



## Solution Brief: Using a XenData Archive with Final Cut Server

### Summary

Final Cut Server makes it very easy to archive and restore assets to a XenData LTO archive system. The LTO archive may additionally be used as a backup for the Final Cut Server database and proxy files.

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## 1. Introduction

This document describes how LTO archives running XenData6 Server software may be used to archive and restore video files using a Final Cut Server (FCS) media asset management system.

Final Cut Pro (FCP) users may also archive projects directly to a XenData archive without using FCS. This is described further in the XenData Solution Brief: Using a XenData Archive with Final Cut Pro.

A XenData archive can be used with Final Cut Server via an Ethernet network; typically 1 GigE or 10 GigE network connections are used. The archive presents an FTP share which is added as a device to the Final Cut Server preferences. Once the XenData Archive server has been added as a device, then FCS can archive and restore assets using the archive functionality built into Final Cut Server. This process is described in Section 3.

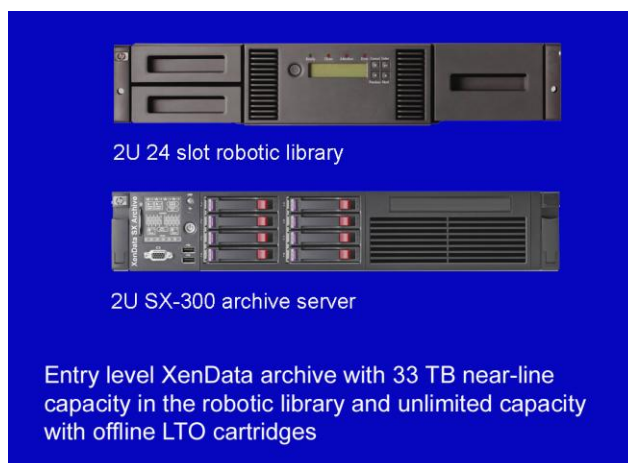
In addition to archiving and restoring assets, the XenData archive may also be configured as a backup for the Final Cut Server database. This is a second complementary use of the archive, where backup copies of the FCS database as well as proxy and version information are sent to a backup LTO tape pool. This is described further in Section 4.

Because Final Cut Server is highly configurable and XenData provides a simple and open avenue for file transfers, there are many possible ways to configure the overall FCS-XenData system. In this document, we describe one way to configure the system based on ease of use and reliability.

## 2. XenData Archive Functionality

Digital video archives running XenData6 Server software write to RAID and LTO cartridges in a robotic tape library. They provide the following functionality.

- **High Capacity, Secure Storage using LTO cartridges** – Each LTO-5 cartridge stores 1.5 TB of video files and has an archival life of 30 years under normal office conditions.
- **RAID and RAM cache** - support high performance multiple simultaneous archive and restore operations.
- **Standard File Interface and Network Protocols** - The XenData digital archive appears on the network as a standard SMB share or as an FTP location.
- **Multi-Purpose** – The digital archive can be simultaneously used by FCP, FCS and other applications.
- **Tape Replication for Additional Data Protection**- The software may be configured to automatically generate replica LTO tape cartridges that can be exported from the LTO library for off-site retention.
- **Standard POSIX tar Tape Format** - The archived files are written to LTO tape using the standard POSIX tar format. This means that files may be restored using a wide range of native Linux and UNIX operating systems, in addition to using XenData software.
- **Interchangeable between Systems** - Each tape cartridge contains all the file system metadata necessary to recover all the files stored on it. This makes it easy to move LTO tapes between systems.
- **Supports Tape Cartridge Spanning** - The Administrator defined policies can be set to allow or prevent files being spanned across multiple LTO cartridges. This option is particularly useful when very large files are being archived.



