

**eMAM**  
Leveraging Content

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## COLLABORATIVE EDITING

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This whitepaper illustrates how the seamless integration of eMAM with Adobe Premiere Pro CC enhances video editing workflows.

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## Introduction

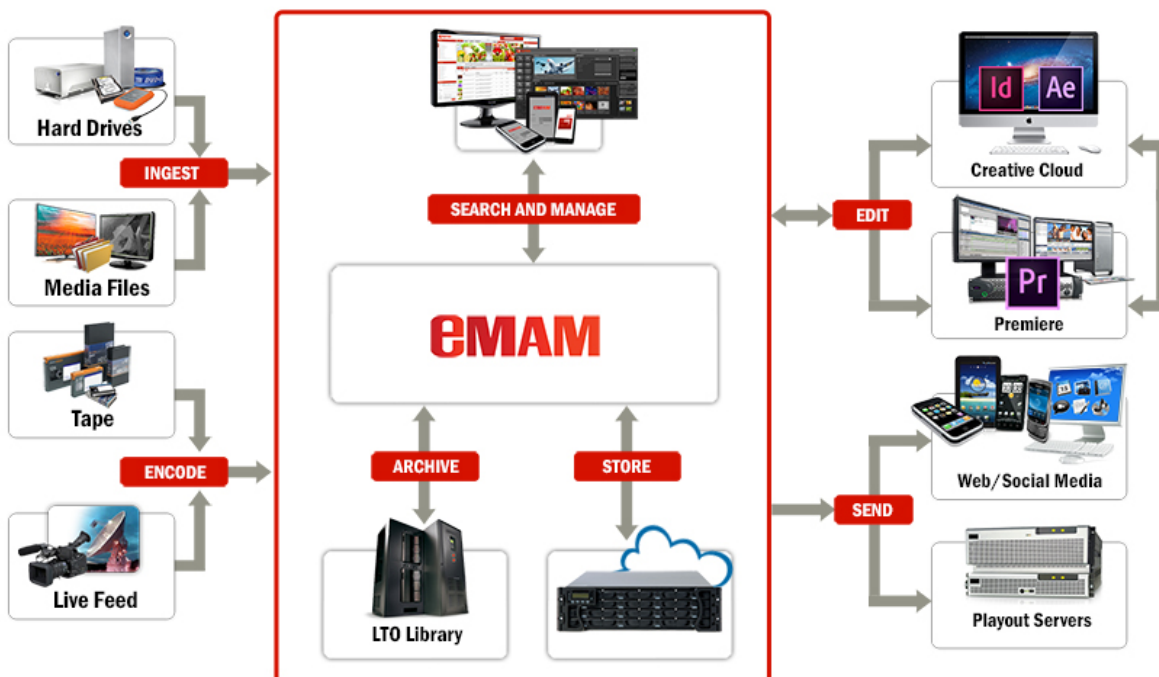
Managing the flood of content in the digital age has become a major challenge for organizations everywhere. Companies have had to adapt ways to organize and share information and simultaneously transition from tape-based workflows to digital file-based environments. To manage these rapidly changing dynamics, Empress Media Asset Management, LLC developed eMAM™, a powerful and flexible web-accessible media asset management system for users to easily manage all their digital assets throughout their workflow from any global location.

## Adobe Premiere Pro CC – the choice of Professional Editors

Professional editing is a competitive field, so organizations must use the latest and the most advanced technologies to maximize output while minimizing labor and other expenses. Integrated workflows maximize efficiency. The performance, speed, powerful tools, flexibility, and interoperability of Adobe® Premiere® Pro CC helps editors work faster and smarter. The Creative Cloud minimizes IT work while providing an integrated suite of solutions for users. The Adobe Premiere Pro CC workspace is simple to understand and to customize, allowing users to save workspace layouts appropriate to their current needs.

Virtually all video formats can be imported without transcoding and edited natively. Adobe Premiere Pro CC links to industry-standard file-based media, such as P2 cards, XDCAM, RED, and ARRIRAW. It works directly with Apple ProRes and MOV files captured by DSLR cameras, with full metadata support—no transcoding or rewrapping required.

Familiarity with other Adobe® products such as After Effects® CC or Photoshop® CC shortens the learning curve for Adobe Premiere Pro CC because the Adobe Creative Cloud® applications share common commands, panels, and keyboard shortcuts. The integration with the other Creative Cloud applications creates one of the most efficient workflows in the industry. Using Dynamic Link in Adobe Premiere Pro CC, users can include After Effects compositions in their sequences, where they look and act just like any other clip: changes in After Effects are automatically reflected in the Adobe Premiere Pro CC sequence.

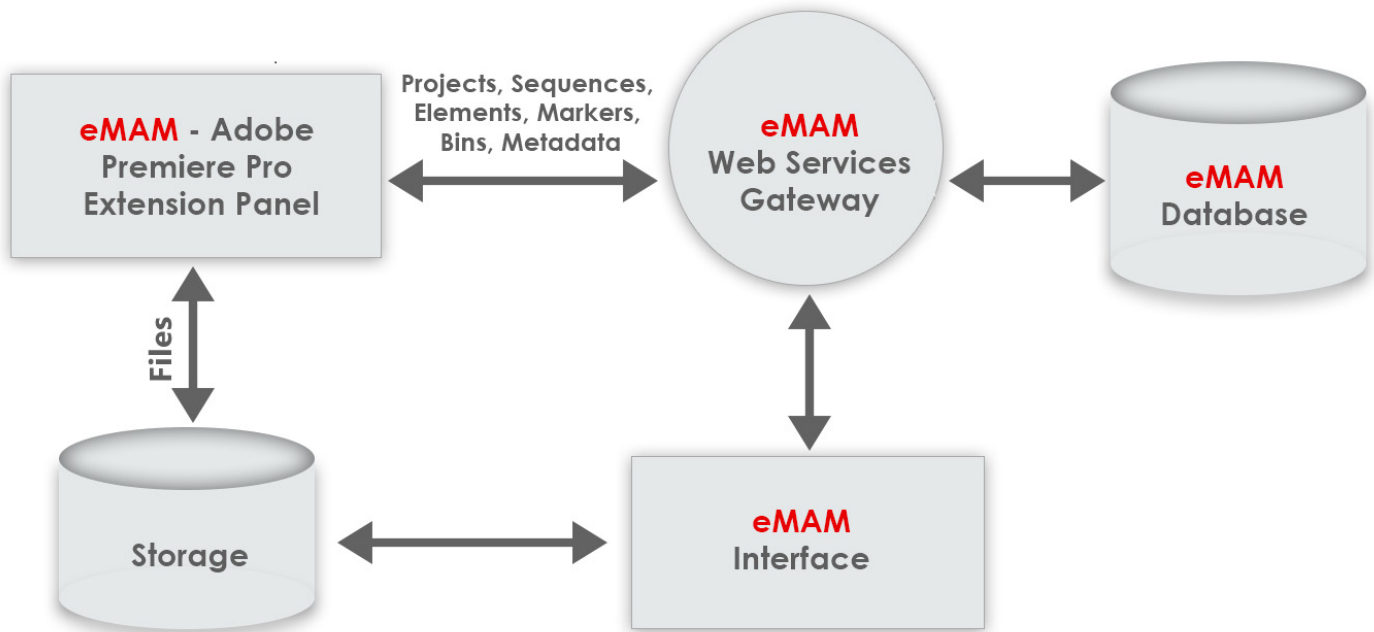


## eMAM and Premiere Pro CC Integration

eMAM can integrate multiple workflows for a variety of different organizations. This white paper will highlight workflows that rely on the combined strengths of the eMAM and Adobe Premiere Pro CC production pipelines.

