

Facilis Whitepaper

Post Production Asset Management - Finding the Right Balance for Your Business

Introduction

Video production workflows are constantly evolving. File formats and resolutions change, cameras come and go, all in search of creating the next award-winning show. Regardless of the camera and equipment used, one thing is certain; the amount of file-based media being captured in a production continues to grow, in some cases exponentially. Production shooting ratios increase every year, and even low budget productions now utilize multiple cameras to guarantee coverage. With so much footage being ingested, the demands on storage systems in terms of bandwidth and capacity are obviously high. As file counts grow, the need to easily index and find the right element amongst so much media becomes its own challenge. Media asset management (MAM) solutions are plentiful and designed to help people organize and easily retrieve media. However, not all MAM solutions are created equal, and different workflows have different needs. If you don't have an asset management system currently, how do you know if your business could benefit from such a system? Which type is right for your business?

Asset Management

There are many different types of asset management systems, each one built to solve specific organizational issues when dealing with large volumes of digital files. Asset management can achieve various levels of complexity based on type and usage of content, and how it is to be stored and retrieved. Here are the main acronyms in use that describe the various forms of asset management.

- **DAM** - A catchall term that encompasses any Digital Asset Management system. This can apply to huge applications like Amazon's content management for online shopping or something as simple as iPhoto. DAM is the starting point to all of the specific usage cases for asset management down the road.
- **MAM** - Media Asset Management is targeted primarily to organize finished media assets. A broadcaster or production company will typically have a MAM system to organize the numerous revisions of programs and commercials to be aired, and also manage that content all the way through deep archive. MAM systems can even manage the eventual dissemination of finished content, and help owners monetize their assets for years to come.
- **PAM** - Production Asset Management systems are built to track and organize the essential elements involved in creating the delivered product. With so much material to manage in modern productions, these systems are becoming essential for networks and long-form production houses. PAM systems

concentrate on the “here and now” – what you need today to get a show to delivered. Thus, they have added features for ingest, logging, encoding and proxy generation. These systems automate and maintain an efficient project pipeline from start to finish.

- **PAT** – Production Asset Trackers are subsets of the above systems, because tracking assets is at the core of any management layer. Both MAM and PAM also include methods for searching a central database. Smaller production facilities, contract editorial services, and corporate media departments often can’t justify the cost and complexity of the traditional PAM and MAM systems, but still want a more efficient workflow.

An easy way to determine which type of asset management your business needs is to ask: “Who owns the content?” If you don’t own the content, then you most likely do not need a MAM, however, if clients are paying you to store their sources and finished assets for the long term, you might decide that this is a service you can provide more easily with a fully featured MAM. These systems get expensive, both in software and hardware costs, as well as with training and ramp-up time for your staff; so it’s important that your business model supports these costs. If you are creating content for someone else and delivering that content, then you might benefit from a PAM system to automate ingest, encoding and proxy workflows required for larger projects. If your needs or budget are on the lesser side, a PAT is a great way to simply track the many files that come in during production and give your editors and staff the most efficient way to get their jobs done. For the purpose of this paper, we’ll concentrate on PAT systems and asset tracking workflows used in post-production.

What is the problem we need to solve?

It’s often said that 30% of time taken in the edit suite is spent “searching for things”. Editors, assistants, loggers, and directors all need to find that elusive video clip they know was shot, and in the shortest amount of time possible. So, at its core, finding the right clip amongst multiple similar files is job number one.

Why Track the Assets? Can’t I search with Window’s Explorer or Apple’s Spotlight?

While Explorer and Spotlight may work in some cases, frequently search results are only by filename, and most metadata is not indexed or searchable. Modern file-based cameras store a multitude of data along with the shot, that additional information can be useful when searching in the future. It’s nearly impossible to search by descriptive metadata with OS level search tools as there is simply too much data that operating systems don’t know how to handle. If an intern painstakingly logs the action happening in a shot, it’s imperative to be able to search for those keywords in the comment, location, or subject tags. For collaborative workflows, it’s also important that as users continue to view and comment on files, the entire team benefits from this growing descriptive data. Once a file is found, the ability to easily access that media to see a high-resolution image is severely limited in a standard OS search, and for many file types isn’t supported at all.

Many media companies are driven into some type of asset tracking by their desire to better reuse the legacy assets they have. When a shot from last season is required for continuity in the story, editors and assistants don't want to waste time restoring an entire project from archive then manually searching for a filename. Equally burdensome is to load the previous season into an editing system just to locate one or two shots.

Beware of the mothballed asset management system that nobody will use

Selecting an asset management system can also mean enforcing new rules on how media is ingested and catalogued. It's important that organizations not over-burden themselves with processes, only to lose the very gains they were seeking in workflow efficiency.

When I was managing facilities in NY fifteen years ago, we were one of the first to use Avid's Media Manager. This was the precursor to the Interplay product. We never had a show successfully deploy the solution because it radically changed the way the editors worked, with little benefit to the creative workflow. The Media Manager was meant to help administrators control and secure project data from deletion or change, and also provide visibility into the project data from a browser interface. However, this meant that searching and deleting of clips all had to be done through a separate interface, adding to the time it took editors to do their job. Also, there was a lengthy check-in process for clips and timelines that was never maintained properly after the first few days.

Likewise, some very expensive, modern asset management systems have been completely mothballed due to the added complexity they brought to an already time-sensitive, overstretched post production crew. In many cases, the change in workflow was too invasive, and administrators found themselves arguing with staff more than they were helping them. The old adage holds true - it's easier to change technology than people.

