

# MAM Forum 2012

 'Effective search is a critical function, as physical media is replaced by files'

# Make the most of your **assets**

In the latest (and by a distance the largest so far) of *TVBEurope's* industry forum discussions, **Philip Stevens** explores the growing importance of Media Asset Management in our business as a core digital metadata driver

## MEDIA ASSET

Management (MAM) has been variously described as the lifeblood of the broadcast industry and the essential element for the capture and preservation of information (metadata) within the media system as a whole. So, its importance cannot be overestimated.

The fact there are so many players in the field is testimony that it is now considered a vital part of any administration system. So, have the priorities for MAM systems changed over the years? Can they create revenue? Has the 'cloud' made a difference? And what of the future?

Tackling the issues are (in alphabetical order) Damien Bommart, Front Porch Digital director of product marketing; Ed Casaccia, senior director of Marketing, Grass Valley; Raoul Cospen, Dalet director of Marketing; Joel Cullen, systems architect, PlayBox Technology; Mark Darlow, senior product portfolio manager, Harris Broadcast Digital Asset Management; Daniel Dedisse, product director for Netia; Jon Folland, CEO, Nativ; Peter Gallen, Tedral product manager; Karl Mehring, senior product manager, TV Everywhere, Snell; Andreas Panozzo, CTO, SI-Media; Pavel Potuzak, managing director, Aveco; Dirk Steinmeyer, sales manager, Arvato Systems; Tony Taylor, TMD chairman and CEO; Jan Weigner, managing director and CTO at Cinegy; Andrew Winter, marketing director at IBIS/Orad; and Julian Wright, co-founder and CEO of Blue Lucy Media.

## Media Asset Management covers many activities. What are the most popular functions favoured by users? And have these priorities changed over recent years?

**Bommart:** Ingest control — from a live feed, a videotape, or an already digitised file — and logging/cataloguing/searching are still the most popular functions. But we see more and more demands for automated workflows that ease the way to repurpose and publish/monetise assets.

**Casaccia:** What is rapidly changing is the ability to create descriptive metadata associated with the file that stays with it from creation through to every form of delivery. This has become more important, because in many cases descriptive metadata defines where content is delivered. As many organisations now use an automatic Content Management System (CMS) to place media on web browsers, if content does not have the appropriate tags, it could be misfiled and the monetisation opportunity lost.

**Cospen:** One very popular and useful function is the ability to insert graphics from CG systems directly into the Dalet MAM timeline. With Dalet MAM, graphics can be triggered automatically during playout, or burned into the video.

**Cullen:** Priorities have changed with many broadcasters now using web and mobile platforms to widen their viewer base. MAM systems make it easy for them to reformat and deliver content for these additional revenue streams.

**Darlow:** The most popular functions sit around two core drivers. One is a workflow designer that allows organisations to integrate staff, devices and applications in order to improve operational efficiencies. The second focuses on search capabilities; providing the ability to easily find content that can be used to drive revenue-generating opportunities.

**Folland:** Things have certainly changed. Previously, MAM was more about storing and categorising content. Today, people expect to find integrated workflow, media processing functions — such as transcode and QC — and advanced collaboration features. There is now a bigger need for location-agnostic working, so users expect a web-based UI rather than a fat client. Multi-tenancy and fine-grained access control is now a must.

**Gallen:** Effective search is a critical function, especially as

solution integrating all other systems within the facility. MAM should be closely integrated with acquisition, traffic, sales, enterprise resource planning (ERP), studio production, playout — as well as new media facilities. The integration aspect is still being underestimated; yet without it, MAM is not much help.

**Steinmeyer:** Users in the broadcast industry especially appreciate specific functions for journalist editing, as well as an easy integration and automatic exchange with their existing

and user-friendly way — the capability to use graphical design tools and templates to create, modify and update workflows. And you need the ability to automate the file-based processes as much as possible to gain operational efficiency. That means automated task management and workflows using metadata embedded in the files to trigger decisions is a clear winner.

**Weigner:** Convergence, realtime collaboration and workflow automation have become more and more important — these go hand in

**“MAM always also means Archive. Nobody with a sane mind can run an archive without a MAM. This would be like the internet without any search engines”**

Jan Weigner, Cinegy

physical media is being replaced by files. Following that, the ability to catalogue and perform simple edits means that users in any department can contribute to the media production workflow.