With a built-in panel in Adobe Premiere Pro CC, eMAM makes editing collaborative and integrated with its powerful media asset management tools.

In a shared editing environment, multiple editors can work on the same Premiere Pro CC project from a shared centralized storage environment. eMAM manages content in such an environment and can now open editing and media management workflows for worldwide collaboration and flexible storage and archive possibilities.



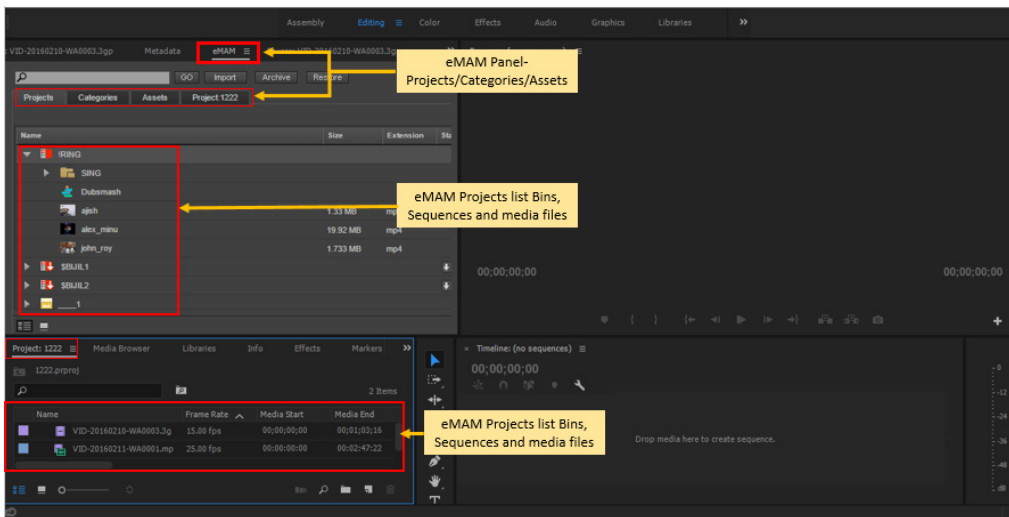
## ADOBE PREMIERE PRO INTEGRATION WITH eMAM

### eMAM Extension Panel Inside Premiere Pro CC

Adobe Premiere Pro CC has extensive media support, so users can edit feeds and files from all popular camera and format types. The Media Browser allows editors to add clips/graphics by browsing from attached/network storage. Adobe Premiere Pro CC also supports an array of common graphic, audio, and video elements produced from other sources. The eMAM extension panel can be opened in Adobe Premiere Pro CC to push to and pull from eMAM managed storage and archive. All content in eMAM is displayed under the Projects, Categories and Assets tabs.

### *Project Creation and Sharing*

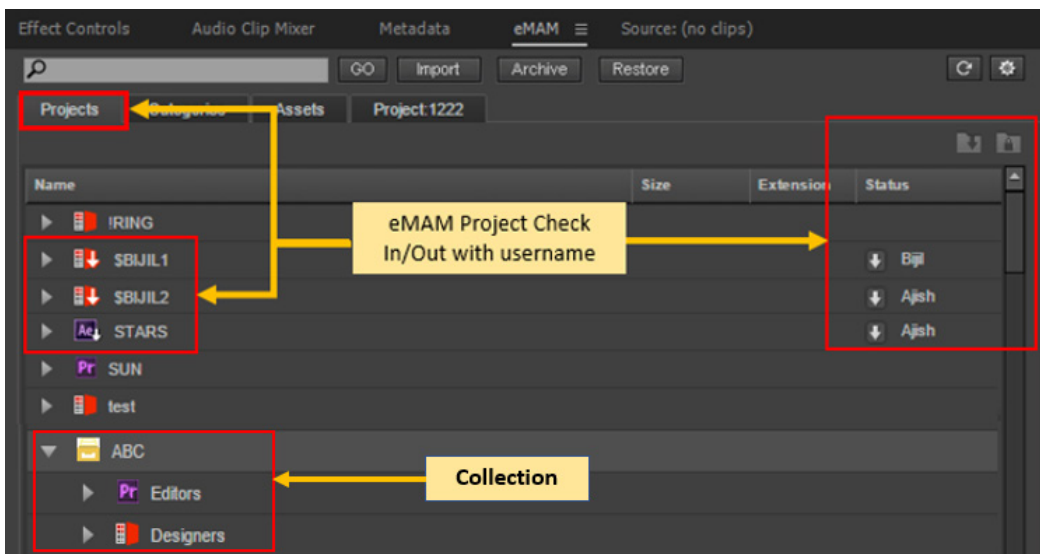
With the introduction of the eMAM extension panel, editors can now directly import clips, sequences, and projects managed by the eMAM library into Adobe Premiere Pro CC. The eMAM system can manage content on local SAN/NAS/DAS storage, in cloud storage locations, in archive, on the shelf, or any combination of storage locations. With all historical content at the editor's fingertips, time spent on searching for content is minimized, which maximizes productivity and increases efficiency.



*eMAM managed media in the extension panel*

**Projects**

eMAM organizes content into projects for logical organization or grouping as needed. Authorized eMAM users can create any number of eMAM Projects and assign them to various users. The eMAM extension panel will display the projects assigned to the editor. The eMAM Projects tab in Adobe Premiere Pro CC will show the bins, sequences and thumbnails of the elements along with the title, description, and other metadata from eMAM. This panel will also display Collections (see below) from Premiere, InDesign, and After Effects projects managed by eMAM. Adobe Premiere Pro CC users will be able to check out both eMAM and Adobe Premiere Pro CC projects and select which version they would like to edit. When a project is checked-out, other users will not be able to open the project until it is checked back into the eMAM system. Projects may also be locked by an eMAM user in Adobe Premiere Pro CC.



