

Integration Guide for Final Cut Server and MediaSilo

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Integrating Final Cut Server and MediaSilo

MediaSilo provides bi-directional support for synchronizing assets with Apple Final Cut Server (FCSvr). FCSvr assets are automatically mirrored in MediaSilo's online library and made accessible beyond the local storage environment, enabling a multitude of workflows that extend beyond a local network.

Common Workflows

- **Mirror asset library online**
MediaSilo is used to mirror an in-house FCSvr asset library to provide anytime access to clients or collaborators, providing an efficient way to assess asset availability and inventory. Tags and metadata are fully searchable to provide efficient and easy access outside of the firewall.
- **External Asset Ingestion (in development)**
Assets uploaded to MediaSilo can be forwarded and ingested by FCSvr, enabling outside contributors to feed assets directly into the main repository without directly exposing access to a local network.
- **Metadata Enrichment**
Bi-directional support means metadata changes are synchronized between the two environments. Users who tag content, log clips, request or create transcripts can feed updates back to FCSvr without the need to connect to the local network.
- **Collaborative Workflows**
MediaSilo adds many layers of functionality to existing FCSvr systems, such as Review & Approval, Commenting, Rating, Transcriptions, Notifications and more.
- **Rough Cuts (in development)**
MediaSilo's Rough Cuts module lets users assemble sequences and export Final Cut Pro XML files for use in the NLE where high resolution media can be reconnected to the sequence.

Security Implications

Securing your asset library is a key concern to any IT manager. By implementing a proxy-based online mirror of your Final Cut Server library, you eliminate the need to open up your local network to external users. Not allowing outside access is the best measure to protect against data theft and the proposed workflows in this document aid in achieving tight security of your media library. Implementing MediaSilo as a mirror to your library also reduces the need for expensive synchronous Internet connectivity. Most common cable and even DSL connections will suffice in a proxy based workflow with MediaSilo, saving you bandwidth costs that may otherwise be incurred.

Requirements

- Final Cut Server 1.1.1 or above (1.5.1 recommended)
- Internet Connection
- Port 21 open for uploading and downloading via FTP
- MediaSilo Enterprise account (sign up and <http://www.mediasilo.com/fcs>)

We suggest you perform these configuration instructions against a clean Final Cut Server install. MediaSilo takes no responsibility for any loss of data as part of this configuration.

File Compatibility

MediaSilo accepts most common video and document formats. The table below explains how each file is treated when it's exported to MediaSilo:

FCSvr Proxy	MediaSilo Compatibility
MOV	Stores original, creates Flash and Mobile (H.264) Proxy
AVI	Stores original, creates Flash and Mobile (H.264) Proxy
WMV	Stores original, creates Flash and Mobile (H.264) Proxy
PSD	Stores original, creates flattened preview (72 dpi)
JPG	Stores original, creates web-preview (72 dpi)
PDF	Stores original, creates JPG preview
AIFF	Stores original, treated as simple file with no preview. A future release of MediaSilo allows preview and collaboration of audio files.
MP3	Stores original, treated as simple file with no preview. See above.
XML	Parsed for metadata association; avoid importing XML files that are not generated by FCSvr as part of the export process
EPS	Stores original, creates web-preview (72 dpi)
AI	Stores original, creates web-preview (72 dpi) *must contain preview
GIF	Stores original, creates web-preview (72 dpi)

MediaSilo associates metadata with all file types.

NOTE: MediaSilo treats Final Cut Pro Productions as XML files but will not scan its contents.

Setup and Configuration

Final Cut Server is an extremely powerful and versatile asset management system that is often called “the only Apple product that does nothing after install”. It’s true in fact that after install, FCSvr is like a blank canvas, waiting for your input. You need to teach it about your workflow and what you expect from it. This document can’t cover all of the configuration options but will rather focus on those components that create bridge between FCSvr and MediaSilo. We assume that you are familiar with the basics of FCSvr and are able to follow the instructions provided below.

Basic Final Cut Server Configuration

In the basic configuration we are adding all the necessary metadata fields, groups, watchers, subscriptions, devices, and responses that lay the foundation for more customized workflows. At the end of this setup, our Final Cut Server instance will respond to a checkbox inside a MediaSilo metadata group and export metadata, create a proxy, and upload both to MediaSilo. This workflow assumes that assets are manually marked for export either in the batch upload window or in a file’s metadata window. In later chapters we will look at automating the export to MediaSilo through Scan responses.