**Mehring:** The most favoured and valuable functions today are driven by ever-increasing media content and variables, as well as the need to create efficiencies to keep costs to a minimum. These include highly flexible workflow automation and business reporting tools. This has changed dramatically over the years as content volumes have increased.

**Panozzo:** Customers want to access MAM everywhere, so a new priority is a web-interface for use with laptops, tablets and mobile phones.

**Potuzak:** The more you know about your assets, the better use you can make of them. While focusing on MAM, people often think of it as a system. However, it is rather a

broadcast and nonlinear editing systems. We see an increased need for automation in different areas such as file preparation for distribution to diverse platforms like web, mobile, etc.

**Taylor:** You have hit one of the biggest problems with the term Media Asset Management. It has been seen to be so many different things to different people that what functions it encompasses or, equally as important, what it doesn't, have become very confused. We see very many areas that are critical to the use of a MAM system.

First, there is the ability to find and retrieve content and associated metadata in a timely manner. Second, you need to know where any given item of content is at any time, and its status. That means comprehensive tracking and communications throughout the content lifecycle. Third, the ability to modify and change the workflows in a timely

hand. Our customers expect to be able to do simultaneous file, live SDI or RTP stream capture, chase-mode HD editing as well as and multi-platform export all within the same tool at the same time. All of this has to be web accessible as well.

**Winter:** We are increasingly talking to clients about levels of access — instant for fast turnaround production; 'available' for the continuing production process; 'longer term' or 'deep' for safe retention of valuable assets.

**Wright:** One key theme is the search interface mechanism and presentation of results. All operators, regardless of role, are familiar with using Google for searching, anything more complex or cumbersome than that really tends to frustrate. Priorities have rightly become more user-focused in recent years, with ease of use and speed the highest priorities.

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Ed Casaccia: "Now, descriptive metadata is enabling the content to be monetised on various platforms"



Andreas Panozzo: "Customers want to access MAM everywhere, so a new priority is a web-interface for use with laptops, tablets and mobile phones"



Jon Folland: "The cloud is in its infancy in general. When considering broadcast media management, it's even more embryonic"



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## How can a customer calculate the Return on Investment (ROI) from a MAM system, and what revenue streams might it produce for a broadcaster or production facility?

**Bommart:** A rich metadata set and advanced search capabilities allow users to spend less time searching content. Retrieving an asset in the archive is much cheaper than having to recover the content from a legacy videotape-based archive, re-ingesting it, re-indexing/logging it, etc.

**Casaccia:** For those large broadcasters with valuable content, just knowing where a file is located can produce revenue. But for the smaller broadcasters, traditional asset management is only of interest for archival purposes. For these companies, MAM is just the cost of doing business. Now, descriptive metadata is enabling the content to be monetised on various platforms. The ROI

management of resources and identify bottlenecks.

**Dedisse:** A MAM system user can calculate ROI by determining several things. First, how many assets a journalist or a technician can create/access/manage per day. Next, elapsed time between an archive search and the asset's availability on the production system. Third, elapsed time between the end of a broadcast and the availability of content on a VoD platform.

**Folland:** If a MAM is used purely for storing content and making it browsable it's hard to show a clear ROI. However, if a system has integrated workflow and media processing functions, then one can calculate the saving when

Thus, a new revenue stream might be the automatic file preparation for all of these different platforms.

**Taylor:** One of our customers is a large multi-channel multi-lingual operation, and prior to utilising TMD Mediaflex, they were using the automation system to do the media preparation as well as playout. At that time they were just about hitting 400 hours of ingest a week. Since Mediaflex has been implemented they are now hitting over 800 hours per week with the same number of ingest workstations.

There was one benefit that hadn't been expected. That was that the load on the CPUs of the automation system dropped

**"MAMs will become as standard a tool tomorrow as the VTR 20 years ago. It will be impossible to operate a facility without a MAM system"**

Pavel Potuzak, Aveco

can now be calculated based on revenue gained, or revenue not lost, by being able to take advantage of these other delivery types.

**Cullen:** When a broadcaster moves to a modern MAM system it can eliminate many expensive traditional practices, for example VT dubbing and tape delivery costs, plus maintaining a tape library — all of which have considerable time and financial expenditure. Bearing in mind broadcasting is largely a creative industry, the less time needed administering content delivery means more time gained for creativity.