*Projects and collections in the extension panel*

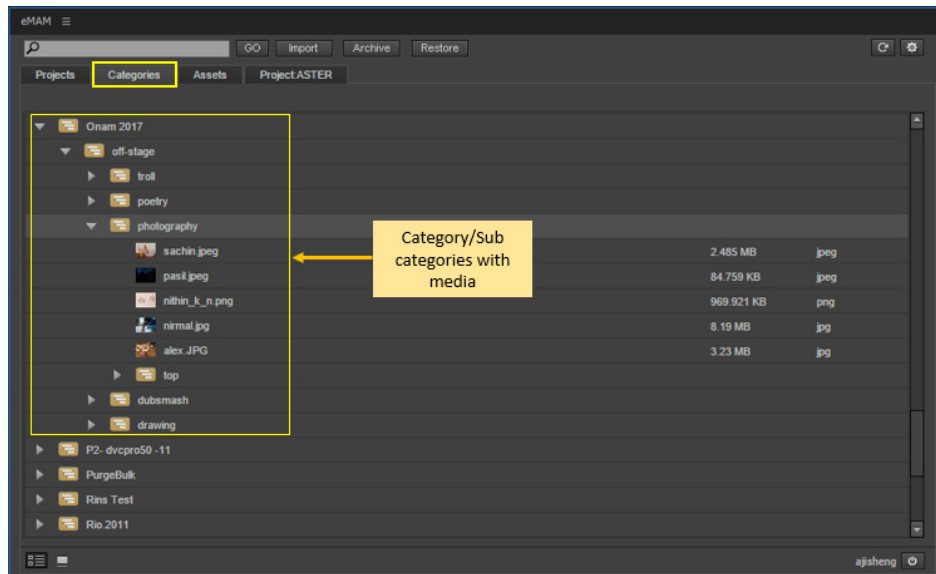
**Project Collections**

A Collection is a group of inter-related projects grouped together into a container. The Project Collection option in eMAM allows users to organize Premiere, After Effects, InDesign and other projects into one collection. Users handling projects that involve video, sound and graphics editing can use “Add Collection” option to group projects from different systems together. It can also group together a larger number of similar projects to simplify browsing.

## Categories

Categories in eMAM are like directories in a file system. Categories allow editors to browse through available content in the system by folders. One asset/element can belong to one or more categories and, unlike a typical file system, eMAM will not make copies of the files in different categories: it will simply keep pointers to the one stored copy of an asset.

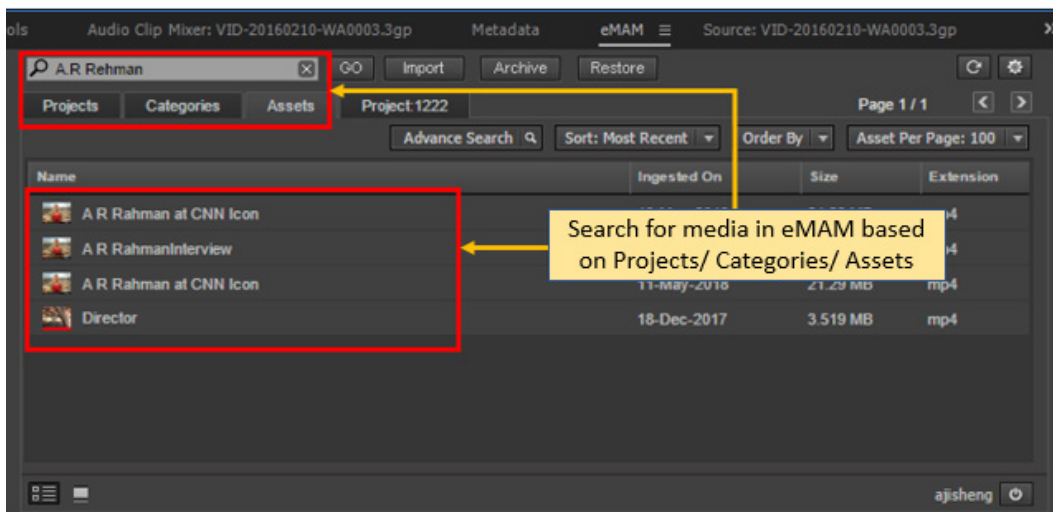
Individual users of eMAM are associated with one or more user groups (organizational roles), for which access and permissions are assigned. Therefore, an editor can only use categories of assets which have been assigned to the user groups to which (s)he belongs. The category tab inside the extension panel displays the assigned categories and the assets in each category.



Categories on the extension panel

## Content Search

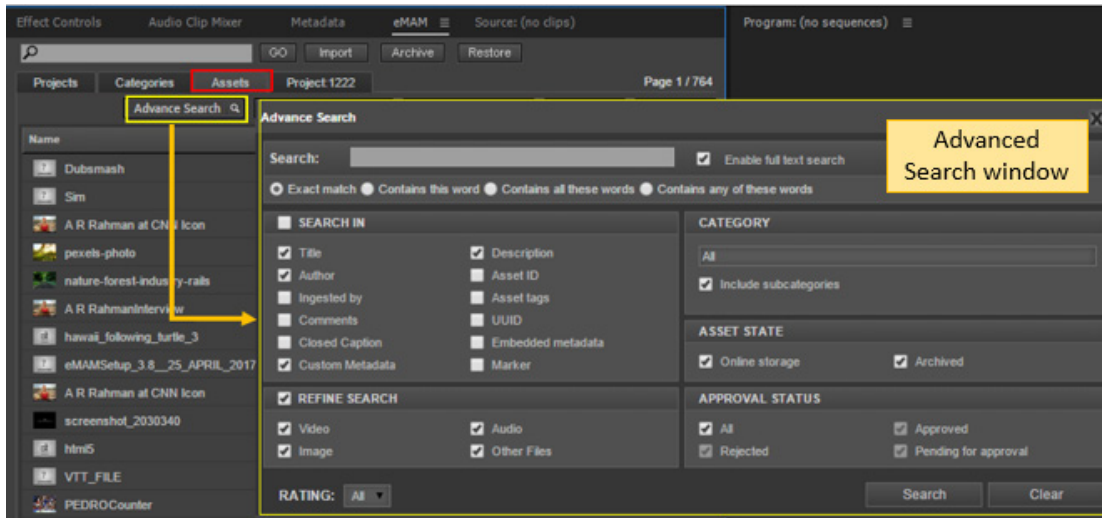
An editor can search all the media in the eMAM system based on title, description, metadata tags, or markers to find the best assets for the project at hand using the search bar within the extension panel. Search filters can be used to filter the content based on the pre-defined search conditions. For example, a producer can apply the search filter “Ready to Review” to select all content where the metadata status field matches that criteria.



