EVO Shared Storage for Adobe Premiere Pro

Configuration Guide
October 2022

In This Guide

01

Shared Storage for Premiere Pro

Projects are more successful when teams can work together efficiently.

In this guide, you will learn how EVO shared storage and its unique integrations for Adobe Premiere Pro significantly improve the way teams work together to store, share, and manage media assets and projects.

More Efficiency

Using shared storage significantly reduces the amount of time it takes to do your job. Instead of copying (or downloading) files to multiple workstations, files on the server are always accessible to you and your team.

Some of the ways to measure the efficiency improvements from shared storage are:

- **Reduced time spent copying and transferring files**

- **Reduced storage cost by eliminating duplication**

- **Reduced time spent searching through external storage**

- **Faster creative iteration and collaboration**

Better Collaboration

For a team to work effectively, the latest media and projects have to be readily available to internal and external collaborators. Shared storage ensures that your team can share, access, and work with the most up-to-date media and projects in real-time.

Improved Organization

As important as access to files is, it's equally as important to be able to find them. Managing an ever-growing library of media and projects is far easier when you have a way to search, tag, preview, and organize all of the files on your storage server. That's where MAM comes in.

> **MAM** (Media Asset Management):
> Software used to search, organize, preview, and retrieve media files.

You will learn more about the benefits of media asset management as we explore how EVO shared storage improves the Adobe Premiere Pro workflow in upcoming sections.

02

The EVO Shared Storage Workflow

EVO includes an entire suite of workflow features to help teams be more efficient, collaborative, and organized throughout the media creation process. The EVO Suite includes:

Integrated Media Asset Management

EVO includes integrated MAM software called ShareBrowser that enables your team to preview proxies, tag files, add comments to clips, and create a searchable database for all of your media and projects.

ShareBrowser integrates directly with Adobe Premiere Pro to help you leverage your metadata throughout your edit.

Integrated Automation and Backup

EVO also includes an automation GUI and API called Slingshot that allows you to create and run automated file workflows that span EVO, cloud storage, and other systems.

Cloud Storage Workspaces

ShareBrowser integrates with Dropbox, Amazon S3, Google Drive, Adobe Creative Cloud, and more to give you a single interface for browsing and searching your on-premise and cloud storage.

Third-Party Storage Management

ShareBrowser can also be used to organize third-party network storage servers in a facility, allowing your team to bring new capabilities to existing hardware.

Multi-Site Workflow Enabled

EVO's work-from-anywhere utility, Nomad, prepares proxy and source files for efficient media production on-site or around the world.

Add on our monthly SNS Cloud VPN service for a secure, convenient, and fast remote connection to EVO from anywhere in the world. (No contract, no commitment, unlimited users.)

Easy Administration

We've designed EVO and its client and admin software to be easy to setup and administer, right out of the box.

In many cases, you can even connect your on-premise workstations directly to EVO without a switch, and get started in just a few minutes.

Unlimited Software Licenses Included

All of EVO's software tools can be used throughout your facility at no additional cost.

03

EVO System Architecture

The EVO hardware, operating system, and included workflow tools are purpose-built and tested for use with Adobe Premiere Pro and other editing, finishing, visual effects, motion graphics, and audio production software.

EVO is designed to be highly configurable and adaptable, allowing it to serve a variety of purposes in end-to-end post-production and broadcast workflows.

System Overview

- **Custom EVO OS optimized for multi-user video workflows**

- **Includes the EVO Suite of workflow tools for unlimited users**

- **Supports macOS, Windows, and Linux**

- **Supports up to 26 direct-connect users without a network switch**

- **Supports 1, 10, 25, 50, and 100Gigabit Ethernet connectivity**

- **LDAP and Active Directory integration**

- **Dynamic workspace resizing**

- **Automation and media management API for developers and integrations**

- **Backup, sync, and replication tools**

- **NAS recycle bin to restore files deleted from network volumes**

- **SSD and HDD configurations**

- **Scalable to multiple petabytes**

- **Available in a variety of form factors**

04

Getting Organized with ShareBrowser

ShareBrowser gives you a comprehensive view of all of your media assets, whether they are on EVO volumes, stored locally, in cloud storage, or stored on other third-party devices.

This makes it easy to find the files you are looking for, regardless of where they are stored.

Tagging files, cataloging, searching, and collaborating are universal video production needs, but many teams don't have any way to do those things. Instead, they struggle to keep track of files and projects that span across multiple storage locations.

On the other end of the spectrum, you can buy exhaustingly complex MAM software, which often goes unused because it is either too complicated to set up, or too complicated to manage.