**Darlow:** This is a question that is core to asset management systems. Historically, claims of high ROI related to MAM systems have been made with little justification or proof. To help determine ROI, one can look at data warehouse and reporting tools that support

comparing automated tasks to those previously carried out manually with spreadsheets and drop folders. A well implemented MAM system will allow customers to quickly re-purpose, package and deliver VoD content thus ensuring content owners can sweat value from their assets.

**Potuzak:** A simple ROI calculation would be to determine new revenue from repurposing or second screen sales. But in reality, the real ROI is being able to stay in business with a competitive product. If other stations in your area always have more interesting content and get it on air faster, your market share goes down regardless of your ROI calculation.

**Steinmeyer:** Nowadays broadcasters need to share and distribute their content not only on multiple television channels, but also on the internet and other distribution platforms.


dramatically which then meant that the automation system became more robust in doing the job it was designed to do.

**Weigner:** MAM always also means Archive. Nobody with a sane mind can run an archive without a MAM. This would be like the internet without any search engines. Therefore, the question of how to measure the ROI for a broadcaster is secondary.

You cannot afford to not have one. MAM systems allow tapping into new revenue streams more easily. Re-using content (not again buying material externally), selling content via OTT, VoD, or to third party aggregators — such as iTunes, Netflix, Google — becomes easier with a MAM solution in place. For example, the amount of re-use that the BBC's *Planet Earth* material saw in other productions would have been impossible without a MAM solution in place.



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 'The real ROI is being able to stay in business with a competitive product'

## Has the cloud made any difference to MAM products and technology?

**Casaccia:** Storing assets in the cloud is still relatively uncommon, particularly for large broadcast video files, which, because of their size, are difficult to transport back and forth. Also, such content can be so valuable that broadcasters would want to keep it on-site. However, lower representation copies are making their way into the cloud, allowing content to be acted upon from any location. The cloud is helping to improve productivity in hosted database services, which allow users to access the asset database from any operating locations.

**Cullen:** Edit sharing between remote locations and content being delivered quicker than ever — even across the Atlantic — mean that advances in this area have broadened the horizon for MAM products. PlayBox was one of the first companies to embrace the internet as a form of content delivery and channel distribution. Many of our customers already use our products through the cloud for remote playout and management.

**Darlow:** The cloud is beginning to impact MAM and over time will offer increasing opportunities for media operators. Most of those opportunities will focus on the storage of material, but Harris believes people will also continue to hold material locally. Services that the cloud can offer such as transcoding and speech to text can be used to supplement in-house resources, as well as the ability to trial such opportunities

without direct capital investment.

**Folland:** The cloud is in its infancy in general. When considering broadcast media management, it's even more embryonic. Moving heavy assets to the cloud is pointless unless an entire media operation can also be moved. Right now this doesn't really make business sense. In the future it will.

**Panozzo:** Our products and technology are now cloud-oriented, so a MAM can manage local or cloud contents without any problem.

**Steinmeyer:** According to our experience, broadcasters are still afraid of putting their assets in an environment outside of their station and managed by external providers. But we see first approaches to use the cloud technology for archive or back up. The advantages are obvious — no initial investments are necessary and the infrastructure is scalable and can be adapted to current requirements.

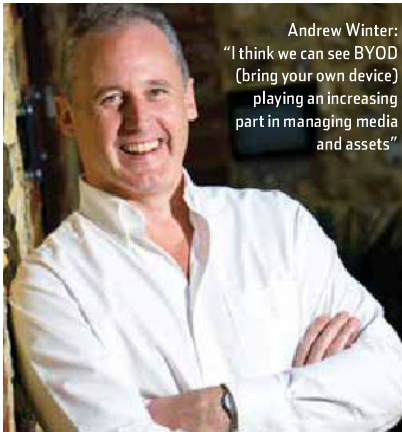
**Taylor:** The cloud is still in its infancy with regard to the broadcast, media and archive sectors, so in my view it has not had an impact yet. But let's be honest: the cloud is nothing new.

In the 60s, 70s and 80s they were known as bureau systems with a mainframe or mini computer located at a central hosting operation where people bought time and storage for business processes, accessing them via modem lines. In the 90s, when the internet was in its infancy, we had the ASP (Applications Service Provider) model, which again was

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software as a service hosted at a central location with organisations buying time and storage. Now we have 'the cloud'. The difference today is that the communications technologies along with object-based storage and web development environments provide a more suitable platform for it to succeed.