The entire eMAM library can be searched in the panel



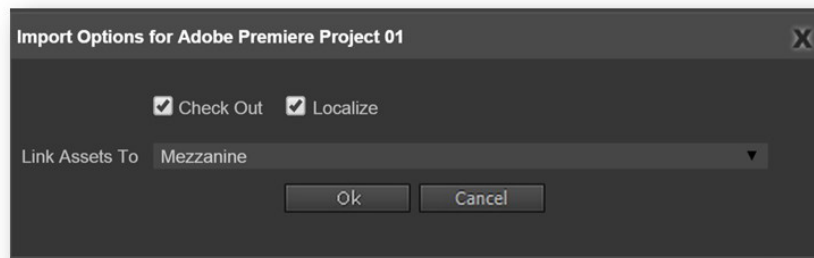
Editors can also use Advanced Search option under the Assets tab to narrow down the search results for complex searches using various filter options.



Advanced search narrows search results

## Import

The **IMPORT** button allows users to transfer links to individual assets (video, audio, images), to entire projects, or to entire categories stored on eMAM managed storage to the Adobe Premiere Pro CC workspace. Sent along with the imported assets are metadata, markers and sequences from the eMAM system.



Import Options

If an eMAM project is associated with an Adobe Premiere Pro CC project file (.prproj), then the existing Premiere project will be closed and the project from eMAM will be loaded (Please ensure multiple open projects option is disabled in Premiere). When bins are selected and imported they will get imported as bins for the existing project. However, when eMAM projects are imported, a new Premiere project with that name is created and now that project will be associated with a Premiere project file. Upon ingest, users are prompted to check out a project, limiting other users from opening the same project from the eMAM Panel.

Enabling the Localize option allows a user to work offline: project elements will link back to the eMAM storage only when the finished project is exported back to eMAM. An editor can work remotely or offline in the office. Users also have an option to link assets in this project to an edit mezzanine (proxy edit) format or to the original (high resolution) media. These smaller files can be downloaded or transferred through the network much faster.

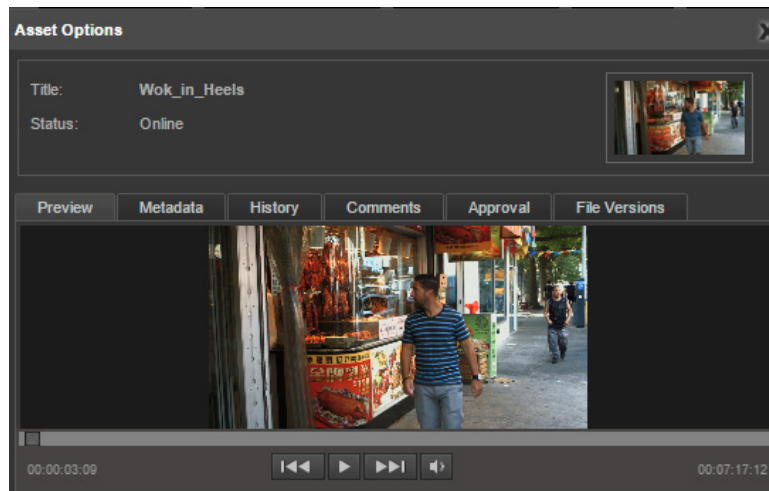
When the proxy edit session is completed, the editor simply exports the Adobe Premiere Pro CC project to the eMAM system. eMAM will collect the updated project, along with any new media. When the new project has reached the eMAM system, an editor can use the eMAM panel running from a workstation with high-speed connectivity to the original media to Import the Project and relink the media files with the full resolution original files for a final conform.

### The advantages of eMAM proxy editing:

- Storage Performance – Multiple editors accessing high resolution media can be a problem. This can be eased using offline editing or editing with mezzanine (edit proxy) versions, with original resolution final conform.
- Network Bandwidth – Similarly, NAS environments can face network bottlenecks that can be eased by offline or edit proxy workflows. This may eliminate the need to invest in an expensive SAN solution.
- Cloud Storage – Premiere cannot directly connect to object storages like S3 or BLOB. Using the Localize option combined with mezzanine edit workflows, the edit-proxy can be downloaded to a workstation for editing. A cloud workstation can be used for the final high-resolution conform. This allows organizations to efficiently use scalable cloud infrastructure for their centralized editing workflows.

### Preview and Other Features

Double clicking on an asset will open the eMAM Preview player with a low resolution proxy. Users will be able to preview the asset, view/update metadata, review the history of the asset, review comments added to an asset, send Review and Approval requests, and review different asset versions.



*MAM features in the extension panel*

### Refresh

The Refresh button updates the extension panel with the latest information/changes in eMAM. Newly added projects, bins, clips, sequences, categories/ subcategories, along with all the metadata, markers, and sub clips will be reflected in the panel upon refresh.

### Review and Approve

Adobe Premiere Pro CC editors can send an approval request for a sequence to other users (internal) or anybody by email (external). A proxy file can be made at low, medium or high quality. Editors can select the asset to be reviewed and send the link right from the eMAM Panel.

### Archive

This moves the project media and associated elements of the selected Premiere project into a preset archive location to conserve editing storage and to permanently secure the media. Proxy copies will be kept in the current eMAM managed storage for power search, preview, and collaboration tools in the eMAM web and tablet interfaces. The system will warn users if media is used in other projects.



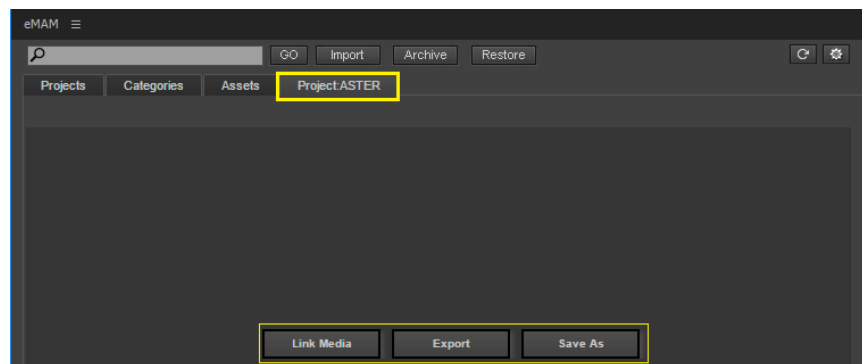
## Restore

Editors can restore media from archived projects directly from this extension panel button or the eMAM interface, bringing them back to editing storage for current use. Individually archived clips and other assets can be restored from the eMAM interface. Partial restore of video assets can be performed using SGL Flashnet, Front Porch (Oracle), BlackPearl and Atempo managed library systems.