- **Multiple Tape Pool Support** - The software allows groups of files to be allocated to specified pools of tapes. The Administrator defined policies can be used to group related files together on the same set of tapes.
- **Dynamic Expansion of Tape Sets** - The system will dynamically expand tape sets to meet capacity demands, minimizing system administration.
- **Optimized Restores** - The system restores a queue of files in the shortest possible time. The restore requests are processed in an order that minimizes unnecessary tape movement.
- **Repack of Tapes** - This copies only current files, excluding deleted files and old versions of files, to new tapes. Benefit: permits recovery of capacity from LTO tapes.
- **Metadata Backup and Restore** - A file system metadata backup and restore utility provides rapid system restore in case of rebuild after RAID failure.
- **Alert Module** - A software module is included which provides e-mail alerts. This is especially useful for managing offline LTO cartridges.
- **Tape Contents Reports** - The files contained on any tape, including offline tapes, can be listed in a report which may be exported to Excel.

### 3. Archiving and Restoring Assets using Final Cut Server

#### 3.1 Configuring the XenData Server and Final Cut Server

An FTP server such as Filezilla should be installed on the XenData archive server which must be configured with special File Group rules using the XenData Management Console. A XenData technical note, XTN 902, describes detailed configuration of Final Cut Server and the XenData archive server. This is available in the support section of the XenData website.

An FTP device is then created on FCS pointing to the XenData archive using the configuration tool found in the System Parameters for Final Cut Server. An example of this configuration is shown opposite.

Final Cut Server can then be used to archive and restore assets to the XenData LTO archive system. If the system is under heavy load, the system may be optimized by adjusting the FCS retry settings to match the hardware and workflow.

**Network Device Type and Configuration**

Specify a name that users will reference when accessing this device and choose the network protocol to use to access the file server.

Device Name:

Network Protocol:

File Server:   
e.g. sample.apple.com

Absolute Path:   
(Optional) e.g. Movies or /data/media

Use Passive FTP Mode

User Name:

Password:

Click Continue to proceed.

### 3.2 Archiving Assets From Final Cut Server

Archiving an asset to the XenData archive is performed by control-clicking the media asset and selecting “Archive to” and the XenData archive device. Alternatively, you can get to the “Archive to” choice by using the Action pop-up menu. Once the media asset is archived, the archive icon appears on its thumbnail.

Note: Bundled assets are not currently supported.



### 3.3 Restoring

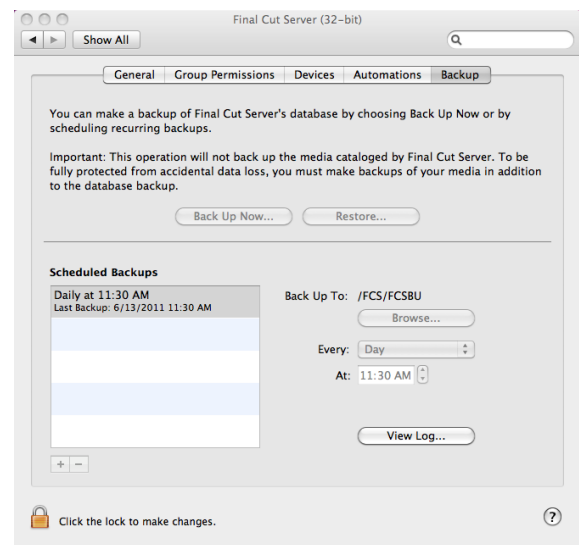
Restoring a media asset from the XenData archive is a similar process to archiving. Restoring is performed by control-clicking the media asset and selecting “Restore”. Once again, you can get to the “Restore” choice by using the Action pop-up menu. Also a file can be restored by clicking the archive icon on the assets thumbnail. Once the media asset has been restored, the archive icon disappears from that assets thumbnail.

## 4. Configuring the Archive Final Cut Server Backups

Final Cut Server can be configured to backup its internal database to a path which is also configured as a watch folder. By creating a second device within Final Cut Server which points to the XenData Archive, FCS will handle the transfers of the backup files in that path as if they were assets. The backups are then kept on a different group of tapes from the assets by configuring the XenData archive with two tape pools.

The OS X server can also be configured to backup the Proxy and versioning information, which is not included with the database backup. These files will have their own scheduled backup, which should coincide with the Final Cut Server database backup. They too are written to the watch path and sent to the backup tape pool by Final Cut Server.

Once the backups have been configured, they will automatically occur in the background.



## 5. XenData Contact Information

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