NOTE: The following setup will only work with video assets. See later chapters to learn how to automate the export of image files and other document types.

Export to MediaSilo

1. Create Metadata Fields (All of these are optional but recommended with the exception of “Export to MediaSilo” which triggers the export. See “Reserved Fields” for complete list of fields that trigger responses in MediaSilo.
 - a. Open the “Administration” window
 - b. Create a new field named “Export to MediaSilo”
 - i. Data Type: Boolean
 - ii. Description: Determines if the clip should be exported to MediaSilo
 - iii. Category: None
 - c. Create a new field named “Workspace”
 - i. Data Type: String
 - ii. Description: Workspace name
 - iii. Category: None
 - d. Create a new field named “QuickLink”
 - i. Data Type: String
 - ii. Description: Direct link to this asset in MediaSilo
 - iii. Category: None
 - e. Create a new field named: “Tags”
 - i. Data Type: String
 - ii. Description: MediaSilo Tags
 - iii. Category: None
 - f. Create a new Lookup List named “Transcription”
 - i. Add the following key/value pairs
 1. Name: 24 Hours; Value: 24 Hours
 2. Name: 72 Hours; Value: 72 Hours
 - ii. Create a new field named “Transcription”

1. Data Type: String
 2. Description: MediaSilo Transcription
 3. Category: None
 4. Lookup Values: Transcription
2. Create Metadata Group named "MediaSilo"
 - a. Select the following fields from the list of Available fields:
 - i. Export to MediaSilo
 - ii. Workspace
 - iii. QuickLink
 - iv. Tags
 - v. Transcription
 - b. Add all actions from the Available list
 - c. Add "Document, Graphic, Media" from the list of Available metadata Sets
 3. Create a new Transcode Setting
 - a. Open Compressor on the machine that Final Cut Server is installed
 - b. Create a new settings file based on a QuickTime Movie: may depend on the footage you work with. The settings file below assumed you are working with HD content (1080p) and proxies that are 50% of the original in size. When you use absolute sizes Compressor will apply those settings to all files it encounters regardless of the aspect ratio. As a result we recommend you use relative size values:
 - c. In FCSvr, create a new "Transcode Setting" named "MediaSilo High Resolution Proxy" from the Administration window and select the Compressor setting you just created.
 - d. Save your changes
 4. Create a new "MediaSilo Upload FTP Server" device
 - a. On the machine that Final Cut Server is installed on, select "System Preferences" and select the FCSvr Preference Pane
 - b. Select the Devices Tab and click on the "+" button to add a new device
 - c. Select "Local" and click Next
 - d. Name this device "MediaSilo Upload FTP Server"
 - e. Choose "FTP" under Network Protocol
 - f. Enter "upload.mediasilo.com" as the File Server
 - g. Enter your username and password (we recommend you create a separate FCSvr user in MediaSilo and assign that user to all required workspaces)
 - h. On the Transcode Settings screen, select the "MediaSilo High Resolution Proxy" transcode setting
 - i. Skip until you get to Conclusion
 - j. Click on "Done"
 5. Return to FCSvr and log out and back in
 6. Create the "Generate MediaSilo Proxy" response
 - a. In the Administration window, create a new Response named "Generate MediaSilo Proxy"
 - b. In the Response Action dropdown select "Copy"
 - c. In the Copy menu, select the "MediaSilo Upload FTP Server" device and choose the Transcode Setting "MediaSilo High Resolution Proxy"
 - d. Select "Overwrite"
 7. Create the "Generate and upload XML" response
 - a. In the Response Action dropdown select "Write XML"
 - b. In the Write XML menu choose "MediaSilo Upload FTP Server" under Destination
 - c. Save Changes

8. Add "Export to MediaSilo" to search matrix
 - a. In the Administration window find the Metadata Group called "Asset Filter"
 - b. Add "Export to MediaSilo" from the list of available fields to the list of selected fields
 - c. Save changes - the field now appears when you click on the magnifying glass to search assets

9. Create the "Export to MediaSilo" subscription
 - a. In the Administration window select "Subscriptions" and create a new subscription named "Export to MediaSilo"
 - b. Check the box for "Enabled"
 - c. Select Created and Modified for Event Type Filters
 - d. Select "Asset" from the "Subscribe To" dropdown list
 - e. Select "Asset Filter" and set "Export to MediaSilo" to true and check the box for "Trigger if checked"
 - f. Add "Generate and upload XML" and "Generate MediaSilo Proxy" from the list of available responses

Reserved Fields

MediaSilo responds to certain metadata field names and triggers a corresponding action. It's possible to add clips to a lineup, request transcripts, or request approval all directly from within FCSvr. Additional fields may become available and will be reflected in future updates of this document.