## Export

An editor can also export a current Premiere project to eMAM. The export function also supports workflows where Premiere is used as a desktop ingest source for content into the eMAM library. Premiere projects exported back to eMAM can contain multiple bin structures with assets and sequences. Proxy copies for search and preview in eMAM can be made locally using Adobe Media Encoder CC or can be done from a server-based transcoder. The original native content and associated metadata will be stored in the eMAM managed storage.

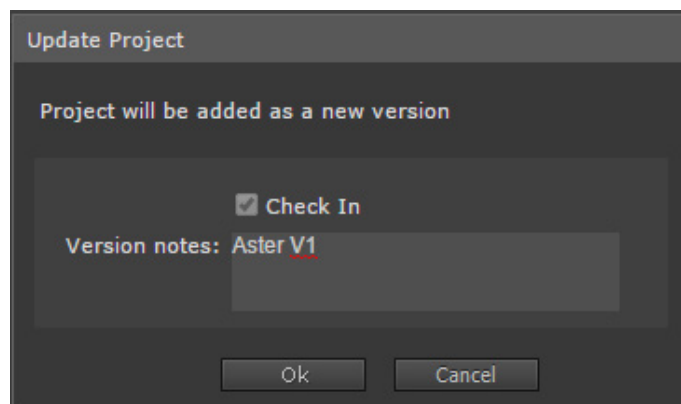
The Link Media option can find if the media already exists in eMAM: if so, it can swap the media links inside the project from local storage to the eMAM managed central storage. First, the eMAM Panel will check if the file system path and media already exist in eMAM. It will compare the Premiere project assets file path with the eMAM category structure. The local file system path and the matching assets in eMAM are displayed in a pop-window so that user can perform final checks before re-linking. This option helps to avoid ingesting duplicate media into eMAM.



*Project Export*

### Steps for the export process are:

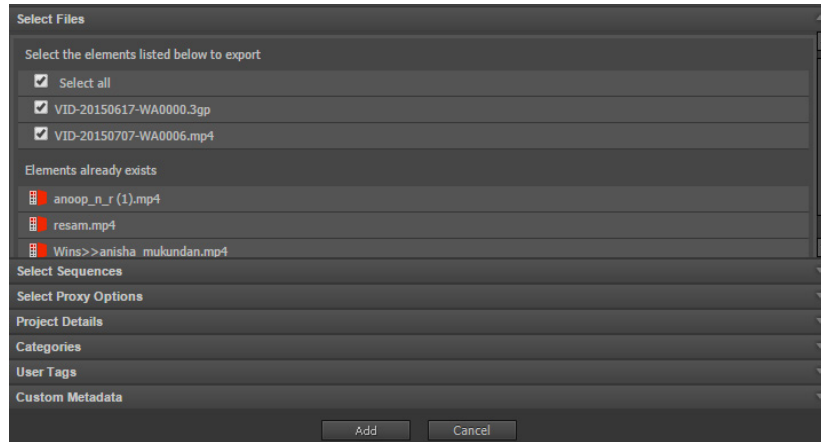
- i After editing for a checked-out project is complete, the project is exported to eMAM. The changes made are saved as a new version of the project.



*Check in option window during export*

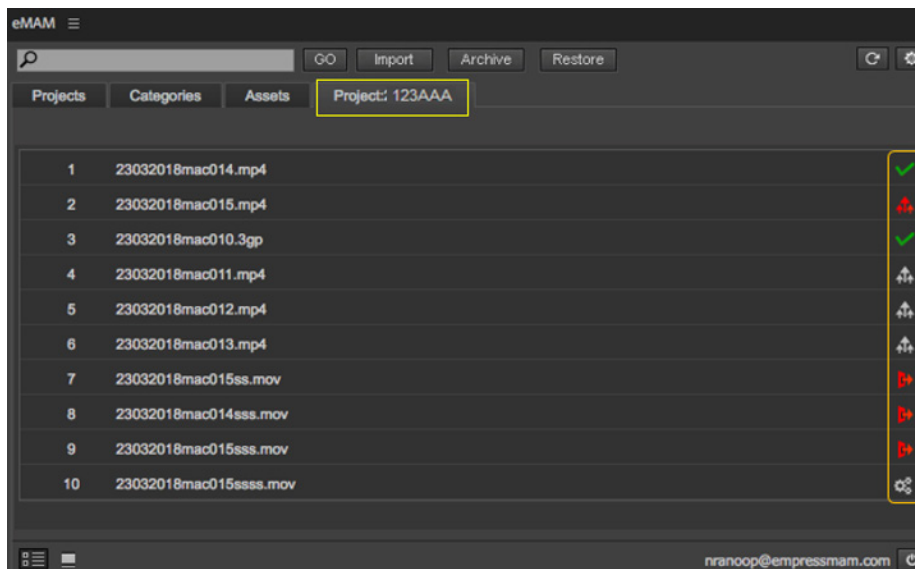
If a non checked-out project is exported to eMAM, eMAM will ask to save it with a different project name.

- i. The editor can choose the files and sequences from the list for export. The system will copy media from local storage to the centralized storage managed by eMAM. To avoid duplicate files in the system, the user will be informed if one or more elements already exist in the eMAM library.



*Export window*

- ii. The editor can choose the proxy creation options, enter the project details, add tags, assign it to categories and update custom metadata from the export window.
- iii. The process starts with the click of the Add button in the export window.
- iv. The progress of each exported asset is displayed under the Project tab. During export, all the files are encoded and uploaded asynchronously to the eMAM system, so, by the time the last asset is encoded, all the other assets might already be in the eMAM system.