ShareBrowser is designed to provide you with the organizational tools your team needs, without the complexity of traditional MAM software. Its intuitive design makes it easy for your entire team to get started without hours of studying and training courses.

Previewing Clips

ShareBrowser can automatically create low-res proxies of your media for previews. Proxies are stored on EVO and can be viewed even when the original source material is offline or unmounted.
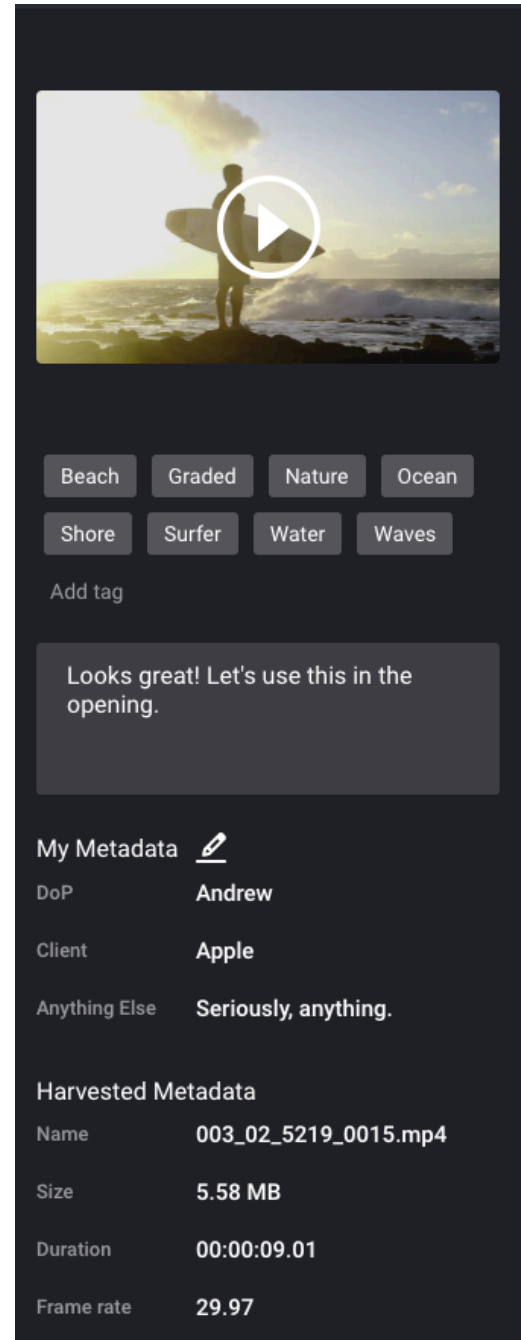
With ShareBrowser's included API, developers can build custom integrations between ShareBrowser and third-party systems.

Searching for Files

ShareBrowser's powerful multi-variable search helps you quickly find assets based on custom tags and comments, or harvested metadata like filename, codec, frame rate, resolution, and more.

