Cut Server:

- 1 In a Final Cut Server client, choose Administration from the Server pop-up menu (the pop-up menu in the Final Cut Server main window that appears when you click the Server button) to open the Administration window.

Important: You must be logged in as a user with administrator privileges for the Administration item to appear in the Server pop-up menu.

- 2 Click Preferences in the column on the left to open the Preferences pane.
- 3 Click Compressor to open the Compressor pane.



- 4 Choose the new QuickCluster from the Compressor Cluster Name pop-up menu.
- 5 Click the Save button to save the changes.

See “Preference Settings in the Final Cut Server Client Administration Window” on page 115 for more information on setting Final Cut Server preferences.

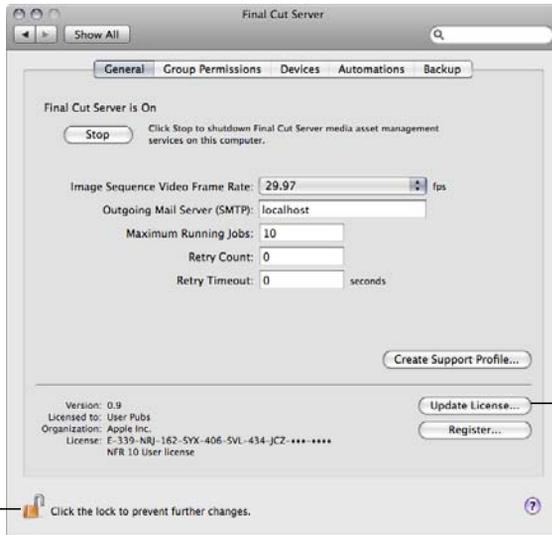
Updating Your License

There are two versions of Final Cut Server available: one that supports up to 10 clients and one that supports unlimited clients. If your situation changes, you may find that you need to change your system from one type to the other. For example, if you originally installed the 10 client version, you can update to the unlimited license version by purchasing the appropriate upgrade and entering the new serial number provided with the upgrade.

Updating your Final Cut Server license is done through Final Cut Server System Preferences and does not involve the Final Cut Server Installation disc or using the installer.

To update your Final Cut Server license:

- 1 Open System Preferences on the computer with Final Cut Server installed.
- 2 Click the Final Cut Server item in the Other section.
The Final Cut Server System Preferences pane appears.



You must click the lock and authenticate yourself to make changes to any of these panes.

Click Update License to enter a new serial number.

- 3 Select the General pane (if necessary).
- 4 Click the lock in the lower-left corner and authenticate yourself.
- 5 Click the Update License button.
A pane appears for you to enter your name, organization, and the new serial number.
- 6 Enter the information and click OK.

Registering Final Cut Server

Once you have installed Final Cut Server, you should register it. Registering your Final Cut Server installation is done through Final Cut Server System Preferences.

To register your Final Cut Server installation:

- 1 Open System Preferences on the computer with Final Cut Server installed.
- 2 Click Final Cut Server in the Other section.

The Final Cut Server System Preferences pane appears.



You must click the lock and authenticate yourself to make changes to any of these panes.

Click Register to open the registration dialog.

- 3 Select the General pane (if necessary).
- 4 Click the lock in the lower-left corner and authenticate yourself.
- 5 Click the Register button.
The Registration Information dialog opens.
- 6 Enter your name, organization, address, and email information. By default, the Me card information in your Address Book is automatically entered in the appropriate fields.
- 7 If you want information about Apple news and software updates sent to your email account, select the checkbox.
- 8 If you want to review the Apple Privacy Policy, click Privacy Policy.
- 9 When you have finished, click Register Now.
Final Cut Server is now registered.

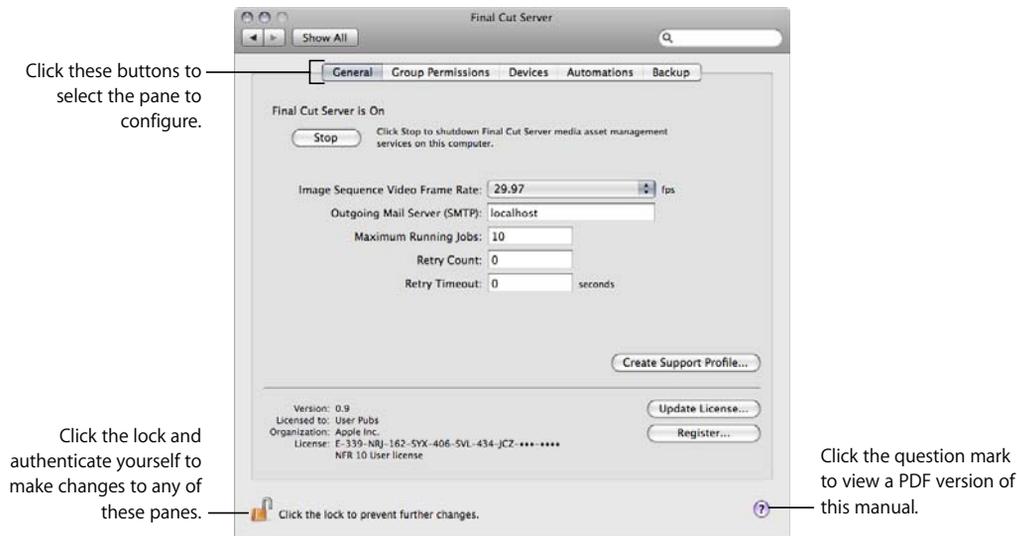
This chapter covers the following:

- Introduction to Final Cut Server System Preferences (p. 39)
- General Pane Settings (p. 40)
- Group Permissions Pane Settings (p. 42)
- Devices Pane Settings (p. 43)
- Automations Pane Settings (p. 44)
- Backup Pane Settings (p. 45)

Once you have installed Final Cut Server, you can continue its setup by configuring Final Cut Server System Preferences.

Introduction to Final Cut Server System Preferences

After you have installed Final Cut Server, a Final Cut Server item is added to the Other section of System Preferences. Clicking this item shows the General pane (or the last pane that was selected) of Final Cut Server System Preferences.



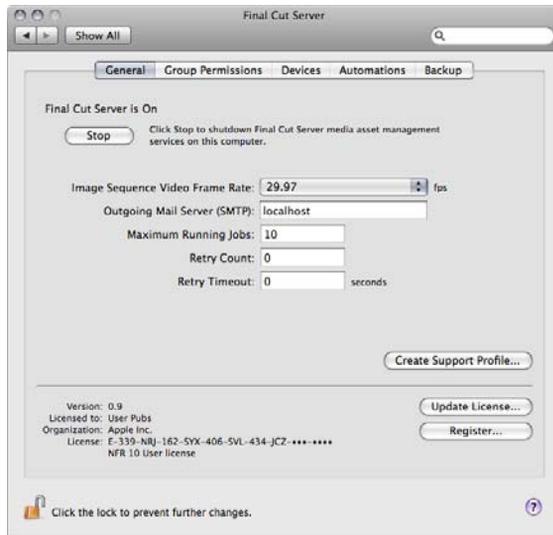
The top of the pane includes buttons to select which Final Cut Server panes to configure. The lower-right corner includes a question mark button that opens the onscreen version of this manual as a PDF file. The lower-left corner includes the lock that you use to authenticate yourself. You must do this before you can make any changes to the Final Cut Server settings.

The Final Cut Server installer configures the settings in these panes to defaults that you may need to change. Be sure to verify these settings before opening any Final Cut Server clients.

General Pane Settings

The General pane includes a variety of basic Final Cut Server settings.

Note: Most of these settings are also available from the client's Administration window. The exceptions are the Stop/Start, Update License, and Register buttons.



Following are the General pane settings:

- *Stop/Start button*: Click the Stop button to shut down Final Cut Server services. The button changes to Start, which you can click to start Final Cut Server services.

Note: You cannot make any changes to Final Cut Server while its services are shut down.

- *Image Sequence Video Frame Rate*: Choose the frame rate to use when working with still-image sequences.
- *Outgoing Mail Server (SMTP)*: Enter the name of the outgoing SMTP server used to send all emails. This setting is also configured during the Final Cut Server installation process. If this was left blank during installation, this setting defaults to “localhost,” which you can use if this computer has Mac OS X Server v10.5 and is configured as an SMTP email server.

Final Cut Server can be configured to send email notifications for a variety of reasons, such as a set of assets being ready for review. See “About Email Responses” on page 209 for more information.

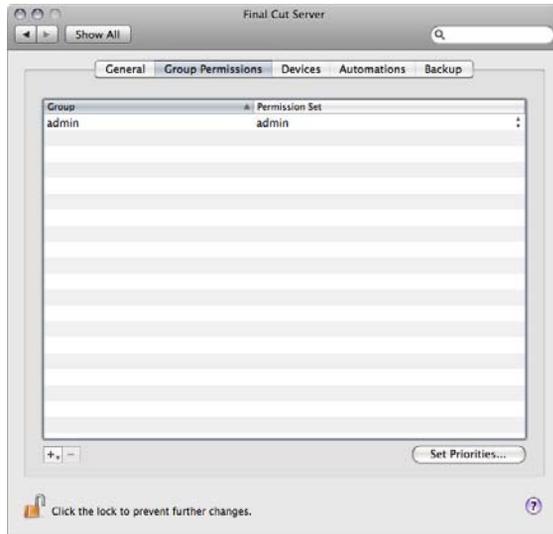
- *Maximum Running Jobs*: Enter the maximum number of jobs that can run concurrently on Final Cut Server. Most facilities will set this to no more than 20 jobs.
- *Retry Count*: Enter the maximum number of times to retry a failed job.
- *Retry Timeout*: Enter the period (in seconds) to wait before retrying a failed job.
- *Create Support Profile*: In certain support situations, AppleCare may require information about both your computer and how this particular application is configured. Clicking Create Support Profile creates a file that contains the necessary information and can be emailed to AppleCare.

Note: You would not normally use this feature unless directed to by an AppleCare representative.

- *Update License*: Click this button to update the Final Cut Server license information entered during the initial installation. For example, if you are upgrading to an unlimited client license, you can click this button to enter the new serial number.
- *Register*: Click this button to enter your registration information.

Group Permissions Pane Settings

You use the Group Permissions pane to choose the Mac OS X groups that can access Final Cut Server. You also assign permission sets to each group, allowing you to control the areas of Final Cut Server to which each group has access.



By default, the group of “admin” is added with the default “admin” permission set. If you have already configured local groups using the Accounts pane of System Preferences or Leopard Server Workgroup Manager, or if this server is on an Open Directory network, you can add groups and assign permission sets. Otherwise, see Chapter 4, “Adding Users and Groups,” on page 47 for more information on managing Final Cut Server users and groups.

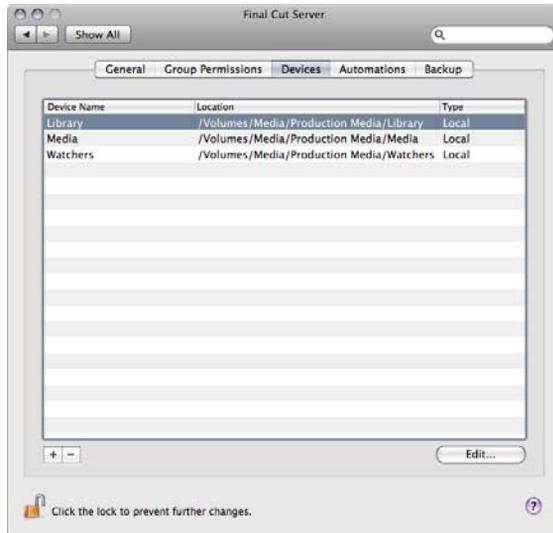
To add a group and assign a permission set to it:

- 1 Click the Add (+) button.
Note: If necessary, click the lock and authenticate yourself first.
A list of groups appears.
- 2 Choose the group to add.
The group appears in the Group Permissions pane list.
- 3 Click in the Permission Set area next to the group name in the list, and choose a permission set to assign to the group.

See “About the Customer Profiles” on page 29 for information on the permission sets created by the installer for the customer profile you selected. See Chapter 4, “Adding Users and Groups,” on page 47 for information about using Workgroup Manager and creating permission sets.

Devices Pane Settings

Devices are storage locations where Final Cut Server can interact with assets and productions. When you installed Final Cut Server, you entered a production media location. By default, Final Cut Server creates three devices at that location: Library, Watchers, and Media.



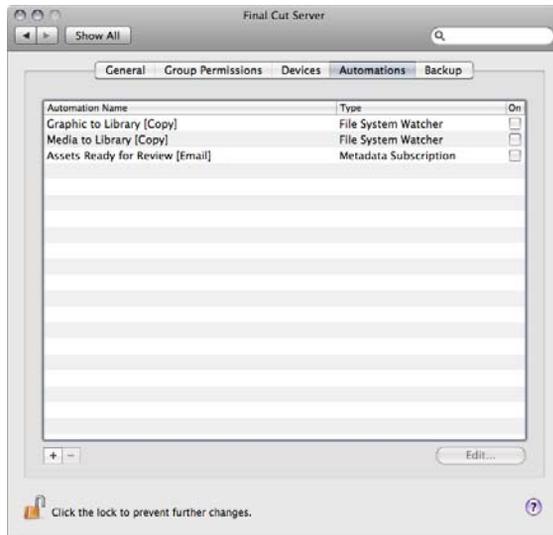
The Devices pane of System Preferences includes a Device Setup Assistant that you can use to modify these default devices or add additional devices. See Chapter 5, “Using Device Setup Assistant,” on page 59 for detailed information on adding and managing additional devices.

Automations Pane Settings

The Automations pane allows you to create, edit, and enable watchers and subscriptions.

- *Watchers* are Final Cut Server items that you configure to monitor a device. When an event occurs that it is watching for, such as a media file being added to the device or removed from it, the watcher executes a response, such as copying the media file to another location or sending an email.
- *Subscriptions* are Final Cut Server items that you configure to monitor metadata changes. When an event occurs that the subscription is watching for, such as an asset having its current status changed to Ready for Review, the subscription executes a response such as sending an email to the reviewer.

There are two types of automations you can configure with the Automation pane's Automation Setup Assistant: a file system watcher that responds to any file changes to a specified location and a metadata subscription that responds to specific metadata changes.



In each case, the response of the watcher or subscription can be to copy a file to another location, send an email to specified addresses, or archive a file.

The installer creates default watchers and subscriptions based on the customer profile you selected. Following are two examples:

- *Media to Library [Copy] watcher*: This file system watcher monitors the Watchers device's Media folder (created by the installer) and automatically copies any new assets in it to the Library device with no conversion.
- *Assets Ready for Review [Email] subscription*: This metadata subscription monitors all assets in the catalog and sends an email whenever any of the assets have their metadata changed to the Ready for Review state. This subscription (and any others using email responses) uses the email addresses you enter or email addresses entered as an asset's required reviewers.

You can modify or delete the default automations or create new ones using Automation Setup Assistant. You can control whether these automations are active or not with their On checkboxes.

See Chapter 6, "Using Automation Setup Assistant," on page 77 for detailed information on editing these automations and creating new ones.

Backup Pane Settings

The Backup pane allows you to create backup files containing all of the information from your Final Cut Server catalog, including preferences and system configuration information.



See Chapter 7, "Backing Up Final Cut Server," on page 91 for information on using the Backup pane.

This chapter covers the following:

- About Users and Groups (p. 47)
- Using the Accounts Pane of System Preferences (p. 49)
- Using Mac OS X Server Workgroup Manager (p. 53)
- Adding Groups to Final Cut Server (p. 56)
- About the Permission Sets (p. 57)

About Users and Groups

To use Final Cut Server, you usually need to add at least one group with at least one user. In most cases, you will create several groups, each configured with different permissions and then add the appropriate users to each group.

The Final Cut Server installer automatically adds the computer's Administrators group, named "admin," and applies the default "admin" permission set to it.

The actual creation of the groups and users can be done on a separate server computer using Open Directory or on the computer you installed Final Cut Server on using either the Accounts pane of System Preferences or using Mac OS X Server Workgroup Manager (if installed on Leopard Server). In Final Cut Server, you choose the groups to use, create permission sets, and assign the permission sets to each group.

Final Cut Server supports both locally created groups and users and Open Directory-based groups and users. If you have a smaller facility, it is easiest to create one or more local groups and local users. If you have a larger facility already using the Mac OS X Server Open Directory architecture, Final Cut Server can easily use that as the basis for configuring users and groups.

Important: If you use another computer as your Open Directory server, it must use Mac OS X Server v10.5 and not Mac OS X Server v10.4.

Groups enable asset security to be controlled in several ways. You can:

- Define filters restricting the assets and productions viewable by a group
- Control access to media on devices connected to Final Cut Server
- Control access to functions in the user interface

Note: A user can belong to multiple groups, each with its own permission set. The permission set with the highest priority determines the user's ability to access items within Final Cut Server. See "About the Permission Sets" on page 57 for more information.

Creating groups and users for Final Cut Server involves these steps:

Step 1: Create users in the Accounts pane of System Preferences or in Workgroup Manager

You can either create local users or skip this step if you already have user accounts set up using Open Directory.

Step 2: Create groups in the Accounts pane of System Preferences or in Workgroup Manager

You need to create one or more groups using the Accounts pane of System Preferences or Workgroup Manager. You may skip this step if suitable groups have already been created using Open Directory.

Step 3: Add users to the groups in the Accounts pane of System Preferences or in Workgroup Manager

Once you have created the groups, you can add users to them. You can mix local and Open Directory users.

Step 4: Add the groups to Final Cut Server

Once the groups have been created and users added to them, you need to add the groups to Final Cut Server.

Step 5: Create custom permission sets for the groups (if necessary)

Based on the profile selected during Final Cut Server installation, your system will already have several permission sets. These permission sets define a wide variety of permission settings, allowing you to control access to the Final Cut Server catalog. You can create additional permission sets if necessary. See “Adding and Managing Permission Sets” on page 127 for more information.

Step 6: Assign permission sets to groups

Assigning permission sets to the groups is the last step in making Final Cut Server available to your users.

This chapter covers the most common tasks in adding and configuring groups. See Chapter 10, “Groups and Permissions,” on page 125 for details about creating permission sets and using the client’s Administration window to manage permissions.

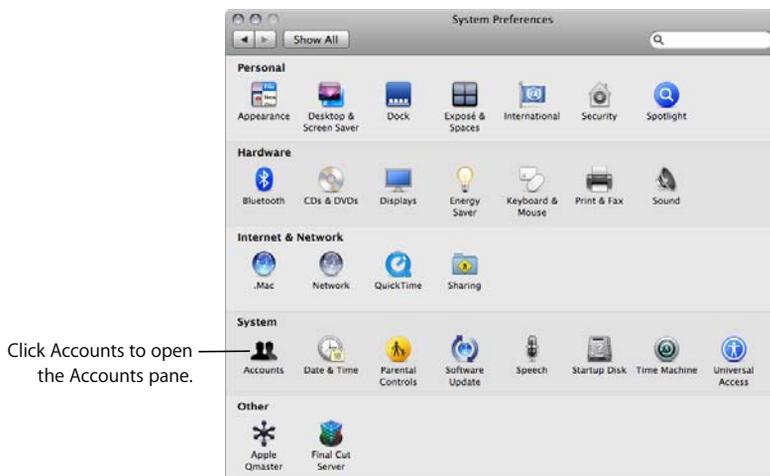
Using the Accounts Pane of System Preferences

The Accounts pane of System Preferences contains all that you need to create and manage local groups and users. This method is available to Leopard and Leopard Server users.

To open the Accounts pane of System Preferences:

- 1 Do one of the following:
 - Choose Apple menu > System Preferences.
 - Click System Preferences in the Dock.

The System Preferences window opens.



- 2 Click the Accounts button in the System category.
The Accounts pane appears.



Note: To make any changes to the Accounts pane, you must first authenticate yourself by clicking the lock and entering the name and password of a user with administration permissions.

Creating Users

Creating local users in the Accounts pane requires you to enter the user name and password and make a few basic choices about that user.

To create a local user account:

- 1 Click the Add (+) button.
- 2 Choose the type of account to create from the New Account pop-up menu in the dialog that appears.



- *Administrator*: An administrator can create and delete accounts, install software, change system settings, and change the settings of other users.
- *Standard*: A regular user account. A standard user can only install software for the user account, can't make changes to locked System Preferences, and can't create accounts.
- *Managed with Parental Controls*: An account with limited privileges that are managed by Parental Controls.
- *Sharing Only*: Can only access files in a specified location. Cannot change files on the computer or log in at the login window.
- *Group*: An account that consists of selected users. See "Creating Groups and Setting Their Membership," next, for more information about this option.

In most cases you will create Standard accounts.

- 3 Enter the name and password.

The short name is automatically created; however, you can change it in this dialog if necessary.

Note: You cannot change the short name once the account is created.

- 4 Set other attributes as needed.
- 5 Click Create Account.

The new user appears in the accounts list. You can modify an existing user account by selecting it in the accounts list.

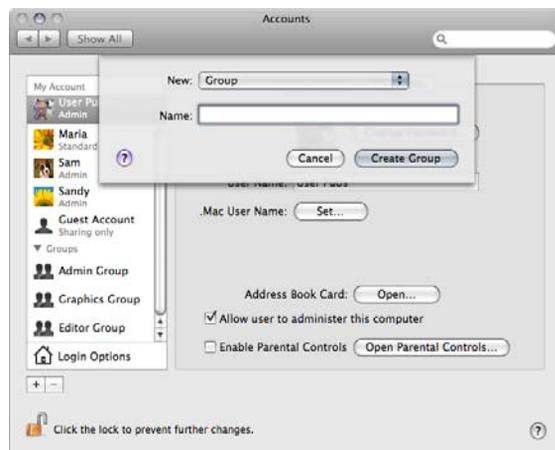
Creating Groups and Setting Their Membership

Creating local groups in the Accounts pane requires you to enter a group name.

To create a local group account:

- 1 Click the Add (+) button.
- 2 Choose Group from the New pop-up menu in the dialog that appears.

Note: The New pop-up menu may be named New Account, depending on the type of account created last.



- 3 Enter the name.
- 4 Click Create Group.

The new group appears in the accounts list. You can modify an existing group by selecting it in the accounts list.

To set the members of a group:

- 1 Click the group's name in the accounts list.
- 2 Select the checkboxes of all user accounts and groups that you want to be associated with this group.

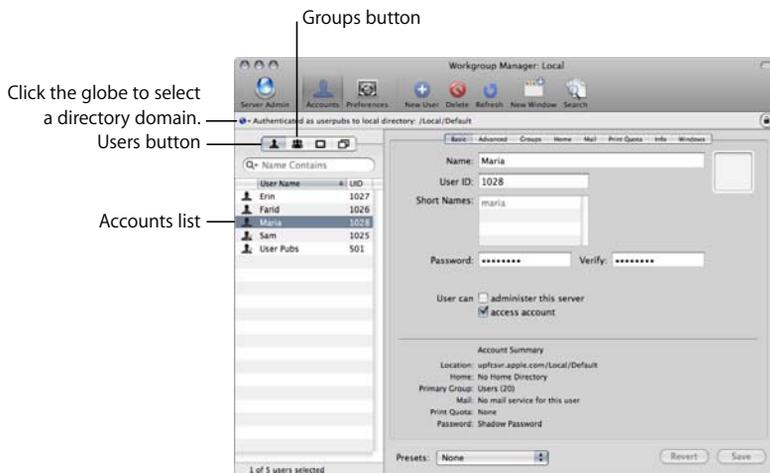


Change this group's name (if necessary).

Select the accounts and groups to make members of this group.

Using Mac OS X Server Workgroup Manager

Mac OS X Server Workgroup Manager is located in the Applications/Server/ folder of Leopard Server. Workgroup Manager contains all that you need to create and manage local and Open Directory–based groups and users.



Important: This manual covers only basic Workgroup Manager workflows and assumes you have a working knowledge of Workgroup Manager. It also assumes you have administrator privileges. See the Mac OS X Server documentation for detailed procedures.

Creating Users

Creating local users in Workgroup Manager requires you to enter the user name and password and make a few basic choices about that user.

To create a local user account:

- 1 Click the Accounts button in the Toolbar.
- 2 Click the globe, located below the Admin button in the Toolbar, to select the local directory domain.
- 3 Click the Users button, located above the accounts list.
The accounts list shows all local users already on the server.
- 4 Click the New User button in the Toolbar.
- 5 Enter the name and password.
- 6 Set other attributes as needed.
- 7 Click Save.

The new user appears in the accounts list. You can modify an existing user account by selecting it in the accounts list.

Note: You can also create local user accounts in the Accounts pane of System Preferences.

Creating Groups

Creating local groups in Workgroup Manager requires you to enter a group name.

To create a local group account:

- 1 Click the Accounts button in the Toolbar.
- 2 Click the globe to select the local directory domain.
- 3 Click the Groups button, located above the accounts list.
The accounts list shows all local groups already on the server.
- 4 Click the New Group button in the Toolbar.
- 5 Enter the name.
- 6 Set other attributes as needed.
- 7 Click Save.

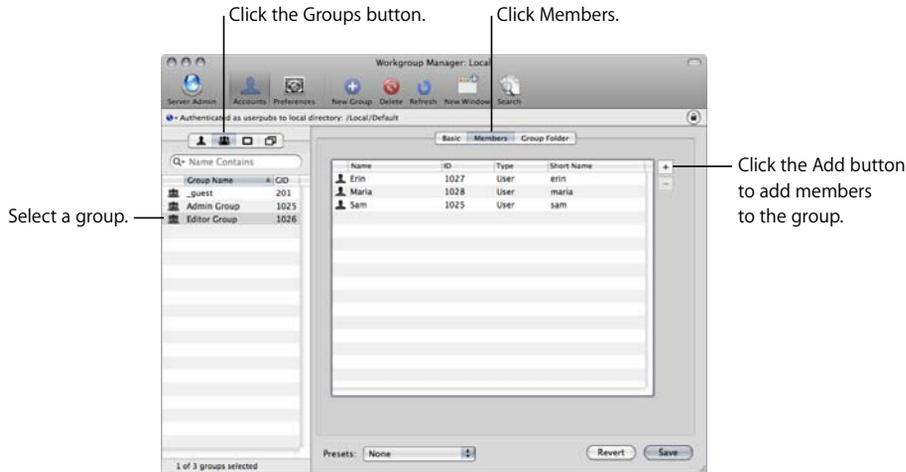
The new group appears in the accounts list. You can modify an existing group by selecting it in the accounts list.

Adding Users to a Group

Once you have created user and group accounts, you can add users to the groups.

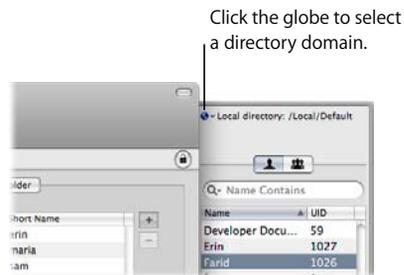
To add users to a group:

- 1 Select the group in the accounts list.



- 2 Click the Members button.
- 3 Click the Add (+) button.

A drawer opens with a list of user accounts.



You can click the drawer's globe to select a different directory domain. This makes it possible to add both local and other users to a group.

- 4 Do one of the following to add users from the drawer to the group's member list:
 - Drag a user's name from the drawer to the group member list.
 - Double-click the name in the drawer.
- 5 Click Save.

Adding Groups to Final Cut Server

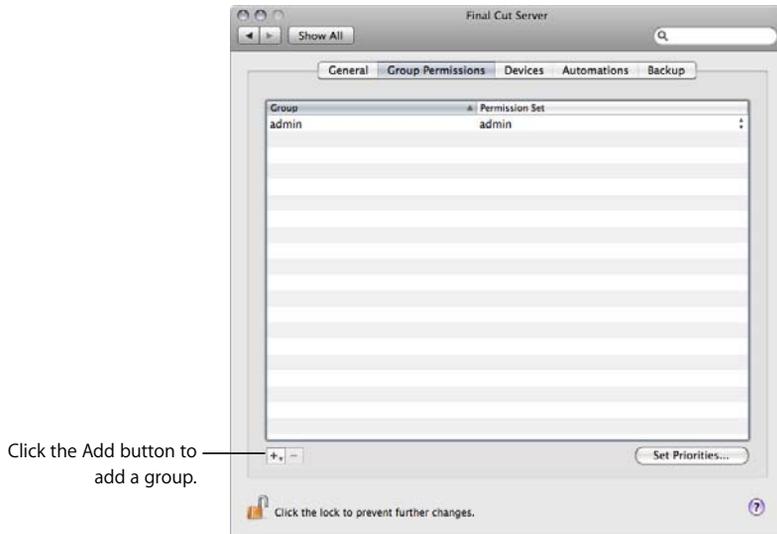
Once you have finished setting up your groups, you are ready to add the groups to Final Cut Server.

You can add the groups using the server's Final Cut Server System Preferences or you can use the client's Administration window.

Note: See “Adding Groups to Final Cut Server” on page 125 for information about using the client's Administration window to manage permissions. See “Adding and Managing Permission Sets” on page 127 for more information about permission sets.

To add a group to Final Cut Server using System Preferences:

- 1 Open System Preferences on the Final Cut Server computer.
- 2 Click the Final Cut Server icon in the Other area.
The Final Cut Server pane appears.
- 3 Click Group Permissions to see the group settings.



The left side lists the current Final Cut Server groups. The right side lists the permission set assigned to each group.

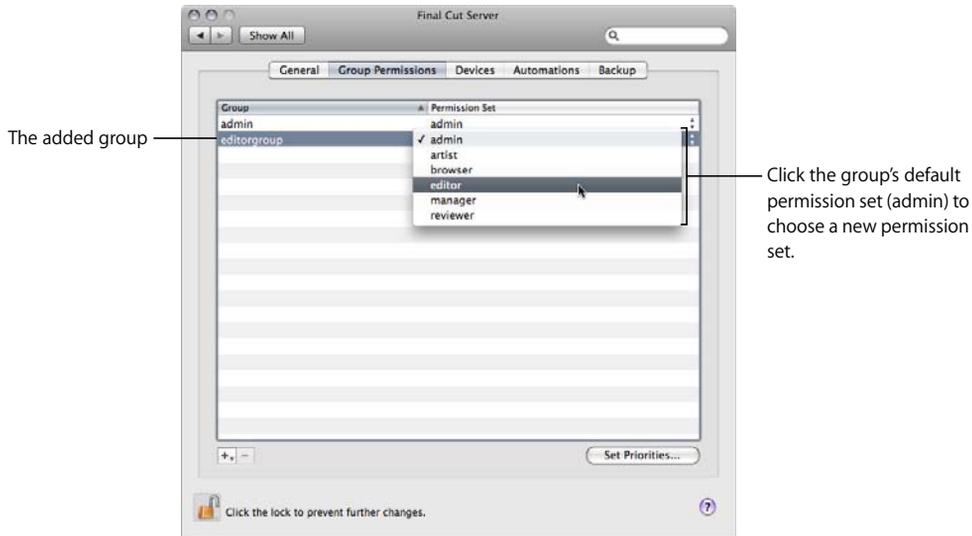
- 4 If the lock (in the lower-left corner) is closed, click it and authenticate yourself.
- 5 Click the Add (+) button.

A list of all groups, local and Open Directory, appears.

- 6 Choose the group to add from the pop-up menu that appears.

Note: If the list is long, you can type the first few letters of its name to jump to its part of the list.

The group is added to the Group list.



- 7 Click in the Permission Set area of the new group and choose a permission set from the pop-up menu.

About the Permission Sets

The Final Cut Server installer automatically creates six permission sets.

- *admin*: This is the only permission set that includes access to the Final Cut Server client's Administration window. It provides access to all aspects of the Final Cut Server system. It should only be assigned to groups of users that are capable of administering all aspects of the Final Cut Server system.
- *artist, manager, and editor*: These permission sets are all identical and provide access to all aspects of the Final Cut Server system except for those that are specific to the admin permission set.

The intention of these three permission sets is to give you a starting point for creating specific permission sets for different groups of users. For example, you might want to modify the artist permission set so that those users are only able to access specific devices that contain the graphics they work on.

- *reviewer*: This permission set is unable to create, delete, catalog, or edit any of the assets within the Final Cut Server catalog. The reviewer permission set is only able to see assets that have a status of Approved, Ready for Review, Rejected, or Completed.
- *browser*: This permission set is unable to create, delete, catalog, edit, edit details, or copy any of the assets within the Final Cut Server catalog. The browser permission set is only able to see assets that have a status of Approved.

You can create other permission sets using the Final Cut Server client's Administration window. See "Adding and Managing Permission Sets" on page 127 for more information.

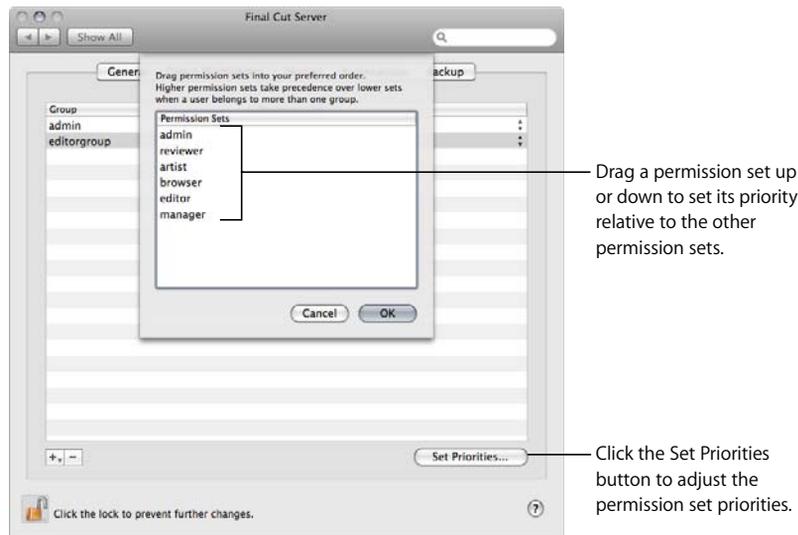
Because a user can belong to multiple groups and each group can have a different permission set, Final Cut Server includes the ability to set the priority level of each permission set. The permission set with the highest priority is the one applied when the user belongs to multiple groups.

Important: While it is normal to give permission sets with the broadest permissions the higher priorities, it is not required.

To set the permission set priorities:

- 1 Click Set Priorities in the Permissions pane of Final Cut Server System Preferences.

A pane appears showing the permission sets arranged in order of their priority, with the highest priority permission set (usually "admin") at the top.



- 2 Drag the permission sets to change their order.
- 3 Click OK to close the pane.

You can also set the priorities of the permission sets in the Administration window's Permission Set pane. See "Modify" on page 130 for more information.

This chapter covers the following:

- Introduction to Devices (p. 59)
- About Creating Devices (p. 60)
- About the Default Devices (p. 61)
- Adding a Device (p. 62)
- Device Type Configurations (p. 68)
- Editing an Existing Device (p. 73)
- Deleting an Existing Device (p. 74)

Introduction to Devices

Devices are simply file storage locations that have been configured for Final Cut Server to use to store and manage your assets and productions. The Final Cut Server installer creates a number of devices, including several used for specialized functions such as storing proxies and tracking asset versions. See “About the Default Devices” on page 61 for more information.

In addition to these default devices, you will usually need to create additional devices based on your system configuration. For example, if you have a volume that contains your current assets, you can create a device that scans that volume and automatically adds its assets to the Final Cut Server catalog. (Note that this process does not change anything on a volume you make into a device; the volume’s assets and structure are unchanged. The Final Cut Server catalog adds entries for each of the assets and suitable proxy files are created and stored in the Proxy device.)

Using Device Setup Assistant you can add, remove, and configure devices that Final Cut Server can use. Devices can be as simple as a folder on the Final Cut Server computer, an FTP server, or an Apple Xsan volume.

About Creating Devices

There are two methods you can use to add and modify devices within Final Cut Server: using Device Setup Assistant in Final Cut Server System Preferences and using the Devices pane of the client's Administration window.

About Creating Devices Using Device Setup Assistant

Device Setup Assistant in Final Cut Server System Preferences is simple to use and includes additional features, such as a scan and transcode settings configuration ability. Manually configuring similar features would require you to use multiple Administration panes.