Field Name	Function
Export to MediaSilo	No function in MediaSilo. Used to trigger export in FCSvr
Request Approval	Sends an approval request via email to all users who have access to the specified workspace (see "workspace").
Add To Lineup	Adds clip to the specified lineup and republishes the lineup XML immediately. Value is either a string "My Workspace" or a workspace ID (retrieved via API)
Timecode Offset	This is a FCSvr native field but MediaSilo will apply a timecode offset based on this value.
Asset ID	This is a FCSvr native field. When a metadata XML file is uploaded, MediaSilo first checks to see if an asset with that ID exists and updates its metadata if found.
Request Transcript (was Transcription)	Triggers a request for transcription based on "24 hours" or "72 hours". CAUTION: MediaSilo will bill the credit card on file immediately after receiving this trigger.
QuickLink	Read-only field in FCSvr that MediaSilo uses to write a unique URL of the asset in MediaSilo. Following the link in a web browser will take a user directly to the asset after a successful login.
Approval Status	Read-only field that MediaSilo uses to write the approval status to. Approvals are displayed as a boolean and can be used to trigger other events in FCSvr.
Workspace	Determines the default workspace for the asset. If no workspace name is passed on, MediaSilo places the file in the FTP Dropbox of the user account that was used to upload the file (if you followed our recommendation that would be the Final Cut Server user account).
Average Rating	Read-only field: A number between 0 and 5 that represents the average rating of a clip
GenerateStubOnIngest	Instructs MediaSilo to immediately create an XML file after ingest. This may be important if you want FCSvr to know about the MediaSilo asset id.
ExportAnnotationSource	From the perspective of MediaSilo, determines the data source used for annotations inside of FCSvr. Values are: Annotations, Transcript; determines if the source of annotations for Final Cut Server should be Annotations or Transcript.

Field Name	Function
ImportAnnotationSource	From the perspective of MediaSilo, values are: Annotations and Transcript; determines if incoming annotations from Final Cut Server should be treated as Annotations or Transcript.

Synchronizing Annotations / Transcripts

Starting with Final Cut Server 1.5 it is possible to import and export annotations. MediaSilo provides several options for creating annotative data:

1. Comments and Annotations

MediaSilo's collaborative workflows let users submit annotations on a timeline. Those annotations can be exported to Excel or PDF. Soon, MediaSilo will provide native Final Cut Pro output that places markers on the timeline in FCPro.

2. Transcription Service

MediaSilo's transcription service generates transcripts in the Logging and Transcription format and all data is synchronized with FCSvr.

Final Cut Server will add new annotations on every sync instead of replace / add. Assets that are synchronized frequently and contain annotations will likely see many duplicate annotations.

Sending Transcripts to FCSvr

As of 3/16/10, MediaSilo will automatically generate XML containing the transcription data once a completed transcription job is received. You do not need to manually "save" a clips metadata in order for those changes to take effect.

Sending Annotations to FCSvr

Because FCSvr imports data by appending all new annotation fields it find the XML, MediaSilo will track which annotations have been exported and will only write those that are new. We have filed a request with Apple to implement the ability to remove all annotations and re-import instead of appending new data in order to create a better round-trip workflow.

NOTE: We do not recommend trying to synchronize Transcripts and Annotations at the same time as they will both be added to the annotations window in Final Cut Server. Instead, we suggest you download or export the transcript from MediaSilo.

Selecting the source for annotations export to Final Cut Server:

To determine which source is used to write FCSvr annotations, MediaSilo looks for a metadata field called "ExportAnnotationSource". Possible values are: Annotations and Transcript.

To synchronize transcripts created by the MediaSilo transcription service, use "Transcript". To synchronize annotations created with MediaSilo, use "Annotations". MediaSilo will export the timecode associated with each annotation.