In addition to searching through your currently mounted storage, ShareBrowser also searches local hard drives, external devices, and any other storage location that has been indexed—even if the storage is offline or unavailable.
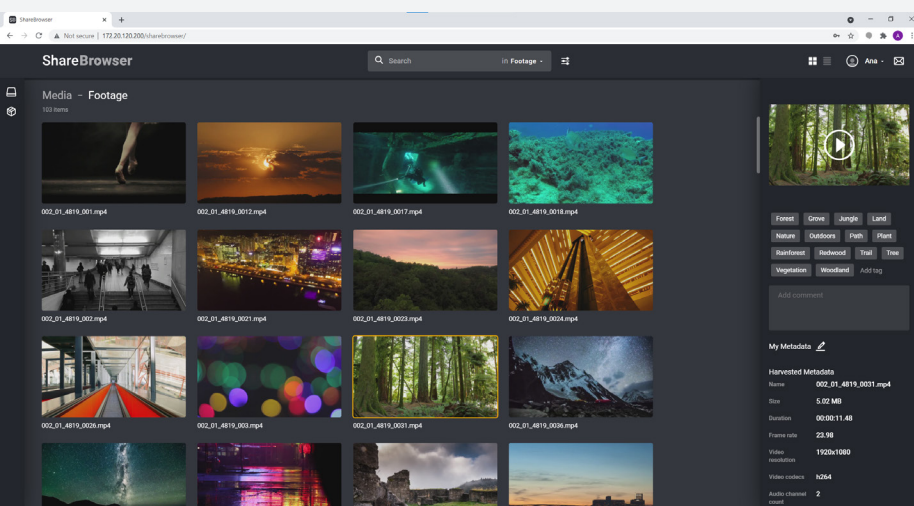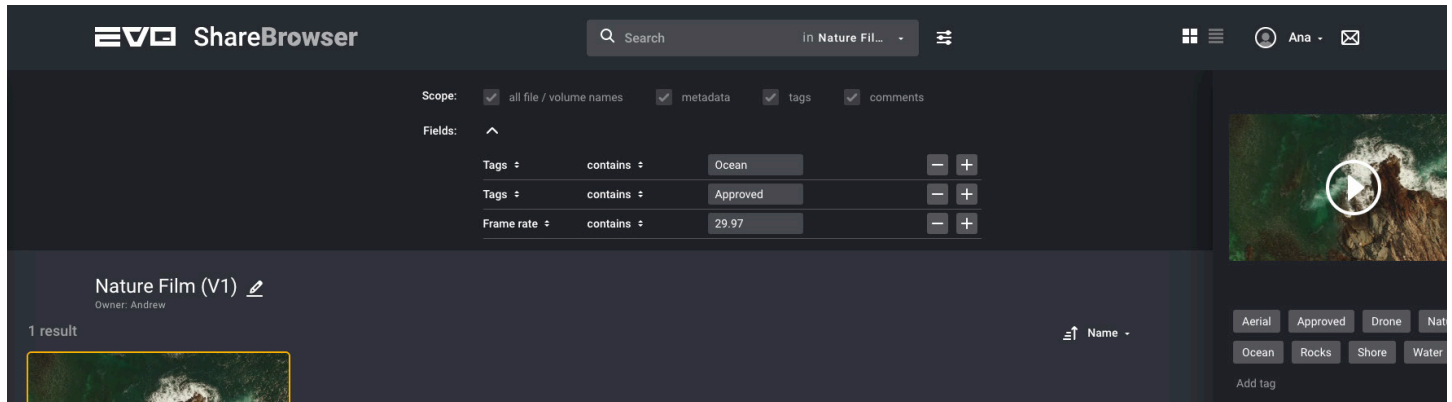
ShareBrowser Web App

ShareBrowser is available as a desktop app for macOS and Windows, and available through an HTML5 web app with no additional software required.

ShareBrowser Web App can be used by internal and external collaborators to review sequences, tag clips, or organize projects from a web browser, without direct access to the media for editorial or production use.

Adding Comments and Tags

ShareBrowser comments are freeform text fields that can be used to write descriptions or provide review notes with time-based notation to streamline communication between team members and other collaborators.

Tagging is a simple and powerful way to organize your media assets.

Instead of searching through folder after folder of B-roll or old project files, tags allow you to instantly find the exact clip you are looking for.

You can tag projects, documents, clips, or entire folders, and once they're tagged, those files can be easily searched and found by your team.

Tags can be used to organize clips by:

- **Scene information**
  (scene numbers, locations, talent, B-roll)

- **Shot information**
  (camera, card name, shot type)

- **Activities or objects**
  (running, basketball, coffee)

- **Project information**
  (title, episode, job ID, client)

For a more advanced metadata structure, you can create custom metadata forms with pre-defined fields for users to choose from. This helps maintain more structured metadata processes, and can be configured to fit any workflow.
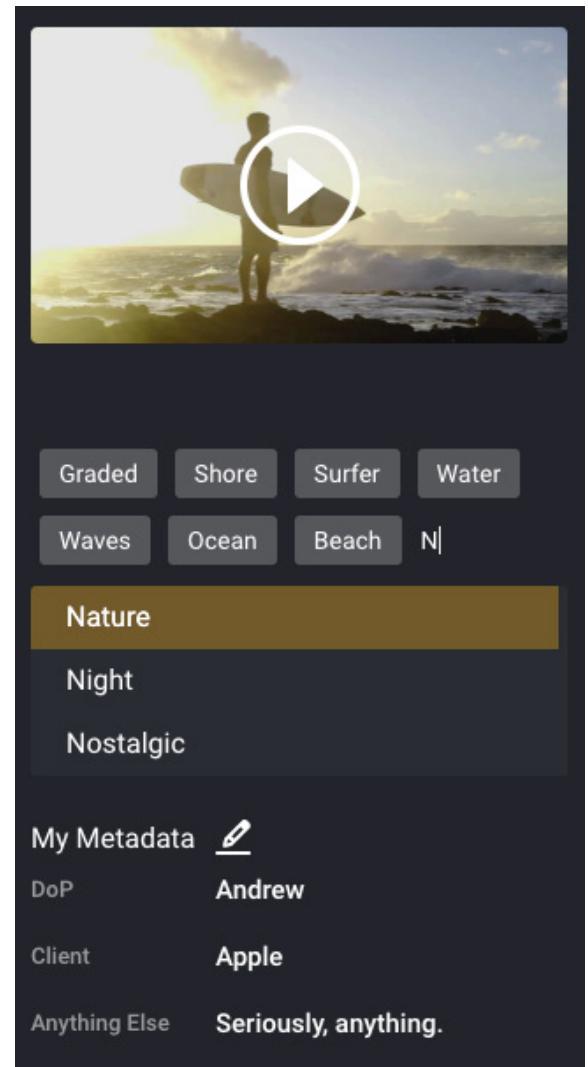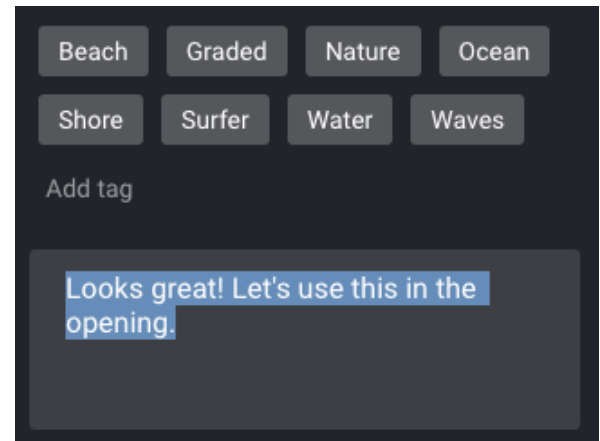
Organizing Projects with Bins