Device Setup Assistant also makes it much easier to install certain kinds of devices, such as network devices and Xsan volumes, by simplifying the number of settings. Additionally, Device Setup Assistant verifies all settings you make before allowing you to continue to the next step. (Devices created with the Administration window are not verified until you actually use them.)

The drawbacks of using Device Setup Assistant are that you do not have access to some of the more esoteric settings and that you cannot configure several device types, such as a device using a Contentbase file system or an edit-in-place device that does not use an Xsan volume. However, you can modify a device created with Device Setup Assistant in the Administration window, configuring the more esoteric settings.

Important: Contentbase devices do not appear in the Devices pane of Final Cut Server System Preferences. All other devices, including those created by the installer and using the client's Administration window, appear in the Devices pane of Final Cut Server System Preferences.

About Creating Devices Using the Administration Window

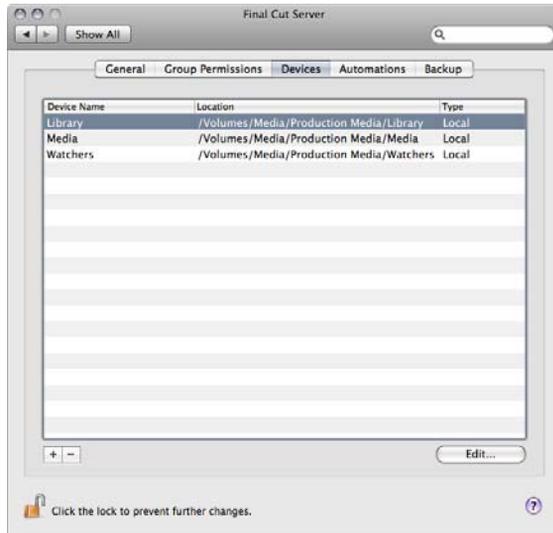
The Devices pane of the Administration window gives you access to more device settings than Device Setup Assistant. Most users, however, do not require these settings, although they can be useful in some situations. The Administration window is the only place that you can configure devices using the Contentbase file system or non-Xsan based edit-in-place devices.

Although you can configure network devices with the Administration window, it is more difficult with its variety of settings.

See Chapter 12, "Managing Devices," on page 163 for information on using the Administration window for managing your devices. See "About Edit-in-Place Devices" on page 172 for more information on edit-in-place devices.

About the Default Devices

When you installed Final Cut Server, you entered a production media location. By default, Final Cut Server creates three devices at that location: Library, Watchers, and Media.



The default Library, Watchers, and Media devices are actually just subfolders Final Cut Server created in the production media location. Users can use these devices as is; for example, they can add assets and productions to these devices.

The Watchers device is intended to be used for the automations created by the installer. For example, you could add media to this folder or one of its subfolders and an automation would notice the media and copy it to a different device, adding it to the Final Cut Server catalog and transcoding it if needed. The default automations are all configured to watch the folders within this device.

The Library and Media devices are intended to be used as general-purpose media storage locations. The default automations are all configured to copy media to the Library device.

Each of these devices has the following configurations:

- *Scan settings* allow you to have Final Cut Server automatically check the device for new, changed, or deleted assets at regular intervals. Only the Media device can have scan settings configured by the installer using the “Catalog Media device automatically” setting. See “Starting the Final Cut Server Installer” on page 24 for more information.
- *Transcode settings* allow you to choose a format to convert an asset to when it is uploaded or copied to the device. The Watchers device has no transcode settings assigned to it because it is not intended to be used as a destination when uploading or copying assets in Final Cut Server—it is intended to be the source device for upload operations. The Library and Media devices have all of the transcode settings assigned to them, making copying or uploading assets to those devices flexible and easy.

You can use Device Setup Assistant to modify these devices to include scan and transcode settings. You can also use Device Setup Assistant to modify the scan and transcode settings of these and other devices you add to Final Cut Server using Device Setup Assistant or the client’s Administration window. See “Editing an Existing Device” on page 73 for more information.

Adding a Device

Final Cut Server supports six types of devices when using Device Setup Assistant in Final Cut Server System Preferences:

- *Local*: Local devices include drives that are connected directly to the Final Cut Server computer. These can include additional internal hard disks as well as connected FireWire or USB drives.
- *Network AFP*: These are network-connected shares using the Apple Filing Protocol (AFP).
- *Network SMB/CIFS*: These are network-connected shares using the Server Message Block (SMB) and Common Internet File System (CIFS) protocols. These are usually Windows-based servers.
- *Network NFS*: These are network-connected shares using the Network File System (NFS) protocol.
- *Network FTP*: These are network-connected shares using the File Transfer Protocol (FTP).
- *Xsan*: These are devices that are located on an Apple Xsan storage area network.

Each device can have scan and transcode settings configured.

Scan settings define how often Final Cut Server examines the device to see if any content has changed. This is an optional setting.

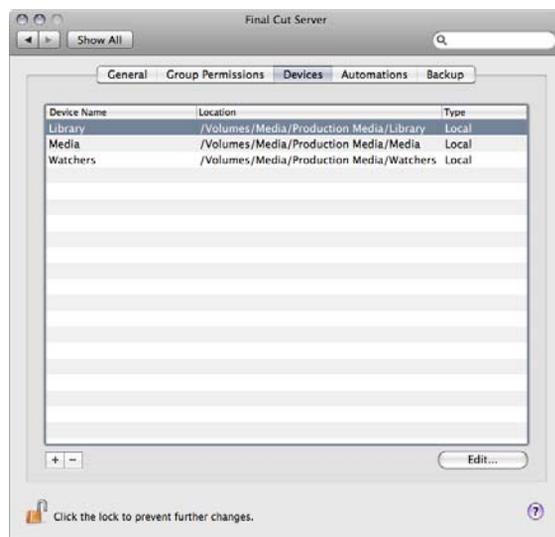
Note: Scan settings you configure using Device Setup Assistant create one or more schedules and one or more scan responses. These schedules and responses appear in the Final Cut Server client's Administration window's Schedule and Response panes.

Important: Scan settings you configure using Device Setup Assistant apply to the entire device—you cannot choose to only scan specific folders. You can create schedules and scan responses with the Administration window that apply to specific folders within a device or you can create devices using Device Setup Assistant from those folders.

Transcode settings define the various video and audio formats that the device can use when transcoding an asset. You must choose at least one transcode setting, although one of the settings is No Conversion. These settings are made available when you upload an asset to the device.

To add a device using Device Setup Assistant:

- 1 In Final Cut Server System Preferences, click Devices.



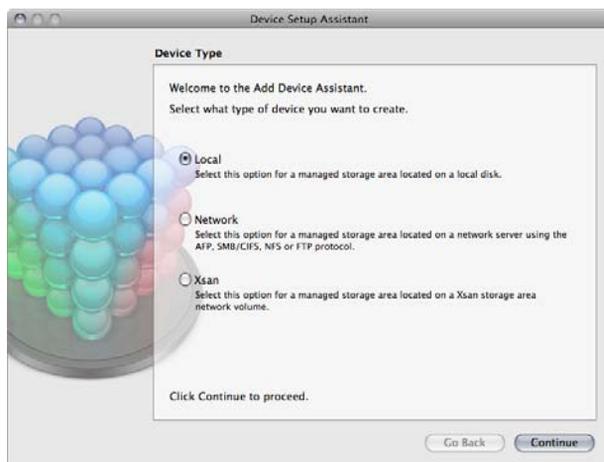
This pane lists the current devices.

Important: If you have created devices using the client's Administration window, they should appear in this list (except for Contentbase devices). If any are missing, you should quit System Preferences, then open it again to refresh the list.

- 2 Click the lock and authenticate yourself as the administrator.

3 Click the Add (+) button.

Device Setup Assistant starts.



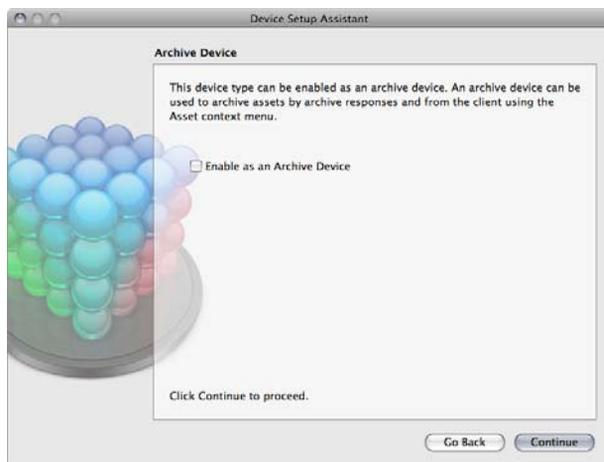
4 Select one of the three choices, then click Continue:

- *Local*: Select this when you are creating a device stored on a local drive.
- *Network*: Select this when you are creating a device stored on a networked device.
- *Xsan*: Select this when you are creating a device stored on an Xsan storage area network.

Depending on which of the above you selected, a pane appears to configure the device. See “Device Type Configurations” on page 68 for specific details about each device type.

5 Configure the Device Type pane, then click Continue.

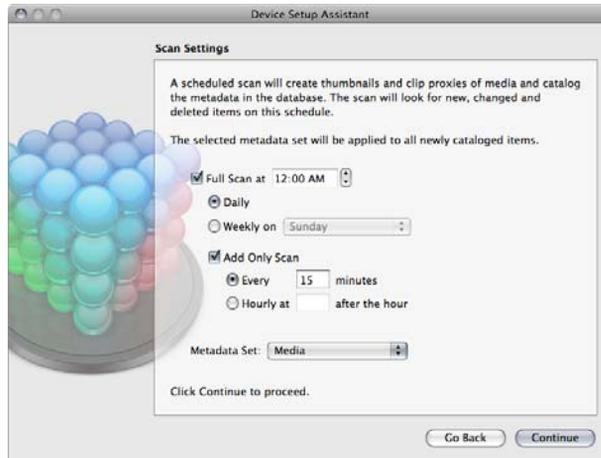
The Archive Device pane appears.



- 6 Click the Enable as an Archive Drive checkbox if you intend this device to be used as an archive device.

Archive devices are used for long-term storage of assets and productions. They are generally large or slow external disk drives or network connections that are connected to the computer only when needed. When you archive an asset or production, its media file is copied to the archive device and removed from its current device, freeing up disk space on that device. The asset or production remains in the Final Cut Server catalog and can be restored at a later date if necessary.

- 7 Click Continue.
 - If you selected the Enable as Archive Device checkbox, the Conclusion pane appears, as described in step 11.
 - If you did not select the Enable as Archive Device checkbox, the Scan Settings pane appears.



8 Configure the scan settings.

There are two types of scans you can configure: full and add only.

- *Full scans* examine the device for any changes, including any new, changed, or removed files. All of these changes are then made to the Final Cut Server catalog. Full scans are processor intensive and may require significant computer resources to run. For that reason, they are usually set to run once a day or once a week, and usually at an otherwise slow time, such as the default time of 12:00 AM.
- *Add Only scans* are not as thorough as full scans, locating only new and changed files with a created or modified date between the last time this scan ran and the current time (it will not see new files with created or modified dates older than when the scan last ran; for example, files that you dragged to the device from the Finder). These changes are then made to the Final Cut Server catalog. Because add only scans are not as processor intensive as full scans, they are configured to run often, such as at the default frequency of every 15 minutes.

Note: Device Setup Assistant requires you to configure a full scan before you can configure an add only scan. See “General Automation Tips” on page 195 for more information you should be aware of when configuring scan responses.

Important: Scan responses created for a device using Device Setup Assistant will have versioning disabled, regardless of whether version control was enabled when you installed Final Cut Server. You can edit the response using the Final Cut Server client’s Administration window.

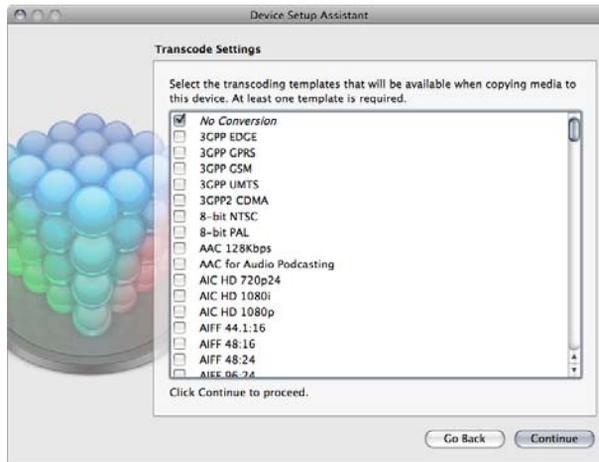
9 Use the Metadata Set pop-up menu to choose a metadata set to assign to assets added to the Final Cut Server catalog by these scans.

Metadata sets, which are comprised of metadata groups and fields, define the types of metadata you can add to an asset. You can create custom metadata sets, groups, and fields using the Final Cut Server client’s Administration window. See Chapter 11, “Managing Metadata,” on page 135 for more information.

Important: You cannot assign a different metadata set to an asset later.

- 10 Click Continue.

The Transcode Settings pane appears.



- 11 Select one or more transcoding settings for this device to use whenever an asset has to be transcoded, then click Continue.

The No Conversion item is selected by default.

Note: You can manage the list of transcoding settings with the Transcode Settings pane in the client's Administration window. See Chapter 13, "Managing Transcode Settings," on page 187 for more information.

The Conclusion pane appears.

- 12 Verify the configuration settings for the device, then click Done to create the device.

Device Setup Assistant closes and the new device is added to the Devices pane of Final Cut Server System Preferences.

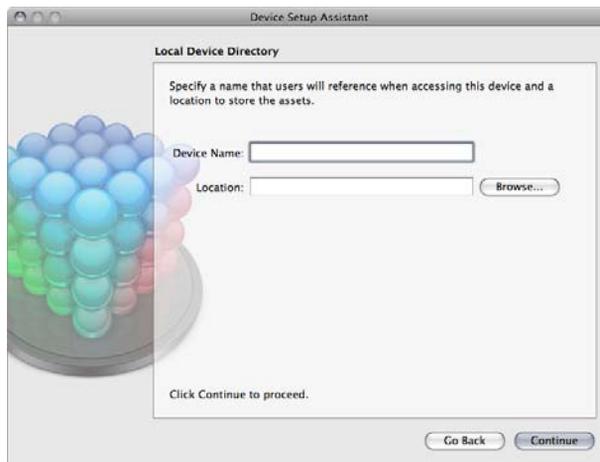
Device Type Configurations

Device Setup Assistant shows different panes depending on the device type you choose. See “Adding a Device” on page 62 for definitions of these device types.

Local Devices

Local devices include drives that are connected directly to the Final Cut Server computer. These can include additional internal hard disks as well as connected FireWire or USB drives. Directly connected Xserve RAIDs are especially useful.

Important: It is strongly suggested that you do not create any devices on the server computer’s startup disk. Devices contain large media files and can use all of the available disk space on their hard disk, which causes serious issues if that hard disk is also the startup disk.



The pane for local devices contains the following settings:

- *Device Name:* Enter a name for the device.
- *Location:* Enter a location for the device. This can be a folder on any internal disk drive or external drive connected using FireWire or USB. Click Browse to locate the drive and folder to use as the device.

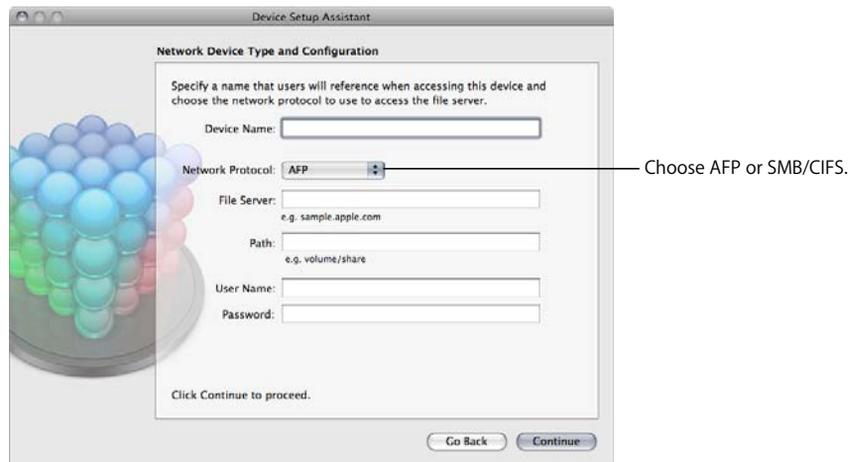
Network Devices

There are four types of network devices you can add. The Network Device Type pane includes a Network Protocol pop-up menu for choosing the type of network drive to use.

Important: All AFP, SMB, and FTP network devices created with Device Setup Assistant require you to use a password. You can create these devices without passwords using the Administration window of the Final Cut Server client.

AFP and SMB Networks

The following pane appears with Apple Filing Protocol (AFP), Server Message Block (SMB), and Common Interface File System (CIFS) network-connected shares.

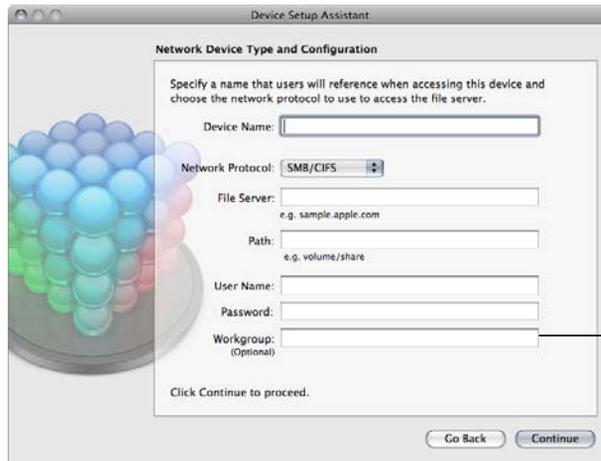


AFP and SMB/CIFS devices have the following settings:

- *Device Name:* Enter a name for the device.
- *Network Protocol:* Choose the type of network connection required for this device. In this case, choose either AFP or SMB/CIFS to match your network connection.
- *File Server:* Enter the hostname of the server.
- *Path:* Enter the path of the server to use as the root path.
- *User Name:* Enter your user name in this field to log in automatically to the server on every attempted server access, such as searching and copying.
- *Password:* Enter the password that goes with the above User Name entry. Leave this field blank if the User Name field is blank.

SMB/CIFS devices have an additional setting:

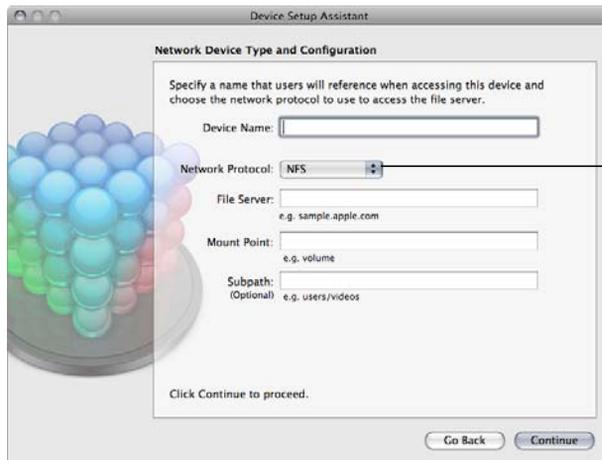
- *Workgroup*: Enter the name of the workgroup.



The Workgroup field appears when you choose the SMB/CIFS network protocol.

NFS Networks

The following pane appears with Network File System (NFS) protocol network-connected shares.



Choose NFS.

NFS network devices have the following settings:

- *Device Name*: Enter a name for the device.
- *Network Protocol*: Choose the type of network connection required for this device. In this case, choose NFS to match your network connection.
- *File Server*: Enter the hostname of the server.
- *Mount Point*: Enter the path that the server exports for use as the root path.
- *Subpath*: Enter a path to the folder this device is to use as its root path.

FTP Networks

The following pane appears with File Transfer Protocol (FTP) network-connected shares.



FTP network devices have the following settings in its pane:

- *Device Name:* Enter a name for the device.
- *Network Protocol:* Choose the type of network connection required for this device. In this case, choose FTP to match your network connection.
- *File Server:* Enter the hostname of the server.
- *Absolute Path:* Enter the path of the server to use as the root path. If this path starts with a forward slash (/), it is relative to the root folder of the server. If this path does not start with a forward slash, it is relative to the default folder of the server the user uses to log in (usually the user's home folder).
- *Use Passive FTP Mode:* Select this checkbox to use passive mode FTP transfers.
- *User Name:* Enter your user name in this field to log in automatically to the server on every attempted FTP server access, such as searching and copying. Leave this field blank to display the login page on every attempted FTP server access.
- *Password:* Enter the password that goes with the above User Name entry. Leave this field blank if the User Name field is blank.

Xsan Devices

Apple Xsan storage area network (SAN) devices provide fast access to media files. Xsan devices are automatically configured with an edit-in-place path. This allows Final Cut Server clients with access to the same Xsan volume to have high performance file transfers. Clients without access to the Xsan volume will experience normal network performance for file transfers.

Important: Xsan volumes must be mounted locally on this server using the Xsan Administrator application before it is possible to configure them as Final Cut Server devices.



The Xsan Device Directory pane contains the following settings:

- *Device Name:* Enter a name for the device.
- *Location:* Enter a location for the device. Click Browse to locate the Xsan volume and folder to use as the root of the device.

Editing an Existing Device

You can edit the location, scan, and transcode settings of any devices that you create with Device Setup Assistant. You can also edit the location and transcode settings and add scan settings to devices created with the client's Administration window.

Important: Not all device settings that are available in the client's Administration window are editable with Device Setup Assistant. Those unique settings are left as they are by Device Setup Assistant.

To edit an existing device using System Preferences:

- 1 Click Devices in the Final Cut Server pane of System Preferences.
- 2 In the Devices pane, do one of the following:
 - Double-click the device you want to change.
 - Select the device, then click the Edit button.

Note: You must unlock System Preferences to activate the Edit button.

Important: If you have created devices using the client's Administration window, they should appear in the Devices pane list (except for Contentbase devices). If any are missing, you can lock and then unlock the pane to refresh the list.

Device Setup Assistant appears, showing the Directory pane.

- 3 Configure the Directory pane and click Continue.
The Scan Settings pane appears.
- 4 Configure the Scan Settings pane and click Continue.
The Transcode Settings pane appears.
- 5 Select all of the transcode settings that you would like this device to support, then click Continue.
The Summary pane appears, showing the changes you have made.
- 6 Click Done to apply the changes to the device.

Deleting an Existing Device

You can delete any of the existing devices by using the Delete button (-) of the Final Cut Server System Preferences Devices pane.

Important: If you have created devices using the client's Administration window, they should appear in the Devices pane list (except for Contentbase devices). If any are missing, you can lock and then unlock the pane to refresh the list.

To delete an existing device using System Preferences:

- 1 Select the device in the Devices pane.
- 2 Do one of the following:
 - Press the Delete key.
 - Click the Delete (-) button.

A dialog appears warning you that all pending jobs will be canceled and that this deletion cannot be undone. Additionally, it lists how many responses and watchers are going to be deleted in addition to the device.

- 3 Click OK.

The device is removed from the device list.

The following are some things to keep in mind when deleting a device:

- Deleting a device removes it and all of its assets from the Final Cut Server catalog. This includes removing all proxy files from the Proxy device and versions from the Version device.

Note: If the deleted device contained many assets that were in the Final Cut Server catalog, it might take a significant amount of time for the delete operation to finish. You cannot continue working with System Preferences until the delete completes.
- Deleting a device does not affect the actual contents of the device's volume.
- If a job involving the device is in progress when you delete it, that job must be completed before the device is actually deleted. (All other pending jobs are canceled.) If you do not want to wait for the current job to finish, you can cancel it in the client's Search All Jobs window.
- If you used Device Setup Assistant to add scans to a device, the schedules and responses created for those scans are also deleted when the device is deleted.

- If you used the client's Administration window to configure any schedules or responses for a device, only the scan and copy responses that reference that device are deleted when the device is deleted. You can use the client's Administration window to manually delete any schedules that were created for the deleted device.
 - Any watchers that reference the device being deleted are also deleted. Any responses that support the deleted watchers are not deleted, and will have to be deleted manually using the client's Administration window.
- ▶ **Tip:** To make it easier to know which responses, watchers, and devices are related to each other, be sure to give them all names that make it easy to identify them.

This chapter covers the following:

- About Creating Automations (p. 77)
- About the Default Automations (p. 78)
- Creating Automations (p. 79)
- Editing an Existing Automation (p. 88)
- Deleting an Existing Automation (p. 89)

About Creating Automations

The Automations pane allows you to create, edit, and enable automated watchers and subscriptions.

- *Watchers* are Final Cut Server items that you configure to monitor a device. When an event occurs that it is watching for, such as when a media file is added to the device or removed from it, the watcher executes a response such as copying the media file to another location or sending an email.
- *Subscriptions* are Final Cut Server items that you configure to monitor metadata changes. When an event occurs that the subscription is watching for, such as when an asset has its current status changed to Ready for Review, the subscription executes a response such as sending an email to the reviewer.

Final Cut Server provides two methods for creating automations: using Automation Setup Assistant (described in this chapter) and using the client's Administration window.

About Creating Automations Using Automation Setup Assistant

Automation Setup Assistant makes it easy to create the most commonly used automations. You can also modify any of the automations you create, including the default automations created by the Final Cut Server installer.

About Creating Automations Using the Administration Window

The Final Cut Server client's Administration window contains a set of panes that make it possible to create highly complex automations. The drawback of this is that it is a bit complicated to configure simple automations.

See Chapter 14, "Managing Automations," on page 193 for detailed information.

About the Default Automations

The installer creates default watchers based on the customer profile you selected. Following are two examples:

- *Media to Library [Copy] watcher*: This file system watcher monitors the Watchers device's Media folder (created by the installer) and automatically copies any new assets in it to the Library device with no conversion. It also then deletes the assets from the Watchers device's Media folder.

These watchers are all based on subfolders in the Watchers device. The name of the folder is listed first in the watcher's name. Depending on the customer profile you selected during installation, these folders can include Graphic and Media. These watchers also apply suitable metadata sets to each folder's assets.

All of these automations are configured to copy any media added to any of these folders to the Library device with no transcoding of the media.

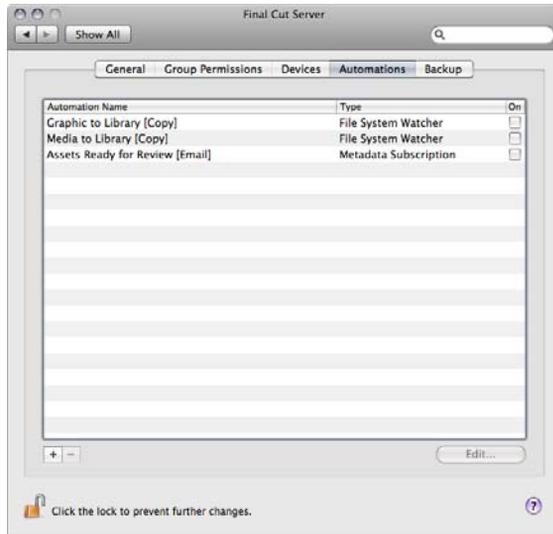
- *Assets Ready for Review [Email] subscription*: This metadata subscription monitors all assets in the catalog and sends an email whenever any of the assets have their metadata changed to the Ready for Review state. This subscription (and any others using email responses that were created by the installer) uses the email addresses you enter or email addresses entered as an asset's required reviewers.

You can modify any of the default automations or create new ones using the Automations pane. You can control whether these automations are active or not with their On checkboxes (by default they are all disabled).

See "Editing an Existing Automation" on page 88 for information on editing an automation.

Creating Automations

There are two types of automations you can configure with Automation Setup Assistant: a file system watcher that responds to any file changes to a specified location and a metadata subscription that responds to specific metadata changes.



In each case, the response of the automation can be to copy a file to another location, send an email to specified addresses, or archive a file.

To create a new automation:

- 1 Unlock the Final Cut Server pane of System Preferences.
- 2 Click Automations to show the Automations pane.

This pane lists the current watchers and subscriptions.

Important: If you have created watchers and subscriptions using the client's Administration window, they should appear in this list. If any are missing, you can lock and then unlock the pane to refresh the list.

- 3 Click the Add (+) button to open Automation Setup Assistant.



- 4 Select either File System Watcher or Metadata Subscription, then click Continue.

A pane appears for you to set up the selected automation type. See “File System Watcher Details” on page 82 and “Metadata Subscription Details” on page 83 for more information about these two choices.

- 5 Configure the selected automation type, then click Continue.

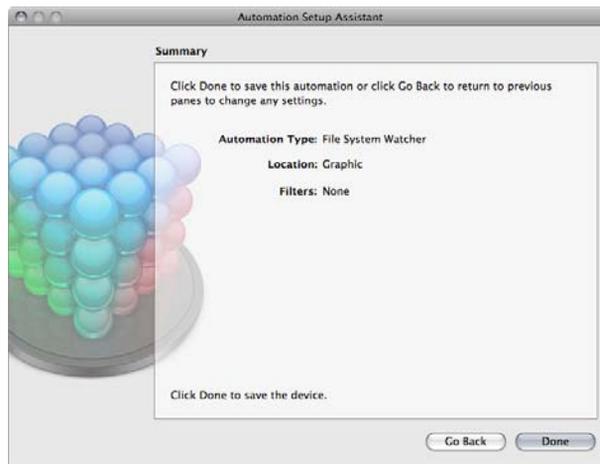
The Responses pane appears. This pane is similar for both automation types. It is what you use to add one or more responses to the automation.



Click the Add button to choose the response type to use.

- 6 Click the Add (+) button, then choose a response type to add to the automation:
 - *Copy Response*: This response copies items from their current location to the location specified in this response. You can also choose to transcode the items during the copy. See “Copy Response Details” on page 85 for more information.
 - *Email Response*: This response emails the addresses you enter. You add the email addresses, the subject, and the body text. There are a variety of helpful codes you can enter to automatically include asset names and other information. See “Email Response Details” on page 86 for more information.
 - *Archive Response*: This response archives the items. Archiving copies the asset’s primary file to the selected archive device (if any archive devices have been configured) and removes it from its current location. See “Archive Response Details” on page 87 for more information.
 - *Delete Response*: This response is usually used with watchers that also use a copy response. Once the copy response copies the assets from the folder that the watcher is monitoring, the delete response removes them from the watched folder. See “Delete Response Details” on page 88 for more information.

Note: If used, delete responses must be the last item in the Responses pane.
- 7 Click Continue once you have added and configured all of the responses you need. The Summary pane appears.



- 8 Confirm that the settings are as intended, then click Done to close Automation Setup Assistant and add the new automation to the list in the Automations pane.

File System Watcher Details

Configuring the settings for a file system watcher involves choosing the device to watch, entering a specific location on that device, and optionally adding media format extensions to specifically watch for.

See “Creating Automations” on page 79 for information on opening Automation Setup Assistant and getting to this pane by selecting File System Watcher.



To configure a file system watcher's details:

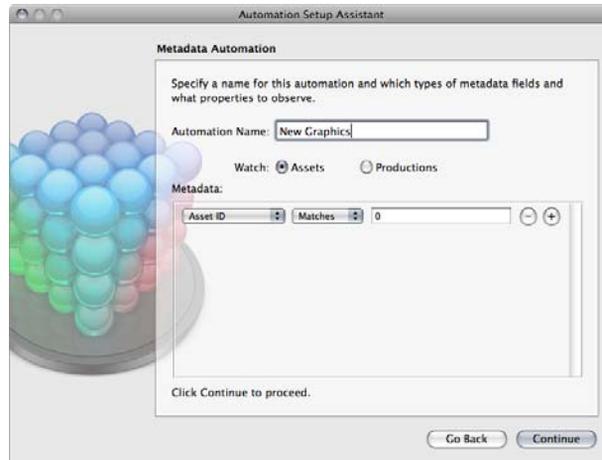
- 1 Enter a name for the automation.
This is the name that will appear in the Watcher pane of the client's Administration window.
- 2 Choose a device from the Device pop-up menu.
- 3 Select the Watch Subfolder checkbox if you want to specify a subfolder to be watched. Leave this unselected if you want to scan only the root level of the device.
- 4 Enter a subfolder location on the device to watch (if applicable).
- 5 Optionally, click the Add (+) button to specify file types to watch for, based on their extension.
- 6 Click Continue to go to the Responses pane.

See “Creating Automations” on page 79 for information on the Responses pane.

Metadata Subscription Details

Configuring the settings for a metadata subscription automation involves choosing whether to watch assets or productions and configuring specific rules to look for.

See “Creating Automations” on page 79 for information on opening Automation Setup Assistant and getting to this pane by selecting Metadata Subscription.



To configure a metadata subscription automation:

- 1 Enter a name for the automation.
This is the name that will appear in the Subscription pane of the client's Administration window.
- 2 Select whether to watch assets or productions.
- 3 Configure the Metadata area to specify the metadata to watch for.
You can add multiple lines in the Metadata area to make the subscription very specific. Click the Add (+) button to add an additional line or the Delete (-) button to remove a line (when more than one line is present).
- 4 Click Continue.

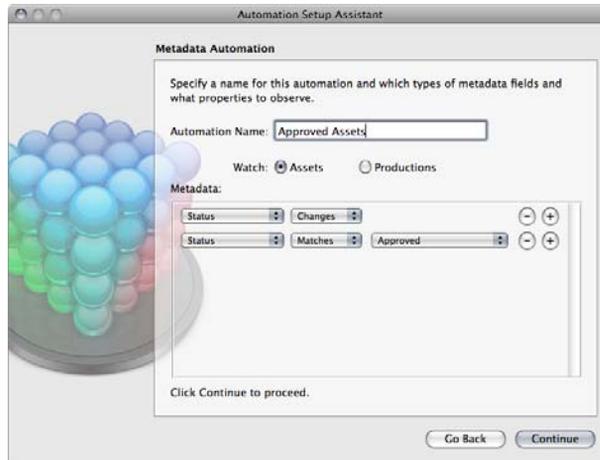
The Responses pane appears. See “Creating Automations” on page 79 for information on the Responses pane.

Each line in the Metadata area contains at least two pop-up menus:

- The first pop-up menu in the line chooses the metadata field to watch. In general, you cannot add multiple lines that have the same metadata field selected. The exception is if one of the lines has its operator (the second pop-up menu) set to Changes.
- The second pop-up menu chooses the operator to use when monitoring the first pop-up menu's metadata field. This choice determines whether a third item appears in the line, which can be a text entry field or a third pop-up menu.

For example, if you want the automation to watch for an asset whose status changes to Approved, you can use two lines.

- Choose Status in the first line's first pop-up menu, then choose Changes in the second pop-up menu. This sets this automation to only activate if the Status metadata field for an asset changes.
- Add a second line and choose Status in its first pop-up menu, choose Matches in the second pop-up menu, and then choose Approved in the third pop-up menu.



This sets this automation to only notice assets whose status changes to Approved and to ignore any assets previously set to Approved.

Copy Response Details

You use a copy response when you want to copy the items identified by the automation to a different location.



The settings for a copy response are as follows:

- *Name*: Enter the name of the response. This name will appear in the Responses pane of the Administration window.
- *Destination Device*: Choose a device to copy the items to.
- *Destination Subfolder*: Click this checkbox to use the Browse button to choose a Destination Device subfolder.
- *Transcode source to*: Choose a transcode setting to use during the copy. This list is based on the transcode settings assigned to the device you choose.
- *Metadata Set*: Choose the metadata set to apply to the copied assets. Choose None to have the media file copied but not added to the Final Cut Server catalog as an asset. Metadata sets, which are comprised of metadata groups and fields, define the types of metadata you can add to an asset. You can create custom metadata sets, groups, and fields using the Final Cut Server client's Administration window. See Chapter 11, "Managing Metadata," on page 135 for more information.

Important: If the destination device already contains a file with the same name as the one being copied, copy responses by default will not overwrite that file, and instead, will add a numbered extension to the new file's name. Copy responses created using the Final Cut Server client's Administration window can optionally be set to overwrite an existing file with the same name. See "About Copy Responses" on page 207 for more information.

Email Response Details

You use an email response when you want to send an email whenever the automation has detected whatever it has been configured to detect.