Finding the right balance for media tracking, search, and access

As an organization works to define their asset tracking needs, it's important to find the right balance between managing content and minimizing the impact that management can cause to users who are under a deadline to get things done. The correct balance doesn't interfere with workflow, has minimum policies for data entry, but still provides the efficiencies of powerful search and access to the media needed.

When considering an asset management system, it's important to ask these questions:

- "Do we hire freelancers to work on a given production"?
 - Are we willing to train every editor, assistant, and logger that walks in the door on the operation of our MAM/PAM and our policies for entering data? Can we trust them to conform to our cataloging policy?
- "Does the asset management system force us to use a particular editing system or is it open"?
 - Has it been designed to work best with one type of editing software, and will it fall short in its feature set with others?

Surveys have revealed that many users frequently struggle to comply with the workflow standards forced upon them by asset management systems and well-meaning administrators. Naming conventions, taxonomies, schema structures, and overall metadata models all have to be agreed upon and be intuitive for those interfacing with the system on a day-to-day basis. Having to “check assets in” to an asset management can represent a burden to editors and assistants working against the clock. It requires retraining staff and hoping they remember. If they can’t, or won’t, then the overall value of the system might come into question leading to further neglect and eventual abandonment. If the asset management system forces users to work in only one way, those limits might affect your ability to take in future work.

Access and preview is just as important as search

Tracking, searching, and finding assets are important aspects, but what happens once the asset is found? How can you be sure it’s the right one?

Viewing a digital media file directly is required to be sure you have the asset you’re looking for. With the myriad of file formats in use, it’s important to ensure the asset tracking you choose will support any format that might come in the door. These can include camera master MXF and MTS files, MP4 and MOV files in Pro Res and DNxHD codecs. What about auditioning sound effects in .wav format, or stringing thousands of DPX or Targa files together into a playable clip? Depending on the type of job, these hurdles can break a workflow.

Some asset tracking systems create low-res proxy files of the original source media so users can see the image once they find a clip, but these systems either must be told to create the proxies by some type of action, such as a “check in” or other synchronization step, or will simply proxy everything, wasting time and space to re-encode files that may already be at a low bitrate and compatible format. The generation of these proxies can take hours depending on the amount and type of files. An asset tracking system built for post-production workflows should be able to play original files directly from storage by default without any need to generate intermediate proxies. This “instant gratification” can be the difference between getting started with work immediately upon ingesting the camera media or having to wait for the proxy generation to catch up.

What about archived assets that are no longer on the attached storage? For offline assets that have been archived; (whether to LTO tape or the cloud), it’s important that an asset management system be able to track the new location of the file, either by directly indexing in the new location (cloud) or by tagging the clips with the new location (tape). Being able to browse through images of the clip becomes very important when the high-res media is no longer available.

Once the asset has been found, viewed, and deemed to be useful, how is it brought into the editing application?

Editors and assistants want a tool that is always open and part of the creative process rather than simply a card catalog or database. A system that requires multiple steps to bring the found media into the editing application wastes valuable time and frustrates the editors. The easiest, most intuitive way to get media into a project is to simply drag the asset(s) from the asset tracker interface directly into the editing application of choice for instant access. The file will then link to the location of the asset on disk, and that project referencing the shared location is now usable on every attached workstation.

When it's time to output files for approval or review, the asset tracking product can be useful as a tool to deliver that element to a producer in the facility, who then can play the file and comment. The editor must only chose the output location that is being watched by the asset tracker, and the output file will be automatically entered into the producer's catalog.

Getting your feet wet

For facilities that want to get started with tracking and managing their ever growing library of media assets, it's important to find a lower-cost product that doesn't threaten workflows and will still grow as the facility's asset management needs scale in the future.

At Facilis, we built the FastTracker application as a solution for many post production shared storage workflows seeking just the right balance between an asset tracking and workflow tool. FastTracker was designed to be non-invasive to existing workflows, while providing the efficiencies that everyone needs to find media quickly. It provides a simple approach to management, search, and access. Asset tracking with FastTracker offers the same sort of global search capabilities of other MAM/PAM systems, without the complexity involved. FastTracker is designed to increase efficiency and collaborative creativity in our customer's facilities.

FastTracker was designed to be a companion application that is always open, always available. With FastTracker, users can view media directly from shared storage, and instantly bring those assets into any popular edit system with a quick drag-and-drop gesture.

Because FastTracker runs on the same Facilis TerraBlock server to which many clients are already attached, infrastructure, overhead and network traffic is limited. Unlike external asset management systems that must synchronize with any new project location to index it, the Facilis TerraBlock server has access to all production volumes and projects for immediate access to new project data. This tight integration ensures increased flexibility for indexing and monitoring of watch folders.

“This is just the right amount of media management for our workflow, because we didn't want to take away time from creating content to manage all of our data. We needed fast, intuitive search with the ability to instantly view what we've found, and immediately access that on our editing systems. FastTracker has made us more productive. There's no training required, it just does what you expect. I was surprised how easy it was to find a clip, and simply drag and drop it into my project with no additional steps,” said Ira Klusendorf, Video Production Manager at Steinhafels' Furniture.

Facilis [FastTracker](#) is a powerful yet easy to use application designed for cataloging, searching and viewing many media types within a Facilis TerraBlock Shared Storage System, including all major QuickTime, MP4 and MXF codecs, along with DPX and TARGA image sequences, just to name a few.

With FastTracker, the focus is to get things in and out as quickly as possible, so staff can spend more time on creative endeavors, and less time on searching, managing and syncing assets.

Contact Facilis today for more information about how [FastTracker](#) can make a difference to your workflow.