To simplify browsing, users can create private or public bins containing any clip in ShareBrowser.

Bins can be used to prep projects for other team members, share shot selections, or assemble clips that are ready for review.

With bins, you can prep a project—complete with shot notes and descriptions—from any device without ever opening your editing application.

Once a bin is created, all of the media and metadata inside can be accessed and imported to Adobe Premiere Pro from the ShareBrowser Panel Extension.
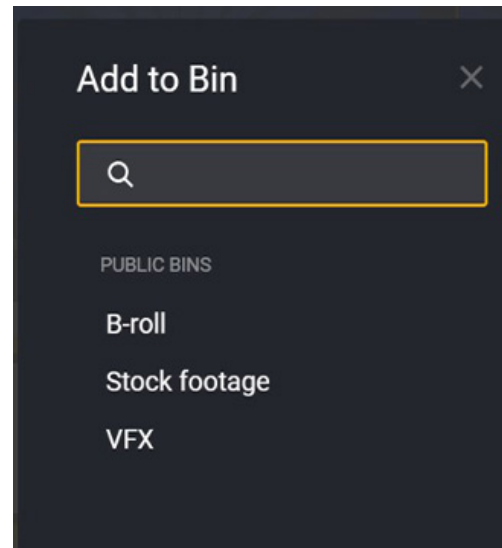
Tagging Clips with AI

ShareBrowser integrates with Amazon Rekognition to provide machine learning video analysis for your clips.

With one click, you can generate tags based on objects (like "bike," "telephone," or "building"), scenes ("parking lot," "beach," "city"), and specific activities happening in a clip, such as "delivering a package" or "playing soccer."

This can eliminate countless hours of manual logging when transitioning to a shared storage environment.
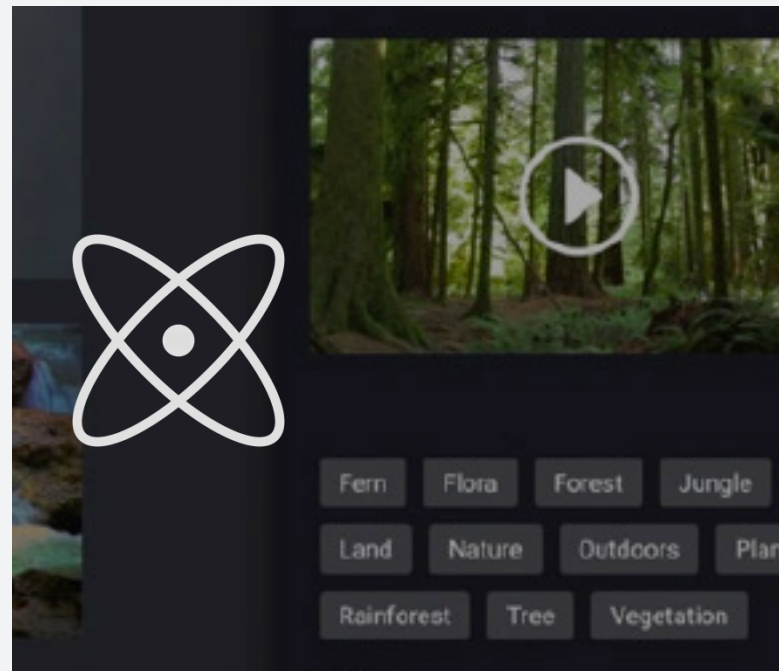
05

ShareBrowser Panel Extensions

Premiere Pro Panel Extension

ShareBrowser is available as a workflow extension that can be used directly inside Premiere Pro to quickly browse, search, organize, and import media and metadata into a project without leaving your timeline.