The settings for an email response are as follows:

- **Name:** Enter the name of the response. This name will appear in the Responses pane of the Administration window.
- **To:** Enter the email addresses to send the email to. Use a comma to separate addresses; for example, rev1@apple.com,rev2@apple.com.
- **From:** Enter the email address to send the email from. This is the “reply to” address to which the email recipient can send an email if necessary.
- **Subject:** Enter the email subject. You can enter codes to automatically add specific information to the email’s subject.
- **Body:** Enter the email’s main text. You can enter codes to automatically add specific information to the email.
- **Insert Metadata Field:** Choose a metadata field name from this pop-up menu to have that field’s data added to the email. The fields are added as text in square brackets at the insertion point’s location in this pane, with the actual field’s data being substituted for that text when the email is actually created and sent.

For example, you can add the “Required reviewers” metadata field to the To entry (it appears as [Required reviewers]); when the email is actually sent, all email addresses added to the asset’s “Required reviewers” field are automatically entered in the To entry.

Keep the following points in mind when using the Insert Metadata Field feature:

- You can add metadata fields to the To, Subject, and Body entries of the email.
- If the asset does not have any data for a metadata field added to the email, the email includes the bracketed field name in the email in place of the data.
- You can create custom metadata fields that appear in the Insert Metadata Field pop-up menu—all you have to do is add them to a metadata group using the Administration window. The metadata fields that appear in this list are those that are part of metadata groups in the Custom Metadata category (in other words, any groups that can be added to a metadata set). See “Metadata Fields” on page 138 for more information.
- In addition to choosing a metadata field from this pop-up menu, you can manually type the metadata field’s name (enclosed in square brackets). Since these are case-sensitive, be sure to exactly match the name of the metadata field.

Archive Response Details

You use an archive response when you want the identified items to be archived.



The settings for an archive response are as follows:

- *Name*: Enter the name of the response. This name will appear in the Responses pane of the Administration window.
- *Destination Archive Device*: Choose an archive device from this pop-up menu.
- *Destination Subfolder*: Click this checkbox to use the Browse button to choose a Destination Archive Device subfolder.

Delete Response Details

You use a delete response when you want to remove assets from the watch folder after they have been copied by a copy response.



There are no settings for a delete response.

Note: When used, delete responses must be the last item in the Responses pane.

Editing an Existing Automation

You can edit an existing watcher or subscription automation using Automation Setup Assistant. This includes those created using Automation Setup Assistant and those created using the client's Administration window. For example, you may find that you need to change an email address.

Important: If you have created watchers and subscriptions using the client's Administration window, they should appear in the Automations pane list. If any are missing, you should quit System Preferences, then open it again to refresh the list.

To edit an existing automation:

- 1 Authenticate yourself if necessary.
- 2 Do one of the following:
 - Double-click an existing automation.
 - Select an automation, then click the Edit button.

The automation opens in Automation Setup Assistant, where you can make any needed changes.

Note: You cannot change the automation type (file system watcher or metadata subscription).

Important: When editing an automation created using the client's Administration window, you will not be able to edit any responses assigned to it other than email, copy, or archive responses. However, you can remove any response, whether it is editable or not, from the automation.

Deleting an Existing Automation

You can delete any of the existing automations by using the Delete button (-) of the Final Cut Server System Preferences Automations pane.

To delete an existing automation using System Preferences:

- 1 Select the automation in the Automations pane.
- 2 Do one of the following:
 - Press the Delete key.
 - Click the Delete (-) button.

A dialog appears warning you that this deletion cannot be undone. Additionally, it lists how many items are going to be deleted.

- 3 Click OK.

The automation is removed from the device list.

The following are some things to keep in mind when deleting an automation:

- When you delete an automation created using Automation Setup Assistant, any responses created for that automation by Automation Setup Assistant are also deleted. Any responses that you created and manually added to the automation using the client's Administration window are not deleted.
- When you delete an automation created using the client's Administration window, no responses are deleted.

This chapter covers the following:

- Introduction to Backing Up Your System (p. 91)
- Backup Strategies (p. 92)
- Backing Up Your Final Cut Server Catalog (p. 94)
- About the Backup Files (p. 95)
- Restoring Your Final Cut Server Catalog (p. 96)

Introduction to Backing Up Your System

Final Cut Server includes a backup feature that allows you to create a backup copy of the Final Cut Server catalog. Being able to restore the catalog from the backup copy can help you get your system running again should you need to reinstall Final Cut Server.

The Backup pane makes it easy to manually or automatically make backup copies of your Final Cut Server catalog.

Important: The backup feature only backs up the Final Cut Server catalog—it does not back up any assets or projects stored on any of your devices.

Backup Strategies

A Final Cut Server system is comprised of a lot of files stored on a variety of computers and devices. Backing up an entire Final Cut Server system can be challenging, especially when you consider the potentially large file sizes you may have to deal with.

Backing Up Devices

Backing up assets on your devices is straightforward. You can use any current backup system to make copies of the assets. If you back up your devices as well as your Final Cut Server catalog, it is a good idea to back them up at the same time. This ensures the data in the catalog's backup will match the assets in the device backups.

It is especially important to back up your Proxies and Version devices when you back up your Final Cut Server catalog. Both of these devices contain special assets used by Final Cut Server and both use the Contentbase file system. A suggested backup strategy is to back up the Final Cut Server catalog and place its backup file on the same volume as the Proxies and Version devices. As soon as the catalog is backed up, you can then back up it and the two devices at the same time using your normal backup procedures.

Backing Up the Final Cut Server Catalog

Backing up your Final Cut Server catalog actually entails much more than just a file or two. For that reason, Final Cut Server includes a backup feature that automates the backup process.

The result of backing up your Final Cut Server catalog is a .zip file that contains a snapshot of all aspects of your Final Cut Server catalog. This snapshot includes:

- All groups and their permissions
- All metadata for all assets and projects
- All automations, regardless of whether they were created with Automation Setup Assistant or the client's Administration window
- A list of all devices and their settings, regardless of whether they were created with Device Setup Assistant or the client's Administration window
- All log and job history entries
- All preference settings

The goal of backing up your Final Cut Server catalog is to be able to return to a known state should there be a catastrophic failure, such as a hard disk failure. Following is an example of the steps you could take to recover from a hard disk failure on your server computer.

Step 1: Reinstall Mac OS X on the computer

The first step toward recovering from a hard disk failure is to reinstall the Mac OS X v10.5 Leopard or Mac OS X Server v10.5 Leopard operating system.

Step 2: Configure your groups as they were previously

Once restored, Final Cut Server will expect the same groups to be available that were in use previously.

Step 3: Restore your Proxy and Version files

If you backed up the Proxy and Version files at the same time that you last backed up the Final Cut Server catalog (as suggested previously), you need to restore these files. These must appear exactly as they did when you last backed up Final Cut Server, in exactly the same folder location relative to the hard disk's root folder. Final Cut Server automatically reconnects to these when its catalog is restored.

Step 4: Install Final Cut Server

You need to reinstall Final Cut Server from the original installation disc. Any settings you configure during the installation process, such as the location for the proxy server, are changed back to the previously backed up settings once you restore the Final Cut Server catalog.

Important: The backup files are specific to the version of Final Cut Server being used when the files are saved. Before you can restore a backup file, you must make sure that the Final Cut Server version is exactly the same as when the backup file was created. This may mean using Software Update after installing Final Cut Server from your original installation disc.

Be sure to deselect the "Catalog Media device automatically" item in the Final Cut Server installer's Settings for Profile pane to ensure that no automations begin running while you are in the process of restoring your catalog. See "Starting the Final Cut Server Installer" on page 24 for more information.

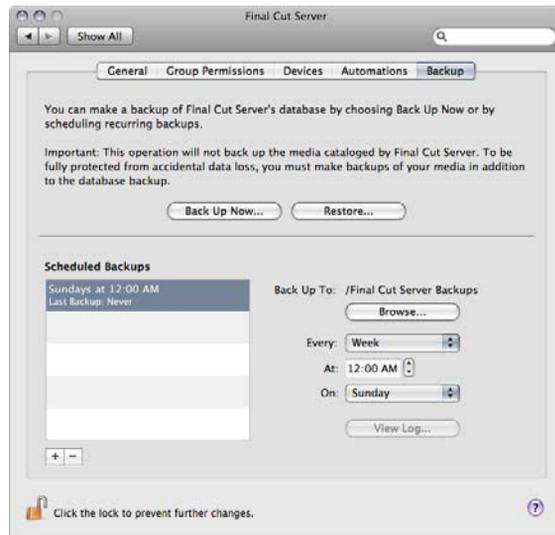
Step 5: Restore the previous Final Cut Server catalog

Once the Final Cut Server installation is finished, you can click the Restore button in the Backup pane of Final Cut Server System Preferences. This configures Final Cut Server to the same state it was in during that backup process.

Note: You may need to reset network passwords for devices that require them.

Backing Up Your Final Cut Server Catalog

The backup feature is accessible through Final Cut Server System Preferences.



You have two options for backing up your Final Cut Server catalog: backing it up immediately or scheduling regular backups.

To back up your Final Cut Server catalog immediately:

- 1 Select the Backup pane of Final Cut Server System Preferences.
- 2 Click the Back Up Now button.

A dialog appears in which you enter the filename and location for the backup file.

Important: It is strongly recommended that you do not choose a location for the backup file that is on the same drive that Final Cut Server is installed on.

- 3 Click the Back Up button.

A compressed file with a ".zip" extension is created and saved at the specified location.

To back up your Final Cut Server catalog using a schedule:

- 1 Select the Backup pane of Final Cut Server System Preferences.
- 2 Click the Add (+) button.

This adds a scheduled backup using the default settings.
- 3 Select the backup entry in the Scheduled Backups list and configure the settings as follows:
 - Click Browse to open a dialog to choose the location for the backup file.

Important: It is strongly recommended that you do not choose a location for the backup files that is on the same drive that Final Cut Server is installed on.
 - Choose either Day (the catalog is backed up every day) or Week (the catalog is backed up once a week) from the Every pop-up menu.
 - Enter a time in the At field.
 - If you chose to back up once a week, choose the day to back up on from the On pop-up menu.

A compressed file named “Final Cut Server DB Backup on [selected folder] at [date and time].zip” is created and saved at the specified location at the specified day and time.

Once a scheduled backup has run, the View Log button on the Backup pane becomes available. You can click it to see a log of past scheduled backups.

About the Backup Files

Because the Final Cut Server backup files do not contain any actual media, they are relatively small files.

It is strongly recommended that you back up the Proxies and Versions devices, along with the Final Cut Server catalog backup file, shortly after you back up the Final Cut Server catalog. These devices use the Contentbase file system format and rely on Final Cut Server having an accurate catalog of their contents. Being able to restore the devices and catalog from files created at the same time results in the Final Cut Server catalog accurately matching up to these devices.

Note: It is also suggested that you back up the assets and projects on your other devices.

Restoring Your Final Cut Server Catalog

While restoring your Final Cut Server catalog is easy to do, there are a number of things to be aware of.

About Restoring Your Catalog

Restoring the catalog can actually be a destructive process.

- If you are restoring the catalog on a new Final Cut Server installation, there is no practical existing catalog, and you can restore with no danger.
- If you are restoring over an existing catalog, the existing catalog is completely deleted before the restore begins. If the restore files turn out to not contain what you had hoped or do not work correctly, you can end up in worse shape than when you started. For that reason, you are strongly encouraged to back up your existing Final Cut Server catalog prior to restoring a previous backup file.

Before You Restore Your Catalog

Restoring your catalog may not be all you need to do to get your system working again. If you are using restore to recover from a hard disk failure, you will need to configure a few other areas for Final Cut Server to work correctly.

Users and Groups

You need to configure your computer's users and groups. If your users and groups are configured on a different computer, all you need to do is ensure this computer can access that information. The restore function will attempt to assign the permission sets to the same groups as when the backup file was created.

If your users and groups are configured locally on this computer, you need to reconfigure them as they were when the backup file was created. Any groups that are not available during the restore process will not be available to use Final Cut Server until you manually add them in Final Cut Server System Preferences.

Devices

You should configure your computer to support any internal hard disks, Xsan systems, RAIDs, network volumes, and external drives that Final Cut Server uses for its devices. If any of the devices are on volumes that require a password, you will have to manually configure those passwords using Device Setup Assistant after you have restored the Final Cut Server backup file.

Note: Be aware that, after the restore is completed, any devices that have full scan automations configured for them will try to perform those scans at their scheduled time. If the device is not available and configured properly, this could lead to the scan purging assets from the catalog.

Restoring Your Catalog

Restoring your Final Cut Server catalog simply requires you to choose a backup file to restore from.

To restore your catalog:

- 1 Select the Backup pane of Final Cut Server System Preferences.
- 2 Click the Restore button.
A file selection dialog appears.
- 3 Select the backup file to restore from and click the Restore button.

Important: Once you click the Restore button, you cannot cancel the process.

The Final Cut Server current catalog is deleted and the catalog saved with the backup file is added.

This chapter covers the following:

- Introduction to the Final Cut Server Client (p. 99)
- Using Java Web Start (p. 100)
- About the Java Web Start Client Files (p. 103)

Introduction to the Final Cut Server Client

The Final Cut Server client is what users use to interact with the Final Cut Server catalog. It also has an Administration window that provides additional Final Cut Server system configuration controls (which are documented in Part II of this manual, “General Administration”).

The Final Cut Server client is a Java application that can be run on Mac OS X, Windows XP, and Windows Vista computers. You install the client using a Java Web Start process by entering the network location of the Final Cut Server computer in a web browser. The browser automatically downloads and installs the client.

Important: Although the Final Cut Server client can be run on both Mac OS X and Windows computers, you may have issues with some QuickTime codecs. Several QuickTime codecs are available in either a Mac OS X or Windows version, but not both. This may lead to a situation where a media file is not recognized by the client’s computer and cannot be played. For the best results, record in and encode with codecs supported by all of the operating systems on which you plan to run Final Cut Server client.

Using Java Web Start

Final Cut Server clients are installed using Java Web Start.

Important: If multiple users use the computer on which you are installing the Final Cut Server client, each user will have to install his or her own copy of the client.

Installing the Client Using Java Web Start

To use the Java Web Start method, you must enter a URL in the computer's browser. The URL uses the format of `http://hostname/FinalCutServer`, where *hostname* is the IP address or name of the computer on which you installed Final Cut Server.

To install the Final Cut Server client using Java Web Start:

- 1 Enter the URL for the Final Cut Server computer in the computer's browser.

The browser displays a page with buttons you use to either start downloading the Final Cut Server client or to get additional information about installing the client.



- 2 Click the Download button to begin downloading the client.

Note: If you are unable to install the Final Cut Server client, you can click the Help button to have the browser display a page with additional installation information.

A file named `finalcutserver.jnlp` is copied to your download folder or your browser's temporary folder, depending on your browser and its settings. See "About the Java Web Start Client Files" on page 103 for more information. Additionally, the browser displays a page illustrating the client installation process.

Once the download is completed, a dialog appears asking you whether you trust the downloaded application.

Note: Double-click the finalcutserver.jnlp file to manually open Java Web Start if it does not automatically open.



3 Click Trust to continue the client installation.

▶ **Tip:** You can set this computer to automatically trust this certificate by clicking the Show Certificate button, clicking the Trust Settings disclosure triangle, and choosing Always Trust from the “When using this certificate” pop-up menu.



A dialog appears asking whether you want a desktop shortcut for the Final Cut Server client.

Important: This installation of the Final Cut Server client can only be used by the current user logged in to this computer. Adding the shortcut to the computer's Applications folder is not recommended since the shortcut will not work for other users that log in to this computer.



4 Do one of the following:

- *To create shortcuts:* Click Yes. A new dialog opens for you to enter a name and location for the shortcut. You can drag this shortcut to the Dock, making it easy to open the Final Cut Server client the next time.
- *To continue the installation with no shortcuts:* Click No. This means that you will have to use your browser or double-click the finalcutserver.jnlp file that is downloaded to open the Final Cut Server client the next time. See “About the Java Web Start Client Files” on page 103 for more information about the finalcutserver.jnlp file.
- *To configure the Java Preferences window:* Click Configure.

Note: The Java preferences are not normally changed and are for advanced users only.

The Final Cut Server client login window appears.

Note: If this is the first time the client has been launched on this computer, a license agreement dialog appears. Click Agree to continue to the client login window.



5 If necessary, enter the name of the computer with Final Cut Server installed in the Server field.

In most cases, this field automatically contains this name.

6 Enter your login name in the Username field.

7 Enter your password in the Password field.

8 Click Log In.

The Final Cut Server client opens.

See the *Final Cut Server User Manual* for information on using the client.

About the Java Web Start Client Files

When you install the Final Cut Server client using the Java Web Start method, one or two files end up on your system:

- *finalcutserver.jnlp*: This file is automatically copied to your download destination or the browser's temporary folder. This file then leads to the creation of the Final Cut Server.app file.

You can double-click the *finalcutserver.jnlp* file to open the Final Cut Server client if you chose not to create Final Cut Server shortcuts. If you chose to create Final Cut Server shortcuts, you can delete this file.

Note: This file is downloaded each time you use your browser to install the client, with a dash and a number appended to the filename if the file already exists.

Important: If your browser has a setting that disables running safe files after downloading, you will have to manually double-click the *finalcutserver.jnlp* file to install the client.

- *Final Cut Server.app*: This is the shortcut file created by the client installer if you chose to create the shortcut. Part of that choice was also to rename the file—your file may have a different name. You can double-click this file to open the Final Cut Server client. You can also drag this shortcut to the Dock to make it easier to open the client.

Each time you open the Final Cut Server client, the server is checked to see if a newer version of the client is available. If not, the currently downloaded client opens. If a newer version is available, it is automatically downloaded and opened.

Part II: General Administration



This part of the manual covers all of the details for customizing Final Cut Server to suit your needs.

Chapter 9	General Settings and Preferences
Chapter 10	Groups and Permissions
Chapter 11	Managing Metadata
Chapter 12	Managing Devices
Chapter 13	Managing Transcode Settings
Chapter 14	Managing Automations
Chapter 15	About Jobs and Logs
	Glossary
	Index

This chapter covers the following:

- Final Cut Server Administration Overview (p. 107)
- Working with the Administration Window (p. 113)
- Preference Settings in the Final Cut Server Client Administration Window (p. 115)
- User-Configurable Preference Settings (p. 121)
- Administrator-Only Client Functions (p. 122)
- About Unicode Support (p. 124)

Final Cut Server Administration Overview

There are three primary areas you will use to configure and administer Final Cut Server.

Important: This manual assumes you are familiar with Final Cut Server operations. See the *Final Cut Server User Manual* for detailed information about using Final Cut Server.

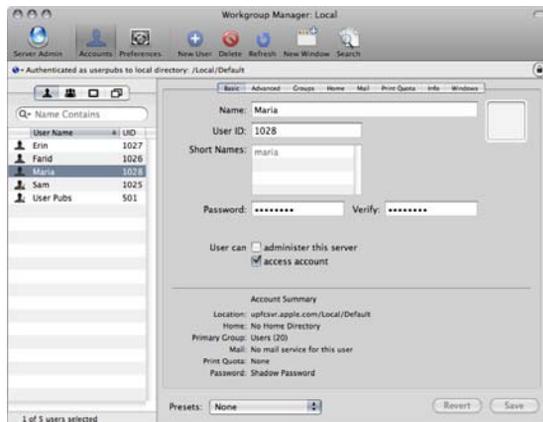
Accounts Pane of System Preferences

The Accounts pane of System Preferences on the computer on which you installed Final Cut Server can be used to manage local user accounts and groups. Once you have added users and formed groups in the Accounts pane, you can then add the groups to Final Cut Server and assign their permissions using either Final Cut Server System Preferences or the client's Administration window.



Mac OS X Server Settings

Workgroup Manager in Mac OS X Server is a place you can manage Final Cut Server user accounts and groups. Once you have added users and formed groups with Workgroup Manager, you can then add the groups to Final Cut Server and assign their permissions using either Final Cut Server System Preferences or the client's Administration window.



See Chapter 4, "Adding Users and Groups," on page 47 for more information.

Final Cut Server System Preferences

Final Cut Server System Preferences is where you configure the most common Final Cut Server settings. Several of the panes include setup assistants to help you add devices and watchers.

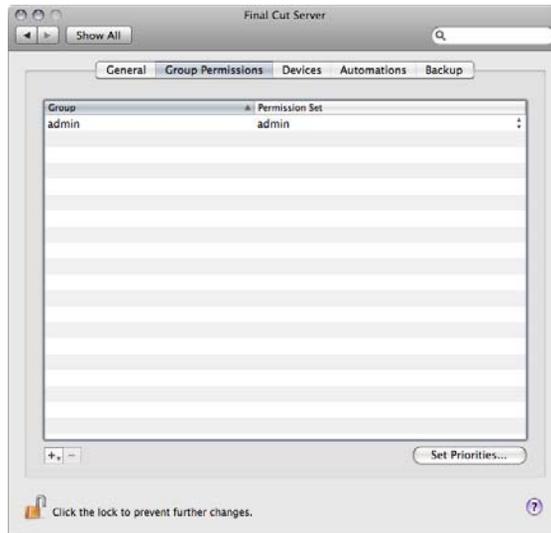
Important: It is strongly recommended that you use the settings in Final Cut Server System Preferences as much as possible for your administration tasks.

Final Cut Server System Preferences contains the following groups of settings:

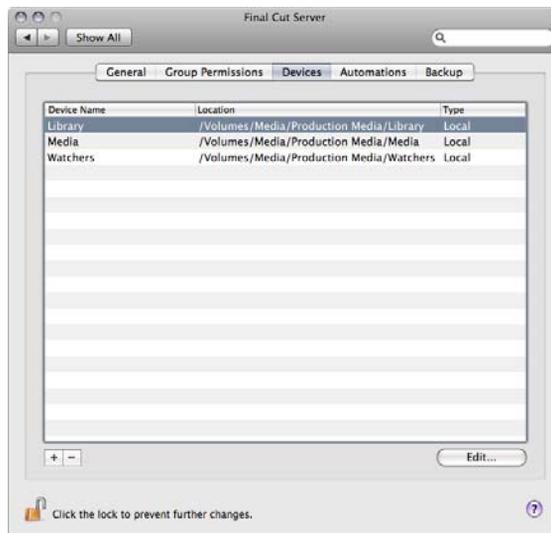
- **General:** The General settings include the Final Cut Server Start/Stop button and other basic settings, most of which are duplicated in the client Administration window. See “General Pane Settings” on page 40 for information about the General settings.



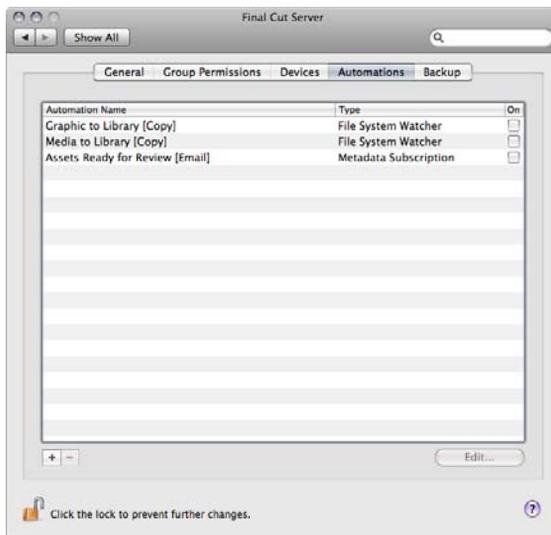
- *Group Permissions:* The Group Permissions settings include the ability to choose which Mac OS X groups Final Cut Server should use. See Chapter 4, “Adding Users and Groups,” on page 47 for information about configuring groups.



- *Devices:* The Devices settings include the ability to add and configure devices using Device Setup Assistant. See Chapter 5, “Using Device Setup Assistant,” on page 59 and Chapter 12, “Managing Devices,” on page 163 for information about working with devices.



- **Automations:** The Automations settings include the ability to add and configure watch and respond behaviors using Automation Setup Assistant. See Chapter 6, “Using Automation Setup Assistant,” on page 77 and Chapter 14, “Managing Automations,” on page 193 for information about Final Cut Server automation.



- **Backup:** The Backup settings include the ability to add and configure automatic backup operations for the Final Cut Server catalog. See Chapter 7, “Backing Up Final Cut Server,” on page 91 for more information.

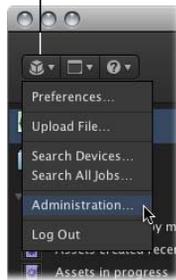


Final Cut Server Client Administration Window

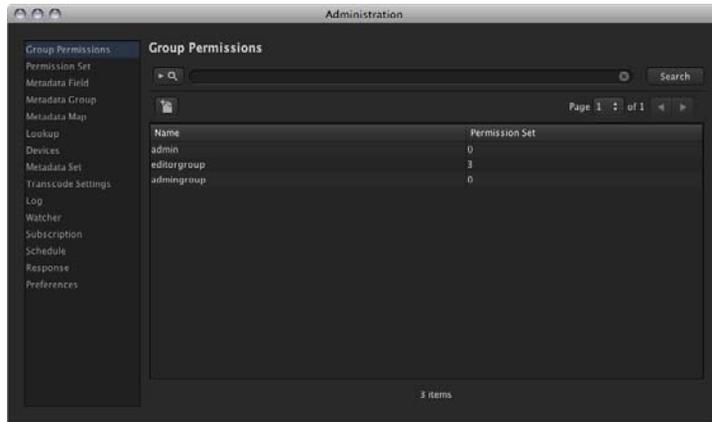
The Administration window of the Final Cut Server client contains extremely detailed settings and configurations covering all aspects of Final Cut Server. You should only need to access this window for advanced configurations.

When you log in to a Final Cut Server client as a user with administrator privileges, an Administration item appears in the Server pop-up menu (the pop-up menu in the Final Cut Server main window that appears when you click the Server button).

Click the Server button and choose Administration from the pop-up menu.



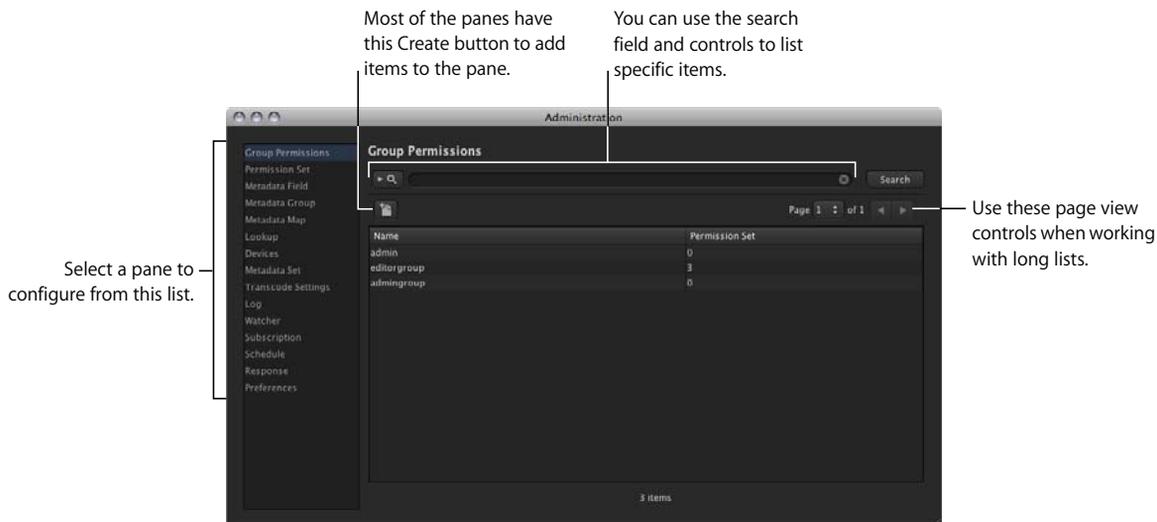
Choosing the Administration item opens the Administration window. A warning appears for you to confirm that you want to access the Administration window. Click Continue to open the window.



See "Working with the Administration Window," next, for more information.

Working with the Administration Window

The Administration window contains a variety of panes that you can use to configure your Final Cut Server system.

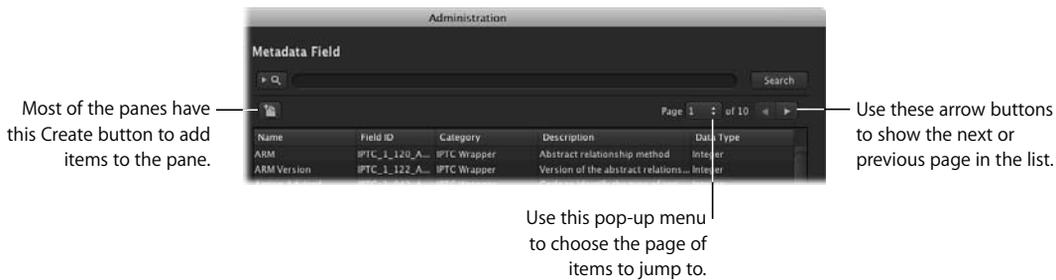


The column on the left contains a list of panes you can access and configure:

- *Group Permissions*: Click to define groups of users and security permissions.
- *Permission Set*: Click to configure permission settings.
- *Metadata Field*: Click to define metadata fields used throughout Final Cut Server.
- *Metadata Group*: Click to define groups of related metadata fields.
- *Metadata Map*: Click to maintain mappings between standard and custom metadata fields.
- *Lookup*: Click to define lists of lookup values that can be used to validate metadata fields.
- *Devices*: Click to define creation, editing, storage, or playout devices connected to Final Cut Server.
- *Metadata Sets*: Click to define different types of metadata sets to apply to assets and productions.
- *Transcode Settings*: Click to define media copy transcode settings and assign them to devices.
- *Log*: Click to view Final Cut Server logs.
- *Watcher*: Click to define watch folders, used to automate the transfer of media in a facility.

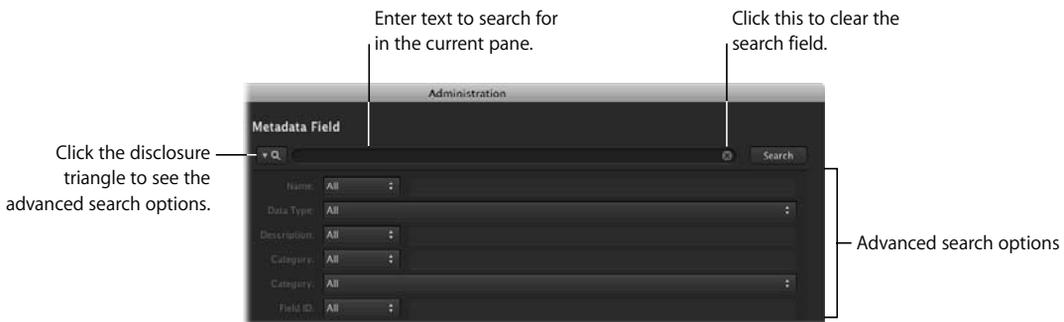
- *Subscription*: Click to define subscription rules, used to tailor the workflow in Final Cut Server.
- *Schedule*: Click to define scheduled events.
- *Response*: Click to define Final Cut Server responses to scheduled events, subscriptions, and watchers.
- *Preferences*: Click to define Final Cut Server administration preference settings.

While some panes will have only a few items, others will have many items. When there are many items, the Administration window separates them into pages and includes buttons for navigating among them.



Most of the panes include a Create button you can use to add additional items.

The Administration window also includes a search feature.



Searching allows you to quickly find specific items in the list. You can click the disclosure triangle to see advanced search options. These options vary depending on the pane you are working in.

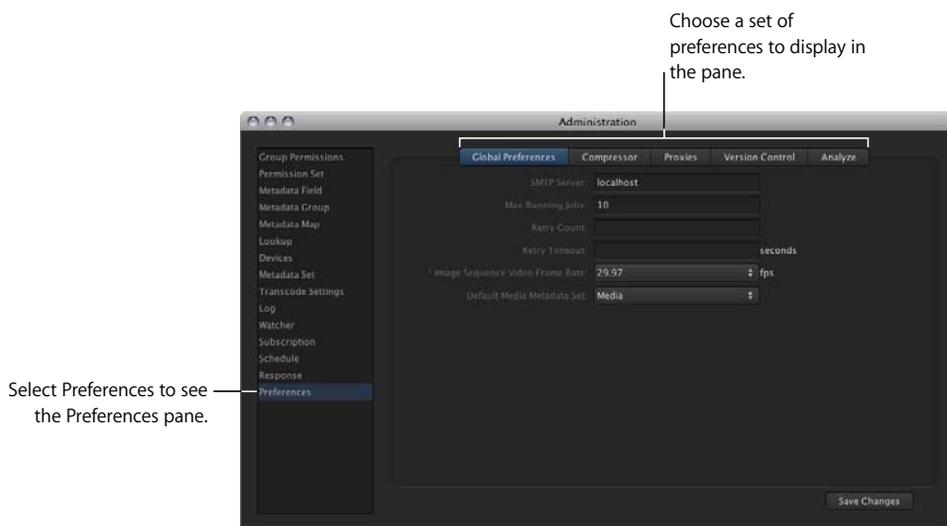
Note: The user preference settings define how many items are found when you perform a search, as well as how many items appear on each page. You can increase these settings to show more items, which is especially useful when working with metadata fields and groups. See “User-Configurable Preference Settings” on page 121 for more information.

Important: Some changes you make in the Administration window do not immediately appear in the Final Cut Server client. To see the changes, you need to log out and log back in, opening a fresh Final Cut Server client.

Note: Any items with an asterisk (*) by them are required to be configured.

Preference Settings in the Final Cut Server Client Administration Window

The Preferences pane of the Final Cut Server client’s Administration window contains most of the settings from the General pane of Final Cut Server System Preferences. It also contains many additional settings.



Global Preferences Settings

The Global Preferences pane contains the most common settings. Many of these are duplicates of the settings in the General pane of Final Cut Server System Preferences.



Following are the Global Preferences pane settings:

- **SMTP Server:** Enter the name of the outgoing SMTP server used to send all emails. This setting is also configured during the Final Cut Server installation process. If this was left blank during installation, this setting defaults to “localhost” which you can use if this computer has Mac OS X Server v10.5 and is configured as an SMTP email server. Final Cut Server can be configured to send email notifications for a variety of reasons, such as a set of assets being ready for review. See “About Email Responses” on page 209 for more information.
- **Max Running Jobs:** Enter the maximum number of jobs that can run concurrently on Final Cut Server. Most facilities will set this to no more than 20 jobs.
- **Retry Count:** Enter the maximum number of times to retry a failed job.
- **Retry Timeout:** Enter the period in seconds to wait before retrying a failed job.
- **Image Sequence Video Frame Rate:** Choose the frame rate to use when working with still-image sequences.
- **Default Media Metadata Set:** Choose the default metadata set to apply to Final Cut Pro project media.

Compressor Preference Settings

The Compressor pane contains a pop-up menu that allows you to choose the cluster to use for any transcoding operations. The choices available depend on your Compressor configuration. See the Compressor documentation, available in the Compressor Help menu, for information on configuring clusters. Also see “About Final Cut Server and Compressor” on page 32 for information on creating a custom QuickCluster for use with Final Cut Server.

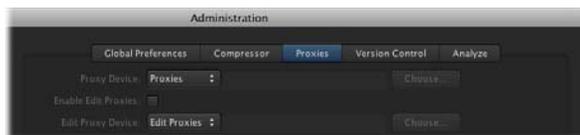
Note: The Compressor Cluster Password field only activates if you choose a password-protected cluster.



Important: In the Compressor Cluster Name pop-up menu, the This Computer item does not actually refer to the computer the Final Cut Server client is using—it refers to the computer Final Cut Server is installed on.

Proxies Preference Settings

The Proxies pane contains pop-up menus that allow you to choose the devices that store your normal proxies and, optionally, the Apple ProRes 422 codec proxies.



Each of these devices is actually created during the installation process. See “Starting the Final Cut Server Installer” on page 24 for more information.

Following are the Proxies pane settings:

- *Proxy Device*: Choose a device from the pop-up menu for the storage of normal proxy files (Contentbase devices only).
- *Enable Edit Proxies*: Select this checkbox to have Final Cut Server automatically create Apple ProRes 422 codec proxy files (in addition to the normal proxy files) whenever you upload a Final Cut Pro project to the Final Cut Server catalog.

In general, this option is most useful when you are working with Final Cut Pro projects using uncompressed SD or HD content since the Apple ProRes 422 codec can provide significantly smaller file sizes at nearly the original media quality.