Configuring Roundtrip Synchronization

In order to allow FCSvr to read metadata changes from MediaSilo, we will configure a remote FTP device and poll it at set intervals for updates and then perform a READ XML response.

1. Create "fcs.mediasilo.com" device
 - a. On the machine that Final Cut Server is installed on, select "System Preferences" and select the FCSvr Preference Pane
 - b. Select the Devices Tab and click on the "+" button to add a new device
 - c. Select "Network" and click Next
 - d. Name this device "MediaSilo XML Read Server"
 - e. Choose "FTP" under Network Protocol
 - f. Enter "fcs.mediasilo.com" as the File Server
 - g. Enter your username and password you received when signing up for the Enterprise account
 - h. Skip the next screen until you get to Conclusion
 - i. Click on "Done"
2. Log out and back in
3. Create the "Update FCSvr with local ReadXML data from MediaSilo" response
 - a. Select "Read XML" under Response Action
4. Create "Monitor MediaSilo Updates" watcher
 - a. Select "Enabled"
 - b. Select "MediaSilo XML Read Server" under Monitor Address
 - c. Add "Update FCSvr with local ReadXML data from MediaSilo" from the list of available responses
 - d. Add "Delete" from the list of available responses (if Delete does not exist, create a new delete response)
 - e. Select "Created" and "Copied" from Event Type Filter
 - f. Set the Watcher Type to "poll"
 - g. Add "*.xml" to the wildcard include filter"
 - h. Click "Save Changes"

Metadata fields created in MediaSilo are exported as part of the XML. However, FCSvr will not display data in fields that have not been previously added in FCSvr.

NOTE: Final Cut Server and Compressor require that the @ symbol be removed from the FTP user name. The @ sign has been removed from all accounts created after 10/10/09. Contact support@mediasilo.com if your account contains the @. FCSvr and Compressor will not successfully upload files.

Creating FLV proxies with Telestream Episode Pro

MediaSilo currently encodes all proxies as H.264 compressed FLV files. A common workflow is to upload high resolution proxies (i.e. 10mbp/s) and have MediaSilo create a web-friendly version for preview as well as a downloadable source file for electronic delivery. If electronic delivery of proxy files is not required, it is possible to have FCSvr create FLV proxies which are available immediately in MediaSilo. For workflows with a high volume of files this can mean a significant speed increase.

Compressor does not natively support FLV encoding. However, TeleStream's Episode Pro provides Compressor components that enable Compressor to use any Episode Pro presets.

To create a new Transcoding setting for FLV files, follow these steps:

1. Install the latest version of [Episode Encoder Pro](#) on the computer that FCSvr is running
2. Install the "Episode Plugin for Compressor" package that is on the installer image/disc
3. Restart your machine
4. Open compressor
5. Add a new setting by selecting "Episode"
6. Click on "Options" to select from a list of available presets. The default templates for Flash 9 assume MP4 as an output format with a .mp4 file extension. Note that MediaSilo will encode files that are not marked .flv. We recommend you create your own preset Flash template and either choose Flash 8 (flv with On2VP6) or change the file extension for any of the Flash 9 templates.
7. Save your changes
8. In Final Cut Server Administration create a new Transcode Setting
9. Select the newly created preset
10. Locate the new Transcode Setting and double-click to edit it
11. In the Modify menu, select "MediaSilo Upload FTP Server" as well as "Library" and "Media"
12. Save your changes

MediaSilo currently creates H.264 encoded FLV proxies but skips those files with a .flv extension. This gives you full control of the quality settings of the encode. Workflows that are focused on moving files from FCSvr directly to a web channel can benefit from higher bitrates than the MediaSilo default encode settings. A future update will no longer encode for Flash 8 with an FLV extension but rather Flash 9 mp4 H.264 encoded files. At this point, users will be able to opt out of server-side encoding and upload mp4 files directly.

Specific default encode settings for all server side encoded clips:

- 768 kbp/s
- Original Framerate
- MP3 Audio, 64kbp/s
- Resize rule: video assets over 1000 pixels wide are rescaled to 720xcorresponding height
- Original aspect ratio

Poster frames are generated 5 seconds into every clip or 2 seconds if the clip is less than 5 seconds long.