With the ShareBrowser Panel Extension, you can:

- **Search and preview your storage**

- **Drag and drop media from shared storage directly to your media library**

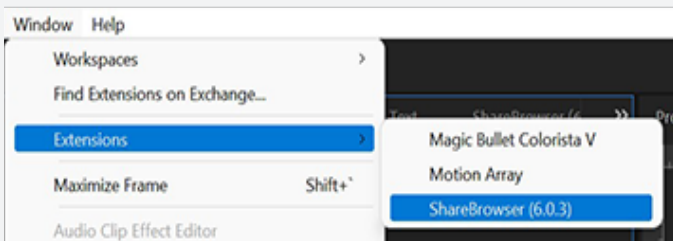- **Organize media with custom tags and comments**

- **Import Premiere Pro log notes and descriptions from ShareBrowser metadata**

- **Use AI to log clips from inside of Premiere Pro**

- **Create and share media bins from within Premiere Pro**

- **Quickly find and preview clips, audio files, graphics, and other media files on your network**

Extensions are third-party apps and services designed to seamlessly integrate into the Premiere Pro user experience. To download the ShareBrowser Panel Extension, visit the Adobe Exchange at exchange.adobe.com.

Integrated Descriptions and Log Notes

When you import your clips from the ShareBrowser Panel Extension, your tags and comments will map to specific fields in Premiere Pro. ShareBrowser tags become comma-separated descriptions, and comments become log notes.

After Effects Panel Extension

The ShareBrowser Panel Extension can also be used inside of Adobe After Effects to quickly browse, search, organize, and import media into a composition.

Instead of using email, Dropbox, or copying files back and forth from external drives, teams of editors and motion graphics artists can collaborate around a centralized media library.

When an editor needs to share a selection of shots that need VFX, they can create a bin from the ShareBrowser Panel Extension, add notes, and share it with an After Effects artist in just a few clicks, without ever leaving the timeline.
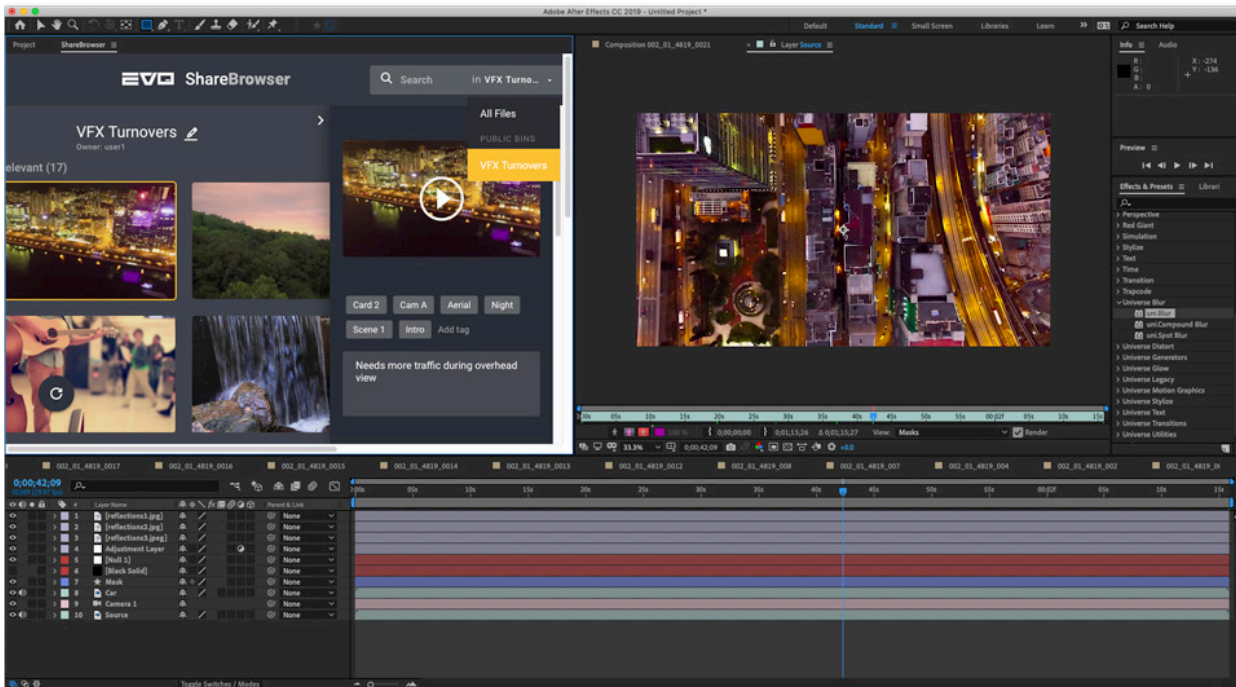
Accessing the ShareBrowser Panel for Premiere Pro or After Effects only requires a single download. Once you've installed the ShareBrowser Extension from the Adobe Exchange, it is available for both applications.