**Weigner:** That entirely depends on the definition of the word 'cloud'. While we have customers offering Cinegy-based MAM and playout solutions as a cloud-based service, the more important factor is that your software needs to be able to run completely in virtual, hosted

environments, have a scalable architecture and have the right APIs and web services connectors to be orchestrated in a variety of scenarios. New standards like FIMS (Framework for Interoperable Media Services) will help make things easier and more interoperable over time.

**Winter:** Interesting... the cloud came up in a recent conversation with a client. They had begun a policy of moving to using the cloud for their production and archive processes. The conclusion they came to after much examination was that the cloud was not for them. Why? Their production assets are their most valuable

property and rather than major on the 'safety' of cloud storage they felt they needed to know precisely where those assets are held at all times.

**Wright:** MAM is the one area of the content processing and production toolset that has truly benefited from cloud provisioned services. A significant barrier to universal production and archive storage in the cloud is the cost of the bandwidth and storage requirements. However, lightweight operations such as media asset management, supported by low-res browse video have grown and are streamlining operations and workflows tremendously.

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 'Without a MAM workflow, automation for multi-platform delivery is pointless'

## ➤ Are you seeing any increase in the requirements for MAM systems that are designed for multi-platform transmissions – web, mobile, interactive TV – that work alongside traditional broadcasting?

**Bommart:** Yes. Traditionally, media companies and broadcasters had different teams using diverse tools to manage their legacy broadcast channel on the one hand and the 'new media' channels on the other. Now the CEOs and CFOs are asking for more cost savings and, therefore, the integration of those teams and the different applications. Users are looking for integrated enterprise media asset management that allows not only locating and repurposing assets, but also to check the rights to publish and distribute them to different channels.

**Cospen:** There are definitely some new requirements related to distribution. To handle

multiplatform, you need a flexible data model capable of managing the specificities of every platform. For instance, if you push content on VoD, you need metadata such as pictures, credits, close captions and audio in different formats and languages. Essentially, broadcasters/facilities would need to configure the workflow according to their rules to make sure that the information is properly attached by users.

**Cullen:** Yes, we are seeing more customers becoming interested in multi-platform distribution and this is why our MAM system is perfect for them. The ability to ingest once then reformat and deliver to multiple revenue streams is a

huge benefit that the modern technology allows. We can do this with speed and a very high quality at a price that is affordable to all scales of

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Ed Casaccia, Grass Valley

broadcasters. Who wouldn't be interested in that today?

**Darlow:** As customers chase incremental revenue against second screen VoD/OTT platforms, management and distribution of content becomes

more important. As a result, Harris is working closely with broadcast facilities worldwide to provide them with a solution to automate ingest,

cataloguing, storage, retrieval and distribution of their content to achieve maximum workflow efficiency.

**Dedisse:** For certain, the past few years have seen broadcasters increasingly using MAM

systems as a key component in automated or semi-automated multi-screen publication, in turn saving time and money. Since content producers began

transitioning to tapeless, the demand for management of an increasing volume of files has grown.

This development has had the effect of bringing MAM into other industries that also must



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Damien Bommart: "Next generation MAM systems will provide built-in business components to help media companies monetise their content"



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Raoul Cospen: "'Cloud', deeper integration with distribution systems, remote production, and semantics are things that are on the road map"



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Peter Gallen: "MAM systems will become powerful enough to satisfy most broadcast requirements without the need of customisation"



Tony Taylor: "I believe that MAM has now matured to a degree where the systems will evolve more around the business aspects of the customer requirements"

organise, manage and monetise their audio or video content or archives. Such companies include those in general industries, as well as post production houses, telcos, and other service providers. So, yes, the market is booming!

**Panozzo:** Sure! Customers in the recent years are really interested in sharing their content on the web — YouTube, Facebook, Twitter and so on — or on mobile devices. The MAM can manage multi-format contents for each different platform, so it's very easy to share them everywhere.

**Potuzak:** Absolutely. People need an automated workflow

engine that removes the manual effort required to address the second screens of their audience. But if you don't know what assets you have or where they are, second screen strategies are difficult to implement.

**Steinmeyer:** Definitely! Broadcasters need to address different distribution channels as the demand for content is increasing. This often requires different file formats and security aspects.