Advanced Final Cut Server Configuration

If you have followed this guide closely, you now have a FCSvr configuration that assumes that users will add assets by uploading through the client application. In most scenarios, this is not the most practical workflow as every user has to open up the client first and then manually upload files. This chapter will go over the basics of setting up Scan responses in conjunction with Devices (folders) and provide a roadmap to automating the synchronization to MediaSilo from every point of ingest in your FCSvr ecosystem.

In the following example we will implement a workflow that allows contributors to move assets to a networked folder that is scanned by FCSvr at regular intervals. We will create a folder called “New Production Assets” on the machine Final Cut Server is running on and mount that folder on another system. New production assets are then dropped into that folder and are automatically added to the library and synchronized with MediaSilo.

1. Create a new Folder
 - a. Add a new folder on the desktop of the FCSvr machine and name it “New Production Assets”
2. Set up a new device “New Production Assets”
 - a. On the machine FCSvr is installed on, open the Final Cut Server preference pane
 - b. Select the “Devices” tab
 - c. Click the lock at the bottom left and enter your administrator password
 - d. Add a new device by clicking on the “+” sign
 - e. Select “Local”
 - f. Name your device “New Production Assets” then browse to the folder you just created
 - g. Skip “Archive Device”
 - h. Skip “Scan Settings”. We will define the Scan response as well as the schedule in the Administration panel later
 - i. Select “No Conversion” under “Transcode Settings”
 - j. Click “Done” to save your changes
3. Share the folder on the network
 - a. Open System Preferences and select “Sharing”
 - b. Select “File Sharing”, then click the “+” button and choose the newly created folder named “New Production Assets”
 - c. Allow access by the users on your network
 - d. Close the System Preferences window
 - e. You can now mount the shared folder from a remote machine on your network
4. Add a new Scan response for all video assets:
 - a. Log out of your current FCSvr session as new devices won’t be visible unless you do so
 - b. In the Final Cut Server Administration panel, select “Response” and create a new response with the name of “Find New Production Assets”
 - c. In the “Response Action” dropdown, choose “Scan”
 - d. Select the “New Production Assets” device under “Scan Source”
 - e. Choose “Media” under “Metadata Set”
 - f. The goal is to find all video assets and set the metadata to synchronize with MediaSilo on ingest
 - i. Select “MediaSilo” from the “Asset” dropdown
 - ii. Check the “Export to MediaSilo” checkbox
 - iii. Define the name of a default workspace on the “Workspace” field (optional)
 - iv. Set any of the other optional fields (i.e. transcription requests, lineup requests, etc.)
 - v. Set “Scan Mode” to “Full”
 - vi. Set “Entity” type to “File”

- vii. Set "Recursion Limit" to 0 (recurse through all folders)
 - viii. Add the following "Wildcard Include Filters": *.mov, *.mp4, *.AVI as well as file extensions you encounter in your video ingest workflows. This filter lets us configure specific output options for video files and lets us treat non-video files different. More on that in the following section
 - ix. Save your changes
5. Create a new Schedule to execute the Scan Response
 - a. Select "Schedule" and create a new schedule named "Look for new assets"
 - b. Check "Enabled"
 - c. Add "Find New Production Assets" from the list of available responses
 - d. Select "Periodically" or any other option under Schedule
 - e. Click on "Schedule" and enter 1 in the minute field
 - f. Save changes

At this point, we have a configuration that lets users on our network drop assets into a folder and ingest them into FCSvr without the need to upload via the client application. In the next chapter, we will look at setting up workflows to accommodate non-video files.

How MediaSilo Assigns Metadata from Final Cut Server

MediaSilo parses every incoming XML file and “holds” files generated by FCSvr until a matching asset was found. After 24 hours, any unassigned XML files are discarded from the system. Since Compressor generates proxy files which may have a different file extension (i.e. *.mp4), MediaSilo matches metadata based on the title prefix. Once a match has been found, the new asset is created and MediaSilo responds to the triggers found on the metadata, such as adding files to a lineup, sending approval requests, notifying users, etc.

Sample First-Time Ingest Workflow:

- File is uploaded to FCSvr and marked for export to MediaSilo (e.g. MyReel.dv)
- A transcode and copy response is triggered which encodes the file using compressor. The resulting file is named after the title of the file which by default is the same as the actual file name. (e.g. MyReel.mp4)
- MediaSilo receives the XML file, parses it and keeps it on hold until a matching file is found or 24 hours have passed
- Match is based on the prefix of the file, in this case “MyReel”.
- Once a match has been found, the XML file is discarded and a new asset created
- MediaSilo reads all metadata fields even if the value is blank

The order in which XML and asset files are uploaded is not important. If the asset is uploaded prior to the XML, MediaSilo will check for existing unbound assets in the specified workspace.