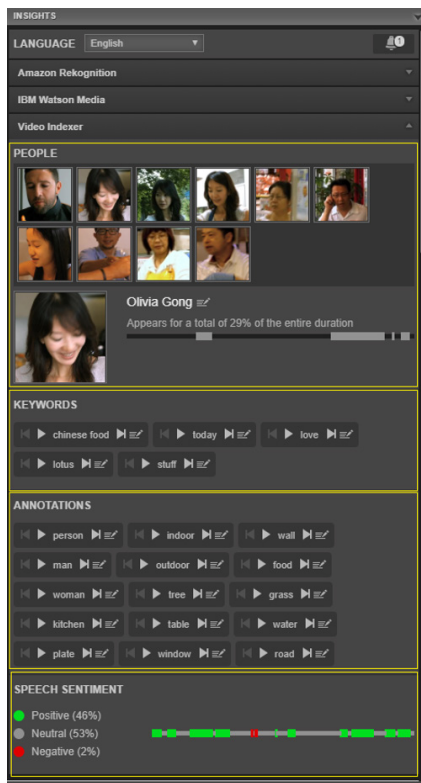
*Export Progress*

## Collaboration from the eMAM Web and Tablet Interfaces

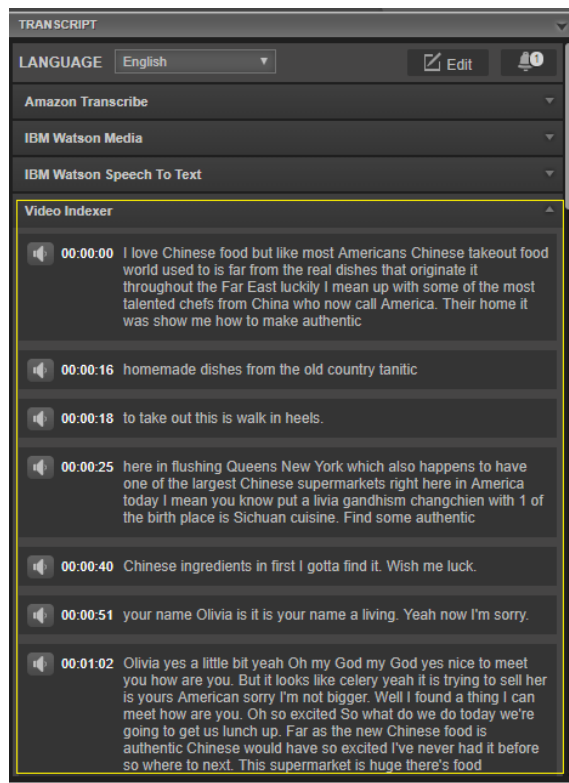
It is often difficult or impossible for stakeholders in different locations to access the content before and during the editing process due to cost, networking issues, and the inability of non-technical users to use editing systems. eMAM manages the original content and provides proxy-based workflows from any web browser or native applications for the Apple iPad and Android tablets. eMAM users can ingest media into the system using desktop and cell phones tools or from third party systems. Users can tag the media at ingest, after ingest, or tags from other systems can be imported. Categories are used to restrict access and use by user group (organizational role).

Search

eMAM has powerful tools for simple search, advanced search, and search filters. Starting with Version 5.0, eMAM now features powerful artificial intelligence (AI) integrations with industry leading systems. Machine learning engines can now provide a great deal of searchable metadata. The AI indexing results are displayed in the Insights and Transcript widgets in the eMAM web interface. The Insights widget shows people, objects, brands, and other results. The Transcript widget uses speech-to-text for the spoken words and visual text recognition for onscreen texts and subtitles. All of the metadata powers search in the web and tablet interfaces and the extension panels.



AI insight widget



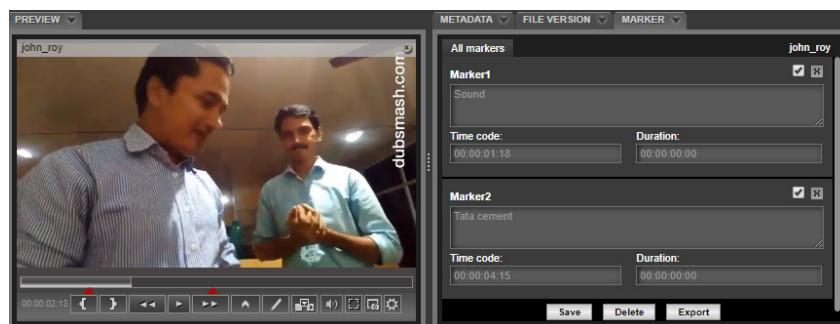
AI transcript widget

Project Creation

Search results can be browsed and assets can be previewed. Appropriate media can be grouped into projects for use.

Markers

The marker functionality in eMAM Director allows users to place marks on the Preview timeline and label the marks within the Markers widget. These markers are then searchable in the eMAM system and are available for the editors within Premiere Pro. Markers added to assets in eMAM are recreated into the Premiere assets after import with marker name, description and duration details. Markers imported from eMAM will come with a suffix <<eMAM-Marker>>.

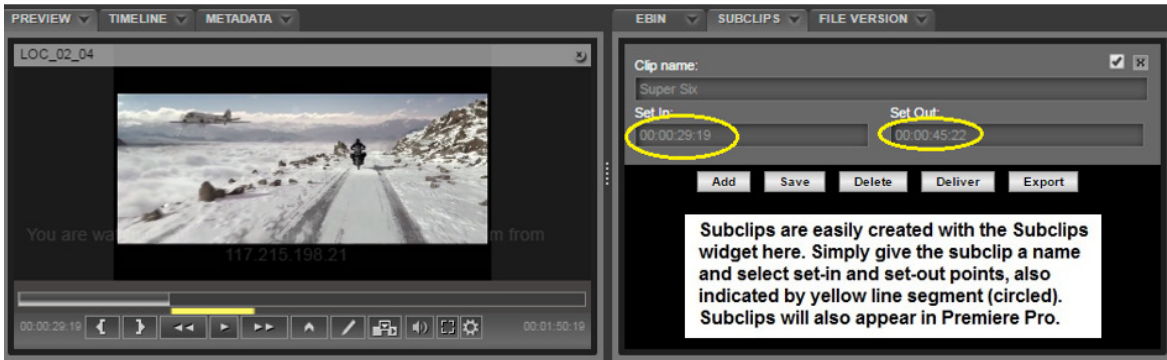


Markers and Preview Widgets in web interface

Similarly, markers created and saved in the Adobe Premiere Pro CC can be exported to eMAM.