06

Slingshot
Automations Engine

Slingshot is an automation GUI and API designed from the ground up to address today's workflow challenges and give you more control over your post-production operations.

Using Slingshot, you can create and run automated file workflows that span EVO, other servers, and even cloud storage.

Slingshot is embedded directly inside the EVO storage system. To get any kind of automation capability with most other storage systems, you'd have to install third-party applications onto your workstations, which adds more complexity and is limited by the connection speed of the workstation.

Automation is a central function of the EVO storage server itself, right where your assets and projects already exist.

Slingshot offers several paths for automatically transporting files from one place to another.

- **Single EVO:** Run scheduled tasks on files inside one EVO.

- **EVO to other servers:** Transfer files from EVO to other kinds of servers. You can automate transports to just about any SMB/CIFS or FTP system.

- **EVO to cloud:** Automatically send files to cloud storage like Amazon S3, Microsoft Azure, Dropbox, Google Cloud Platform, Wasabi, and Backblaze.

- **EVO to EVO:** Transfer files among multiple EVO systems.

- **Offload/transport engine:** Use Slingshot to direct your transfers from a supported system to any other supported system, even if none of the files are on EVO. (API only)
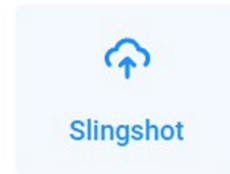
Slingshot

Automation Examples

You create automations by using Slingshot's configurable
"tasks," which include actions like copying, moving, deleting,
and transcoding.

Think of each task as a configurable step in your workflow.
You can create scheduled automations that help eliminate
some of the time currently wasted on administrative work.

And, if you're a developer, you can also create advanced, on-
demand actions using the Slingshot API, which provides even
more control over your workflow automations.

With a few clicks in the task builder, Slingshot can perform a
wide range of automations. Here are some basic examples of
time-saving automations that are possible with Slingshot.

- **Schedule automatic transcoding of certain file types
  (.braw, .mxf, .r3d, etc.) into edit-ready ProRes proxies**

- **Schedule server-to-server transfers so you don't have
  to "tie up" a workstation just for repetitive copying or
  moving files.**

- **Send files in a watched folder to cloud storage once per
  week at a certain time, such as "every Saturday at 1am."**

If you're a developer, an advanced example would be to use
the Slingshot API to transfer certain files, on-demand, to an
external server or cloud storage provider.

This means you could offload file transfer operations, and
process them on an EVO server, instead of consuming
resources on another appliance.

07

Backup, Sync, and Replication Jobs

Slingshot—the automation engine and API for EVO—also includes replication jobs created specifically for backup and other redundancy goals.

Replication jobs accommodate cases where entire directories and incremental changes need to be backed up, copied, or synced across multiple systems. Sources and destinations can be shares hosted by EVO, USB drives hosted by EVO, other networked storage systems, or supported cloud storage services.

Configurable Controls

Daily backups? No problem. But, what if you'd rather be more specific with what gets copied? That's where filters come into play.

Slingshot's filters are based on regular expressions and can be applied to files or directories.

You can filter by name, type, and age, so if you only want to sync .mov files that are more than three days old, that's possible. Filters can be set as inclusion or exclusion criteria, so you can set a filter to include only .prproj files, or everything except that file type.

You can even schedule an automation that sends all files to another on-site storage system, and sends only project files to cloud/off-site storage.

Scheduled and On-Demand Jobs

Jobs can be run on-demand, or as scheduled incremental sync/copy jobs, with user-defined start and pause/stop times. This way, you can make sure your system is only doing replication during off-peak hours.

Example Use Cases

Slingshot's replication jobs open up a world of possibilities for multi-system synchronization.