Note: This setting is initially made as part of the Final Cut Server installation process.

- *Edit Proxy Device*: Choose a device from the pop-up menu for the storage of Apple ProRes 422 codec proxy files (Contentbase devices only).

Important: If you change either of the device settings, you will need to make sure that the original devices remain accessible or you will have to recreate the proxy files stored on them using the Analyze feature, which can take a significant amount of time. It is recommended that you do not change these devices unless you absolutely must. An alternative is to move the existing Proxies or Edit Proxies device to a new location, for example to a larger hard disk, then modify the device's Local Directory setting in the Devices pane of the Final Cut Server client's Administration window. See "Editing a Device Using the Administration Window" on page 167 for more information.

Note: You can use the client's Administration window to create Contentbase devices in your file system suitable for edit proxy use. See "Contentbase" on page 174 for more information.

About the Proxy Device

The default Proxy device is named Proxies and is at the location specified with the installer's Proxy Media Location entry.

Each time you upload an asset to the Final Cut Server catalog, a set of low-resolution files is created. The Proxies device is where the thumbnails, poster frames, and clip proxies are stored. These are used in place of the actual full-resolution assets whenever lower-resolution versions are sufficient. See "Analyze Preference Settings" on page 120 for information about configuring proxy formats.

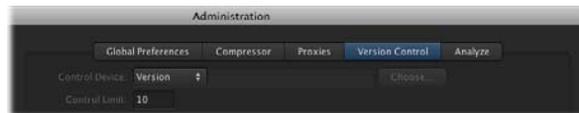
About the Edit Proxy Device

The default Edit Proxy device is named Edit Proxies and is at the location specified with the installer's Production Media Location entry.

Each time you upload a Final Cut Pro project, you can have Final Cut Server create proxies using the Apple ProRes 422 codec video format (this is controlled by the Enable Edit Proxies checkbox). These proxy files are stored in the Edit Proxies device. When you export or check out a Final Cut Pro project from the Final Cut Server catalog that has Apple ProRes 422 codec files, you have the choice of downloading the original media files or the Apple ProRes 422 codec proxy files.

Version Control Preference Settings

The Version Control pane contains settings for configuring Final Cut Server to manage versions of assets and productions.



Following are the Version Control pane settings:

- **Control Device:** Choose a device from the pop-up menu for the storage of asset backup versions (Contentbase devices only). The Final Cut Server installer automatically creates a Version device, and that device is automatically selected here. For more information, see “Setting Up the Version Device” on page 170.
- **Control Limit:** Enter the maximum number of versions that can be associated with an asset. Once the limit is reached, the oldest versions are deleted as new versions are added.

Important: Keep in mind that each version requires an amount of disk space similar to that of the original version. Keeping more than a few versions may require significant disk space, especially when working with large video files.

Analyze Preference Settings

The Analyze pane is where you configure the various proxy formats created when an asset is added to the catalog.



For each item in the list, you can choose a format to use for that representation of an asset. There are two media types: image and video clip.

Following are the Analyze pane settings:

- *Thumbnails*: These are the small images that appear in the Thumbnail view of the client's main window.
- *Poster Frame*: These are full-resolution images that a user can export from the main window. Poster frames are intended to be a generic file format version, such as a JPEG version, that you can use in place of the original asset. These are especially useful when the original asset is a proprietary format that you want to view on computers that don't support that format.
- *Key-channel Poster Frame*: For images only. These are identical to normal poster frames except they contain an image's alpha channel.
- *Clip Proxy*: For video clips only. Clip proxies are low-resolution representations of the asset that are used whenever you do not need to use the full-resolution version of the asset. These are what are copied to your system when you preview an asset in the client's main window.

Final Cut Server automatically detects the aspect ratio of the video and adjusts the clip proxy aspect ratio to match.

Note: The options you have for the clip proxy transcoding are determined by the settings you create in Compressor. You can create additional settings in Compressor to customize your transcoding options. See the Compressor documentation, available from the Compressor Help menu, for more information.

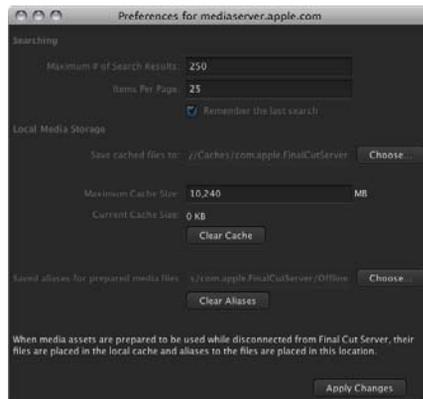
- *Clip Edit Proxy*: For video clips that are uploaded with a Final Cut Pro project only. This setting provides a proxy format for use when exporting or checking out a Final Cut Pro project. This setting is by default Apple ProRes 422 Clip Edit Proxy, which is a medium-quality codec that supports high definition formats. See "Proxies Preference Settings" on page 117 for more information.

User-Configurable Preference Settings

In addition to Final Cut Server System Preferences and the Preferences pane of the client's Administration window, there is a third set of preferences that are intended to be used by users to customize how Final Cut Server works for them. These preferences only affect a user when using a particular client on a particular computer. (If the user logs in to a client on a different computer, the user's preference settings do not follow.)

To configure the user preference settings, do one of the following:

- Choose Final Cut Server > Preferences.
- Choose Preferences from the Server pop-up menu (the pop-up menu in the Final Cut Server main window that appears when you click the Server button).



The Preferences window has two sections: Searching and Local Media Storage. Once you have finished configuring them, click the Apply Changes button to save the settings.

Searching Settings

The Searching settings allow a user to customize how the search results appear. This can be useful if you have a large or small display.

Following are the Searching section settings:

- *Maximum # of Search Results:* Enter a value that is the maximum number of items that appear after a search.
- *Items Per Page:* Search results are divided into pages to make viewing more efficient. You can enter a value that defines how many items appear on each page.
- *Remember the last search:* Select this checkbox to have Final Cut Server remember and run the last search that you performed the next time you log in.

Local Media Storage Settings

The Local Cache settings allow a user to choose a disk location to use for cache operations:

- *Save cached files to:* Click the Choose button to choose a location to use for storing your caches. The default locations are `/username/Library/Caches/` when running the client on a Macintosh computer and the `\username\AppData\Roaming\com.apple.FinalCutServer\cache` directory on a Windows computer. In both cases, the cache files are located in a folder at this location with the name of the server computer.

Important: Changing the cache location will result in all current caches becoming unavailable.

- *Maximum Cache Size:* Enter a value to define a maximum cache size.
- *Current Cache Size:* This shows the current size of the cache.
- *Clear Cache:* Click Clear Cache to delete all caches from the cache location.
- *Saved aliases for prepared media files:* Click the Choose button to choose a location to use for storing aliases to cache files. This location is used when you choose the Prepare for Disconnected Use option for assets.

Note: Client computer assets that Final Cut Server manages are stored in the location specified as the Cache Location. This location is intended to only be used by Final Cut Server, and so it can be difficult to locate assets in it. The Prepare for Disconnected Use option makes aliases to the assets in the cache, making it much easier to add them to Final Cut Pro projects when you are not connected to Final Cut Server.

- *Clear Aliases:* Click Clear Aliases to delete all aliases from the alias location.

Administrator-Only Client Functions

In addition to the Administration window, there are other Final Cut Server client functions that can only be performed by a user logged in with administration privileges.

Manually Analyze Assets

When assets are added to the Final Cut Server catalog, they are automatically analyzed. This process extracts a variety of metadata from the asset plus it creates the asset's proxy files (low resolution versions of the asset).

Occasionally there may be times when you need to reanalyze an asset. For example, you may change the settings in the Administrator window's Analyze Preferences pane.

If the logged in user has administration privileges, the user is able to analyze an asset from the client's main window.

To manually analyze an asset:

- 1 In the client's main window, select the asset to analyze.
- 2 Control-click the asset, then choose Analyze from the shortcut menu.

The asset is analyzed and new proxy files are created for it.

See "Analyze Preference Settings" on page 120 for more information on the Analyze Preferences pane.

Cancel Any Asset Checkout or Lock

When a user checks out an asset, generally only that user can check the asset back in or cancel the checkout. Similarly, if a user manually locks an asset, only that user can unlock it.

The exception is if the logged in user has administration privileges; in that case, the user can override the checkout or lock if necessary.

To override a checkout or lock on an asset:

- 1 Double-click the asset to open its detail window.
- 2 Click the Locks button to show the Locks pane.



- 3 Click the Cancel button.

About Unicode Support

Final Cut Server can store textual metadata as Unicode using UTF-8 encoding. This means it can support a wide range of multi-byte character sets including a range of Chinese, Japanese, and Korean characters. Unicode metadata can be stored, modified, and searched through the Final Cut Server user interface.

Further, the Final Cut Server client can use the local settings of the operating system on which it is installed. In addition to displaying Chinese, Japanese, and Korean characters, the Final Cut Server client uses local settings such as date and number formats when displaying data.

When writing media to storage devices, Final Cut Server is constrained by the capabilities of each device and the application programming interface (API) of each device. At present, Final Cut Server supports Unicode characters on Filesystem and Contentbase devices. See “Device Type Details” on page 174 for more information on these device types.

From a technical perspective, the Final Cut Server server uses UTF-32 internally to represent all its metadata and converts to UTF-8 when writing to the catalog, transmitting metadata to the client user interface, or to the agents that interact with devices (where the devices support Unicode). When talking to devices, the Final Cut Server server transcodes files to the specified encoding format each time the files are moved to or from the device. Encoding support for devices includes all types of Unicode, the Windows encodings, and the common Chinese, Japanese, and Korean encodings.

Note: It is important to install the native language version of Java on any computer that requires Unicode support in the user interface. It is also important to have operating system support for the language and character set. Refer to Mac Help and the Sun Java websites for further details.

This chapter covers the following:

- About Groups and Permissions (p. 125)
- Adding Groups to Final Cut Server (p. 125)
- Adding and Managing Permission Sets (p. 127)

About Groups and Permissions

To be able to use Final Cut Server, you must add at least one group with at least one user. In most cases, you will create several groups, each configured with different permissions, and then add the appropriate users to each group. The actual creation of the groups and users is done using either the Accounts pane of System Preferences or Mac OS X Server Workgroup Manager. In Final Cut Server, you choose the groups to use and assign a permission set to each of the groups.

See Chapter 4, “Adding Users and Groups,” on page 47 for details on using the Accounts pane of System Preferences, Mac OS X Server Workgroup Manager, and using Final Cut Server System Preferences to add groups and assign permission sets to them.

This chapter covers adding groups and assigning permission sets using the Final Cut Server client’s Administration window. It also covers creating custom permission sets, allowing you to exactly define each group’s access to the Final Cut Server catalog.

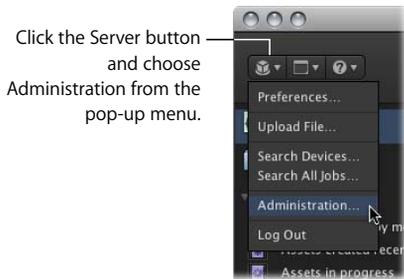
Adding Groups to Final Cut Server

Once you have finished setting up your groups with Workgroup Manager, you are ready to add the groups to Final Cut Server.

You can add the groups using the server’s Final Cut Server System Preferences or you can use the client’s Administration window. See “Adding Groups to Final Cut Server” on page 56 for information on using Final Cut Server System Preferences to add groups to Final Cut Server and assigning permission sets to them.

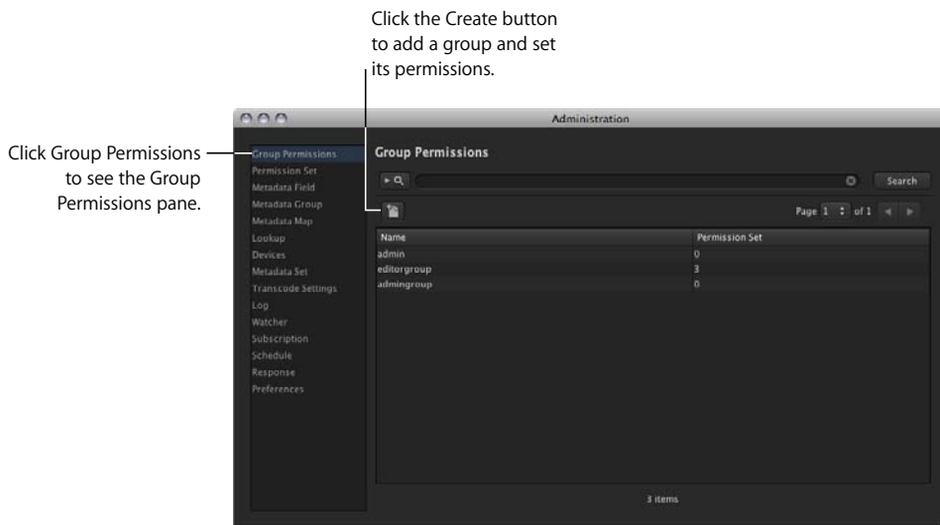
To add a group to Final Cut Server using the Administration window:

- 1 Open a Final Cut Server client and log in as a user with administrator privileges.
- 2 Choose Administration from the Server pop-up menu (the pop-up menu in the Final Cut Server main window that appears when you click the Server button).



The Administration window appears.

- 3 Click Group Permissions in the column on the left to open the Group Permissions pane.



The Group Permissions pane lists the current Final Cut Server groups and their assigned permission set's number.

- 4 Click the Create button to add a new group.
The Group Permissions window appears.



- 5 Choose the group to add using the Name pop-up menu.
- 6 Choose a permission set from the Permission Set pop-up menu.
- 7 Click Save Changes.

The Group Permissions window closes. To see the new group in the Group Permissions pane, click the Search button.

Adding and Managing Permission Sets

Each group has a permission set applied to it. A permission set defines a wide variety of permission settings, including asset and production filtering.

Important: The “admin” permission set is the only one that allows access to the client’s Administration window. Even if you duplicate the “admin” permission set, that copy will not have access to the Administration window.

About the Default Permission Sets

The Final Cut Server installer automatically creates six permission sets.

- *admin*: This is the only permission set that includes access to the Final Cut Server client’s Administration window. It provides access to all aspects of the Final Cut Server system. It should only be assigned to groups of users that are capable of administering all aspects of the Final Cut Server system.
- *artist, manager, and editor*: These permission sets are all identical and provide access to all aspects of the Final Cut Server system except for those that are specific to the admin permission set.

The intention of these three permission sets is to give you a starting point for creating specific permission sets for different groups of users. For example, you might want to modify the artist permission set so that those users are only able to access specific devices that contain the graphics they work on.

- *reviewer*: This permission set is unable to create, delete, catalog, or edit any of the assets within the Final Cut Server catalog. The reviewer permission set is only able to see assets that have a status of Approved, Ready for Review, Rejected, or Completed.
- *browser*: This permission set is unable to create, delete, catalog, edit, edit details, or copy any of the assets within the Final Cut Server catalog. The browser permission set is only able to see assets that have a status of Approved.

Working with Permission Sets

Permission sets are created and configured from a Final Cut Server client's Administration window.

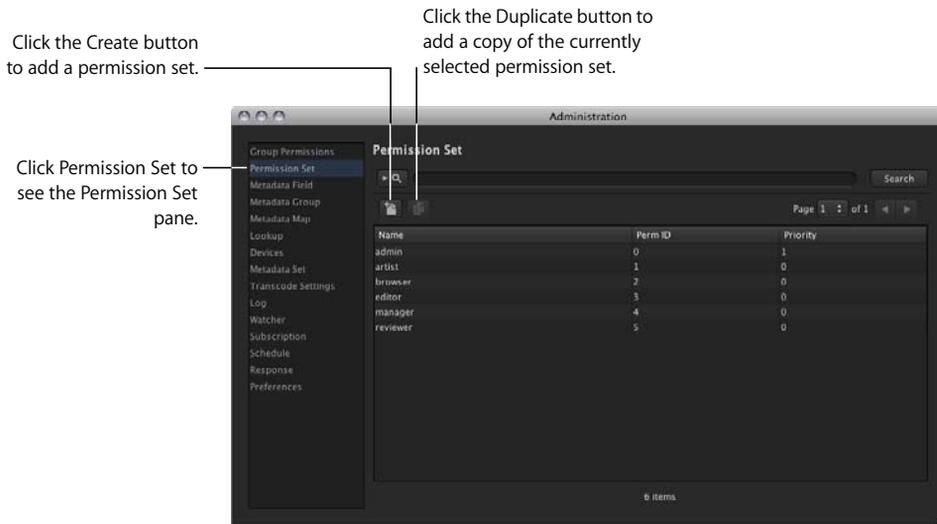
To see the existing permission sets:

- 1 In a Final Cut Server client, choose Administration from the Server pop-up menu to open the Administration window.

Important: You must be logged in as a user with administrator privileges for the Administration item to appear in the Server pop-up menu.

- 2 Click Permission Set in the column on the left to open the Permission Set pane.

A list of existing permission sets appears. By default there is one called "admin," plus others that the installer created based on the customer profile you selected. See "About the Customer Profiles" on page 29 for more information.



Three columns appear:

- **Name:** This is the name of the permission set. This is also the name that appears when you are managing groups.
- **Perm ID:** This is a number that Final Cut Server assigns to permission sets, based on the order in which they are created.
- **Priority:** This is a number that defines the priority level of the permission set. Higher values are consulted first to set the permissions for users who are assigned to multiple groups. For example, if a user belongs to a group with a permission set that has a priority of 3 and a second group that has a permission set priority of 4, the second group's permission set (with the priority of 4) is used.

To add a new permission set:

- 1 Click the Create button.

The Permission Set window appears.



- 2 In the column on the left, click Create, Asset Filter, and Production Filter to open and configure their panes.

See “Permission Set Settings” on page 130 for details on the settings in these panes.

- 3 Select the All Permissions checkbox to set this permission set to have the same permissions as “admin,” but without access to the Administration window.

This is often the best way to create a permission set. Starting with all settings enabled and then disabling a few specific settings can be easier than starting with a permission set with nothing enabled and then enabling many settings.

Important: The “admin” permission set is the only one that allows access to the Administration window.

- 4 Click Save Changes.
- 5 Click the Administration window’s Search button to see the new permission set in the Permission Set pane.

In many cases, it is easier to duplicate an existing permission set and then make changes to it as needed.

To make a duplicate of an existing permission set:

- 1 Select the permission set that you want to copy.
- 2 Click the Duplicate button.
- 3 Click the Administration window’s Search button.

A new permission set, named Clone of [*duplicated permission set*], is added to the list.

To edit an existing permission set:

- 1 Double-click an existing permission set in the Permission Set pane.
The Permission Set window appears.



- 2 Click Metadata, Trait Permissions, and Device Permissions to configure each group of settings.
See “Permission Set Settings,” next, for details on the settings in these panes.
- 3 Click Save Changes.

This window closes and the permission set appears in the Permission Set pane with the changes you made.

Permission Set Settings

There are three main areas for configuring a permission set:

- Metadata pane
- Trait Permissions pane
- Device Permissions pane

Note: The Trait Permissions and Device Permissions panes are available only when you are editing an existing permission set.

Metadata Settings

The metadata permissions include the column on the left where you can select the type of metadata to configure.

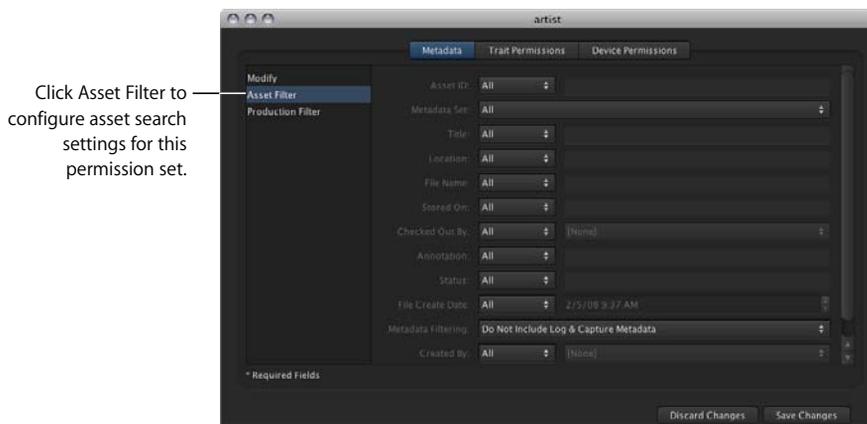
Modify

This includes the name and priority settings.

The priority setting determines the order in which permission sets are consulted when a user belongs to multiple groups with different permission sets. Higher values are consulted first. For example, if a user belongs to a group with a permission set that has a priority of 3 and a second group that has a permission set priority of 4, the second group’s permission set (with the priority of 4) is used.

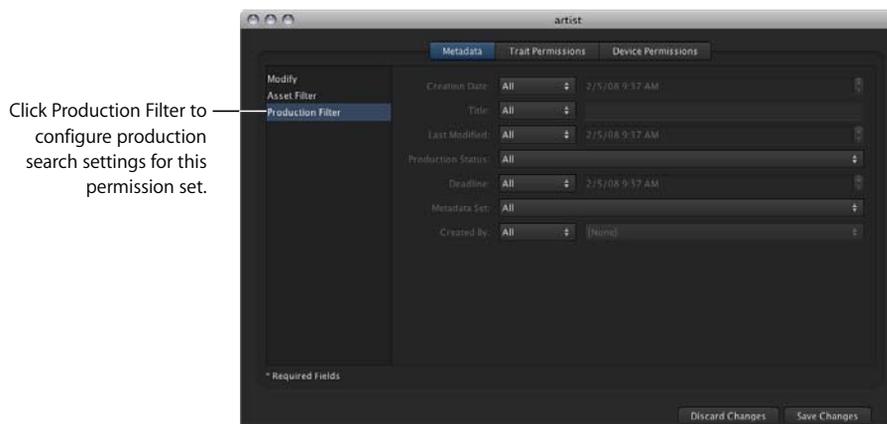
Asset Filter

Select Asset Filter to define a metadata filter applied to all asset searches performed by members of the group. For example, you can create a filter for the Newsroom group so that members of the group only see assets with a Completed status.



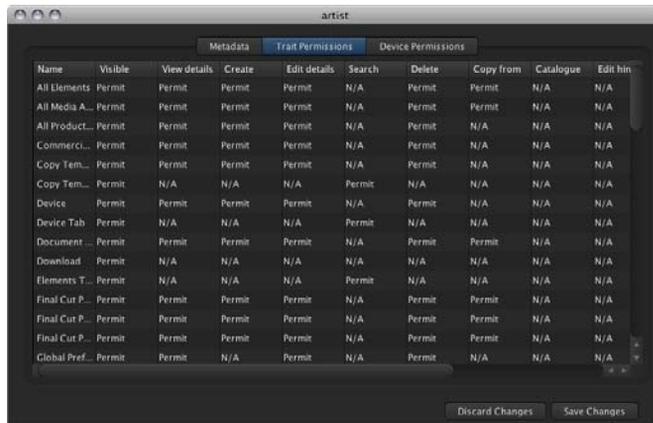
Production Filter

Select Production Filter to define a metadata filter applied to all production searches performed by members of the group.



Trait Permissions Settings

Click the Trait Permissions button to configure access to a variety of areas within Final Cut Server, including assets, productions, jobs, users, and so on. See “Setting Trait and Device Permissions” on page 133 for more information.



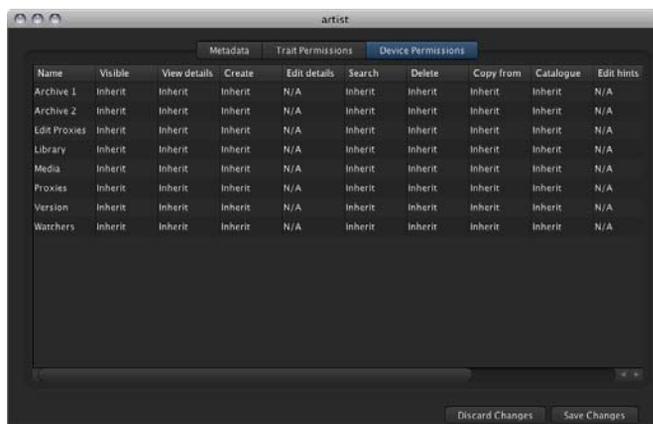
Important: Most of the settings in the Trait Permissions pane are highly specialized and should not be changed unless you have specific needs and are willing to spend time testing the changes to make sure unintended side effects do not occur.

Many of the items listed in the Name column are reserved for internal use by Final Cut Server. Changing these settings does not affect how the permission set actually works. These include all of the items with “Tab” in their names.

The most commonly configured items are the media asset and production metadata sets. These items all have either “(Media Asset)” or “(Production)” immediately after their names. For example, you may want to forbid a group of users from accessing assets that use the Graphic metadata set.

Device Permissions Settings

Click the Device Permissions button to configure a group's ability to perform an action on the selected device. Permissions applied to the group apply to all group members. See "Setting Trait and Device Permissions," next, for more information.



Setting Trait and Device Permissions

The Trait Permissions and Device Permissions panes list traits or devices in rows and actions in columns. For each trait or device, click the cell and choose an option from the list to define the security permission:

- *Permit*: Allow the action or actions.
- *Forbid*: Deny the action or actions.
- *Inherit*: For device permissions, inherits the trait permissions for that device. For trait permissions, inherit functions the same as forbid. (Inherit is not intended to be used for any trait permission settings.)

The following table lists all of the action columns and their relationships with trait and device permissions.

Column	Trait permissions	Device permissions
Visible	Display tabs in the user interface, or control access to certain types of assets or productions.	Select device when searching.
View details	View selected item details.	View item details on device.
Create	Create items with this trait; for example, users, assets of type Commercial, or productions of type Promotion.	Create or copy items to device.
Edit details	Edit selected item details.	n/a
Search	Search for items, in traits like All Assets and All Productions.	Search device.
Delete	Delete items.	Delete items from device.
Copy from	Copy items from a device to anywhere else.	Copy items from a device to anywhere else.
Catalogue	n/a	Catalog items on device as Final Cut Server assets.
Edit hints	Edit field hints.	n/a
Start	n/a	n/a
Stop	n/a	n/a
Edit media	Allow checking out and locking assets.	Edit a Contentbase device's media items directly.

This chapter covers the following:

- Introduction to Metadata (p. 135)
- Metadata Fields (p. 138)
- Metadata Groups (p. 143)
- Metadata Mapping (p. 148)
- Metadata Lookups (p. 151)
- Managing Metadata Sets (p. 154)
- Metadata Synchronization Policy (p. 156)
- Using Metadata to Configure the User Interface (p. 158)
- About QuickTime Metadata (p. 160)

Introduction to Metadata

Metadata is the heart of Final Cut Server. Final Cut Server uses metadata for nearly all aspects of managing assets as well as configuring many aspects of the client.

Final Cut Server automatically configures the metadata settings based on the profile selected during the installation of Final Cut Server. However, you can customize the metadata settings to enhance your workflows.

Metadata is used to describe, find, use, and repurpose content. Some of the key challenges in managing metadata are:

- Using a metadata group that makes sense for your environment
- Minimizing the number of times metadata needs to be entered
- Ensuring interoperability among different metadata standards

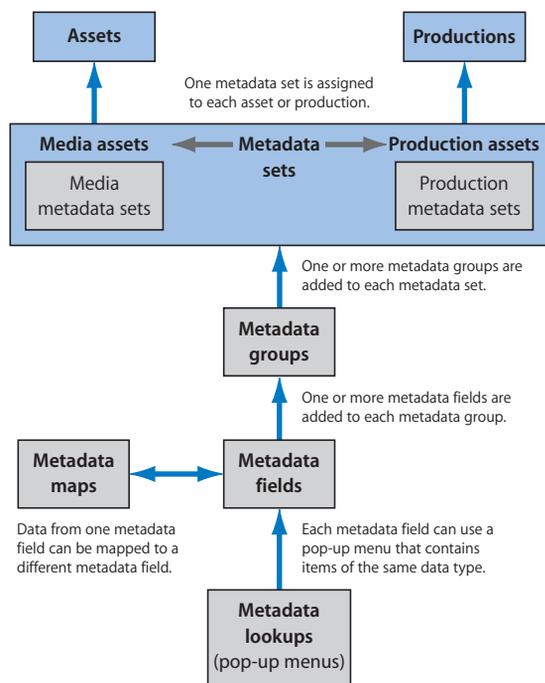
Final Cut Server addresses these challenges by allowing you to:

- *Customize metadata:* You can define, group, and store different metadata for different types of assets and productions in whatever way is most appropriate.
- *Use whatever metadata is available on the connected devices or the supported formats:* Final Cut Server allows you to map metadata between formats like IPTC and the custom metadata you have defined, mapping both ways. (Mapping allows you to copy a metadata field's entry to a different metadata field.)

Final Cut Server includes a set of standard metadata fields, groups, sets, and mappings that can also be easily customized to specific requirements in the following ways:

- Defining the types of assets stored; for example, news graphics, promotions, news items, bumpers, lower thirds, and so on.
- Configuring the metadata stored for each type of asset, grouping metadata into tabs, specifying the display order, defining mandatory fields, and providing pop-up menus to ensure high data quality and make it easier to enter information
- Defining different types of productions such as promotions and commercials
- Configuring the metadata for each type of production, using the same flexible framework as assets
- Mapping metadata between formats. Some file formats and devices support their own metadata, such as IPTC metadata. Final Cut Server allows you to use any available metadata by mapping it to Final Cut Server metadata fields that you have defined.
- Customizing views. You can change how the metadata fields are displayed, change the display order, and even provide hints on how you would like fields to be displayed; for example, you can specify that a notes field should be five lines high.

The relationships between the various metadata items for assets and productions are as follows:



Each of these metadata items is configured in its own pane:

- *Metadata Field pane*: This is where you create new metadata fields or edit existing fields. See “Metadata Fields” on page 138 for more information.
- *Lookup pane*: This is where you create pop-up menus that can be used by the metadata fields. Using pop-up menus instead of text or number entry fields can make entering metadata easier and more precise. See “Metadata Lookups” on page 151 for more information.
- *Metadata Group pane*: This is where you create groups of metadata fields. See “Metadata Groups” on page 143 for more information.

- *Metadata Map pane*: This is where you can relate one metadata field to another, making it easier to extract metadata information from a wide variety of formats. See “Metadata Mapping” on page 148 for more information.
- *Metadata Set pane*: This is where you assign metadata groups to metadata sets. When you add assets or productions to Final Cut Server, you choose a metadata set to assign to them, which in turn applies the metadata group and its fields. See “Managing Metadata Sets” on page 154 for more information.

Note: See “Permission Set Settings” on page 130 for information about configuring the metadata settings for a permission set.

Important: As you use the various panes in managing your metadata, you will find many settings, options, and listings that are intended only for internal Final Cut Server use. Many of these are noted in the following descriptions.

In addition to using metadata to add information to your assets and productions, you can use the same techniques to affect other areas within Final Cut Server. For example, you can add metadata fields to the Thumbnails metadata group to control which fields appear when you are using the Thumbnails view. See “Using Metadata to Configure the User Interface” on page 158 for more information.

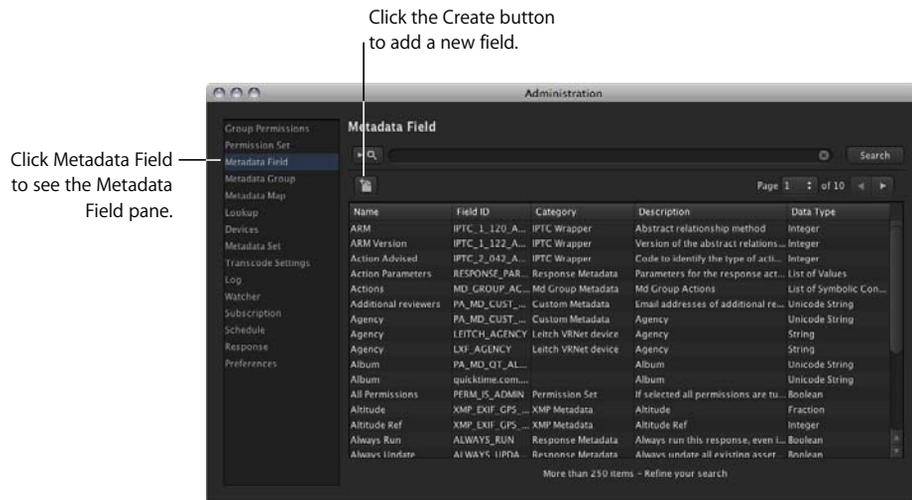
Metadata Fields

Metadata fields are the individual items of metadata stored with the media items managed by Final Cut Server. There are two types of metadata fields:

- *Required metadata*: Includes fields that are required to describe devices supported by Final Cut Server as well as file format metadata such as IPTC metadata.
- *Custom metadata*: Can be configured by an administrator to any values required by the site or installation.

Note: The same metadata fields can be used in multiple metadata groups.

The Metadata Field pane of the Final Cut Server client's Administration window lists the existing metadata fields.



The Metadata Field pane shows the following columns:

- **Name:** This is the name entered when the metadata field was created.
 - **Field ID:** This is the automatically generated field name. It is for internal use only.
 - **Category:** This is the automatically assigned metadata field's family. All metadata fields you create are in the Custom Metadata family.
- Note:** This column is not related to the metadata field's Category setting.
- **Description:** This is the description entered when the metadata field was created.
 - **Data Type:** This is the data type selected when the metadata field was created. The data type defines the kind of data that can be entered in a metadata field (such as a date, a timecode number, or a text string).

Note: You cannot change the data type once it has been set.

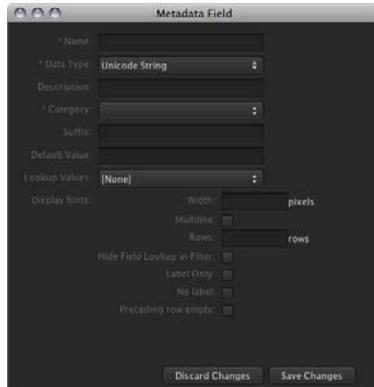
Adding or Editing Metadata Fields

You can add or edit custom metadata fields.

To add a custom metadata field:

- 1 Click the Create button in the Metadata Field pane of the client's Administration window.

The Metadata Field window appears.



- 2 Configure the settings for the metadata field.
See "Settings for Metadata Fields" on page 141 for more information on the settings.
- 3 Click Save Changes to save the custom metadata field.

The new metadata field appears in the Metadata Field pane.

You can also open the Metadata Field window and edit existing metadata fields.

Note: You are not allowed to edit the required metadata fields. In general, you can edit only those fields with the Custom Metadata category in the Metadata Field pane (although even some of them are not editable).

To edit an existing metadata field:

- 1 Double-click the metadata field in the Metadata Field pane.
The Metadata Field window appears, showing the settings for that field.

- 2 Make any necessary changes and click Save Changes.

The Metadata Field window closes.

See "Settings for Metadata Fields," next, for more information on the settings.

Settings for Metadata Fields

Each metadata field has a variety of settings. The actual settings a field has are affected by the Data Type setting. The settings are listed below as the common settings (those that are available in all metadata fields) and specialized settings (those that are available only for certain data types).



The Metadata Field window contains the following settings.

Common Settings

The following settings apply to all metadata fields:

- *Name*: Enter the name of the metadata field.
- *Data Type*: Choose the type of field from the pop-up menu. The list of settings you can configure for a metadata field varies based on the data type you choose. See “Data Types for Metadata Fields” on page 143 for more information about the data types.

Note: You can only set the data type when you are creating a new metadata field. Additionally, if you intend to use a lookup (pop-up menu) with the field, you must use the same data type in both the lookup and the metadata field.

- *Description*: Enter a more detailed description of the metadata field.

- *Category*: Choose the category of the field from the pop-up menu. Choices include:
 - None
 - Name
 - Date
 - Number
 - Filename
 - Filesize
 - TypeSelect
 - Order Attach
 - Restriction

The None setting is used for almost all custom metadata, with the remaining settings reserved for internal use.

- *Suffix*: Enter any suffix that should be displayed after the field. For example, you could enter “per hour.”
- *Display hints*: Enter a width value (in pixels) that defines how wide this field should be.