## Subclips

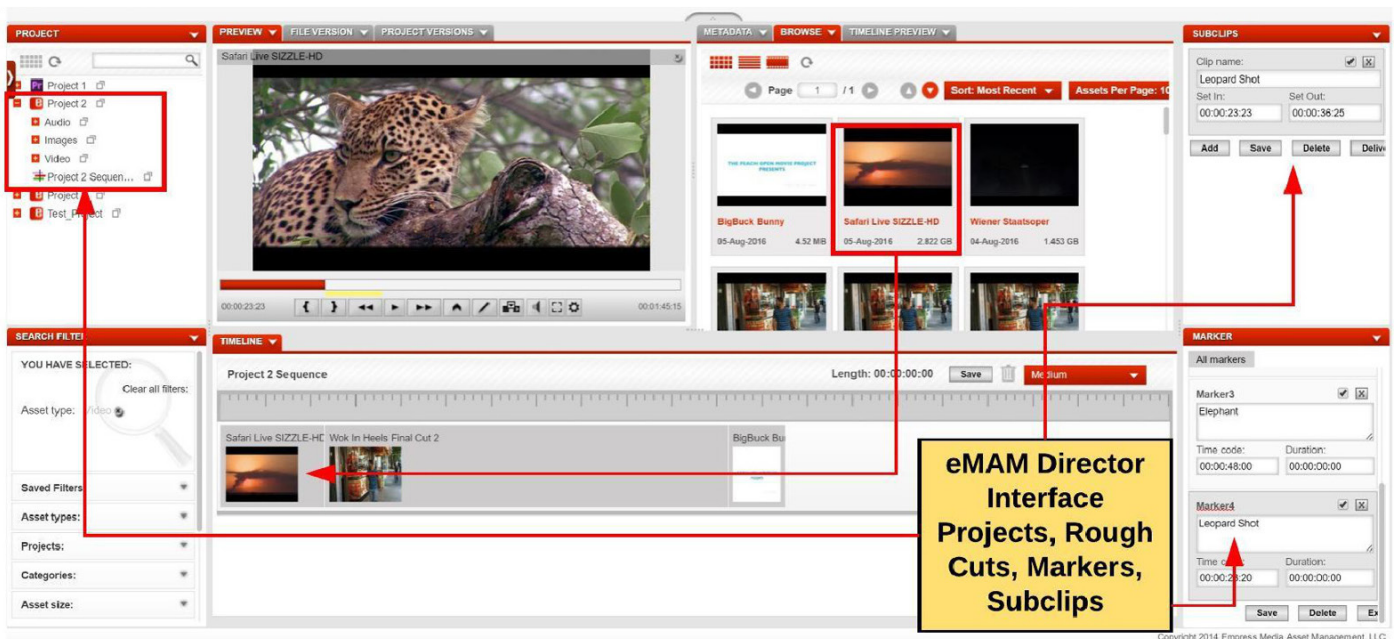
The Subclips widget in eMAM Director allows users to mark time-in/ out points of a video. These marks can be used to mark sections of a video, to build a sequence, to send an EDL, and (for archived media in supporting systems) do a partial restore. They can also do a partial delivery of a rough cut of the native content: eMAM can transcode the desired video segment(s) in the desired formats/codecs to send to the desired location. Subclips when imported from eMAM to Premiere will be shown as markers in a video file. Set In point and Set Out point of Subclips will be marked as two separate markers in the video file. If a project or category is imported, Subclips under them do not get imported to the eMAM Panel.



Creating Subclips with the Preview and Subclips Widgets

## Timelines in eMAM

eMAM users can build timelines, also known as sequences or storyboards. Using the Timeline widget, users can create a timeline inside a project or bin. From the Browse widget, users can drag and drop videos onto the timeline. From the Subclips widget, users can drag and drop Subclips. Saved timelines/sequences are automatically available to editors in the Adobe Premiere Pro CC extension panel, or they can be exported as FCP XML. Editors can also share the saved sequences externally by adding them to an eBIN.



Projects, Rough Cuts, Subclips & markers make a sequence in web interface

## Media Sharing and Management

eMAM provides a range of tools for send links and delivering media

### Review and Approve

The Approval widget will send a single asset for internal or external approval. An external approval will be sent with a temporary password for email login to any user with the included video player. The recipient can preview a proxy of the asset, comment and choose “approve” or “reject”. After (dis)approval, the asset state changes from “pending approval” to “approved” or “rejected”, and the link is disabled for security.

### Embed for Player Sharing

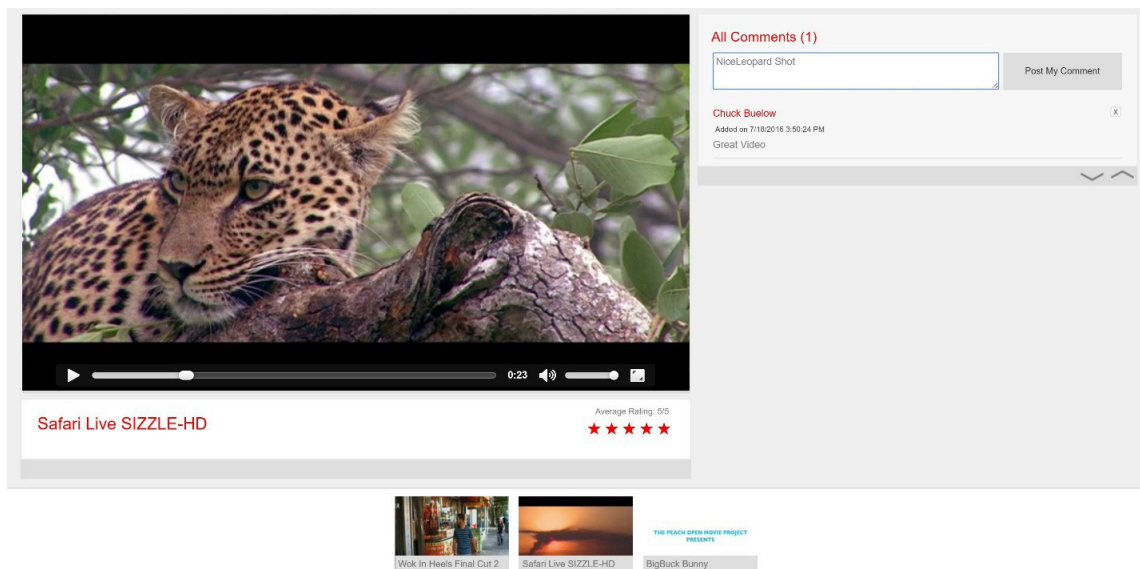
The Embed widget provides authorized users with the ability to generate an HTML embeddable link with a video player to play a video asset for embedding in an external website, or to generate a shareable URL address to share by email or social media as needed.

### eBIN for Email and Social Media Sharing

eMAM can send multiple assets through email using eSEND option under the eBIN widget. Assets can be added individually or in groups (e.g., entire categories) into an eBIN. The user can choose recipients from a predefined list, address book, or type in an email address individually. Security settings control message access and download rights. The user can also customize the email with choice of a logo and pre-set or customized theme settings.

Recipients can open an email link to access the eBIN player. Different tabs will display videos, audios, images, and other files. The recipient may be provided with a set of specific permissions which will allow them to comment, forward, and/or download the content.

eMAM can also publish eBIN contents (assets and sequences) to popular social media platforms (e.g., Facebook, Twitter, Google+) using the eSHARE option. Users can provide tile, description and set the security settings/ control access, download rights along with options to add Comment, Subclips, Markers, eShare, Autoplay, Rating, Like etc. eShare links can be customized with Preview theme settings (Default, Fluid, etc.). Sent eBIN messages are also tracked. Users can easily update a previously sent eBIN message and resend for multi-step approvals or to update sharing.