For example:

Method	Purpose
EVO to EVO	Mirror data between two on-site EVO systems.
EVO to USB disk attached to EVO	Connect a USB disk to EVO and do a server-side backup, then disconnect the USB disk and secure it in another off-site location. This is a quick and simple way to start keeping a copy of important data at a separate physical location.
EVO to EVO Nearline	Migrate completed projects and related assets from high-speed EVO storage (Tier 1) to more affordable EVO Nearline storage (Tier 2). This is an excellent strategy for using storage resources more economically.
EVO to EVO Nearline to cloud services	In this hybrid approach that combines the best of several worlds, a Tier 1 EVO replicates nightly to Tier 2 EVO Nearline. The Tier 1 to Tier 2 replication occurs at very high-speed and completes quickly, while the Tier 2 system then pushes new data over your internet connection to the cloud.
Cloud to multi-location EVO systems	In this case, assume you have assets coming into your cloud storage from many different users, and you have several EVO systems in multiple geographic locations (e.g., California, New York, and Amsterdam). New files matching certain criteria are automatically pulled from the cloud to each of your geographically distributed EVO systems.

For more information on how Slingshot can help save time in your creative post-production workflow, contact SNS for a full system demonstration and personalized workflow consultation.

08

Project Sharing Methods

Collaboration is a necessity for creative teams.

Almost every project requires contributions from many people and disciplines. Using Adobe Team Projects, teams can now share, manage, and collaborate—within a single project—from anywhere in the world.

Team Projects (Cloud)

Team Projects is a collaboration mode that enables teams to collaborate with talented people around the world. If you are working with remote editors or artists in a team project, you can use Adobe's Creative Cloud storage, or other cloud services to share lightweight proxy media, animation, stills, and other assets from almost anywhere in the world. To improve the efficiency of these remote workflows, EVO works with Adobe Creative Cloud, Dropbox, and other services that help teams share media.

Productions

The Productions feature set in Premiere Pro provides a new framework for organizing multi-project workflows and collaboration using shared storage. It enables video editors to tackle large or complex projects as a team, all working from the same shared storage server and sharing access to media and projects. The easiest way to handle this is to have your project media available over network volumes on EVO, which is fully compatible with Productions and traditional shared projects workflows in Premiere Pro.

In addition to the advice in Adobe's [Best Practices & Workflow Guide for Long Form and Episodic Post Production](#), we recommend using an SSD storage location for the shared scratch disk setting in Productions. While the guide warns about recovery of deleted files, EVO's recycle bin feature is compatible with Productions and can be used to restore and recover deleted files, if needed.

Since a Production represents a designated folder on your storage, this also means that anything you change or add to the Productions folder at the disk level is reflected in Premiere Pro, and vice versa. Productions keeps everything in sync, whether you're on macOS, Windows, or using a mix of both.

EVO Project Locking

If you aren't using project locking through Productions, this feature can be set up directly in EVO to automatically lock Premiere Pro project files, allowing other users to open the same project in read-only mode, see who has project locks in place, and send messages to users to request projects be unlocked. When projects are on an EVO project sharing workspace, they can dynamically move between users, eliminating duplicate versions stored locally across multiple client computers.

You can also apply this protection to After Effects, Photoshop, and other project file types of your choice.

09

Optimizing Your Environment

EVO systems are extensively tested with Adobe Premiere Pro and come configured with optimal settings for the majority of workflows, and these settings should not be changed unless instructed by SNS support.

However, when configuring your storage and your client machines for exceptionally high throughput workflows with Adobe Premiere Pro and EVO, there are things to keep in mind.

Workstation Configuration

For optimal performance, your workstations should meet all system requirements for your production software, have no unnecessary software installed, and maintain consistent software versions on each machine in the environment.

A single protocol (SMB) should be chosen for the network shares. If the environment includes a mix of Mac and Windows machines, SMB should be used.

Ensure System Clocks Match

Timestamps are important for sharing network storage. EVO can be set to synchronize with a Network Time Protocol (NTP) provider to help keep file timestamps consistent. Configure your EVO(s), workstations, and other network devices to sync to the same NTP server.
EVO can also act as an NTP server, so your workstations and other network devices can stay synchronized even without internet access.

Network Segregation

If you have a 10Gigabit Ethernet or greater link to EVO, and you have EVO connected to the local network, you want to make sure you're using the fastest link.

To do this, use separate subnets between the local network and your EVO network, and configure the workstation network connections to point to EVO over the fastest network.

The dedicated adapter used to connect to the EVO should be the first in the service order.

Maximum Transmission Unit (MTU)

The maximum transmission unit (MTU) of all ports in the connection path (EVO, workstation, switch) need to be set to the same value.

We recommend that you use the EVO default MTU of 9000 (for 10GbE or higher), unless otherwise instructed by Adobe or SNS based on your specific requirements.