Specialized Settings

The following settings apply only to certain data types.

- *Default Value*: Enter an optional default value for the field. Depending on the data type, this can be a checkbox or a specialized value entry such as a date, a timecode value, or even two values.
- *Lookup Values*: Choose a lookup from this list to display the metadata field as a pop-up menu with a set of values. Only the lookups with the same data type are displayed. See “*Metadata Lookups*” on page 151 for details on creating lookups.
- *Date Only*: This is a checkbox that forces only dates to be entered.
- *Scale Numbers*: This is a checkbox that scales numbers to three digits (999 maximum) with the appropriate suffix. For example, 1000 becomes 1K.
- *Don’t Format Numbers*: This is a checkbox that forces the metadata field to use raw numbers without formatting, such as commas separating groups of thousands.
- *Multiline*: This is a checkbox that allows multiple lines of text to be entered in the metadata field.
- *Hide Field Lookup in Filter*: This is a checkbox that suppresses the lookup value when it is displayed in a list. It is actually most often set when setting field properties within a metadata group, since you generally do not want it hidden for all usages. See “*Field Properties*” on page 148 for more information.

Data Types for Metadata Fields

Following is a list of the available data types. The data type defines the type of metadata information (for example, text, numbers only, or a date) that a user can enter in a metadata field.

For almost all metadata fields you create, you should use the Unicode String data type because it provides good flexibility as well as compatibility with a wide variety of multi-byte languages.

- *Boolean*: A true or false value
- *Date*: A date/time field
- *Floating Point Number*: A floating-point number
- *Integer*: An integer field that supports up to 32-bit numbers
- *Large Integer*: An integer field that supports up to 64-bit numbers (not normally required for custom metadata)
- *Timecode*: A video timecode value, in the format hh:mm:ss:ff
- *Unicode String*: An alphanumeric Unicode string

Metadata Groups

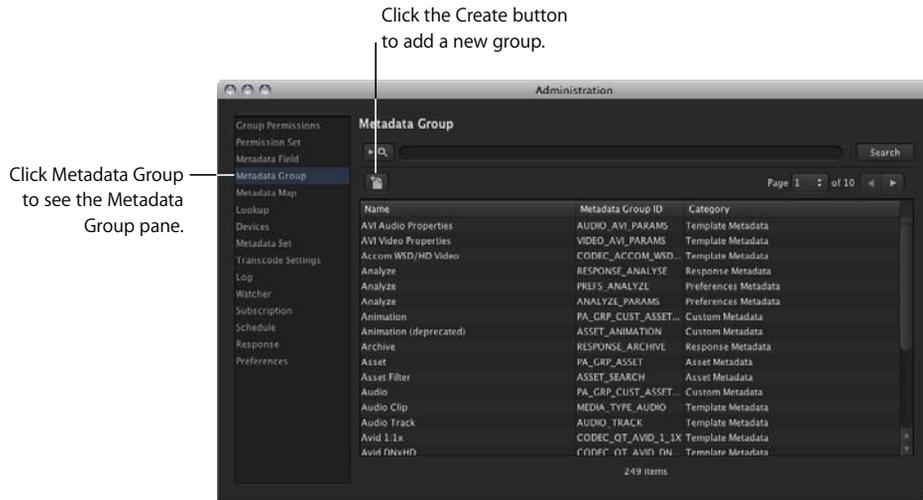
Metadata groups provide a way to organize related metadata fields. Most information displayed in Final Cut Server is based on a metadata group; for example:

- Metadata fields displayed in an asset or production must be part of a group, and that metadata group must be part of the metadata set that you applied to that asset or production.
- All information displayed in Thumbnails or List view search results is defined by metadata groups. Metadata groups also define all of the advanced search options.

The contents of many of these groups can be configured. For example, to display the mime type of each asset in the Thumbnails view, add the Mime Type field to the Thumbnails metadata group that applies to assets.

Some groups are required for internal Final Cut Server functions and cannot be edited. However, many of the settings within a group are editable, so you can define the look of the group.

The following screen shot shows the Metadata Group pane.



The Metadata Group pane shows the following columns:

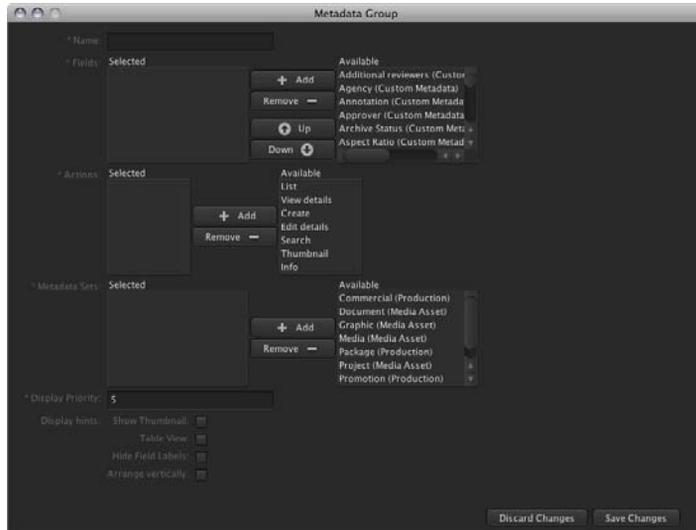
- *Name*: This shows the name of the metadata group.
- *Metadata Group ID*: This is an automatically generated name for the group. This is for internal use only.
- *Category*: This is the automatically assigned metadata group's family. All metadata groups you create are in the Custom Metadata family.

Adding or Editing Metadata Groups

You can add or edit custom metadata groups.

To add a custom metadata group:

- 1 In the Metadata Group pane of the Administration window, click the Create button. The Metadata Group window appears.



- 2 Configure the settings for the metadata group. See “Settings for Metadata Groups” on page 146 for more information on the settings.
- 3 Click Save Changes to save the custom metadata group. The new metadata group appears in the Metadata Group pane.

You can also open the Metadata Group window and edit existing metadata groups.

Note: You are not allowed to edit the required metadata groups.

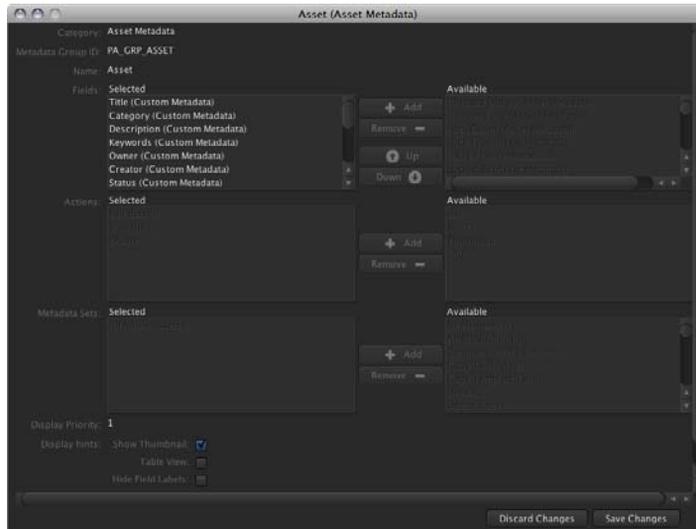
To edit an existing metadata group:

- 1 Double-click the metadata group in the Metadata Group pane. The Metadata Group window appears, showing the settings for that group.
- 2 Make any necessary changes and click Save Changes. The Metadata Group window closes.

See “Settings for Metadata Groups,” next, for more information on the settings.

Settings for Metadata Groups

Each metadata group has a variety of settings in addition to having metadata fields that you assign to the group.



The Metadata Group window contains the following settings:

- *Category*: An automatically generated category for the group. This appears only if you are editing an existing metadata group.
- *Metadata Group ID*: An automatically generated name for the group. This appears only if you are editing an existing metadata group and is for internal use only.
- *Name*: Enter the name of the group. This name is displayed as the title of the button on which the metadata is displayed.
- *Fields*: You choose the metadata fields that this group contains.
 - *Selected*: Lists the metadata fields in the group.
 - *Available*: Lists the metadata fields available to the group. The available fields depend on the category of the group; in most cases, these are custom metadata fields.

Use the Add and Remove buttons to change the fields in the group. Use the Up and Down buttons to change the order in which the fields are displayed in the group.

If you click a field in the Selected list, additional options appear. See “Field Properties” on page 148 for more information.

- *Actions*: This lists the actions for which the metadata group will be used. For example, add the Create action to this metadata group if you want this group's metadata fields to be available when creating a new asset. (This requires that this metadata group be part of the metadata set you assign to the asset you are creating.)
- *Selected*: Lists the actions for which this group will be used.
- *Available*: Lists the available actions.

Use the Add and Remove buttons to change the actions.

New groups normally use the View Details, Edit Details, and Create actions. These ensure this metadata group's fields are available when creating a new asset and when viewing an asset's details.

Important: Be careful making action changes to other metadata groups. Many of these groups are used internally by Final Cut Server and may cause serious issues if altered.

- *Metadata Sets*: This assigns this metadata group to a metadata set. You must assign a metadata group to a metadata set to access the group's metadata fields when creating or viewing the details of an asset to which the metadata set is assigned.
- *Selected*: Lists the metadata sets to which this group is assigned.
- *Available*: Lists the available metadata sets.

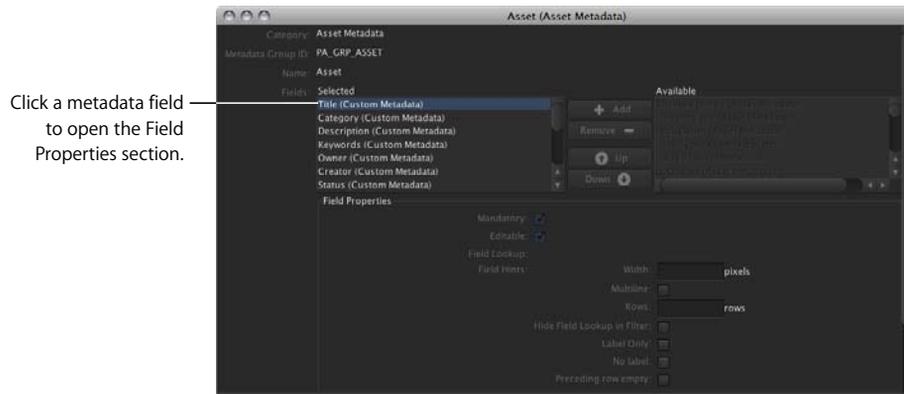
Use the Add and Remove buttons to change the metadata set assignments.

Note: You can also assign a group to a metadata set in the Metadata Set window. See "Settings for Metadata Sets" on page 156 for more information.

- *Display Priority*: Enter the order in which groups are displayed when part of a metadata set. Smaller numbers appear above larger numbers. The range is normally from 1 to 5 with 1 appearing first.
- *Display hints*: The following settings control how this group is displayed in Final Cut Server. Display hints can also be entered for metadata fields.
 - *Show Thumbnail*: Select this checkbox to display the thumbnails with the group. This is used for list views and edit views (for example, when viewing an asset's details).
 - *Table View*: Select this checkbox to display the group's fields in a table. Most of the groups used for listing content in the Final Cut Server Administration window use a table display.
 - *Hide Field Labels*: Select this checkbox to hide the field labels when displaying a group; for example, with Thumbnails views.
 - *Arrange Vertically*: Select this checkbox to arrange fields in the group vertically rather than using a best fit algorithm; for example, with Thumbnails views.

Field Properties

For each metadata field in the group, you can override the field's data type properties. Click a metadata field in the Selected list to see its properties.



Note: You cannot change the data type assigned to the metadata field, only its settings.

The actual properties that appear vary depending on the metadata field's data type. The following two settings always appear:

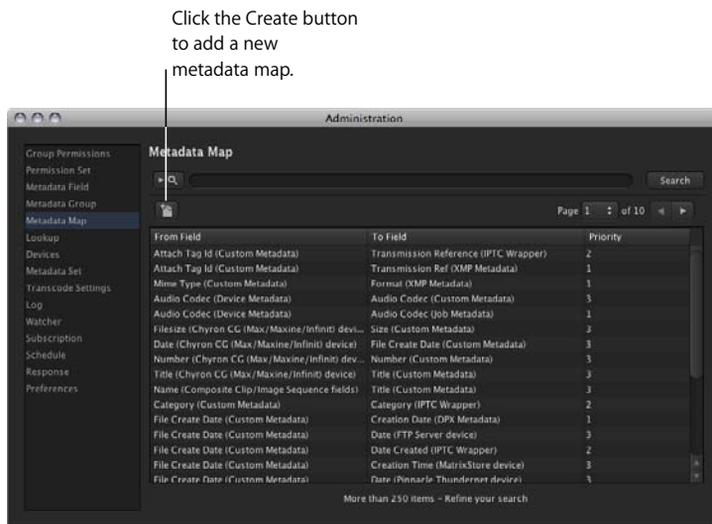
- **Mandatory:** Select this checkbox to indicate that this field must be filled in when used with this group.
- **Editable:** Select this checkbox to allow this field's data type settings, shown below this checkbox, to be edited when used with this group.

See "Specialized Settings" on page 142 for information about any other settings that appear.

Metadata Mapping

Metadata mapping simplifies your workflow by copying metadata from one metadata field to another. For example, if you import a set of still images with IPTC metadata fields, you can map the data in one or more of those fields to one or more of your custom metadata fields. Metadata mapping is used to translate metadata between Final Cut Server and devices, file formats, and embedded metadata.

Many standard metadata mappings are included with Final Cut Server. Additional mappings or changes can be defined using the Metadata Map pane.



The Metadata Map pane includes the following columns:

- *From Field*: Shows the metadata field being mapped from.
- *To Field*: Shows the metadata field being mapped to.
- *Priority*: Shows the mapping priority with a range that normally goes from 1 to 3. This is used to resolve conflicts where more than one field maps to the same destination, in which case the larger number has a higher priority, with 1 having the lowest priority.

Adding or Editing Metadata Maps

You can add or edit custom metadata maps.

To add a custom metadata map:

- 1 In the Metadata Map pane of the Administration window, click the Create button.

The Metadata Map window appears.



- 2 Configure the settings for the metadata map.

See the next section, “Settings for Metadata Maps,” for more information on the settings.

- 3 Click Save Changes to save the custom metadata map.

The new metadata map appears in the Metadata Map pane.

You can also open the Metadata Map window and edit existing metadata maps.

Note: You are not allowed to edit the required metadata maps.

To edit an existing metadata map:

- 1 Double-click the metadata map in the Metadata Map pane.

The Metadata Map window appears, showing the settings for that map.

- 2 Make any necessary changes and click Save Changes.

The Metadata Map window closes.

See “Settings for Metadata Maps,” next, for more information on the settings.

Settings for Metadata Maps

The Metadata Map window provides the controls to edit an existing metadata map or to define a new metadata map.



The Metadata Map window contains the following settings:

- *From Field:* From the list of all metadata fields, choose the field to map from.
- *To Field:* From the list of all metadata fields, choose the field to map to.
- *Priority:* Enter the mapping priority. The range normally goes from 1 to 3. This is used to resolve conflicts where more than one field maps to the same destination, in which case the larger number has a higher priority, with 1 having the lowest priority.
- *Two-way map:* Select the checkbox to create two mirror-image maps. This effectively creates a second metadata map with the from and to metadata fields swapped.

Metadata Lookups

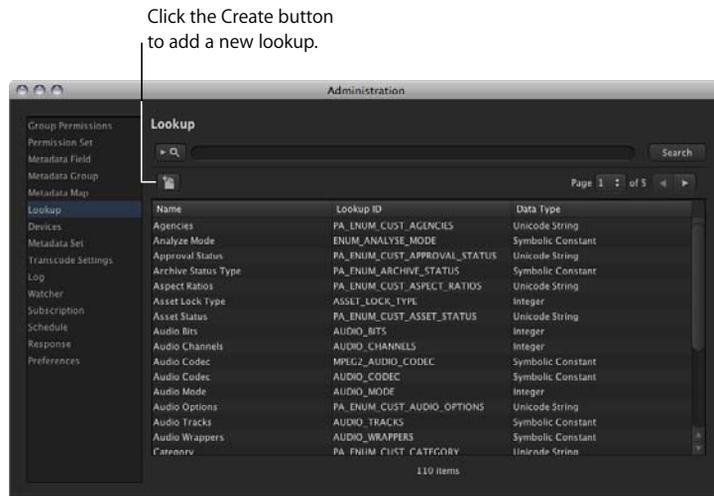
Lookups are pop-up menus with lists of values that a user uses to enter a metadata field's data. Examples include:

- A list of categories
- A list of productions
- A list of priorities

The values depend on the data type and can include text, dates, numbers, or timecode values. The following chart shows a few examples:

Lookup name	Data type	Name entry	Value entry
Audio Sample Rate	Integer	32 kHz	32,000
		44.1 kHz	44,100
Order Open	Boolean	Open	True
		Closed	False
Calendar Year	Date	Year Start	1/1/2008 00:00
		Year End	12/31/2008 23:59
Slate	Timecode	Slate In	00:00:25.00
		Slate Out	00:00:26.10
Email List	Unicode String	Editor 1	edit1@company.com
		Review Group	revgrp@company.com

Many standard metadata lookups are included with Final Cut Server. Additional lookups can be defined using the Lookup pane.



The Lookup pane contains the following columns:

- *Name*: The name of the lookup, as entered when it was created
- *Lookup ID*: An automatically generated name for the lookup that is for internal use only
- *Data Type*: The data type chosen for the lookup

Note: The data type of the lookup must match the data type of the metadata field you want to use it with.

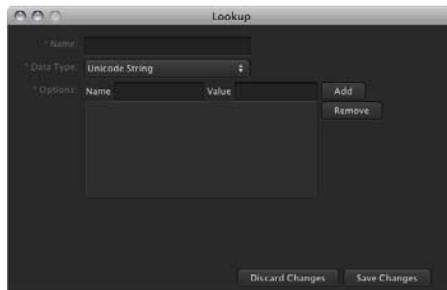
Adding or Editing Lookups

You can add or edit custom lookups.

To add a custom lookup:

- 1 In the Lookup pane of the Administration window, click the Create button.

The Lookup window appears.



- 2 Configure the settings for the lookup.

See the next section, "Settings for Lookups," for more information on the settings.

- 3 Click Save Changes to save the custom lookup.

The new lookup appears in the Lookup pane.

You can also open the Lookup window and edit existing lookups.

Note: You are not allowed to edit many of the provided lookups.

To edit an existing lookup:

- 1 Double-click the metadata lookup in the Lookup pane.

The Lookup window appears, showing the settings for that lookup.

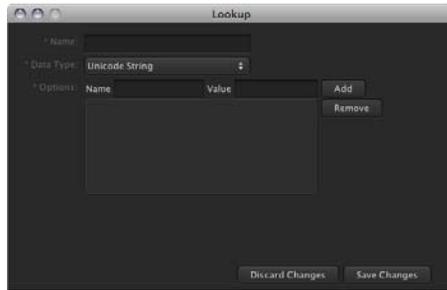
- 2 Make any necessary changes and click Save Changes.

The Lookup window closes.

See "Settings for Lookups," next, for more information on the settings.

Settings for Lookups

The Lookup window provides controls to edit an existing lookup or to define a new lookup.



The Lookup window contains the following settings:

- *Name*: Enter the name of the lookup.
- *Data Type*: Choose the type of lookup from the pop-up menu. The type of lookup values you can add to a lookup varies based on the data type you choose. See “Data Types for Lookups,” next, for more information about the data types.
- *Options*: Enter the name and corresponding value for each lookup value.
 - *Name*: The name of the element; for example, 32 kHz. This is what the user sees in the pop-up menu when entering metadata.
 - *Value*: The value of the element; for example, 32,000. This is the metadata value that is stored and used for searches. For text fields (using the Unicode String data type), you will usually want this to be the same as the name.

Click the Add button to add the name/value pair to the lookups, or click a name/value pair and click the Remove button to remove the name/value pair.

Data Types for Lookups

The data type you choose defines the type of values you can enter in a lookup list. The data type list is the same list as used when creating a metadata field. Following is a list of available data types:

- *Boolean*: A true or false value. This data type usually has only two items in its list: one true (with the Value checkbox selected) and one false (with the Value checkbox not selected). For example, you could enter Order Status Open as the name with the Value checkbox selected and Order Status Closed as the name with the Value checkbox not selected.
- *Date*: A date/time field
- *Floating Point Number*: A floating-point number
- *Integer*: An integer field that supports up to 32-bit numbers
- *Large Integer*: An integer field that supports up to 64-bit numbers (not normally required for custom metadata)
- *Timecode*: A video timecode value in the format hh:mm:ss:ff
- *Unicode String*: An alphanumeric Unicode string

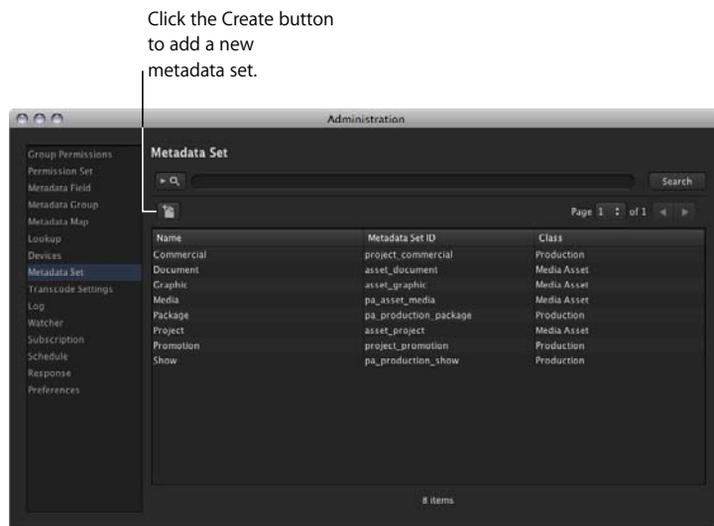
Managing Metadata Sets

There are different types of assets and productions you use with Final Cut Server. Metadata sets (which contain one or more metadata groups, each with its own metadata fields) allow you to assign different metadata groups to each type of asset or production. For example, you may want to store different metadata for still graphics than you would for HD video files, or for promotions and commercials.

Important: When assets are added to the Final Cut Server catalog, whether by manual upload or using an automation such as a scan, they must have a metadata set assigned to them. You cannot later change an asset's assigned metadata set. You can, however, change a metadata set so that it includes new metadata fields and groups. You can also copy an asset within the Final Cut Server catalog and assign a different metadata set to the new copy.

The customer profile you selected when you installed Final Cut Server defined the default metadata sets in your system. See "About the Customer Profiles" on page 29 for more information.

An administrator can define new metadata sets as required and define which metadata groups apply to each set.



The Metadata Set pane contains the following columns:

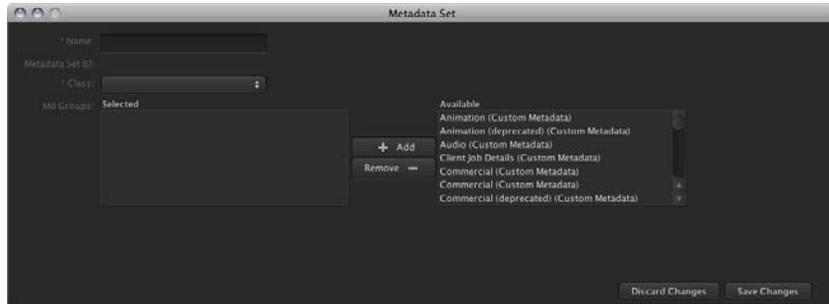
- **Name:** The name of the metadata set, as entered when it was created
- **Trait ID:** An automatically generated name for the metadata set that is for internal use only
- **Class:** The type of items the metadata set can be applied to, either media assets or productions

Adding or Editing Metadata Sets

You can add or edit custom metadata sets.

To add a custom metadata set:

- 1 In the Metadata Set pane of the Administration window, click the Create button. The Metadata Set window appears.



- 2 Configure the settings for the metadata set. See the next section, “Settings for Metadata Sets,” for more information on the settings.
- 3 Click Save Changes to save the custom metadata set. The new metadata set appears in the Metadata Set pane.

You can also open the Metadata Set window and edit existing metadata sets.

To edit an existing metadata set:

- 1 Double-click the metadata set in the Metadata Set pane. The Metadata Set window appears, showing the settings for that metadata set.
- 2 Make any necessary changes and click Save Changes. The Metadata Set window closes.

See “Settings for Metadata Sets,” next, for more information on the settings.

Settings for Metadata Sets

The Metadata Set window contains the following settings:

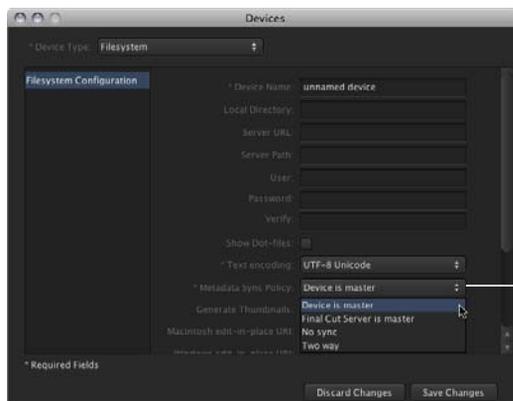
- *Name*: Enter the name of the metadata set.
- *Trait ID*: This is an automatically generated name for the metadata set that is for internal use only.
- *Class*: Choose either Media Asset or Production from this pop-up menu.
Note: You cannot change this setting when editing an existing metadata set.
- *Md Groups*: You choose the metadata groups that this set contains.
 - *Selected*: Lists the metadata groups in the set.
 - *Available*: Lists the metadata groups available to the set. The available groups depend on the class of the set.

Use the Add and Remove buttons to change the groups in the set.

Note: The order of the metadata groups in the Selected list does not affect the order they appear in when the metadata set is applied to an asset or production. That order is controlled by each metadata group's Display Priority setting. See "Settings for Metadata Groups" on page 146 for more information.

Metadata Synchronization Policy

Metadata is synchronized between Final Cut Server and the device according to one of the following policies chosen from the Metadata Sync Policy pop-up menu when creating a new device in the Devices window.



Choose the metadata sync policy when creating a new device using the Devices window.

Choosing the synchronization policy to use generally depends on who is thought of as “owning” or being in charge of the device:

- *If Final Cut Server owns the device*, you should use the “Final Cut Server is master” or “Two way” synchronization policy.
- *If another department owns the device* and Final Cut Server is just being granted access to its content, you should use the “Device is master” synchronization policy.

Device is master

This synchronization policy regards the device as the authority on what the real metadata is.

Device metadata is mapped to custom metadata. Subsequent changes to the metadata on the device are mapped to the custom metadata when they are detected. Custom metadata fields that map to device metadata can be edited but those changes are not mapped to the device.

Note: This is the default choice and is used for all devices created by the Final Cut Server installer and any devices created using Device Setup Assistant in Final Cut Server System Preferences.

Final Cut Server is master

This synchronization policy regards Final Cut Server as the authority on what the real metadata is.

The first time the asset is cataloged, device metadata is mapped to custom metadata. On any subsequent changes to the custom metadata, custom metadata is mapped and saved to device metadata, overwriting any changes that may have occurred in the device metadata. Any changes to the metadata on the device are not mapped to the custom metadata.

No sync

The first time the asset is cataloged, device metadata is mapped to custom metadata. Any subsequent changes of either custom or device metadata are not mapped and remain different on Final Cut Server and the device.

Two way

The first time the asset is cataloged, device metadata is mapped to custom metadata. Any subsequent changes of either custom or device metadata are mapped and are synchronized between Final Cut Server and the device.

See “Adding a Device Using the Administration Window” on page 164 for more information on using the Devices window.

Using Metadata to Configure the User Interface

Final Cut Server uses a variety of metadata groups to define many aspects of the Final Cut Server client's user interface. For example, you can add metadata fields to the Thumbnails metadata group to control which fields appear when you are using the Thumbnails view.

Following are details on the most common areas you may want to customize.

Important: Any changes you make affect all clients connected to the server. In many cases though, you may have to close the client and log in again to see the changes.

Note: Use care when modifying metadata groups. You will often find multiple metadata groups or fields with the same or similar names. Be sure you choose the correct ones to modify. Also, modifying a metadata group may impact more than one area of the user interface.

Modifying a Metadata Group

Modifying any of these metadata groups is the same as described in "Metadata Groups" on page 143. The following describes the process with some details specific to groups that affect the user interface.

To modify a metadata group:

- 1 Double-click the metadata group's name in the Administration window's Metadata Group pane.

The metadata group opens in its own window.

Note: It's easier to find the metadata group if you search for it.

- 2 In the Fields section of the window, note the items in the Selected list and their order, and compare that to the area of the user interface you are intending to change. They should match. If not, you do not have the correct metadata group selected.
- 3 Do any of the following as needed:
 - Remove an item from the Selected list by selecting it and clicking Remove.
 - Add an item to the Selected list by selecting it in the Available list and clicking Add.
 - Change an item's location in the Selected list by selecting it and clicking the Up and Down buttons.
- 4 Click Save Changes.

The window closes and the changes you made are saved.

In many cases you will need to close the client and log in again to see the changes take effect.

Customizing Advanced Searches

There are several areas in the Final Cut Server client where you can choose to configure advanced search options to fine-tune your search results. By modifying selected metadata groups, you can add and remove metadata fields as well as rearrange the order in which they appear. For example, you might want to add the Required reviewers metadata field to your asset searches.

The commonly modified advanced search metadata groups are:

- *Asset Filter metadata group*: This metadata group defines the advanced search options available for the main window's Assets pane. Additionally, it affects the fields that appear in the Asset Filter pane when you configure an asset subscription and the Asset Filter pane when configuring a permission set.
- *Production Filter metadata group*: This metadata group defines the advanced search options available for the main window's Productions pane. Additionally, it affects the fields that appear in the Production Filter pane when you configure a production subscription and the Production Filter pane when configuring a permission set.
- *Job Filter metadata group*: This metadata group defines the advanced search options available for the Search All Jobs window that appears when you select Search All Jobs from the server menu. Additionally, it affects the fields that appear in the Job Filter pane when you configure a job subscription.

Customizing the Views

Metadata groups define the information that appears in the main window when you choose the Thumbnail, Tile, or List view. It can be useful to customize these views so that they display the information that is important to your situation. For example, you may want to see an asset's mime type in the Thumbnail view.

It can be challenging to find the correct metadata groups to modify since there are many groups with the same name. You must ensure you are choosing the group with the correct Metadata Group ID (listed below).

The commonly modified view metadata groups are:

- *Thumbnails metadata group, ASSET_THUMBNAILS_VIEW group ID*: This metadata group defines what fields appear in the Thumbnails view of the main window's Assets pane.
- *Thumbnails metadata group, PROJECT_THUMBNAILS_VIEW group ID*: This metadata group defines what fields appear in the Thumbnails view of the main window's Productions pane.
- *Thumbnails metadata group, ELEMENT_THUMBNAILS_VIEW group ID*: This metadata group defines what fields appear in the Thumbnails view of the info window that appears when you double-click a Final Cut Pro project in the main window.
- *Tiles metadata group, ASSET_INFO_VIEW group ID*: This metadata group defines what fields appear in the main window's Information pane when viewing assets.

- *Tiles metadata group, PROJECT_INFO_VIEW group ID:* This metadata group defines what fields appear in the main window's Information pane when viewing productions.
- *Tiles metadata group, ASSET_TILES_VIEW group ID:* This metadata group defines what fields appear in the info window that appears when you double-click an asset or a Final Cut Pro project in the main window.
- *Tiles metadata group, PROJECT_TILES_VIEW group ID:* This metadata group defines what fields appear in the info window that appears when you double-click a production.
- *Tiles metadata group, ELEMENT_TILES_VIEW group ID:* This metadata group defines what fields appear in the Element Details window that appears when you double-click an element in the info window (the window that appears when you double-click a Final Cut Pro project in the main window).
- *List metadata group, ASSET_LIST_VIEW group ID:* This metadata group defines what fields appear in the List view of the main window's Assets pane.
- *List metadata group, PROJECT_LIST_VIEW group ID:* This metadata group defines what fields appear in the List view of the main window's Productions pane.
- *List metadata group, ELEMENT_LIST_VIEW group ID:* This metadata group defines what fields appear in the List view of the info window that appears when you double-click a Final Cut Pro project in the main window.

About QuickTime Metadata

QuickTime media files can have a wide variety of metadata added to them. As a simple example, you can add annotations, such as title, author, and keywords to a QuickTime media file using the Annotations pane of the QuickTime Player Movie Properties window.

Since a QuickTime media file can contain custom metadata fields, Final Cut Server is unable to map all of the metadata fields to metadata fields that are used in its default groups.

This means that if you use custom metadata fields in your QuickTime movies, you will need to either manually map those fields to fields used in existing metadata groups or add those fields to custom metadata groups.

To see a QuickTime movie's metadata:

- 1 Choose Search Devices from the client's Server pop-up menu.



The Search Devices window opens.

- 2 Choose the device that contains the movie from the Device pop-up menu, then click the Search button.
- 3 Double-click the QuickTime media file that contains the metadata you want to view.
A window opens showing the details of the file.



- 4 Click Dynamic Metadata in the column on the left.

The metadata details for the file are displayed.

Note: You may see some metadata fields that contain duplicate settings.

Final Cut Server shows both the older FOURCC (which is limited to four characters for the field's name) and the newer field identification entries.

This chapter covers the following:

- About Devices (p. 163)
- Adding a Device Using the Administration Window (p. 164)
- Editing a Device Using the Administration Window (p. 167)
- Deleting an Existing Device Using the Administration Window (p. 168)
- About Specialized Devices (p. 169)
- Device Type Details (p. 174)
- Searching Devices (p. 182)

About Devices

Final Cut Server uses devices to store and manage your assets and productions. There are also devices used for specialized functions such as storing proxies, archiving, and tracking asset versions.

You can add, remove, and configure devices that Final Cut Server can use while managing your system. Devices can be as simple as a folder on the Final Cut Server computer, an FTP server, or an Apple Xsan volume.

There are two methods you can use to add and edit devices within Final Cut Server: using Device Setup Assistant in Final Cut Server System Preferences and using the Devices pane of the client's Administration window.

About Creating Devices Using Device Setup Assistant

Device Setup Assistant in Final Cut Server System Preferences is simple to use and includes additional features, such as a scan and transcode settings configuration ability. Manually configuring similar features would require you to use multiple Administration window panes.

Device Setup Assistant also makes it much easier to install certain kinds of devices, such as network devices and Xsan volumes, by simplifying the number of settings. Additionally, Device Setup Assistant verifies all settings you make before allowing you to continue to the next step. (Devices created with the Administration window are not verified until you actually use them.)

The drawbacks of using Device Setup Assistant are that you do not have access to some of the more esoteric settings and that you cannot configure several device types, such as a Contentbase file system or an edit-in-place device that does not use an Xsan volume.

See Chapter 5, “Using Device Setup Assistant,” on page 59 for more information about Device Setup Assistant.

About Creating Devices Using the Administration Window

The Devices pane of the Administration window gives you access to many more device settings than Device Setup Assistant. Most users, however, do not require these settings, although they can be useful in some situations. The Administration window is the only place that you can configure devices using the Contentbase file system or an edit-in-place device that does not use an Xsan volume.

Although you can configure network devices with the Administration window, it is more difficult with its variety of settings.

Adding a Device Using the Administration Window

You can add a device using Device Setup Assistant, accessible from Final Cut Server System Preferences, or you can manually add a device in the client’s Administration window. See “Adding a Device” on page 62 for information on using Device Setup Assistant.

Adding a device with the Administration window is a bit different from adding a device with System Preferences:

- You must manually configure the device because there is no Device Setup Assistant as with System Preferences.
- You do not directly add transcode settings to the device in the Devices pane. You instead assign devices to the transcode settings in the Administration window’s Transcode Settings pane. See Chapter 13, “Managing Transcode Settings,” on page 187 for more information.

- You do not directly add scan settings to the device in the Devices pane. You instead must create the scan settings by using the Response and Schedule panes. See Chapter 14, “Managing Automations,” on page 193 for more information.
- You have many more options and settings. Manually configuring a device allows you more flexibility.
- You are not able to easily add some device types, such as Xsan, NFS, or SMB/CIFS. These are much easier to add with Device Setup Assistant.