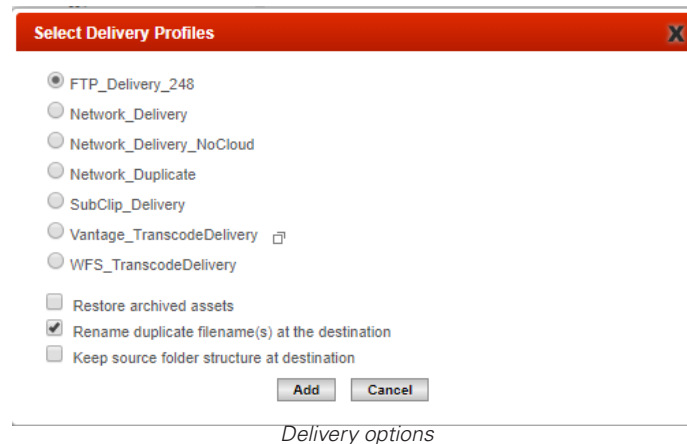
The eBIN player



## Delivery

The delivery option in eMAM can offload the transcoding/rendering and distribution processes from editing workstations onto the eMAM servers. This can free up the edit stations for other sessions.

Users can choose to deliver individual assets or group of assets directly by choosing a Delivery profile and other options like Restore archived assets, Rename duplicate file(s) at the destination, Keep source folder structure at destination, or they can first add the assets to the Delivery widget and then deliver the assets to the desired location. Through tight integration with Harmonic WFS, Telestream Vantage, Drastic, Elemental and Adobe Elastic Transcoder, eMAM can support delivery with transcoding to almost any desired format or codec. Because of the endless range of options, most organizations will preselect a list of delivery profiles for its users.



eMAM has integrated with Amazon AWS and Microsoft™ Azure cloud platforms to provide a range of options for cloud delivery and storage. Accelerated file transfer is available using File Catalyst, Signiant, or Aspera. Customers can easily use any CDN system for distribution.

## Archive and Storage

eMAM directly manages content, whether in local or remote storage, in cloud storage, or by using an HSM system to control an LTO archive. eMAM supports hybrid environments, where content is kept in multiple storage locations, with proxy copies served from the most appropriate location. eMAM also can keep proxy copies for offline (on the shelf) archived content and trigger notifications as needed to retrieve the content. The eMAM archive module can securely preserve final projects, elements and sequences in multi-tiered disk, cloud and LTO archive storages. Content can be permanently secured in a low-cost archive with easy access. All eMAM managed content is available in the eMAM online library and the Premiere extension panel, so editors and others now have access to all the possible current and historical media, thereby increasing productivity while minimizing overhead costs for localized or redundant storage.

## Building Integrated Collaboration Workflows

The integration of Adobe Premiere Pro CC and eMAM can be used to power several complete integrated workflows. Some of these combined processes are highlighted below.

### Craft Editing for eMAM Projects

Content in eMAM can be used to create collaborative projects, which can be assigned to editors and others. eMAM users can use the Project, Markers, Subclips, and Timeline widgets to share assets, markers, subclips, and timelines for craft editing by Adobe Premiere Pro editors. After editing, assets can be shared as links, delivered, and archived from the eMAM system.

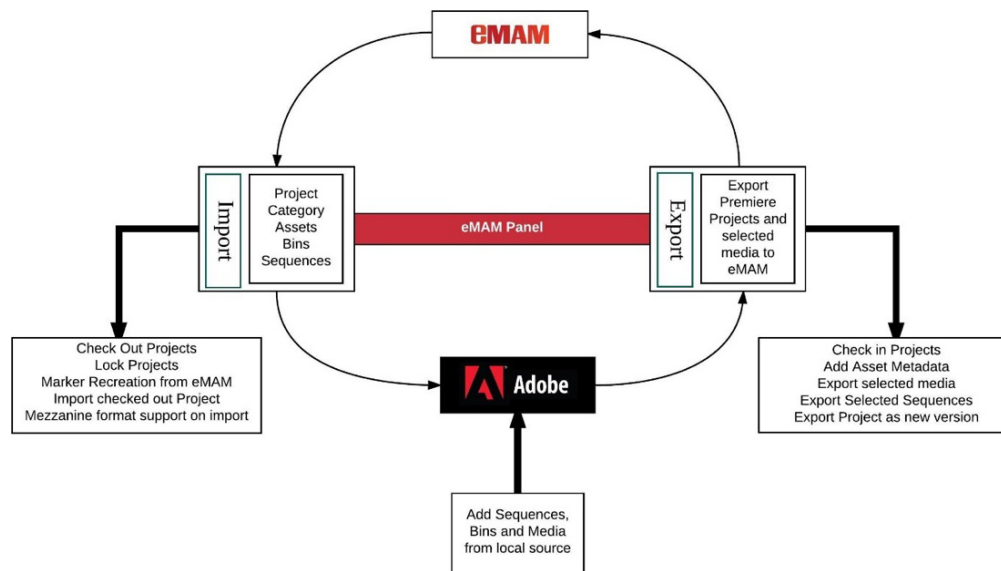


## Collaboration with Other Editors and with Non-editors

Adobe Premiere Pro editors can export a project from the extension panel into eMAM for worldwide collaboration. Another Premiere Pro CC editor could use the extension panel to work on the project, syncing edits using the Export and Refresh panel buttons. eMAM users can collaborate in the editorial process, using the Project, Markers, Subclips, Timeline, and Comments widgets from the eMAM web interface. Alternatively, the editor could use the eMAM system to share edits using the Embed, eBIN, Delivery, and Approval widgets. Editors can import the revised or new projects back into Premiere with relevant metadata using the panel Import button. With additional integrations with InDesign, After Effects, and soon, other Creative Cloud tools, eMAM can bridge many technical and departmental barriers for improved collaboration. With support for cloud editing, eMAM can also overcome geographic barriers.

## Post Editorial

eMAM can power the post-editorial workflows of digital delivery, link sharing/publicity, and archive. Native resolution content can be delivered using the processing power of the eMAM servers, with transcoding and cloud functionalities. Social media and customized eBIN emails can be used to share links to finished content. Finally, projects can be permanently secured at low cost in an archive system, while preserving access to the content and opening editing storage for new projects.



Premiere - eMAM workflow

## Conclusion

eMAM offer a seamless, integrated extension panel integration, for Adobe Premiere Pro CC, so editors can access the features and content of eMAM without leaving the editing interface. eMAM tools can be used from tablets or any web enabled device, anywhere, anytime, to review, annotate, mark, perform rough cuts, create projects, and collaborate with the editorial process.

The integration of eMAM with Adobe Premiere Pro CC can be beneficial for editors, producers, and organization as a whole, as it offers:

1. Collaborative Editing
2. Project Management
3. Version Control
4. Permission and Security
5. Easy Access to the Content
6. Easy Archive and Restore

This comprehensive, highly-integrated workflow offers Adobe Premiere Pro CC Editors speed, performance, and features that these video professionals need to deliver high-quality productions.

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