Important: Because FCSvr doesn't track the name of the proxy file that is generated as part of the Copy To Device response, MediaSilo can only match the title prefix. It is therefore possible that assets with the same prefix (i.e. logo.psd, logo.mov, logo.jpg) may be associated with the wrong metadata. However, this is only an issue if these files are uploaded at the same time. Once an XML file has been associated, that asset is considered bound to metadata and will not be considered for another metadata matchup.

Updating Metadata Without Replacing the Media

It is possible to update MediaSilo's metadata without uploading the proxy asset again. When MediaSilo encounters a FCSvr compatible XML file, it searches the library for assets with a matching Asset ID. If a match is found, the old metadata is replaced with the new file.

Important: If metadata is refreshed, all selected MediaSilo responses get triggered again, i.e. transcripts are requested, notifications are sent out, etc. When editing files manually in FCSvr, make sure that all MediaSilo triggers are turned off unless you specifically want to trigger them.

Creating Unique Proxy File Names

To overcome the issue of wrongful xml association as a result of files that share the same title prefix but have a different file extension, our team has looked into ways to create proxy files that correspond to the asset's unique id. For example, an asset with the id 4010 with the title “MyReel” would be renamed to 4010.mov. Apple released a similar new feature in FCSvr 1.5 for the Write XML response that lets a user choose the asset id as filename instead of the title. While it's possible to use the “Run External Script” response to rename a file, we have determined that this solution would only work in very specific workflows with homogeneous asset types. We will continue to research options to ensure that xml data is properly assigned to proxy assets and will post updates to <http://www.mediasilo.com/fcs> as new information becomes available.

Important: Apple's February/March ProApps Update has introduced a bug in Compressor when exporting to a remote FTP device in conjunction with FCSvr. Instead of renaming the temporary proxy file, Compressor uploads a file containing a string "_fcsvr_7878797_" which makes the XML and file name out of sync. The result is that metadata is not bound to the asset in MediaSilo. MediaSilo has implemented a temporary fix (3/16/10) that removes the string to enable proper binding.

Working with Non-Video files (documents, images)

So far, our configuration has focused on synchronizing metadata on video assets. In this section, we will extend our setup to work with non-video files. MediaSilo is compatible with a wide range of file types and even provides server-side conversion and preview of asset types not natively supported by Final Cut Server. For example, MediaSilo will render a full preview of PDF documents, will flatten and preview PSD files, and render previews of postscript based files like EPS and AI files.

These steps will add another checkbox to the MediaSilo Metadata group named "Export Image to MediaSilo" which will trigger a response to copy the XML and source file to MediaSilo's FTP device. For the sake of consistency, we recommend you rename the previously created "Export to MediaSilo" field to "Export Video to MediaSilo".

1. Change "Export to MediaSilo" to "Export Video to MediaSilo"
 - a. In the Administration Panel, find the Metadata Field "Export to MediaSilo"
 - b. Change the name to "Export Video to MediaSilo"
 - c. Click "Save Changes"
 - d. Log out and back in
2. Create a new field named "Export Image To MediaSilo"
 - a. In the Administration panel, create a new field in the "Metadata Field" menu
 - b. DataType: Boolean
 - c. Description: Determines if the image should be exported to MediaSilo
 - d. Category: None
3. Add "Export Image to MediaSilo" to MediaSilo Metadata Group
 - a. In the Administration Panel, find the "MediaSilo" metadata group
 - b. From the list of available fields, add "Export Image to MediaSilo"
 - c. Use the "up" button to move the field right under "Export Video to MediaSilo"
4. Add "Export Image to MediaSilo" to search matrix
 - a. In the Administration window find the Metadata Group called "Asset Filter"
 - b. Add "Export Image to MediaSilo" from the list of available fields to the list of selected fields
 - c. Save changes - the field now appears when you click on the magnifying glass to search assets
5. Create the "Export Image to MediaSilo" response
 - a. In the Administration panel, create a new Response named "Create and Upload Image File"
 - b. Select "Copy" from the Response Action dropdown
 - c. In the "Copy" menu, select the "MediaSilo Upload FTP Server" device
 - d. Select "No Conversion" under "Transcode Setting"
 - e. Click "Save Changes"
6. Create the "Export Image to MediaSilo" subscription
 - a. In the Administration window select "Subscriptions" and create a new subscription named "Export Image to MediaSilo"
 - b. Check the box for "Enabled"
 - c. Select Created and Modified for Event Type Filters
From the dropdown menu, select "Asset"
 - d. Select "Asset Filter" and set "Export Image to MediaSilo" to true and check the box for "Trigger if checked"
 - e. Add "Create and Upload Image File" and "Generate and Upload XML" from the list of available responses. For some reason, we have had better results if the order is exactly like this and not reversed.
 - f. Click "Save Changes"