Important: When you add a device using the Administration window, Final Cut Server does not verify the settings until the first time you use it. Be sure to try any new devices you create to ensure they work correctly. A good way to verify a device is to use the Search Devices option. See “Searching Devices” on page 182 for more information.

Note: It is strongly suggested that you do not create any devices on the server computer’s startup disk. Devices contain large media files and can use all of the available disk space of their hard disk, which causes serious issues if that hard disk is also the startup disk.

To add a device using the Administration window:

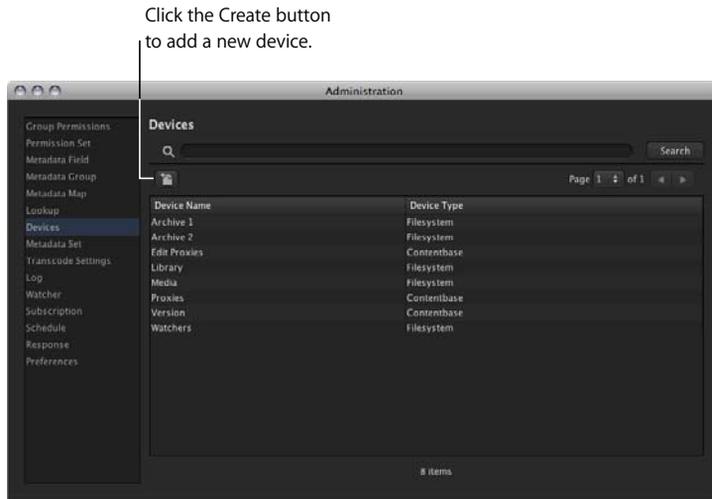
- 1 Open a Final Cut Server client and log in as a user with administrator privileges.
- 2 Choose Administration from the Server pop-up menu (the pop-up menu in the Final Cut Server main window that appears when you click the Server button).

Click the Server button
and choose
Administration from the
pop-up menu.



The Administration window appears.

- 3 Click Devices in the column on the left to open the Devices pane.



- 4 Click the Create button to add a new device.

The Devices window appears.



- 5 Choose the device type to add from the Device Type pop-up menu:

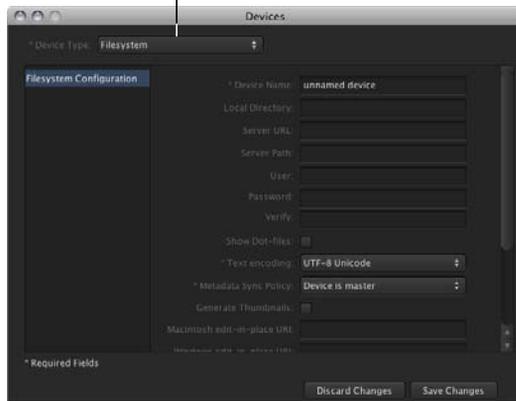
- **Contentbase:** A file system unique to Final Cut Server that renames each asset and places it in a folder that also contains a file with the original name. An advantage of Contentbase is that you can add files to it without any chance of a filename conflict (which can be useful when you have many graphics files that share filenames). The disadvantages are that you cannot create a folder structure and the renamed files can be difficult to work with outside of Final Cut Server.

Important: The Proxies, Edit Proxies, and Version devices must use the Contentbase file system. Additionally, Contentbase devices cannot be watched by a watcher automation.

- **FTP Server:** This device type uses FTP to transfer media to and from it.
- **Filesystem:** This is the traditional file system used by most computers. It supports subfolders and normal filenames.

The Devices window changes to reflect the device type you chose. You can choose a different device type if necessary.

You can choose other device types to see their settings.



- 6 Configure the device type's settings, then click Save Changes.

Editing a Device Using the Administration Window

The Administration window can only edit devices created using it or Device Setup Assistant. See "Editing an Existing Device" on page 73 for more information on editing devices using Device Setup Assistant.

To edit a device's settings using the Administration window:

- 1 Double-click the device in the Devices pane.
The Devices window appears with that device's current settings showing.
- 2 Edit the settings as needed, then click Save Changes.

The Devices window closes and the device is updated to the new settings. See "Device Type Details" on page 174 for more information about the device settings.

Deleting an Existing Device Using the Administration Window

You can delete any of the existing devices from the Devices pane.

To delete an existing device using the Administration window:

- 1 Select the device in the Devices pane.
- 2 Control-click the device, then choose Delete from the shortcut menu.

A confirmation dialog appears.

- 3 Click Delete.

The device is removed from the device list.

Some things to keep in mind when deleting a device:

- You cannot undo a device deletion.
- Deleting a device removes it and all of its assets from the Final Cut Server catalog. This includes removing all proxy files from the Proxy device and versions from the Version device.
- Deleting a device does not affect the actual contents of the device's volume. Contentbase devices are an exception; deleting a Contentbase device deletes all of its media as well.
- If a job is in progress when you delete the device, that job must be completed before the device is actually deleted. (All other pending jobs are canceled.) If you do not want to wait for the current job to finish, you can cancel it in the client's Search All Jobs window.
- Any responses or watchers that depend on the device you are deleting are also deleted. Any schedules or other automations that used those responses are not deleted. You must manually delete these items.

About Specialized Devices

There are a number of specialized devices that Final Cut Server can use. Some of these, such as the Proxies and Version devices, are configured during the Final Cut Server installation. Others, such as an archive device, are configured manually.

Setting Up the Proxies Device

Each Final Cut Server installation has one Proxies device. Each time you upload an asset to the Final Cut Server catalog, a set of low-resolution files is created. The Proxies device is where the thumbnails, poster frames, and clip proxies are stored. These are used in place of the actual full-resolution assets whenever lower-resolution versions are sufficient. See “Analyze Preference Settings” on page 120 for information about configuring proxy formats.

The Proxies device is created at the location you specify when you install Final Cut Server. See “Using the Final Cut Server Installer” on page 21 for more information. See “Proxies Preference Settings” on page 117 for information on choosing a proxy device.

The Proxies device is a Contentbase device type.

Setting up the Edit Proxies Device

Each Final Cut Server installation has one Edit Proxies device. Each time you upload a Final Cut Pro project to the Final Cut Server catalog, you can create a set of Apple ProRes 422 codec format files in addition to the set of low-resolution files stored on the Proxies device. These files can be used in place of the original assets when you export or check out a Final Cut Pro project.

The Edit Proxies device is created at the location you specify when you install Final Cut Server. See “Using the Final Cut Server Installer” on page 21 for more information. See “Proxies Preference Settings” on page 117 for information on choosing an edit proxy device.

The Edit Proxies device is a Contentbase device type.

Setting Up the Version Device

When working with Final Cut Server assets, you may find that you need to track multiple versions of the same asset. For example, you may have several versions of a graphic that use different font settings. Final Cut Server includes a version-tracking feature, making it easy to work with multiple versions of an asset.

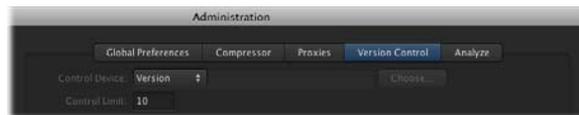
The Final Cut Server installer automatically creates a Version device at the location specified for production media. For most installations, this device works well for storing your asset and production versions. You may find, however, that you need to create a device with more space to store your versions, especially if you choose to retain more than three or four versions of your assets and those assets are large video files.

If you need to manually create a Version device, the device must use the Contentbase device type. It also should not be used for any other purposes.

You specify the device used for storing the different asset and production versions in the Administration window's Preferences pane.

To choose the version device:

- 1 In the Administration window's Preferences pane, click Version Control to see the version preferences.



- 2 Choose a device from the Version Control Device pop-up menu.
Note: Because the device used to store versions must use the Contentbase device type, the Choose button is not available. See “Contentbase” on page 174 for more information.
- 3 Enter the maximum number of versions that can be associated with an asset in the Version Control Limit field. Once the limit is reached, the oldest versions are deleted as new versions are added.
- 4 Click Save Changes.

See “Preference Settings in the Final Cut Server Client Administration Window” on page 115 for information about the preference settings in the other areas of the Preferences pane.

Setting Up an Archive Device

Archiving an asset makes it possible to take the asset offline but still retain a link to it should it be required later. This is most useful when you have large video files that are not currently being used but are taking up disk space on a device. Archiving the asset allows you to copy it to a different device; for example, a FireWire drive or a large but slow hard disk that you can take offline. Final Cut Server keeps a link to the asset and makes it easy to restore the asset when it is needed later.

Important: The archive operation does not archive the versions that an asset might have. Only the current version is archived.

Final Cut Server supports multiple archive devices, and most devices can be set as an archive device. Archive devices can use the Contentbase or Filesystem Final Cut Server device type.

Important: Assets on a Contentbase device type cannot be archived unless the archive device is also a Contentbase device type. If you create one or more Contentbase device types to store assets, be sure to create an archive device that also uses a Contentbase device.

Note: You can also create archive devices using Device Setup Assistant. See “Adding a Device” on page 62 for more information.

To make a device an archive device:

- 1 Double-click the device in the Devices pane of the Administration window.
The device opens in its own window.
- 2 Select the Archive Device checkbox.
- 3 Click Save Changes.

This device will now appear in the list of archive devices in the main window’s shortcut menu. See the *Final Cut Server User Manual* for more information.

About the Export Device

A user can choose to export an asset from the Final Cut Server catalog to his or her local computer. When the user Control-clicks an asset in a Final Cut Server client, an Export option appears in the shortcut menu. Choosing the Export option opens the Export dialog where the user sets the filename, destination, and optionally chooses a transcode setting, allowing the conversion of the asset to a different codec as it downloads.

Final Cut Server creates a hidden device named Export to store the transcode settings a user can choose from when using the Export option. By default, the Export device has only a few commonly used transcode settings. You can add transcode settings to the Export device in the Administration window's Transcode Settings pane. See "Assigning Transcode Settings to Devices" on page 190 for more information.

There are no other device settings for the Export device.

About Edit-in-Place Devices

Depending on your system configuration, you may be able to take advantage of the Final Cut Server edit-in-place feature, making using assets from the catalog easier and faster.

Why Edit-in-Place?

In most cases when using a Final Cut Server client, you must have a local copy of any assets you would like to work with on the client computer. For example, if you want to add one of the Final Cut Server assets to a Final Cut Pro project you have on the client's computer, you need to create a copy of that asset from its device to your computer before you can add it to the project.

Using Add to Local Cache in the main window makes a copy of the asset and places it in the computer's cache location (as specified in the Preferences window—see "User-Configurable Preference Settings" on page 121). The asset's thumbnail frame changes to a lighter color once the asset has been copied to the client's computer, and you can then drag the asset from the main window to your Final Cut Pro project, desktop, or to any other location you want to use it in.

In some cases, however, the computer you are running Final Cut Server client on may have direct access to the device that has the asset you want. In that case, you can configure the device so that you are able to directly use its assets without having to make local copies of them first. A device that can be directly accessed by a Final Cut Server client is an edit-in-place device.

Does Your System Support Edit-in-Place?

There are two common system configurations where edit-in-place devices work especially well: when the client computer is connected to an Xsan using a Fibre Channel network, and when the device is actually a hard disk directly connected to the client computer. In both cases, you should have sufficient bandwidth to be able to work in real time on the assets with no dropped frames or other low-bandwidth issues.

Important: In general, devices connected to the client's computer using standard Ethernet or wireless connections are not suitable for use as edit-in-place devices since they may not have sufficient bandwidth to support working directly on video files. Additionally, you should never configure the startup disk of the computer you installed Final Cut Server on as an edit-in-place device.

Creating Edit-in-Place Devices

There are two methods you can use to add devices to your Final Cut Server system: using Device Setup Assistant and using the Final Cut Server client's Administration window.

Most devices created with Device Setup Assistant do not have their edit-in-place settings configured. The exception is the Xsan device, which automatically configures its edit-in-place settings.

The only way to manually create an edit-in-place device is to create the device in the Administration window. When you create a device using the Administration window, you can configure several settings related to edit-in-place.

- **Macintosh edit-in-place URI:** Enter the Uniform Resource Identifier (URI) for editing media from a Macintosh client directly on the device, instead of downloading and editing it on the client. The device must also be accessible as a mounted file system from the client. The format is:
 - `file:///Volumes/volumename/optionalsubfolder/`An example is:
 - `file:///Volumes/MediaServer/Images/`
- **Windows edit-in-place URI:** Enter the URI for editing media from a Windows client directly on the device, instead of downloading and editing it on the client. The device must also be accessible as a network share from the client. The format is:
 - `file:///hostname/path/`An example is:
 - `file:///MediaServer/Images/`

See "Storage Device Strategy" on page 16 for more information about Xsan volumes.

Device Type Details

Devices supported by Final Cut Server are listed and described below:

- *Contentbase*: See “Contentbase,” next.
- *FTP Server*: See “FTP Server” on page 176.
- *Filesystem (including local, Xsan, NFS, AFP, and SMB/CIFS)*: See “Filesystem” on page 179.

Contentbase

Contentbase is a Final Cut Server–managed file storage system on or connected to the Final Cut Server server itself. Media is stored on a file system such as network-attached storage (NAS) or storage area network (SAN) storage.

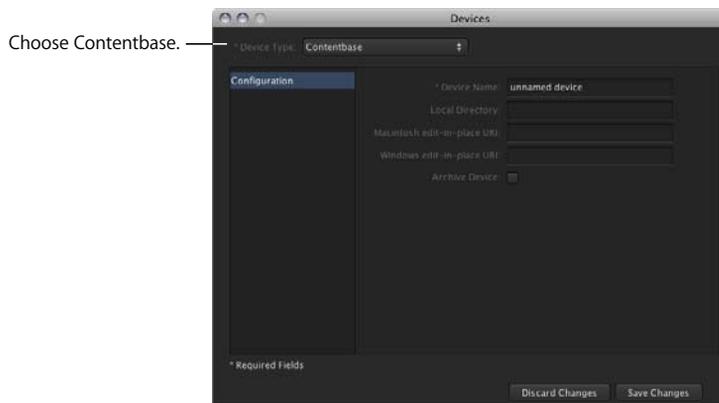
Contentbase is a file system unique to Final Cut Server that places each asset in a unique folder. An advantage of Contentbase is that you can add files to it without any chance of a filename conflict (which can be useful when you have many graphics files that share filenames). The disadvantages are that you cannot create a subfolder structure and the files can be difficult to work with outside of Final Cut Server.

Note: The Proxies, Edit Proxies, and Version devices must use the Contentbase file system.

Important: Devices using the Contentbase device type cannot be used by a file system watcher.

To access the Contentbase device settings:

- 1 Click the Create button in the Administration window’s Devices pane to create a new device.
- 2 Choose Contentbase from the Device Type pop-up menu.



The Configuration pane for a Contentbase device type contains the following items:

- *Device Name*: Enter a descriptive name for the device.
- *Local Directory*: Enter the root path for this device as it appears to the Final Cut Server server. For example: `/Volumes/Macintosh HD/Final Cut Server/Contentbase Device/`.
- *Macintosh edit-in-place URI*: Enter the Uniform Resource Identifier (URI) for editing media from a Macintosh client directly on the device, instead of downloading and editing it on the client. The device must also be accessible as a mounted file system from the client. The format is:
 - `file:///Volumes/volumename/optionalsubfolder/`

An example is:

- `file:///Volumes/MediaServer/Images/`

Note: See “About Edit-in-Place Devices” on page 172 for more information about edit-in-place devices.

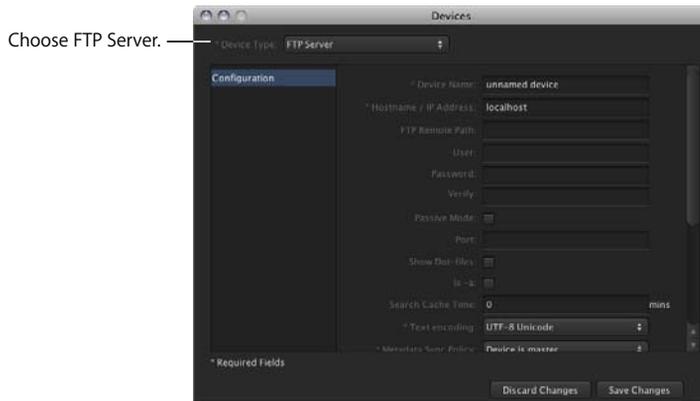
- *Windows edit-in-place URI*: Enter the URI for editing media from a Windows client directly on the device, instead of downloading and editing it on the client. The device must also be accessible as a network share from the client. The format is:
 - `file:///hostname/path/`An example is:
 - `file:///MediaServer/Images/`
- *Archive Device*: Select this checkbox to add this device to the list of archive locations a user can choose from.

FTP Server

Final Cut Server supports access to any server running standard File Transfer Protocol (FTP) such as a Microsoft Windows, Macintosh, or UNIX host. Other devices can be set up in this way; for example, Macintosh file server, Windows NT or Windows 2000 file server, and UNIX file server.

To access the FTP Server device settings:

- 1 Click the Create button in the Administration window's Devices pane to create a new device.
- 2 Choose FTP Server from the Device Type pop-up menu.



The Configuration pane for an FTP Server device type contains the following items:

- *Device Name*: Enter a descriptive name for the device.
- *Hostname / IP Address*: This is either a DNS host name (for example, ftp.bigtv.com) or the IP address of the server (for example, 10.1.101.7).
- *FTP Root Path*: Enter the default path for files on the server (for example, /public/images/). If this path starts with a forward slash (/), it is relative to the root folder of the server. If this path does not start with a forward slash, it is relative to the default folder of the server the user uses to log in (usually the user's home folder).
- *User*: Enter your user name in this field to log in automatically to the server on every attempted FTP server access, such as searching and copying.
- *Password*: Enter the password that goes with the above User entry. Leave this field blank if the FTP server does not require a password.
- *Verify*: Retype the password entered above.
- *Passive Mode*: Select this checkbox to use passive mode FTP transfers.
- *Port*: Leave blank to use the default port number, or enter a different port number.
- *Show Dot-files*: Select this checkbox to display all files beginning with a dot or period (.) on directory listings and searches. Otherwise these files are not visible.

Important: Do not select this option unless specifically required.

- *ls -a*: Select this checkbox to include files whose names start with a period when listing the server's files.

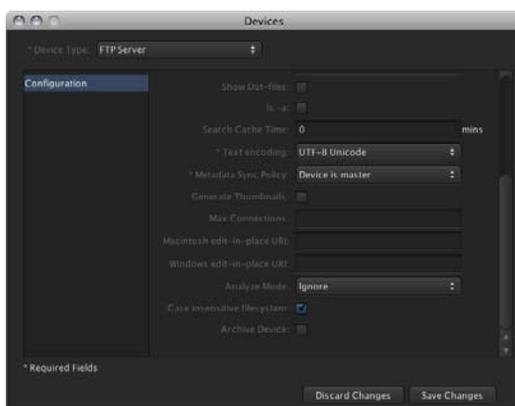
Important: Do not select this option unless specifically required.

- *Search Cache Time*: The time in minutes for which search results are cached in Final Cut Server. The range is from 0 (not cached) to 7 (results cached for 7 minutes). The Final Cut Server cache is searched until the specified period has elapsed, after which the device is polled again. This improves performance for the user but means results may be out of date by the specified period. Caching the search results for several minutes is useful when connecting to a slow server or slow network link.
- *Text encoding*: Choose the type of text encoding used on the device from this pop-up menu. Final Cut Server supports a wide range of text encodings, including many of the common Chinese, Korean, and Japanese encodings. The default is UTF-8 Unicode which is used with current versions of Mac OS X.

If you are unsure about which text encoding to use, you can choose a setting and use the Search Devices window (explained in “Searching Devices” on page 182) to see if the filenames appear as expected. If not, you can choose a different setting and test again.

Important: Once a device's assets have been added to the Final Cut Server catalog, changing this setting will not affect them. Be sure to perform the above tests prior to scanning the device.

See “About Unicode Support” on page 124 for more information.



- *Metadata Sync Policy*: From this pop-up menu, choose the policy by which metadata is synchronized between Final Cut Server and the device. See “Metadata Synchronization Policy” on page 156 for more information.

- *Generate Thumbnails*: Select this checkbox to generate thumbnails of images when using Search Devices from the Server pop-up menu (the pop-up menu in the Final Cut Server main window that appears when you click the Server button). The thumbnail images appear when you view an image's details, by either double-clicking its filename or Control-clicking the filename and choosing View Details from the shortcut menu. This allows you to see the image without having to create an asset for it in the Final Cut Server catalog. See "Searching Devices" on page 182 for more information on using the Search Devices feature.
- *Max Connections*: Enter the maximum number of connections from Final Cut Server to the device. Leave this field at the default setting of zero (0) or blank, permitting unlimited connections, unless there is a particular reason to restrict connections.
- *Macintosh edit-in-place URI*: Enter the Uniform Resource Identifier (URI) for editing media from a Macintosh client directly on the device, instead of downloading and editing it on the client. The device must also be accessible as a mounted file system from the client. The format is:
 - file:///Volumes/volumename/optionalsubfolder/
 An example is:
 - file:///Volumes/MediaServer/Images/

Note: See "About Edit-in-Place Devices" on page 172 for more information about edit-in-place devices.
- *Windows edit-in-place URI*: Enter the URI for editing media from a Windows client directly on the device, instead of downloading and editing it on the client. The device must also be accessible as a network share from the client. The format is:
 - file:///hostname/path/
 An example is:
 - file:///MediaServer/Images/
- *Analyze Mode*: Analysis creates different proxies for still and clip files. Choose an option from the pop-up menu to determine how Final Cut Server handles files that are not known to be still images or movie clips; for example, files missing extensions.
 - *[None]*: Do not analyze files or create proxies for files with missing or unknown file extensions. Guess the file type by its extension (default).
 - *Assume Stills*: Assume files with missing or unknown file extensions are still images.
 - *Ignore*: Do not analyze files or create proxies for files with missing or unknown file extensions. Guess the file type by the file's extension.
- *Case insensitive filesystem*: Select this checkbox for FTP devices that do not recognize case differences (for example, they see FILE.mov and file.mov as being the same file).
- *Archive Device*: Select this checkbox to add this device to the list of archive locations a user can choose from.

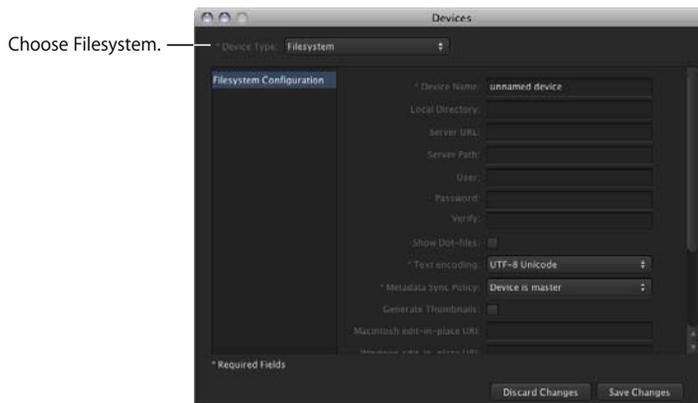
Filesystem

This type of device is used for any storage that is on the Final Cut Server server or can be mounted from it. This is used for AFP, Xsan, NFS, and SMB/CIFS file systems.

Note: Although all of the fields appear, the file system determines which fields are actually used.

To access the Filesystem device settings:

- 1 Click the Create button in the Administration window's Devices pane to create a new device.
- 2 Choose Filesystem from the Device Type pop-up menu.



The Filesystem Configuration pane for a Filesystem device type contains the following items:

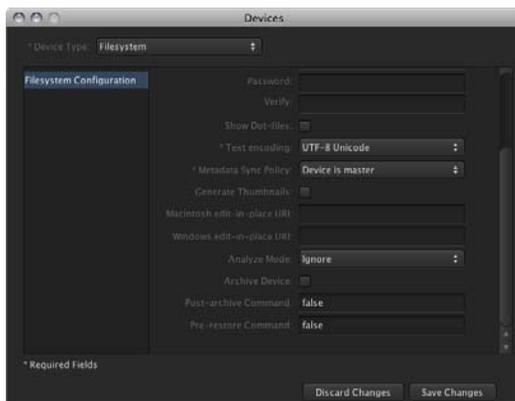
- *Device Name:* Enter a descriptive name for the device.
- *Local Directory:* Enter the root path for this device as it appears to the Final Cut Server server. This path is seen as the relative root (/) when copying to the device and all files under it will be accessible (for example: /Volumes/Macintosh HD/Final Cut Server/shared/).
- *Server URL:* Enter the URL of the server. This applies only to nonlocal devices. For Windows SMB/CIFS devices, enter the Uniform Naming Convention (UNC) root path that includes the workgroup and user using the format: `smb://workgroup;user@servername/shared`. You must also enter the user name in the User field.

Note: Device Setup Assistant from the Final Cut Server System Preferences pane includes a workgroup entry. You may find it easier to use Device Setup Assistant to configure SMB/CIFS devices.

Important: Enter information into either the Local Directory field or the Server URL field, never into both fields.

- *Server Path*: Enter the path that the server exports for use as the root path. This applies only to nonlocal devices.
 - *User*: Enter your user name in this field to log in automatically to the server on every attempted server access, such as searching and copying.
 - *Password*: Enter the password that goes with the above User entry. Leave this field blank if the User field is blank.
 - *Verify*: Retype the password entered above.
 - *Show Dot-files*: Select this checkbox to display all files beginning with a dot or period (.) on directory listings and searches. Otherwise these files are not visible.
- Important:** Do not select this option unless specifically required.
- *Text encoding*: Choose the type of text encoding used on the device from this pop-up menu. Final Cut Server supports a wide range of text encodings, including many of the common Chinese, Korean, and Japanese encodings. See “About Unicode Support” on page 124 for more information.
 - *Metadata Sync Policy*: From this pop-up menu, choose the policy by which metadata is synchronized between Final Cut Server and the device. See “Metadata Synchronization Policy” on page 156 for more information.
 - *Generate Thumbnails*: Select this checkbox to generate thumbnails of images when using Search Devices from the Server pop-up menu (the pop-up menu in the Final Cut Server main window that appears when you click the Server button). The thumbnail images appear when you view an image’s details, by either double-clicking its filename or Control-clicking the filename and choosing View Details from the shortcut menu. This allows you to see the image without having to create an asset for it in the Final Cut Server catalog. See “Searching Devices” on page 182 for more information on using the Search Devices feature.
 - *Macintosh edit-in-place URI*: Enter the Uniform Resource Identifier (URI) for editing media from a Macintosh client directly on the device, instead of downloading and editing it on the client. The device must also be accessible as a mounted file system from the client. The format is:
 - file:///Volumes/volumename/optionalsubfolder/
 An example is:
 - file:///Volumes/MediaServer/Images/

Note: See “About Edit-in-Place Devices” on page 172 for more information about edit-in-place devices.



- **Windows edit-in-place URI:** Enter the URI for editing media from a Windows client directly on the device, instead of downloading and editing it on the client. The device must also be accessible as a network share from the client. The format is:
 - `file:///hostname/path/`
 An example is:
 - `file:///MediaServer/Images/`
- **Analyze Mode:** Analysis creates different proxies for still and clip files. Choose an option from the pop-up menu to determine how Final Cut Server handles files that are not known to be still images or movie clips; for example, files missing extensions.
 - *[None]:* Do not analyze files or create proxies for files with missing or unknown file extensions. Guess the file type by its extension (default).
 - *Assume Stills:* Assume files with missing or unknown file extensions are still images.
 - *Ignore:* Do not analyze files or create proxies for files with missing or unknown file extensions. Guess the file type by the file's extension.
- **Archive Device:** Select this checkbox to add this device to the list of archive locations a user can choose from.
- **Post-archive Command:** This only applies if Archive Device is selected. Enter the path and name of the script or other executable file that should run after an asset is archived. This can enable integration with other external archiving systems. The script is given the complete path to the file as its first argument on the command line.
- **Pre-restore Command:** This only applies if Archive Device is selected. Enter the path and name of the script or other executable file that should run before an asset is restored. This can enable integration with other external archiving systems. The script is given the complete path to the file as its first argument on the command line.

Searching Devices

Final Cut Server includes the ability to search any connected device. This allows you to examine the contents of a device, including items that have not been added to the Final Cut Server catalog.

Opening the Search Devices Window

You open the Search Devices window from the Final Cut Server client's Server pop-up menu.

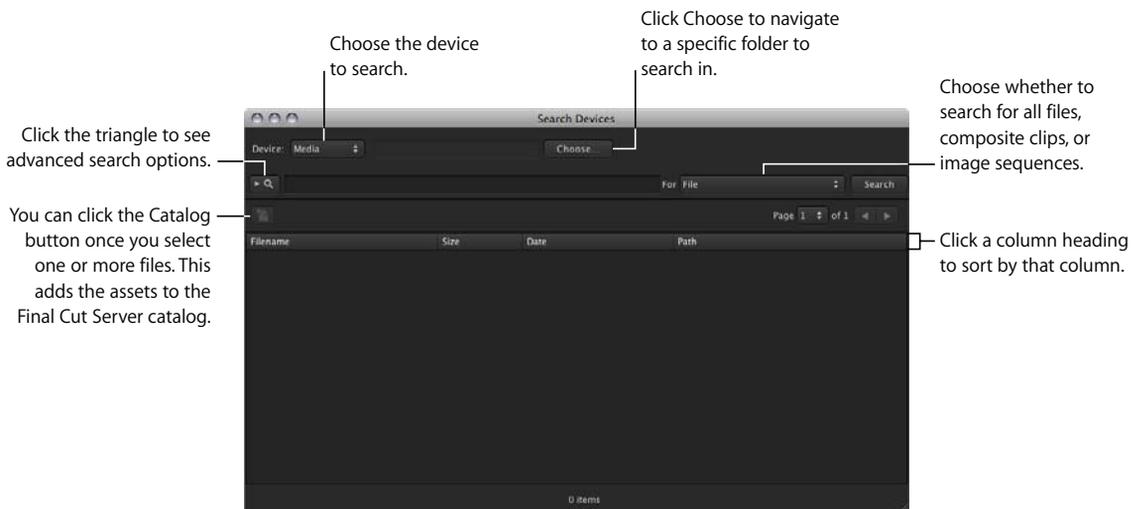
To open the Search Devices window:

- 1 Choose Search Devices from the Server pop-up menu (the pop-up menu in the Final Cut Server main window that appears when you click the Server button).

Click the Server button and choose Search Devices from the pop-up menu.



The Search Devices window for searching appears.

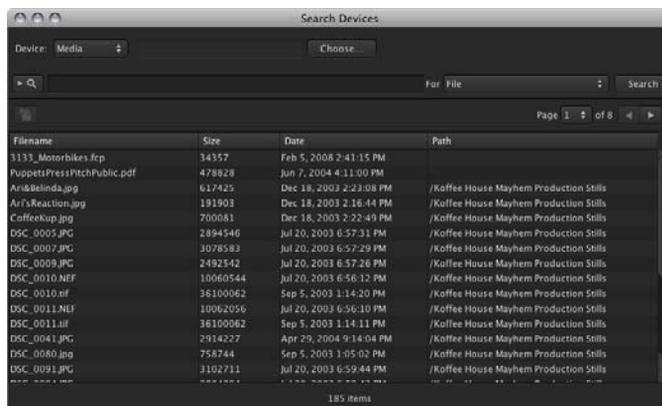


Searching a Device

You can search any of the Final Cut Server devices.

To search a device's contents:

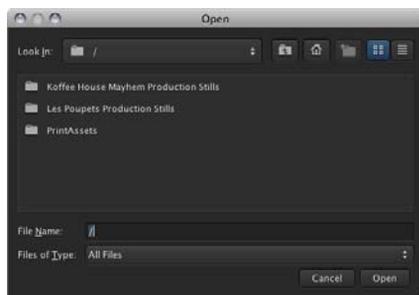
- 1 Choose the device to search from the Device pop-up menu.
- 2 Click Search.



By default, clicking the Search button searches from the device's root level. You can enter text to search for in the search field.

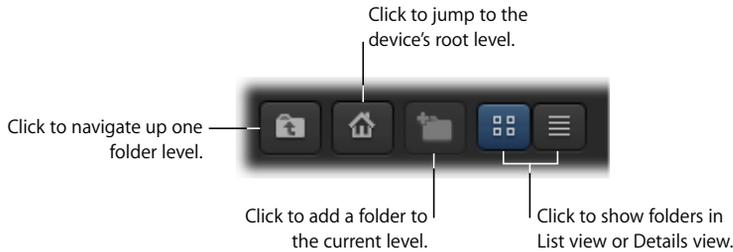
Important: Be sure to enter entire words in the search field. Unlike the search field in the Final Cut Server main window, the Search Devices search field does not return full words if you search for a partial word. For example, if you want to find all assets that contain the word “frame,” you must search for the entire word. Searching for “fra” will only find assets with the word “fra” and the word “frame” will not be found.

You can also click Choose to open a dialog that allows you to specify a folder to search.



This dialog shows the folders at the root level of the device. You can double-click a folder to show its contents. Once you are showing the folder you want to search, click Open to close this dialog and return to the Search Devices window.

You can also use the buttons along the top edge to manage this dialog.



Managing Device Items

The Search Devices window provides several ways to work with the items that it lists. These include the Catalog button and a shortcut menu that appears when you Control-click an item.

About the Catalog Button

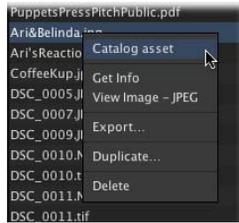
Once you select one or more items in the Search Devices window, the Catalog button becomes active. Clicking the Catalog button allows you to add the asset to the Final Cut Server catalog.



Note: It is possible that the selected item is already an asset in the Final Cut Server catalog. You can determine whether the item is in the catalog by either searching for it in the Assets pane or by using the shortcut menu (described next) to try and delete it. When you choose Delete from the shortcut menu, a dialog appears that lists what you are about to delete, including whether it is being removed from the catalog.

About the Shortcut Menu

You can Control-click an item to open a shortcut menu with several options. While many of these options look similar to the options you see when you Control-click an asset in the Assets pane, they can function differently.



- *Catalog asset*: This adds the item to the Final Cut Server catalog, exactly as the Catalog button does.
- *Get Info*: This opens a window that lists information about the selected item. This includes some metadata items that do not appear when you look at the asset within the Assets pane. See “About QuickTime Metadata” on page 160 for more information.
- *View Image*: This opens a window in the item’s default application to view it. Unlike the View item in the Assets pane shortcut menu, you are not able to choose to view the proxy files and instead always view the original images. For large video files this may take some time since the original media files must be copied from the device to your local cache before you can view them.
- *Export*: You can use Export to make a local copy of the selected item. You are able to choose the location and a transcode setting to use (if applicable) for the export process.
- *Duplicate*: You can use Duplicate to make a copy of the selected item onto any of the Final Cut Server devices. The copied version of the item is not added to the Final Cut Server catalog, regardless of whether the original item is in the catalog.
- *Delete*: You can use Delete to remove the selected item from the device. This actually deletes the file. When you choose Delete, a dialog appears that lists the items that will be deleted, including assets from the Final Cut Server catalog if this item was a part of it.

Note: It can be useful to use Delete to determine whether an item is in the Final Cut Server catalog or not—just be careful to not accidentally delete an item.

This chapter covers the following:

- About Transcode Settings (p. 187)
- Adding Transcode Settings (p. 188)
- Assigning Transcode Settings to Devices (p. 190)

About Transcode Settings

Transcode settings streamline copying media between different systems by hiding complex audio and video codec details from most users.

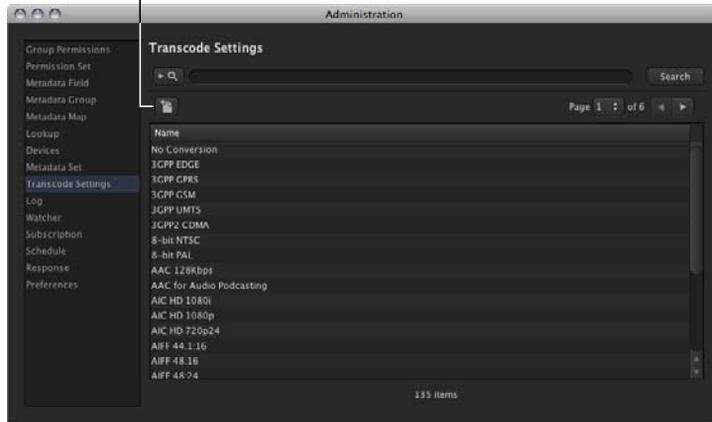
For example, if you have a device that you use for reviewing assets or productions, you can assign transcode settings to the device, and those settings can be used to convert the video to formats that are best suited for playback. Transcode settings are assigned to devices so that when you upload or copy media to a device, you can choose a transcode setting to use from a pop-up menu.