Cabling and Transceivers

In addition to making sure your network card is configured correctly and that your MTU is the same value everywhere, it is essential to make sure that your network hardware supports the required bandwidth of the network infrastructure.

If using optical interfaces, ensure the transceivers are approved by the network adapter manufacturer. Currently, we recommend Category 6A (CAT6A) or duplex fiber optic cabling be used for all 10Gb network purposes. If you're using 25Gb, 50Gb, or 100Gb Ethernet contact us for our latest recommendations.

Mounting Storage Volumes

When mounting an EVO share on Mac or Windows, it's recommended to use ShareBrowser.

However, standard OS mounting procedures will work as well (Connect to Server on macOS and Mapping a drive letter on Windows.)

10

Optimizing Your Premiere Pro Settings

We recommend using Adobe's suggested [Premiere Pro Project Settings](#) to enable optimal performance with EVO shared storage.

In some cases, video preview settings, rendering options, media caching, and playback settings can be adjusted for improved client-side performance and other benefits for your team.

Our workflow experts can help you fine-tune your settings to the best solution for your shared environment.

Storing Your Scratch Disks on EVO (SSD Caching)

In a Productions workflow, scratch disks must be set to a location that all users have access to, such as a shared location on the network instead of a local workstation.

Configuring an optional SSD pool on EVO enables a project's scratch disks to be stored on the network for collaborators to access.

11

EVO Performance and Stream Counts

We determine EVO stream counts through extensive testing, in environments that recreate the way you would interact with shared storage in your daily workflow. We test numerous combinations of network protocols, workstation hardware, NLE versions, clip sizes, and even the physical placement of the data on the hard drives.

The stream counts below are representative of an EVO with a typical 16 disk, RAID 6 configuration after extensive use.

Codec	Streams (HDD)
ProRes 422 Proxy (HD) @ 23.97	142 streams
ProRes 422 Proxy (UHD) @ 29.97	59 streams
ProRes 422 HQ (HD) @ 29.97	51 streams
ProRes 422 HQ 4K (720) @ 23.98	17 streams
XAVC-I 4:2:2 10 Bit 4K @ 29.97	17 streams
ProRes RAW HQ 4K @ 23.98	14 streams
ProRes 4444 4K @ 23.98	12 streams
Uncompressed 10 Bit HD @ 29.97	10 streams
RED 6K 5:1 WS @ 23.98	10 streams
ProRes 4444 4K @ 29.97	8 streams
ProRes RAW 8K @ 29.97	4 streams

EVO can be equipped with enterprise class SSDs and high
bandwidth connectivity like 25Gb Ethernet so you can tackle
even the most demanding workflows right out of the box.

Codec	Streams (SSD, 8 Disks, RAID 6)
ProRes 4444 4K @ 23.98	15 streams
Uncompressed 10 Bit HD @ 29.97	12 streams
ProRes 4444 4K @ 29.97	12 streams
16-bit 4K DPX @ 23.97 (~1.3GB/s)	2 streams (one stream per workstation)
16-bit 4K DPX @ 29.97 (~1.6GB/s)	1 stream

*The tests above were conducted using an EVO DPX model
running EVO OS v.6.1 on macOS and Windows workstations
connected over 25Gb Ethernet.*

*HDD testing () was conducted using an EVO 16 Bay
running EVO OS v.6.1 using macOS and Windows workstations
connected over GbE and 10GbE. Tests are done with many
simultaneous unique clips (independant files) of various sizes.*

For more performance information, visit snsevo.com/
solutions.

12

EVO Testing Tools and Support

EVO includes a self-test suite, which can help to check that major components of the system are functioning as expected.

These tools are generally used in troubleshooting cases, and are particularly useful in helping to identify whether a particular problem exists within EVO or if the problem lies outside EVO.

Network Port Tests

EVO's network ports can be placed into loopback tests. Once the test completes, ensure pop-ups are allowed in your browser and click the "Last test result" link to view the stats.

If you are using a network switch, we advise running this tool in different configurations to A/B test the differences between using a switch (i.e., looping through it) and bypassing the switch.

Drive Tests

Individual shares can be tested in a way that is completely isolated to the EVO unit itself, meaning, no workstation or other computer is required to generate IO for the test load.

Troubleshooting and Support

Please refer to our Knowledge Base or contact us to open a support case. We want to make sure you get the very most out of your EVO and are happy to help troubleshoot and optimize your environment.

13

Additional
Resources

EVO is available through a worldwide channel of resellers and systems integrators. Contact us today at +1 314-733-0551 or visit studionetworksolutions.com to find the perfect system for your team.

To learn more about EVO shared storage for Adobe Premiere Pro, visit studionetworksolutions.com/solutions.