Automatically Synchronizing Image and Video Assets with MediaSilo

At this point all users who upload assets via the client application will have a choice to export an image or export a video proxy to MediaSilo. Building on the advanced configuration tutorials, we will now tell FCSvr to do the work of synchronizing both asset types for us whenever new media is found in the “New Production Assets” network folder.

We will modify our existing scan response to listen to video files only and add a new response to look for image files.

1. Modify “Find New Production Assets” scan
 - a. In the Administration panel, find the response “Find New Production Assets” and rename it to “Scan Asset Library For New Video Assets”
 - b. Under Scan, select the MediaSilo metadata group from the dropdown and confirm that “Export Video to MediaSilo” is checked.
 - c. Under “Wildcard Include Filter” add the file extension you expect in your workflow, such as *.avi, *.mov, *.mp4, *.wmv, etc. File extensions are not case sensitive.
2. Create a new scan response named “Scan Asset Library for New Image Files”
 - a. In the Administration panel, select “Scan Asset Library For New Video Assets” and click on the “clone button”
 - b. Double-click on the cloned scan response and edit the name to “Scan Asset Librart for New Image Assets”
 - c. Select “New Production Assets” under Scan Source
 - d. In the MediaSilo metadata group, uncheck “Export Video to MediaSilo” and check off “Export Image to MediaSilo”
 - e. Remove the wildcard includes and replace them with: *.psd, *.jpg, *.png, *.eps, *.ai, and any other file formats you expect in your workflow
 - f. Click Save Changes
3. Add the newly created scan response to schedule
 - a. Open the “Scan for new assets to upload to MediaSilo” schedule in the Administration panel
 - b. Add “Look For New Image Assets” to the list of responses
 - c. Save changes

When working with image files, it may be desirable to export any available EXIF metadata. To do so, find the “Media” metadata set in the Administration Panel, double click it, and select “Photo Info - EXIF” from the list of available Md Groups. Now, any available EXIF metadata will be exported as part of the WriteXML response.

At this point you should have a fairly typical MediaSilo <-> FCSvr workflow that synchronizes image and video files and allows network users to contribute files from mounted folders.

Using Elgato Turbo.264HD To Speed Up Proxy Creation

Elgato Systems makes an inexpensive USB encoder that can significantly speed up the creation of proxy files. The product comes with software that includes QuickTime Export components that can be used in Compressor. Even fast XServe systems can benefit from offloading proxy encoding to this device as it frees up valuable cpu cycles for other tasks.

As of version 1.5, annotations will not work for assets that have internal proxies generated by Turbo.264HD. FCSvr requires QuickTime H.264 mov files whereas Elgato produces MP4 files. This issue may be addressed at some point by Elgato through advanced output preferences. This does not affect workflows that use Turbo.264HD to create MediaSilo proxies.

By default, FCSvr will not display Compressor presets that use QuickTime Export Components. We will therefore use a workaround and associate a Compressor preset with a Transcode setting and then change the present afterwards.