Note: If a device has no transcode settings assigned to it, you cannot perform any conversions when you upload or copy assets to that device.

Final Cut Server ships with a number of preconfigured transcode settings based on Compressor and internal Final Cut Server settings. You can also create custom settings in Compressor that can be made into Final Cut Server transcode settings. Anyone configuring settings must have a good knowledge of specific video and audio format issues. See the Compressor documentation, available from the Compressor Help menu, for more information.

The Transcode Settings pane of the Final Cut Server client's Administration window lists the current transcode settings.

Click the Create button to add a new transcode setting.



Adding Transcode Settings

Final Cut Server includes a large variety of transcode settings. All clip transcode settings are based on Compressor settings, and most image transcode settings are based on internal Final Cut Server settings. If you need to add additional, custom settings, you first need to create custom settings in Compressor. See the Compressor documentation, available from the Compressor Help menu, for details on creating custom settings.

Once you have created a custom setting in Compressor, you can add it to Final Cut Server.

To add a new transcode setting:

- 1 Click the Create button in the Transcode Settings pane.
The Transcode Settings window appears.

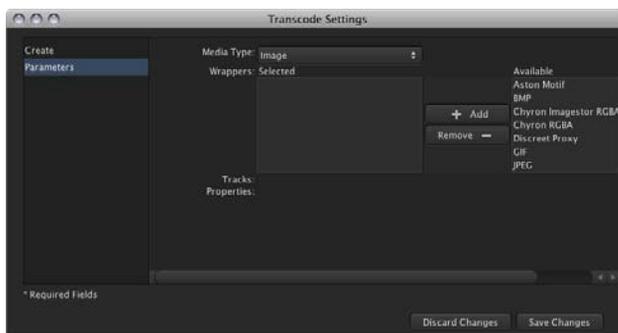


- 2 Enter a name for the transcode setting in the Name field.

- 3 Click Parameters in the column on the left.



- 4 Choose the type of transcode setting to create from the Media Type pop-up menu. This setting controls the items available in the Compressor Settings pop-up menu.
 - *If you choose Video Clip:* Only video-related items appear in the Compressor Settings pop-up menu.
 - *If you choose Audio Clip:* Only audio-related items appear in the Compressor Settings pop-up menu.
 - *If you choose Image:* The window changes to include a variety of still-image formats.



- 5 Choose your custom setting from the Compressor Settings pop-up menu, or, for images, click items in the Available list and then click the Add button to move them to the Selected list.
- 6 Click Save Changes.

The new transcode setting is added to the Transcode Settings pane.

Assigning Transcode Settings to Devices

There are two methods you can use to assign transcode settings to a device: using Device Setup Assistant in Final Cut Server System Preferences, or using the Transcode Settings window.

You can use either method; however, the most efficient method to use depends on what you are trying to do:

- If you want to add multiple transcode settings to a single device, it is faster to edit the device using Device Setup Assistant. Device Setup Assistant contains a full list of all transcode settings with checkboxes next to each. See “Editing an Existing Device” on page 73 for more information.

Note: Contentbase devices cannot be modified using Device Setup Assistant.

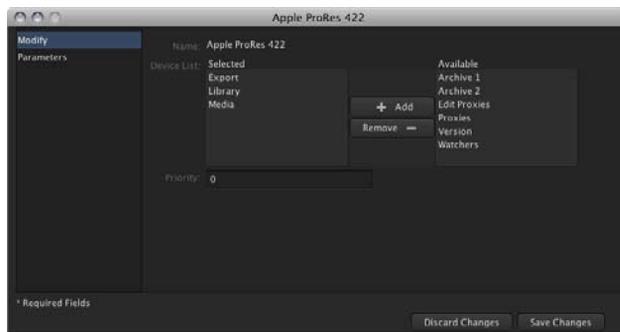
- If you want to add a single transcode setting to multiple devices, it is faster to use the Transcode Settings pane of the client’s Administration window using the method described next.

Additionally, you can use the Transcode Settings pane to manage the transcode settings of the Export device. This device provides the list of transcode settings to choose from when using the Export option of the shortcut menu that appears when you Control-click an asset in the client. The Export device that appears first in the list of available devices (described next) is the device used for these download operations. See “About the Export Device” on page 172 for more information.

To assign a transcode setting to a device:

- 1 In the Transcode Settings pane of the Administration window, double-click the transcode setting that you want to assign to one or more devices.

The Transcode Settings window appears.



- 2 Click Modify in the column on the left.
The Available column lists all the available devices. The Selected column lists the devices that have this transcode setting assigned to them.
- 3 Select devices in the Available list and click the Add button to move them to the Selected list.
- 4 Enter a number in the Priority field to control the order in which the transcode settings appear in the pop-up menu when assigning them to a device's asset.
Smaller numbers appear above larger numbers. The range is normally from 1 to 5, with 1 appearing first.
- 5 Click Parameters in the column on the left if you want to change the Compressor setting that is assigned to this transcode setting.
- 6 Click Save Changes to save the transcode setting assignments.

This chapter contains the following:

- About Final Cut Server Automation (p. 193)
- General Automation Tips (p. 195)
- Response Pane and Window (p. 196)
- Watcher Pane and Window (p. 212)
- Subscription Pane and Window (p. 215)
- Schedule Pane and Window (p. 217)

About Final Cut Server Automation

Configuring the Final Cut Server automation features can help your workflow in many ways. Just two of these ways are sending emails when specified events occur, such as a change in an asset's status or a job failing, and automatically copying assets to specified devices.

Final Cut Server provides two methods for configuring your system's automation: using Automation Setup Assistant in Final Cut Server System Preferences or using a group of panes in the Final Cut Server client's Administration window.

Using Automation Setup Assistant

Using Automation Setup Assistant in Final Cut Server System Preferences is the easiest method to quickly configure the most commonly used automation functions. Based on the profile you selected when you installed Final Cut Server, one or more automations were created for you; you just need to customize them (if necessary) and activate them to have them working for you.

See "About the Customer Profiles" on page 29 for specific information about the installer's customer profiles. See Chapter 6, "Using Automation Setup Assistant," on page 77 for information about using this method to configure your automations.

Creating Automations Using the Panes of the Administration Window

Using the automation panes of the Administration window provides you the greatest flexibility and the most power when setting up your automations. This flexibility and power does add to the complexity of the process though.

Note: In most cases, you will find that using Automation Setup Assistant is easier and provides the types of automation you need.

All of the automations you set up are based on one of the three following operations, with the goal of each being to issue responses at the appropriate times:

- *Watchers:* File system watchers monitor a device for specific changes, based on an interval you configure. Once the specified change happens—for example, a new set of still images is added to a folder on the device—the watcher issues one or more responses. The responses can perform a variety of functions. In the example with a new set of still images, the responses can transcode the still images to a different format, copy them to a second device, and send an email to the editor listing the images.
- *Schedules:* Schedules issue responses at predetermined intervals. Most often they are used to scan a device to detect changes to respond to. For example, you can have a schedule that every day at 2 a.m. clears the items from the Log pane, providing a fresh start each day.
- *Subscriptions:* Metadata subscriptions issue responses based on specific actions. Unlike watchers and schedules, subscriptions do not run based on predetermined intervals, but react directly to Final Cut Server events. For example, a subscription can monitor the Search All Jobs window and send an email response if a job fails.

Each of the above automation types has its own pane in the Administration window. There is also a Response pane for configuring the responses used by these automation types. Responses are not able to run as a standalone automation—responses are what watchers, schedules, and subscriptions use to accomplish their automation tasks. There are a wide variety of types of responses, from copying, transcoding, and deleting assets to sending emails and scanning specific devices.

General Automation Tips

The automations you can configure for Final Cut Server can be very simple or very complex. In either case, there are situations you should be aware of that could lead to unexpected results.

About Reference QuickTime Files

Reference QuickTime files are media files that do not actually contain all of the media and instead include references to the actual media files.

If you manually upload a reference QuickTime file, a dialog appears asking if you want Final Cut Server to flatten the file (converting it to a self-contained QuickTime file) before uploading it to the catalog.

Scan and copy responses do not have this option, and instead, just upload the reference file without its externally referenced files. For that reason, you should manually flatten reference QuickTime files before using an automation to add them to the Final Cut Server catalog.

An exception is when you and everyone who might want to access a reference QuickTime file are on a SAN, such as an Xsan system. In this case, when a user checks out or exports a reference media file, the file will have access to the media files that the reference file needs.

About Final Cut Pro Projects

Final Cut Pro project files include the file paths to the project's media. Final Cut Server locates the project's media using the file paths stored in the Final Cut Pro project file.

An issue can occur if the Final Cut Pro project and its media have been moved from their original location to a device that has a scan or copy response configured to automatically upload new files to the Final Cut Server catalog. In this case, the file paths stored in the Final Cut Pro project no longer match where the media actually is located. You can correct this by opening the project in Final Cut Pro after it has been moved, reconnecting the media files (this may not be necessary; in some cases Final Cut Pro may be able to resolve the file paths on its own), and saving the project before using an automation to add the files to the Final Cut Server catalog.

About Uploading Folders

When you manually upload a folder containing media files to the Final Cut Server catalog, you are given two options for how Final Cut Server should treat the folder:

- *Upload the folder as a bundle.* This means the folder and all of its contents are treated as a single asset, and you do not have access to the individual assets within the folder.
- *Upload the folder's contents as individual assets.* This means that each of the media files within the folder are uploaded as individual assets, and the fact that they were all in a folder when uploaded is not tracked.

If you choose to upload the folder and its contents as a bundle onto a device that has an automation, such as a scan response, configured to watch for new media files, the folder's media files can end up being added to the Final Cut Server catalog as individual assets.

This means that you could potentially create a situation, either intentionally or unintentionally, where you can upload a folder as a bundle but still be able to work with the bundle's individual assets. If you do not want the individual media files to be added to the catalog, be sure to upload the bundle to a device that is not automatically being scanned for new assets.

About Media Files with No File Extension

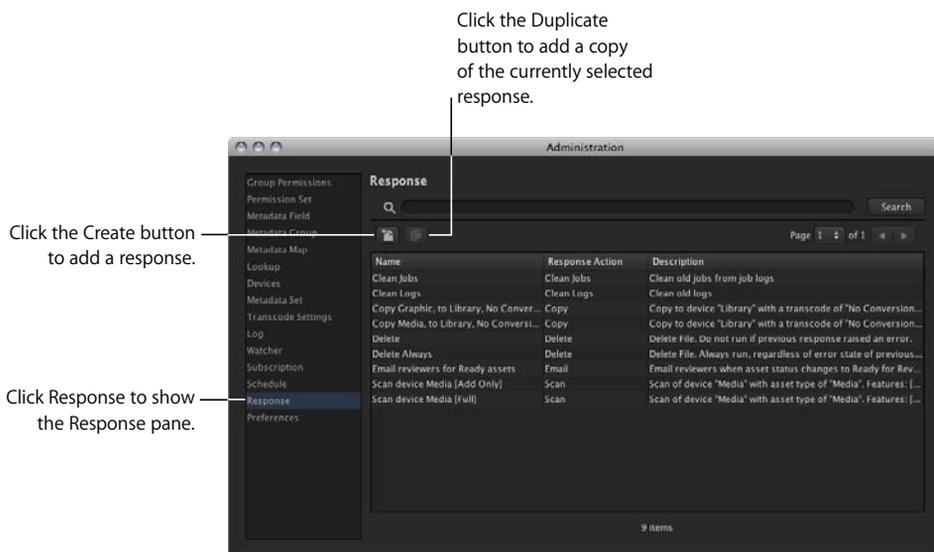
In some cases, Final Cut Server automations can correctly recognize, upload, and process media files that do not have a file extension. To ensure that all files upload and are processed correctly, be sure all media files have an extension. This is especially true if the files are being uploaded to an FTP device.

Files without file extensions that are not correctly recognized will upload and be added to the Final Cut Server catalog as assets, but they will not have thumbnail or proxy files generated for them.

Response Pane and Window

The Response pane contains the settings for creating a wide variety of preconfigured actions. These responses are what the watchers, subscriptions, and schedules use when they detect that an action needs to be performed. Responses are configured separately from watchers, subscriptions, and schedules because the same response may be required in several situations.

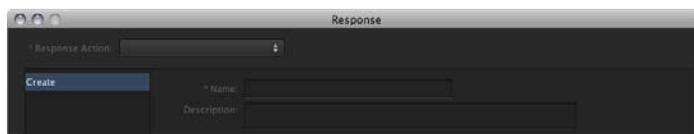
The Response pane lists the existing responses.



The Response pane includes the following columns:

- *Name*: The name of the response as entered when it was created
- *Response Action*: The basic action that the response performs
- *Description*: A description entered when the response was created

The Response window appears when you click the Create button.



The settings that appear in the window, along with the items that appear in the area on the left, depend on the action you choose from the Response Action pop-up menu.

Note: If you edit an existing response by double-clicking it in the Response pane, you cannot change its Response Action setting.

Response Actions

What you choose from the Response Action pop-up menu defines the response's basic purpose. Some response actions have additional settings that can be configured in a second pane that gets added to the column on the left.

Response action	Triggered by	Description
Check the disk space of the database volume	Schedule	Defines the minimum disk space before a warning is issued that the database is about to run out of room.
Clean Jobs	Schedule	Defines periods at which jobs are archived and deleted.
Clean Logs	Schedule	Defines periods at which logs are archived and deleted.
Copy	Poll watcher or asset subscription	Copies media to any connected Final Cut Server device with or without transcoding. Optionally, creates a new asset in Final Cut Server and allows you to set that asset's metadata.
Delete	Poll watcher or asset subscription	Deletes the item. You can choose to have this response run even if other responses in the list fail.
Email	Poll watcher or asset, production, or job subscription	Sends an email. You configure the email settings (to, sender, subject, and message).
Log	Asset, production, or job subscription	No additional options. Adds an entry to the log.
Measure database size	Schedule	No additional options. You can use this to find the disk space used by the catalog's database (the results are shown in the Log pane). This action measures only the database—it does not include the actual assets the catalog refers to.
Monitor Scan	Poll watcher	Scans for specific metadata settings.
Move to Archive	Asset subscription	No additional options. Moves the media to the selected archive device.
Purge Subscriptions	Schedule	Deletes subscriptions that have not been active for a specified number of days.
Read XML	Poll watcher	No additional options. Reads XML data from an external system. It is used in conjunction with the Write XML response action.

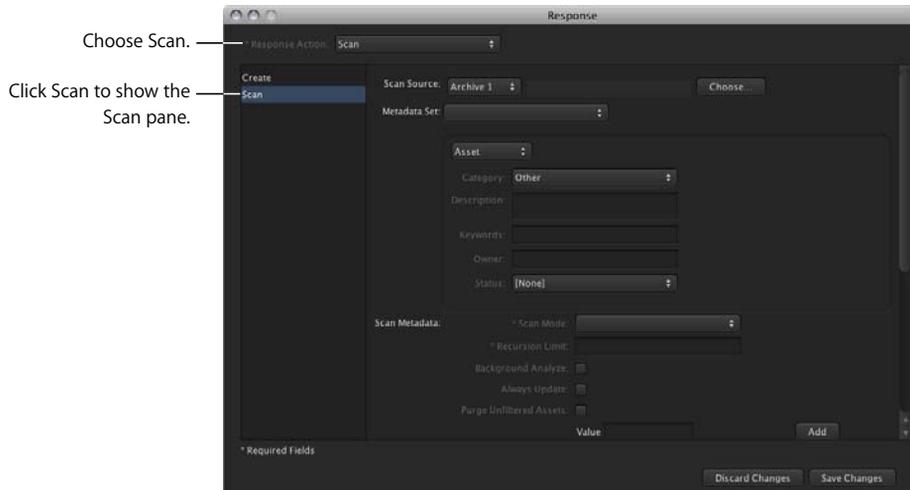
Response action	Triggered by	Description
Restore from Archive	Asset subscription	No additional options. Restores items from an archive device.
Run an external script or command	Poll watcher or asset, production, or job subscription	Executes a script or other external command. You can also define special parameters to apply to the script or command.
Scan	Schedule	Scans a specified Final Cut Server device. The purpose of a scan is to synchronize the contents of the Final Cut Server catalog with the media that exists on a device. This is necessary if you intend to change the media on the device directly without using Final Cut Server. You can choose the device and a folder in that device to scan, as well as specify metadata settings. You can also specify other scan details, such as whether to purge (remove) items from the catalog if they are removed from the device.
Scan Productions	Schedule	Scans a specified Final Cut Server device for productions. Similar to the Scan response action, but with added production metadata settings that create a new production with the assets.
Search Expired	Schedule	Searches for expired items. It creates events based on a timestamp field (such as Last Accessed) and a value defining the number of past days to look for. This can be used to identify items to archive.
Set Asset Metadata	Asset subscription	Enters data in specified metadata fields. You choose the asset metadata set with the fields to change.
Set Production Metadata	Production subscription	Enters data in specified metadata fields. You choose the production metadata set with the fields to change.
Write XML	Asset or production subscription	Creates an XML file based on the asset's metadata. This allows someone using an external system to modify the metadata; for example, to add review comments, which can be read back in and applied to the asset using the Read XML response action.

About Scan Responses

Scan responses are one of the most commonly used custom responses.

To access the scan response settings:

- 1 Click the Create button in the Administration window's Responses pane to create a new response.
- 2 Choose Scan from the Response Action pop-up menu.



The Scan pane of the Response window contains settings that define what is being scanned, the metadata that is applied to the items found by the scan, and the actual scan mode and settings.

Scan Source Section

This is where you choose the device to scan and set the folder within that device to scan.

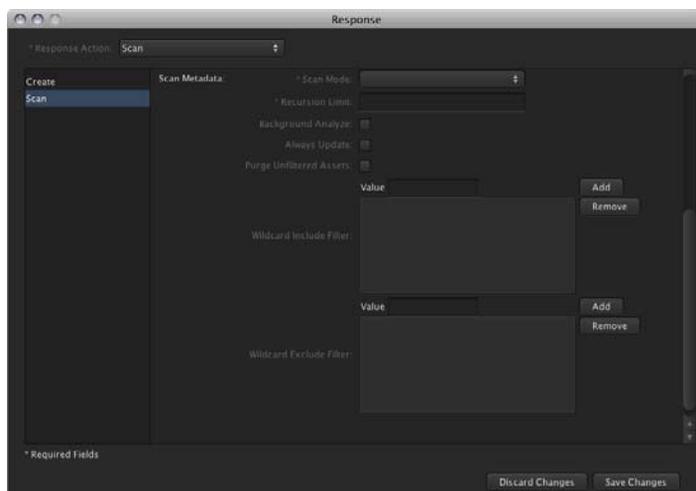
Metadata Set Section

This is where you choose the metadata set to apply to any new assets found by the scan. The settings below the Metadata Set pop-up menu allow you to enter default descriptions, keywords, and so on to apply to the new assets.

Note: Scan responses created using the client's Administration window have version control set based on how the Final Cut Server installer was configured. However, all scan responses created using Device Setup Assistant have version control disabled, regardless of how the Final Cut Server installer was configured. This means that all assets and Final Cut Pro projects added to the Final Cut Server catalog by a scan response will, by default, not track versions. You can verify and change version control for a scan response by choosing the Versioning metadata group (in the pop-up menu just below the Metadata Set pop-up menu) and selecting the Version checkbox. See "Using the Final Cut Server Installer" on page 21 for more information about the installer's version control setting.

Scan Metadata Section

This is where you configure the scan actions.



This section contains the following settings:

- *Scan Mode*: Choose the type of scan operation to perform.
 - *Add Only*: This performs a scan that locates only new and changed files with a created or modified date between the last time this scan ran and the current time (it will not see new files with created or modified dates older than when this scan last ran; for example, files that you dragged to the device from the Finder). The add only mode is generally used on scans scheduled to run often, such as every 5 to 15 minutes.
 - *Full*: This performs a full scan that, in addition to adding new assets to the catalog, removes assets from the catalog if they are no longer on the device. The Full mode is generally used only on scans scheduled to run once a day or less frequently because these scans are the most thorough and require the most time to perform.
 - *Purge Only*: This performs a full scan, but only removes assets from the catalog if they are no longer on the device—it does not add any new assets to the catalog.
- **Important**: You should only schedule add only scan responses to devices that also have a full scan response scheduled. Additionally, be sure that all settings for the add only and full scan responses are identical.
- *Recursion Limit*: This defines the number of folder levels the scan will include. A value of 0 means unlimited subfolders are scanned. A value of 1 means that only the folder specified by the Scan Source pop-up menu is scanned.
- *Background Analyze*: Creates the proxy items for the assets as a background task. Normally, assets are analyzed as a foreground task, one at a time. Analyzing in the background allows multiple tasks to run concurrently, which may be useful but also may result in resource issues with your computer. In general, it is recommended that you do not select this option unless you are comfortable with monitoring your computer's resources.
- *Always Update*: This sets the scan to continuously attempt to make proxy files for assets that do not currently have proxy files. This should not be selected unless you had a known issue with a device and want to generate proxy files from its assets.
- *Purge Unfiltered Assets*: This sets the scan to purge assets from the catalog that don't match the Wildcard Include Filter and Wildcard Exclude Filter settings.
- *Wildcard Include Filter*: You can use this to define the types of files that the scan processes. The default filter is the asterisk (*), which is the wildcard indication. A single asterisk indicates that all files are processed. If you want the scan to process only JPEG and QuickTime movie files, you can replace the asterisk with two items: *.jpg and *.mov (which indicate that all files with .jpg and .mov file extensions are processed).
- *Wildcard Exclude Filter*: You can use this to define types of files that the scan should not process. For example, if the folder that the scan is processing includes PDF documents that you do not want to have processed and added as assets, you can enter *.pdf (which indicates that all files with a .pdf extension are not processed).

Scan Responses Created by Device Setup Assistant

One or two scan responses are created when you configure the scan settings for a device with Device Setup Assistant in Final Cut Server System Preferences:

- *Device Scan [Full Scan]*: This is created when you configure a full scan in Device Setup Assistant. This response uses the Purge setting from the Scan Mode pop-up menu with a Recursion Limit setting of 0 (unlimited subfolder access).
- *Device Scan [Add Only]*: This is created when you configure an add only scan in Device Setup Assistant. This response uses the Add Only setting from the Scan Mode pop-up menu with a Recursion Limit setting of 0.

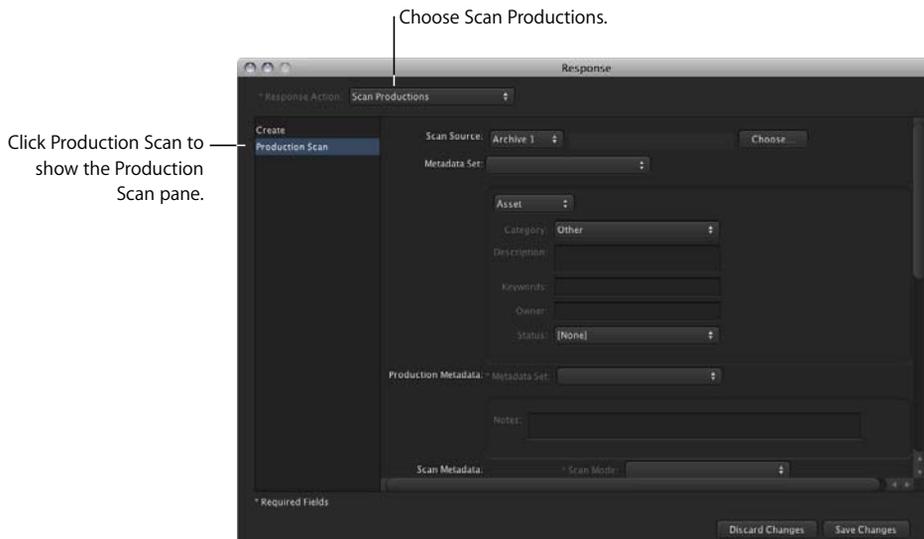
About Scan Productions

The scan productions response allows you to automate more of your workflow process for adding assets and productions to the Final Cut Server catalog.

Most of the settings for a scan production response are the same as for a scan response. The difference is a section that allows you to specify production settings.

To access the scan production response settings:

- 1 Click the Create button in the Administration window's Responses pane to create a new response.
- 2 Choose Scan Productions from the Response Action pop-up menu.



The Production Scan pane of the Response window contains settings that define what is being scanned, the metadata that is applied to the items found by the scan, production metadata settings, and the actual scan mode and settings.

Scan Source Section

This is where you choose the device to scan and set the folder within that device to scan.

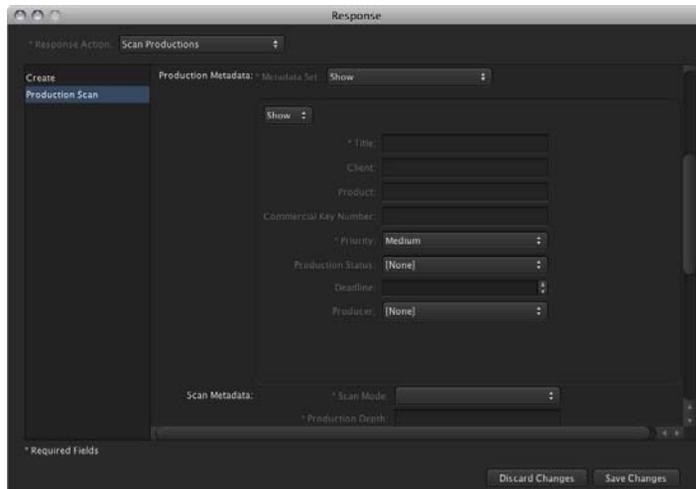
Metadata Set Section

This is where you choose the metadata set to apply to any new assets found by the scan. The settings below the Metadata Set pop-up menu allow you to enter default descriptions, keywords, and so on to apply to the new assets.

Note: By default, all scan production responses have version control set based on how the Final Cut Server installer was configured. You can verify and change version control for a scan production response by choosing the Versioning metadata group (in the pop-up menu just below the Metadata Set pop-up menu) and selecting the Version checkbox. See “Using the Final Cut Server Installer” on page 21 for more information about the installer’s version control setting.

Production Metadata Section

This is where you choose the metadata set to apply to the production. The settings below the Metadata Set pop-up menu allow you to enter default descriptions, keywords, and so on to apply to the productions.

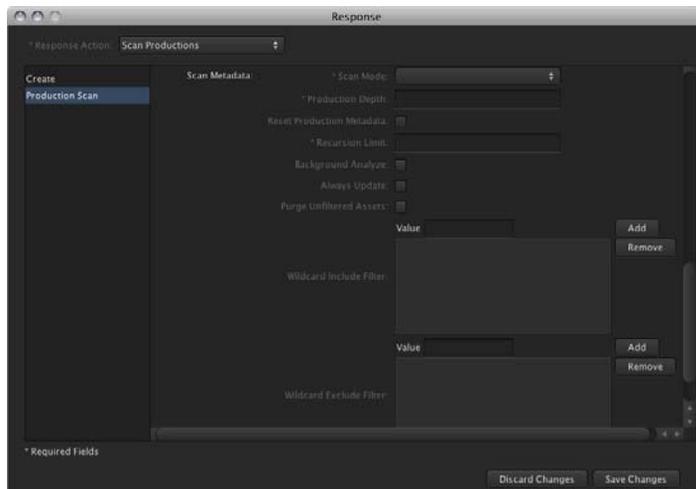


The Title metadata setting that is part of the metadata set you choose can be used two different ways:

- *To enter a specific name for the production to use.* If the production already exists, the new assets are added to it. If the production does not exist, it is created and the assets are added to it.
- *To use the scanned folder's name as the production name.* By entering [0] in the Title field, a new production is created whenever a new subfolder is found in the folder being scanned, and that new production uses the name of the folder as its name. For example, let's say you create a folder named Productions in a device, and use a schedule automation to have a scan productions response monitor that folder. Each time a new Final Cut Server production needs to be created and assets added to it, a user only has to add a subfolder to the watched folder, using the name of the new production, and copy all of the assets for that production into that new subfolder. The scan productions response will create a new Final Cut Server production, using the folder name, and add all of the assets in that subfolder to that new production.

Scan Metadata Section

This is where you configure the scan actions.



This section contains the following settings:

- *Scan Mode*: Choose the type of scan operation to perform.
 - *Add Only*: This performs a scan that adds new assets to the catalog and updates the catalog if there are modified assets. The Add Only mode is generally used on scans scheduled to run often, such as every 15 minutes.
 - *Full*: This performs a full scan that, in addition to adding new assets to the catalog, removes assets from the catalog if they are no longer on the device. The Full mode is generally used only on scans scheduled to run once a day or less frequently because these scans are the most thorough and require the most time to perform.
 - *Purge Only*: This performs a full scan, but only removes assets from the catalog if they are no longer on the device—it does not add any new assets to the catalog.
- *Production Depth*: This defines the depth of the subfolders that are made into productions. A value of 0 means to use the first level of subfolders, while a value of 1 means to use the second level of subfolders.
- *Reset Production Metadata*: Click this checkbox to replace an existing production's metadata with the new metadata generated from this scan production response.
- *Recursion Limit*: This defines the number of folder levels the scan will include when looking for assets. A value of 0 means unlimited subfolders are scanned. A value of 1 means that only the folder specified by the Scan Source pop-up menu is scanned.
- *Background Analyze*: Creates the proxy items for the assets as a background task. Normally, assets are analyzed as a foreground task, one at a time. Analyzing in the background allows multiple tasks to run concurrently, which may be useful but also may result in resource issues with your computer. In general, it is recommended that you do not select this option unless you are comfortable with monitoring your computer's resources.
- *Always Update*: This sets the scan to continuously attempt to make proxy files for assets that do not currently have proxy files. This should not be selected unless you had a known issue with a device and want to generate proxy files from its assets.
- *Purge Unfiltered Assets*: This sets the scan to purge assets from the catalog that don't match the Wildcard Include Filter and Wildcard Exclude Filter settings.
- *Wildcard Include Filter*: You can use this to define the types of files that the scan processes. The default filter is the asterisk (*), which is the wildcard indication. A single asterisk indicates that all files are processed. If you want the scan to process only JPEG and QuickTime movie files, you can replace the asterisk with two items: *.jpg and *.mov (which indicate that all files with .jpg and .mov file extensions are processed).
- *Wildcard Exclude Filter*: You can use this to define types of files that the scan should not process. For example, if the folder that the scan is processing includes PDF documents that you do not want to have processed and added as assets, you can enter *.pdf (which indicates that all files with a .pdf extension are not processed).

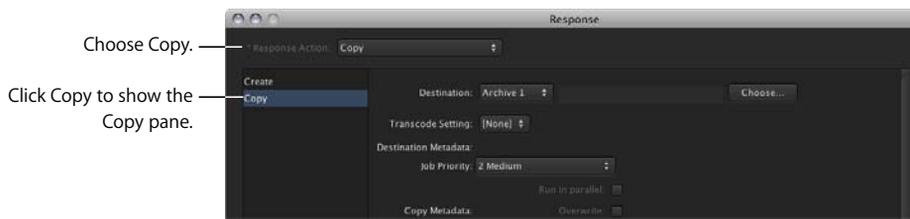
About Copy Responses

Copy responses are one of the most commonly used custom responses.

Important: If the destination device already contains a file with the same name as the one being copied, copy responses by default will not overwrite that file, and instead, will add a numbered extension to the new file's name. You can optionally use the Overwrite setting to overwrite an existing file with the same name. An exception to this is copying to ContentBase devices, where each file is placed in a unique folder.

To access the copy response settings:

- 1 Click the Create button in the Administration window's Responses pane to create a new response.
- 2 Choose Copy from the Response Action pop-up menu.



The Copy pane of the Response window contains the destination, transcode, and destination metadata settings.

Destination Settings

You choose the device to copy assets to with the Destination pop-up menu. You can also enter or choose a subfolder to copy the asset to.

Transcode Setting

You can choose any of the transcode settings assigned to the device you chose as the destination. This is useful if you want to make sure all assets on this device use the same codec.

Destination Metadata Settings

These settings define the metadata applied to the copied asset:

- *Job Priority*: Choose the priority of the copy job from the pop-up menu.
- *Copy Metadata*: Select the “Run in parallel” checkbox to allow this response to run at the same time as other copy responses in a watcher or subscription. When this is not selected, the response runs serially, based on its order in the watcher or subscription. Select the Overwrite checkbox to overwrite an existing destination file if it has the same filename as the file being copied.

Note: Delete responses always run serially and after the copy responses.

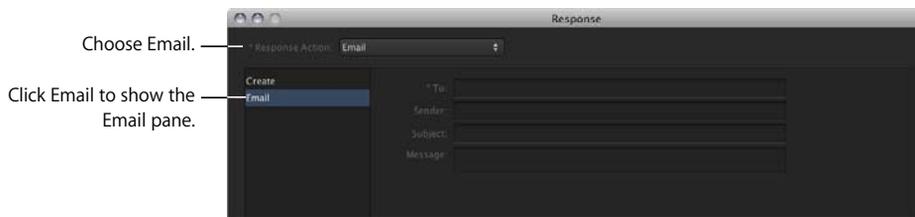
- *Create Asset*: Select this to have the copied asset added to the Final Cut Server catalog. Selecting this activates the Metadata Set and Production selection settings.
- *Metadata Set*: This is where you choose the metadata set to apply to any new assets found by the scan. The settings below the Metadata Set pop-up menu allow you to enter default descriptions, keywords, and so on to apply to the new assets.
- *Production*: Enter a name to create a new production that the assets are added to. Alternatively, click Select to search for an existing production to add the assets to.
- *Overwrite*: Select this to have the copied asset replace an existing file if it has the same filename.

About Email Responses

Email responses are commonly used with metadata watchers that look for an asset's status to change to a specific state, such as Ready for Review.

To access the email response settings:

- 1 Click the Create button in the Administration window's Responses pane to create a new response.
- 2 Choose Email from the Response Action pop-up menu.



The Email pane of the Response window contains the settings for configuring the email. See “Email Response Details” on page 86 for information on codes you can enter to add automated data to the email, shown above as the text in brackets ([]).

The Email pane contains the following settings:

- *To*: Enter the email addresses that should receive the email. Use a comma (with no space after it) to separate addresses; for example, rev1@apple.com,rev2@apple.com.
- *Sender*: Enter the email address to send the email from. This is the “reply to” address that the email recipient can send an email to if necessary. If left empty, the sender address defaults to “finalcutserver@servername.”
- *Subject*: Enter the email subject. You can enter codes to automatically add specific information to the email's subject.
- *Message*: Enter the email's main text. You can enter codes to automatically add specific information to the email.

About Running External Scripts and Commands Responses

External scripts and commands responses are useful when you need to have a response that performs actions beyond those that Final Cut Server provides. For example, you could create a script that adds a new folder to a device whenever a new production is created. You could even specify parameters that would name the folder the same as the title of the production.

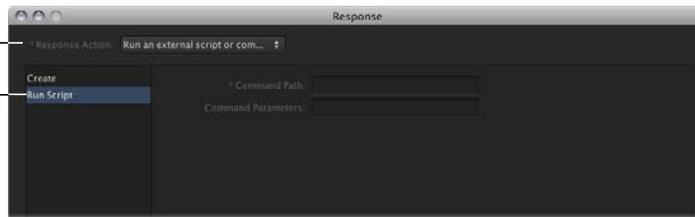
You can use this response to run more than just scripts—you can use it to run just about any executable file.

To access the run an external script or command response settings:

- 1 Click the Create button in the Administration window's Responses pane to create a new response.
- 2 Choose "Run an external script or command" from the Response Action pop-up menu.

Choose "Run an external script or Command."

Click Run Script to show the Run Script pane.



The Run Script pane of the Response window contains the settings for configuring the script to run.