**Weigner:** Yes, this is one of the main reasons why broadcasters look into MAM systems — to automate multiplatform delivery. The

MAM at the centre as repository drives the delivery of media packages to transcoders to create the file types required and the additional metadata that needs to be embedded in the files or accompany them. Without a MAM workflow automation for multi-platform delivery is pointless.

**Winter:** Naturally. Isn't this simply an extension of decades of asset management processes which have required material to be produced in formats for preview screenings, pre-publicity materials, preview copies, editorial QC tapes, subtitling tapes, etc?

## Without giving away confidential future plans, what developments do you see happening over the next few years and what will the next generation of MAM systems allow?

**Bommart:** Next generation MAM systems will provide built-in business components to help media companies monetise their content. This includes which distribution platform to focus on, in which order, how to build promos and advertising packages depending on the targeted audience/channel, and so on.

**Casaccia:** Where you are going to see development over the next couple of years is the automation of metadata creation — currently a labour-intensive exercise. We will also see systems that take advantage of the work done during the course of a production and

resolutions and bigger file formats and 4G delivery and integration with mobile networks/devices.

**Darlow:** Harris ultimately sees the convergence of scheduling rights management, asset management and automation systems into an integrated set of modules that deliver the ability to manage content from anywhere for anyone.

**Folland:** They will be much more location agnostic — in other words, browser-based, they will feature many more social features and they will be increasingly cloud-based as fast network becomes more

## "The cloud is in its infancy in general. When considering broadcast media management, it's even more embryonic"

Jon Folland, Nativ

capturing this as metadata. For example, the information a newsroom manager gives to a crew to cover a story, such as date, time, location, background etc, could be captured for metadata.

**Cospen:** Cloud, deeper integration with distribution systems, remote production, and semantics are things that are on the road map.

**Cullen:** There will be great advances in the structure the MAM systems operate on, allowing roll-out into larger organisations faster and at lower costs. On a practical user side there will be higher

prevalent between studios, content owners and major data centres.

**Gallen:** Three areas. MAM systems will become powerful enough to satisfy most broadcast requirements without the need of customisation. Built-in support for cloud computing. And smaller scale MAMs that will suit small and mid-range broadcasters as off-the-shelf products.

**Mehring:** The next generation of MAM systems and their suppliers need to have an increased business orientation rather than being purely focussed on technology.



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 'MAMs will become as standard a tool tomorrow as the VTR 20 years ago'

Business intelligence is the key to achieving efficiencies and facilitating process improvements.

**Panozzo:** We think that content will be shared more and in many different platforms,

especially on the web. That means the multi-format management of the contents will be very important.

**Potuzak:** MAMs will become as standard a tool tomorrow as the VTR 20 years ago. It will

be impossible to operate a facility without a MAM system. As such, MAM systems will need to be much more open with standard interfaces just as Video Disk Control Protocol (VDCP)

became a common control interface for video servers.

**Steinmeyer:** We see at least three big developments. One will be the further support of mobile devices as content needs to be accessed and ingested from

everywhere. Second, journalist portals integrating different applications used within a channel will become more and more important — including federated search among several databases. Then, the next generation of MAM systems will provide more automatic procedures to enrich the metadata of media assets in order to minimise manual input.

**Taylor:** As to the next generation MAM system, I'm not sure I see it as a definable occurrence. I believe that MAM has now matured to a degree where the systems will evolve more around the business aspects of the customer requirements.

**Weigner:** Customers expect us to deliver either the entire end-to-end workflow or to be able to just pick a single module that they can insert into their existing workflow. Being able to address both customer requirements is the biggest challenge. This is why we even internally have to use new, open standards such as FIMS to address this challenge.

**Winter:** I would love to share our plans with you, but I wouldn't be popular if I did. I think we can see BYOD (bring your own device) playing an increasing part in managing media and assets. We already accept viewers' clips as actuality so why would we not accept our own increasingly powerful devices as part of the Media Asset Management workflow?

**Wright:** Production Asset Management (PAM) systems have much to learn from their Web CMS cousins in terms of approach and technology — I expect that MAMs in broadcast and production operations will become far simpler to deploy, use and extend. Also, cloud provisioned MAM will grow rapidly in the near term, the operational flexibility and reach as well as the predictable and incremental cost model afforded by the cloud will drive rapid take-up.

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