1. Install the included Elgato Turbo Software along with the QuickTime Export Components on the same machine as Final Cut Server
 - a. Reboot
2. Create a new Compressor preset called "MediaSilo Elgato"
 - a. Open Compressor on the machine that FCSvr is installed and select the "+" button and select "MPEG-4"
 - b. In the Inspector, enter "MediaSilo Elgato" and click the save button
3. Create new Transcode Setting in FCSvr
 - a. Log out of the current session and log back in
 - b. In the Administration panel, add a new transcode setting
 - c. Select "Video Clip" for media type
 - d. Enter "MediaSilo Elgato Proxy" in the name field
 - e. Select the "MediaSilo Elgato" Compressor preset under "Compressor Settings"
 - f. Save changes
4. Enable Transcode Setting for Device
 - a. Double-click on the newly created Transcode Setting
 - b. Under Modify, ass the "MediaSilo Upload FTP Server" device from the list
 - c. Save changes
5. Change the Compressor Preset
 - a. In Compressor, select the "MediaSilo Elgato" preset
 - b. In the Inspector panel, choose "QuickTime Export Components" under File Format
 - c. Under "Encoder Type", choose Elgato Turbo.264 HD
If neither option is available, you may have to restart the machine to ensure that the QuickTime Export Components have been properly installed.
 - d. To change the proxy options, click "Options". The Elgato software will open and let you configure Video and Audio settings.
 - e. Create a new preset with the desired output format and click ok
 - f. Save the preset in Compressor
6. Change the Transcode Setting for the output response
 - a. In the FCSvr Administration Panel, find the "Generate MediaSilo Proxy" response
 - b. Under Transcode Setting, select "MediaSilo Elgato"

c. Save Changes

Troubleshooting

Problem	Description / Solution
I can't preview audio files in MediaSilo	This feature is currently in development
I can't find any of the files I uploaded from FCSvr to MediaSilo	<ul style="list-style-type: none"> - If you don't see the files you exported in MediaSilo, make sure that a workspace name was associated in Final Cut Server and that you are logged in with the same username and password that is used by Final Cut Server. A common mistake is that assets with no workspace association are uploaded and remain in the FCS users FTP dropbox. - Check that the user credentials for the Final Cut Server user in MediaSilo are correct
The metadata fields I add in MediaSilo don't show up in FCSvr	FCSvr requires you to add fields in the Administration panel before they can be displayed.
The device upload job always shows as failed but the file uploaded to MediaSilo correctly	This is due to a handshake problem at the end of a file transfer between FCSvr FTP uploaded and MediaSilo's FTP server but should not affect your workflow.
I am exceeding the included 100GB of storage for FCSvr assets. How can I get more space?	MediaSilo will automatically charge your credit card for an additional 100GB of space. See website for pricing information.
Assets aren't bound to metadata in MediaSilo	Make sure the filename referenced the XML matches that of the file you are uploading. If you are uploading assets to a specific workspace, make sure you use the reserved metadata field "Workspace" and upload to the root directory of the upload ftp device. If you configure your device to upload to a specific directly the binding may not be successful.

Planned Additions To This Document

In the interest of making this documentation available to you as soon as possible, we have decided to release periodic updates to this document. Check <http://www.mediasilo.com/fcs> for the latest version of this document. The following chapters are planned for a future update:

- Workflow: Ingesting assets from MediaSilo
- Examples: Using the MediaSilo API to pre-populate dropdown lists for workspaces and lineups
- Scripts: Renaming proxy files

Feedback

Much of the information contained in this document was contributed by MediaSilo users. If you have any suggestions or criticism, please send email to Kai Pradel (kai@mediasilo.com).

Special Thanks

The Final Cut Server community is still small and information can be hard to come by. That's why we appreciate Nicholas Stokes from XPlatform Consulting and Jon Rutherford from Mac Professionals who have been invaluable resources in determining workflows and technical solutions for anything Final Cut Server. Nick and Jon are Final Cut Server integrators and are available for training, installations, or support questions.

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Document History

- **01/20/10, Synchronizing Log Notes (Page 7)**
Feature went live. Updated documentation to include reference to metadata field that determines the source of the annotations.
- **01/20/10, Reserved fields (Page 6)**
Added "ExportAnnotationSource" and "GenerateStubOnIngest"
- **03/17/10, Synchronizing log notes (Page 7)**
Changed to "Synchronizing Annotations/ Transcripts" and to reflect the removal of the Logging tool. Updated section to clarify synchronization of Transcripts and Annotations.
- **03/17/10, Added troubleshooting note on metadata binding (Page 17)**
Tips on troubleshooting when metadata isn't bound to assets in MediaSilo.
- **03/26/10, Added reserved metadata field (Page 7)**
Added ImportAnnotationSource and updated description for ExportAnnotationSource