The Run Script pane contains the following settings:

- *Command Path*: Enter the path and name of the script or other executable file this response runs.
- *Command Parameters*: Enter special parameters that can be used to customize the script that runs. For example, you can specify codes, such as [Title], that the script can use; this is similar to how they are used with email responses.

About Check the Disk Space of the Database Volume Responses

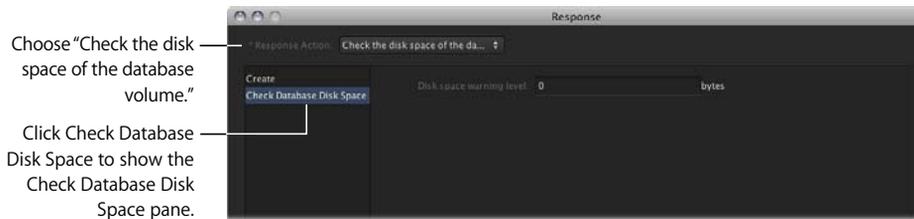
Check the disk space of the database volume responses are useful to make sure that you are warned if your Final Cut Server catalog database is in danger of running out of disk space.

Important: This only applies to the catalog's database file and does not apply to the assets stored on the various devices.

The typical use of this response would be to create a daily schedule that uses this response to check the amount of free disk space available for the database. The response writes a value to the log showing the amount of free disk space. If that value is lower than the warning level you entered in the response, a warning is issued, with the idea being that you could have a subscription that emails you when this warning occurs.

To access the “Check the disk space of the database volume” response settings:

- 1 Click the Create button in the Administration window's Responses pane to create a new response.
- 2 Choose “Check the disk space of the database volume” from the Response Action pop-up menu.



The Check Database Disk Space pane of the Response window contains the following setting:

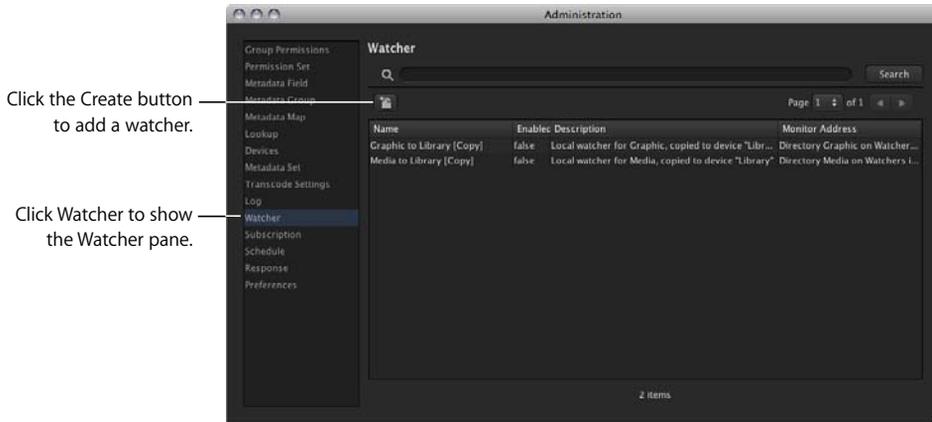
- **Disk space warning level:** Enter a value (in bytes) that defines the minimum threshold for disk space availability for the Final Cut Server catalog's database. If you do not enter a value, a default setting of 500 MB is used (shown as a value of 0). For example, to set the minimum threshold to 50 MB, enter the value 50000000.

Watcher Pane and Window

Final Cut Server provides a watch folder infrastructure that detects and processes new content according to configured rules.

The most common response types to use with watchers are copy, delete, email, and read XML.

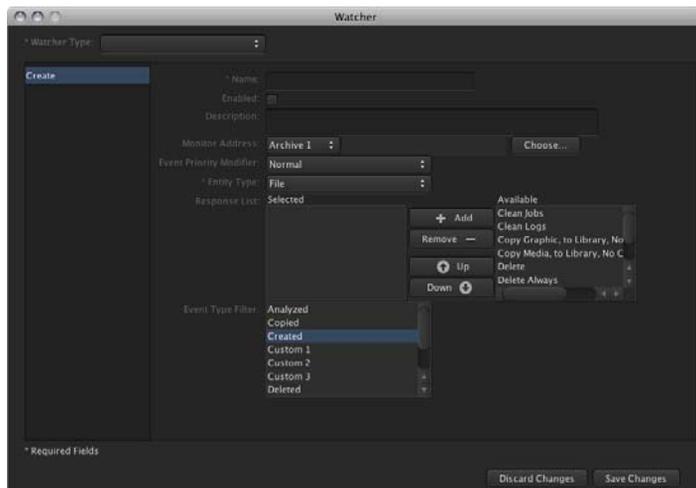
The Watcher pane lists the existing watchers.



The Watcher pane includes the following columns:

- *Name*: This is the name of the watcher as entered when it was created.
- *Enabled*: Shows either true (if the watcher is running) or false (if the watcher is stopped).
- *Description*: This is a description entered when the watcher was created.
- *Monitor Address*: When applicable, lists the device being watched.

The Watcher window appears if you click the Create button.



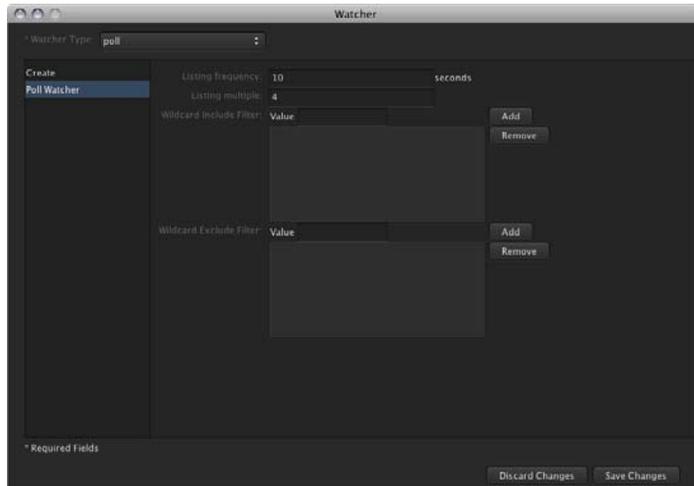
The items that appear in the area on the left depend on the Watcher Type you choose. The choices include poll and subscription.

- A *poll watcher* checks the device at timed intervals. This is the most common type of watcher.
- A *subscription watcher* is for internal usage only.

Note: If you edit an existing watcher by double-clicking it in the Watcher pane, you cannot change its Watcher Type setting.

Poll Watcher Settings

When you choose the poll watcher type, a Poll Watcher item appears in the column on the left side of the window. Click Poll Watcher to access the poll settings.



The settings include the following items:

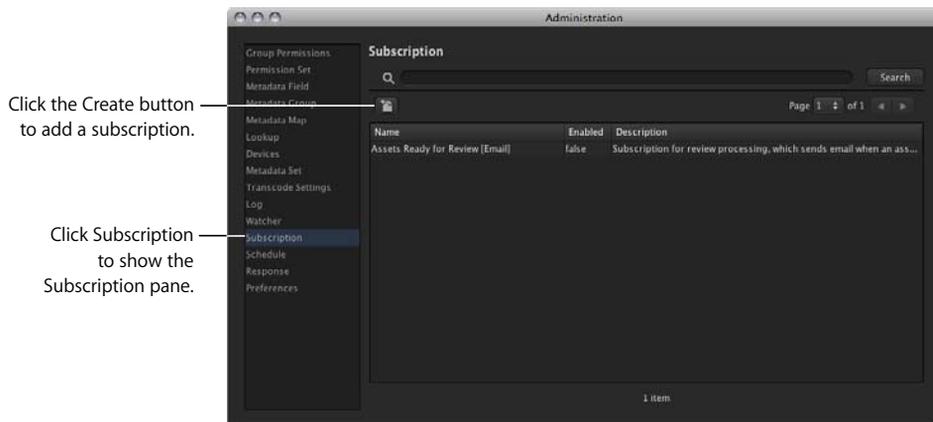
- *Listing frequency*: Enter a time, in seconds, at which the folder is watched.
- *Listing multiple*: Enter the number of times a file must be detected with the same timestamp and file size before being considered a new file ready to be acted on. This is to prevent processing a file that is still in the process of being copied.
- *Wildcard Include Filter*: You can use this to define the types of files that the watcher monitors. The default filter is the asterisk (*), which is the wildcard indication. A single asterisk indicates that all files are monitored. If you want the watcher to monitor only JPEG and QuickTime movie files, you can replace the asterisk with two items: *.jpg and *.mov (which indicate that all files with .jpg and .mov file extensions are monitored).
- *Wildcard Exclude Filter*: You can use this to define types of files that the watcher should not monitor. For example, if the folder that the watcher is processing includes PDF documents that you do not want to have monitored, you can enter *.pdf (which indicates that all files with a .pdf extension are not monitored).

Subscription Pane and Window

Final Cut Server has a powerful engine for modifying behavior to suit the individual needs of customers. Administrators can create and modify subscription rules. A subscription rule consists of an event, such as an asset's status changing, and one or more responses that are run as a result of that event.

The most common response types to use with subscriptions are the copy, delete, email, log, move to archive, restore from archive, set metadata, and write XML responses.

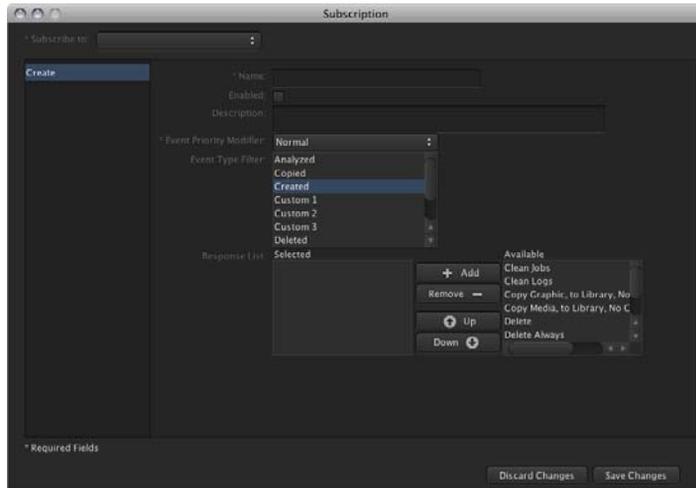
The Subscription pane lists the existing subscriptions.



The Subscription pane includes the following columns:

- *Name*: This is the name of the subscription as entered when it was created.
- *Enabled*: This shows either true (if the subscription is active) or false (if the subscription is inactive).
- *Description*: This is a description entered when the subscription was created.

The Subscription window appears if you click the Create button.



The items that appear in the area on the left depend on the “Subscribe to” setting. The options include:

- *Asset*: This allows you to define a subscription that detects one or more metadata fields associated with an asset. For example, you can configure the Asset Filter pane (which appears if you choose Asset from the “Subscribe to” pop-up menu) to activate this subscription if the current status changes to Ready for Review on any asset on a specific device.
- *Job*: This allows you to define a subscription that detects one or more fields associated with a job. For example, you can set the Job Filter pane (which appears if you choose Job from the “Subscribe to” pop-up menu) to activate this subscription if the status changes to FAIL on any job.
- *Production*: This allows you to define a subscription that detects one or more metadata fields associated with a production. For example, you can configure the Production Filter pane (which appears if you choose Production from the “Subscribe to” pop-up menu) to activate this subscription if the status changes to Approved on any production.

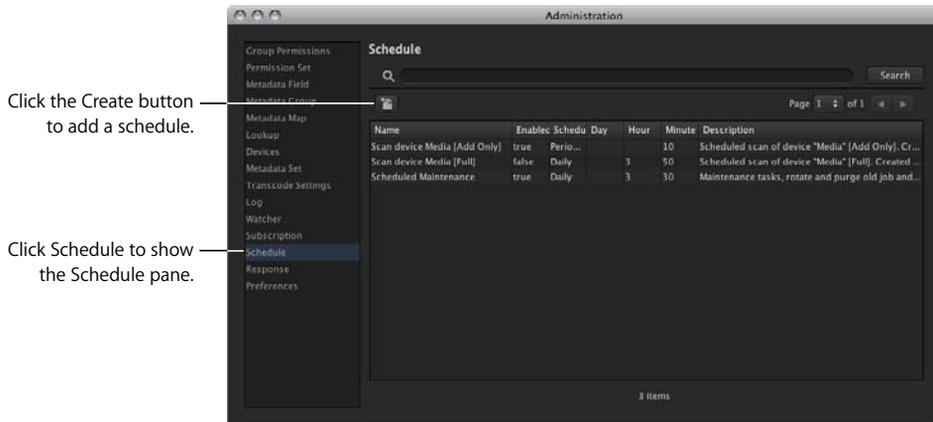
Note: If you edit an existing subscription by double-clicking it in the Subscription pane, you cannot change its “Subscribe to” setting.

Schedule Pane and Window

Events can be scheduled; for example, scanning the still store in a control room every 5 minutes to ensure that the Final Cut Server catalog is up to date. A schedule is normally used to scan or catalog a device.

The most common responses to use with a schedule are clean jobs, clean logs, measure catalog size, purge subscriptions, scan (all types), and search expired.

The Schedule pane lists the existing schedules.

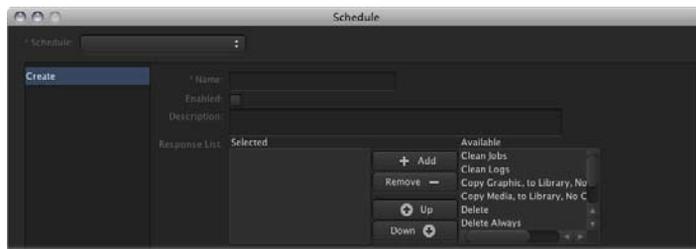


The Schedule pane contains the following columns:

- **Name:** This is the name of the schedule as entered when it was created.
- **Enabled:** Shows either true (if the schedule is running) or false (if the schedule is stopped).
- **Schedule:** This is the basic unit of time that the schedule is based on. There are four options:
 - *weekly:* You define when the schedule runs by specifying a day of the week, an hour of that day, and a minute of that hour to run on.
 - *daily:* You define when the schedule runs by specifying an hour of the day (based on a 24-hour clock) and a minute of that hour to run on.
 - *hourly:* You define when the schedule runs by specifying the minute of each hour to run on.
 - *periodically:* You define when the schedule runs by specifying the number of minutes between each time the schedule runs.
- **Day:** This is the day of the week the schedule runs on when using the weekly period. For example, Monday in the Day column means the response executes every Monday.

- *Hour*: This is the hour of the day (using a 24-hour clock) the schedule runs on when using the hourly or daily periods. For example, 15 in the Hour column means the response executes at 3 p.m.
- *Minute*: The meaning of this number depends on the schedule's period selection:
 - For weekly, daily, and hourly periods, this is the minute of the hour the schedule runs on. For example, 30 in the Minute column means the response runs on the 30th minute of the hour.
 - For the periodically period, this is the number of minutes between each time the schedule runs. For example, 30 in the Minute column means the response executes every 30 minutes.
- *Description*: This is a description entered when the schedule was created.

The Schedule window appears if you click the Create button.



The items that appear in the column on the left depend on the item you choose from the Period pop-up menu. The choices are weekly, daily, hourly, and periodically.

Note: If you edit an existing schedule by double-clicking it in the Schedule pane, you cannot change its Period setting.

This chapter covers the following:

- Viewing Final Cut Server Status (p. 219)
- About Jobs and the Search All Jobs Window (p. 220)
- About the Log Pane (p. 225)
- About the Log Window (p. 226)

Viewing Final Cut Server Status

Final Cut Server includes two ways to see its status as it performs tasks: the Search All Jobs window and the Log pane.

The Search All Jobs window is accessible by all users from the Server pop-up menu in the Final Cut Server main window. It shows a list of jobs that Final Cut Server has or is performing. It also includes the ability to retry failed jobs and to see a job's details.

The Log pane is accessible only by administrators from the Administration window. The Log pane shows all of the jobs shown in the Search All Jobs window along with other items, such as when a user logs in.

Both of these can be very helpful when you are testing new automations or need to verify the system's overall status.

About Jobs and the Search All Jobs Window

Final Cut Server runs jobs for every task it performs. The number of jobs that run depends on the type of operation being performed. Some examples of jobs include:

- Copying a file from one location to another runs one job.
- Creating a new asset runs jobs to perform the initial copy, create the asset with metadata, and then create thumbnail, poster frame, and clip proxies.
- Analyzing runs several jobs to create the thumbnail, poster frame, and browse proxies.

Each job also creates multiple log entries for each step of the operation.

If you want to monitor what Final Cut Server is working on, simply open the Search All Jobs window. In it, you can search for specific jobs and then see a job's details.

You can set up a subscription that sends you an email whenever a job submitted by you fails.

Important: Final Cut Server includes a schedule, named Scheduled Maintenance, that clears the Search All Jobs window once each day. You can modify that schedule as needed to better fit your needs.

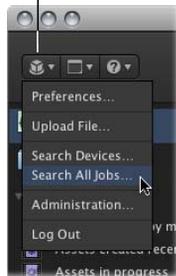
Opening the Search All Jobs Window

The Search All Jobs window contains a detailed history of the jobs Final Cut Server has performed.

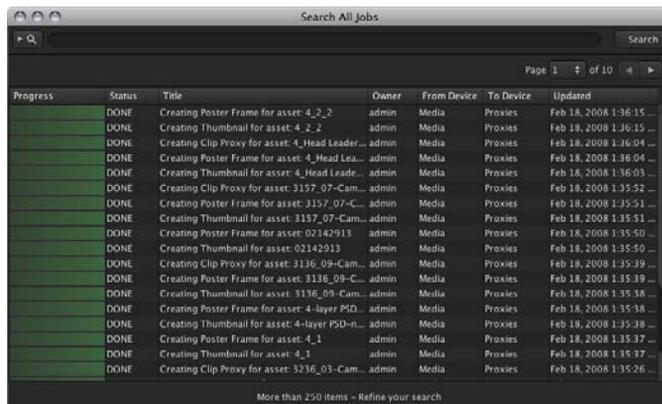
To view a history of the jobs that have been run (to the present):

- Choose Search All Jobs from the Server pop-up menu (the pop-up menu in the Final Cut Server main window that appears when you click the Server button).

Click the Server button and choose Search All Jobs from the pop-up menu.



The Search All Jobs window appears.



Following are the possible Progress and Status definitions:

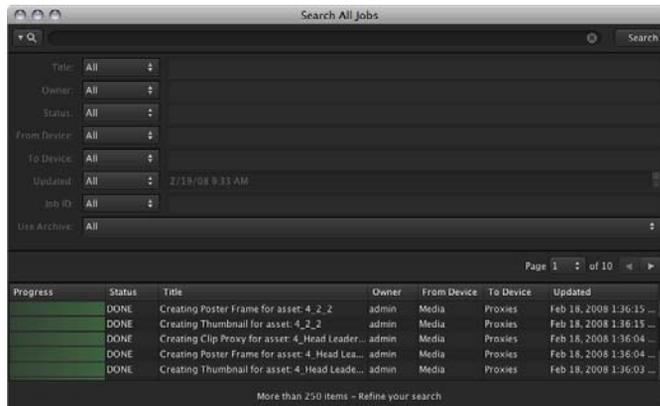
Progress	Status	Description
Full-width green bar	DONE	Job is successfully completed (note that some completed jobs are made of several steps; for example, uploading multiple files).
Expanding green bar	RUN	Job is in progress.
Blank field or text	RUN	Job is in progress.
Blank field	WAIT	Job is waiting for user input or for a turn in the job queue.
Full-width red bar	FAIL	Job failed because of an error.

Other fields in the Search All Jobs window include:

- *Title*: Details of the job.
- *Owner*: Name of the user who performed the job.
- *From Device*: For a copy, the source device.
- *To Device*: For a copy, the destination device.
- *Updated*: The time and date the status was last updated.
- *Job Type*: Copy is the only job type shown in the Search All Jobs window.

Searching for Jobs

The search function in the Search All Jobs window works similarly to the other search functions in Final Cut Server: you can search by name, or you can open the disclosure triangle and search by the advanced search parameters.



Some examples of common searches are:

- *Your own jobs*: A simple search for your user name or an advanced search for your user name using the Owner pop-up menu and field
- *Failed jobs*: A simple search for “fail” or an advanced search for “fail” using the Status pop-up menu and field
- *Jobs to or from particular device*: An advanced search using the From Device and To Device pop-up menus and fields

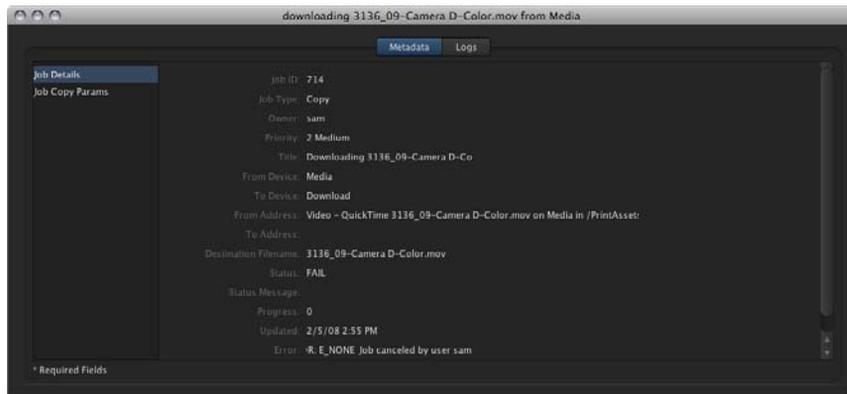
Using the Search All Jobs Window to Diagnose Problems

Besides using the Search All Jobs window to track jobs being performed by Final Cut Server, you can use the Search All Jobs window to view details of each step in a job and diagnose problems.

To diagnose a problem using the Search All Jobs window:

- 1 Double-click the failed or idle job that you want to diagnose in the Search All Jobs window.

In the window that opens, you can choose to show job metadata (in two panes, Job Details and Job Copy Params) or to see the job as it appears in the Log pane of the Administration window.



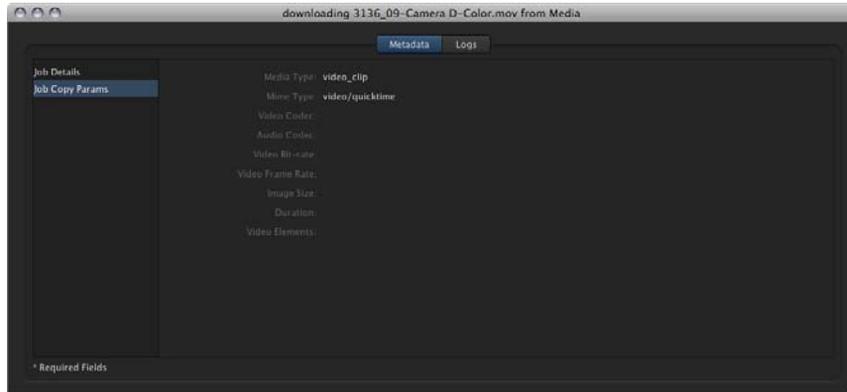
- 2 Click Metadata (along the top of the window) and Job Details in the column on the left to see the Job Details pane.

The Job Details pane displays details of the job as a whole, including a unique Job ID (identifier), the job type, and specific job instructions. The last item displays the error message associated with this job.

- 3 Click Job Copy Params in the column on the left.

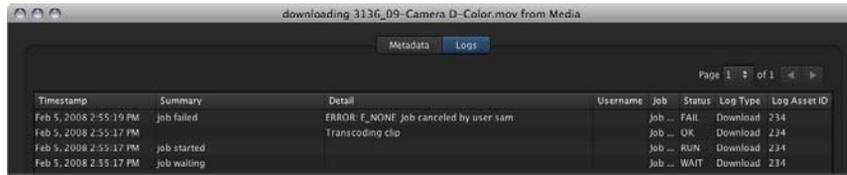
The Job Copy Params pane displays parameters specific to copying.

Note: No parameters are listed if the job was a copy without any transcoding.



- 4 Click Logs along the top of the window.

The Logs pane displays details of each step in the job, exactly as step details appear in the Log pane of the Administration window.



The ERROR message in the Detail column explains why the job failed. Using this information, you can correct the problem and then reprocess the job. You can double-click an entry to open it in its own window, which can make it easier to see the details.



Jobs can fail for reasons such as a corrupt source file, network problems or device unavailability, or problems on the source or target device such as resource limitations or an unsupported codec.

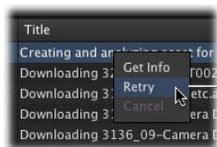
Retrying Failed Jobs

When a job fails for a reason that is not permanent, it is automatically retried. You can define how many times a failed job is retried and how long to wait between retries in the General pane of Final Cut Server System Preferences and in the Preferences pane of the Administration window. See “General Pane Settings” on page 40 and “Preference Settings in the Final Cut Server Client Administration Window” on page 115 for more information.

You can also manually retry the job.

To retry a failed job:

- Control-click the job, then choose Retry from the shortcut menu.



You can Control-click a failed job and choose Retry from the shortcut menu to run the job again.

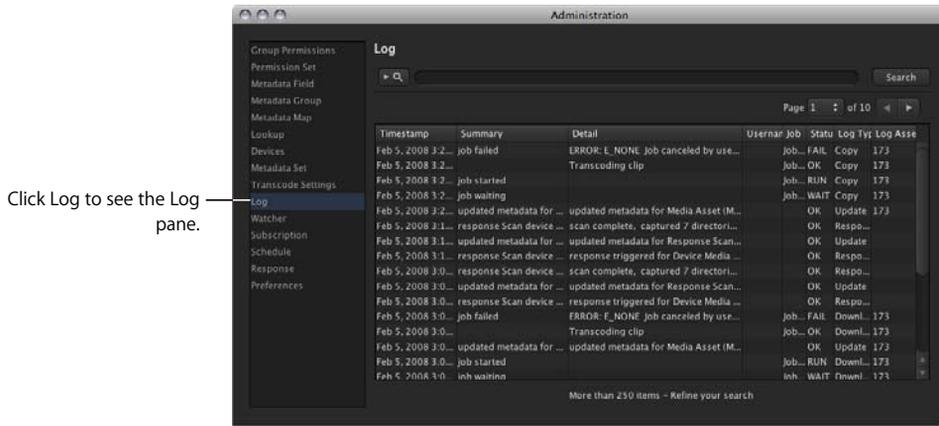
Important: Only the person who originated a job or the administrator can retry a job. Additionally, you cannot retry jobs with permanent failures.

About the Log Pane

The Log pane of the Administration window lists Final Cut Server events and can be useful when you are trying to verify that automations are working correctly or that users are logging in.

Because the log usually contains a lot of entries, it is very helpful to use the search feature to find the information you are after. For example, you can enter a user’s name to see everything that user has done.

Important: Final Cut Server includes a schedule, named Scheduled Maintenance, that clears the Log pane once each day. You can modify that schedule as needed to better fit your needs.

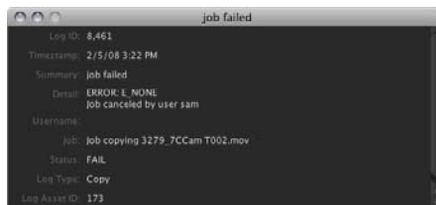


The Log pane contains the following columns:

- **Timestamp:** Shows the date and time that the entry was logged.
- **Summary:** Shows a summary of the log entry.
- **Detail:** Shows the details of the log entry.
- **Username:** Shows the user logged in when the entry was created.
- **Job:** If the log entry arose as a result of a job, this shows the Job identifier. You can find further information on the issue by searching the job details.
- **Status:** Shows the status of the log entry, normally the status of the related job at the time the entry was made.
- **Log Type:** Shows the type of operation being logged.
- **Log Asset ID:** Shows the globally unique identifier (GUID) or ID of any asset associated with the event.

About the Log Window

You can double-click any items listed in the Log pane to see more details in the Log window.



Administration window The Administration window, available in the Final Cut Server client to users with admin permissions, provides access to a wide variety of aspects of your Final Cut Server system. It includes panes that allow you to configure preference, automation, device, and metadata settings. You can also use the metadata settings in the Administration window to customize the options and information your users see when using Final Cut Server.

analyze Final Cut Server analyzes assets to create proxies and extract metadata from them. See also *proxy*; *edit proxy*.

Apple filing protocol (AFP) AFP is a network protocol supported by Macintosh computers.

Apple ProRes 422 codec When you upload a Final Cut Pro project, you have the option of having Final Cut Server create edit proxy versions of the project's video media using the Apple ProRes 422 codec. This codec works with SD and HD video, providing significantly reduced file sizes and bit rate requirements. It is especially useful when your original media is uncompressed video. When you export or check out a Final Cut Pro project, you have the option of using the original video media or the more efficient edit proxy versions that use the Apple ProRes 422 codec. See also *edit proxy*.

archive Once a project or production is finished, you can use the archive feature to move the assets from their current device to an archive device, which can be a FireWire drive, a large slower drive, or another volume where disk space is not an issue. The assets remain in the Final Cut Server catalog in an inactive state. They can be restored whenever they are needed later.

asset Every item in a Final Cut Server catalog, whether it is a media file, PDF document, or folder saved as a bundle, is an asset. All assets are stored on Final Cut Server devices and can be part of Final Cut Server productions. Final Cut Server includes the ability to add a wide variety of metadata to each asset. See also *device*; *metadata*; *production*.

automation Final Cut Server supports a wide variety of automation features, making it possible to configure Final Cut Server to automatically perform many tasks. There are three types of automations: watchers, subscriptions, and schedules. Each of these automations issues responses when an event occurs. See also *watcher; subscription; schedule; response*.

Automation Setup Assistant Final Cut Server System Preferences include an Automation pane for managing the most common automations you will use. This pane uses Automation Setup Assistant to create new and edit existing automations. In general, it is easier to create automations with Automation Setup Assistant than with the client's Administration window. The Administration window, however, allows you to create highly customized automations with settings not available with Automation Setup Assistant. See also *Administration window; automation*.

cache To use an asset from the Final Cut Server catalog on a client's computer, the computer must have a local copy of the asset. Final Cut Server maintains a cache area on the client computer to store the local copies of the assets. You can define the location and size of the cache in the client's Preferences window.

client A user interacts with the Final Cut Server catalog by using a Final Cut Server client. Final Cut Server clients are Java-based applications that can run on computers using Mac OS X, Windows XP, and Windows Vista operating systems. A Final Cut Server system can support multiple clients running simultaneously, with licenses supporting ten clients and unlimited clients available.

Contentbase Contentbase is a Final Cut Server–managed file storage system that places each asset in a unique folder. The advantage is that there are no issues with identical filenames overwriting each other. Final Cut Server requires the Proxies and Version devices to use Contentbase file storage.

device Devices in Final Cut Server are storage locations that you define and configure. They can be folders in a local volume on the server computer, network volumes, or folders from an Xsan volume.

Device Setup Assistant Final Cut Server System Preferences include a Devices pane for managing the most common device types you will use. This pane uses Device Setup Assistant to create new and edit existing devices. In general, it is easier to create devices with Device Setup Assistant than with the client's Administration window, especially since you are also able to configure scan responses at the same time. The Administration window, however, allows you to create highly customized devices with settings not available with Device Setup Assistant. See also *Administration window; device*.

edit-in-place Generally, in order to use an asset from the Final Cut Server catalog on a client's computer, the computer must have a local copy of the asset. An exception is if the device that contains the asset is configured as an edit-in-place device and the client computer has it mounted as a volume. The most common example of this is an Xsan system since they support a high enough data bandwidth for video data to be transferred in real time. See also *storage area network (SAN)*; *Xsan*.

edit proxy The assets linked to an uploaded Final Cut Pro project can optionally (based on a preference setting) have special proxy files created while they are being analyzed. These proxy files use the Apple ProRes 422 codec. When you check out or export the project, you can choose to export it with these edit proxy files or the original media. See *analyze*; *Apple ProRes 422 codec*; *proxy*.

elements Final Cut Pro projects contain a list of elements. The elements list shows the connections the project file maintains with its linked media assets. Final Cut Pro elements can include media files and Final Cut Pro sequences.

filesystem The most common file system used for any devices that are local to the server computer of Final Cut Server or are mounted by it. These can include AFP, Xsan, NFS, and SMB file systems. See also *Apple filing protocol (AFP)*; *network file system (NFS)*; *server message block (SMB)*; *Xsan*.

file transfer protocol (FTP) FTP is a protocol for exchanging files over networks that support the TCP/IP protocol.

groups To access the Final Cut Server catalog, users must belong to a group that has a Final Cut Server permission set assigned to it. Groups can be locally created on the server or can be from an Open Directory list. See *permission sets*; *users*.

jobs Any action that Final Cut Server performs on an asset is a job. These actions can include uploading, downloading, copying, and transcoding an asset.

lookup Metadata fields can use a variety of data input methods. A lookup is a pop-up menu that requires a user to select the data to enter from a provided list of items.

metadata Every file contains at least some metadata, such as its file type, size, name, and creation date. As you add files to the Final Cut Server catalog, you will soon find that it would be useful to have additional metadata fields to use for sorting or locating specific assets. The heart of Final Cut Server is its ability to work with metadata. It provides many opportunities for you to add metadata to your assets, using either the metadata fields it provides or custom metadata fields that you create for your specific requirements. These include items such as keywords, status settings, and descriptions. Each asset or production is assigned a metadata set, which is comprised of one or more metadata groups, each of which contain one or more metadata fields. See also *asset*; *production*.

network file system (NFS) NFS is a file system protocol commonly used to allow a client to access files across a network.

permission sets Permission sets are used to define how a group of users are allowed to interact with the Final Cut Server catalog. For example, you can create a group of users that review assets and apply a permission set that prevents them from deleting any assets.

primary representation This is the original media file that was uploaded to Final Cut Server.

production To help organize the assets in your Final Cut Server catalog, you can create productions. Each production can contain one or more assets. Additionally, an asset can belong to multiple productions. You might have a production that contains all of the files for one of your clients, and another that contains only those files from that client that are used in a specific episode or commercial. See also *asset; metadata*.

proxy Still images and video files can be very large and difficult to work with. Final Cut Server automatically creates lower resolution proxy files during the analyze process when you add assets to its catalog. These proxy files are much smaller and easier to work with and can be used in place of the actual files for editing and review purposes. See *analyze; edit proxy*.

response All Final Cut Server automations execute responses when their criteria are met. There are a variety of responses that you can configure, including scanning a device, emailing a user, or copying an asset to a device. See *automation*.

schedule A schedule is a type of Final Cut Server automation that runs at predetermined times, executing one or more responses. An example is a schedule that scans a device once a day to update its entries in the catalog. See *automation; response; subscription; watcher*.

server message block (SMB) SMB is a network protocol mainly used by Windows computers. It is often referred to as Microsoft Windows Network.

storage area network (SAN) A SAN allows multiple computers to connect to a storage device as if it was a locally connected device, allowing you to use the media on the storage device as if it was on a local hard disk. See also *edit-in-place; Xsan*.

subscription A subscription is a type of Final Cut Server automation that runs when a specific metadata change occurs. An example is a subscription that executes an email response when an asset's status changes to Ready or Review. See *automation; response; subscription; watcher*.

transcode settings Final Cut Server uses transcode settings to convert an asset from its current codec to a different one. Most often you use transcode settings to convert an asset into one that is smaller or easier to play. The transcode settings for video and audio assets are from Compressor (which is installed on the server computer). The transcode settings for images are internal to Final Cut Server.

users To log in to the Final Cut Server catalog, a person has to have a user account on the server computer. That user account also has to be part of a group that has a Final Cut Server permission set assigned to it. See *groups; permission sets*.

version Final Cut Server can be configured to retain previous versions of selected assets, making it possible to restore an earlier version if needed. If you check out an asset from the Final Cut Server catalog, make a change to it, and check it back in, Final Cut Server first copies the current version to the Version device and then copies the new version to where the current version was.

watcher A watcher is a type of Final Cut Server automation that continuously monitors a specified device and executes a response once an asset appears. An example is to watch a folder to which the graphics department adds new images. Once a new image appears, the watcher copies it to a device, adds it to the Final Cut Server catalog, and sends an email to the editor. See *automation; response; schedule; subscription*.

Xsan An Apple Xsan storage area network (SAN) is a device that provides fast access to media files. Xsan devices support edit-in-place when you are connected using a Fibre Channel network. See *edit-in-place*.

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