

# IBM Archive and Essence Manager

*Streamlining media workflows to help improve agility and speed*



## Highlights

- **Speeds workflow implementation** by providing over 140 different, ready-to-deploy agents
- **Helps reduce infrastructure and operational costs** through a services layer that offers critical essence services to virtually all enterprise media management applications
- **Provides centralized insight to file-based production** through extensive mobile-accessible monitoring and analytics capabilities

## New media, new challenges

New media and new consumer behavior have redefined the mission of public TV and radio. Now more than ever, broadcast companies are becoming content creators and aggregators for cross media. This transformational shift has created new challenges to achieve more efficient and cost-effective file-based acquisition, production, distribution and archiving. To excel in this digital transformation, broadcast companies need to be able to:

- Facilitate the distribution and recycling of media content among channels like radio, TV and web
- Increase collaboration across multiple sites (“talent everywhere”) and rationalize editing and journalist utilization
- Implement a “digital first” strategy to deliver better, targeted content in a faster manner
- Improve process visibility and capacity planning
- Employ content creation platforms that are manageable, resilient, scalable and adaptable

To help solve challenges like these, many broadcasters are turning to IBM® Archive and Essence Manager.

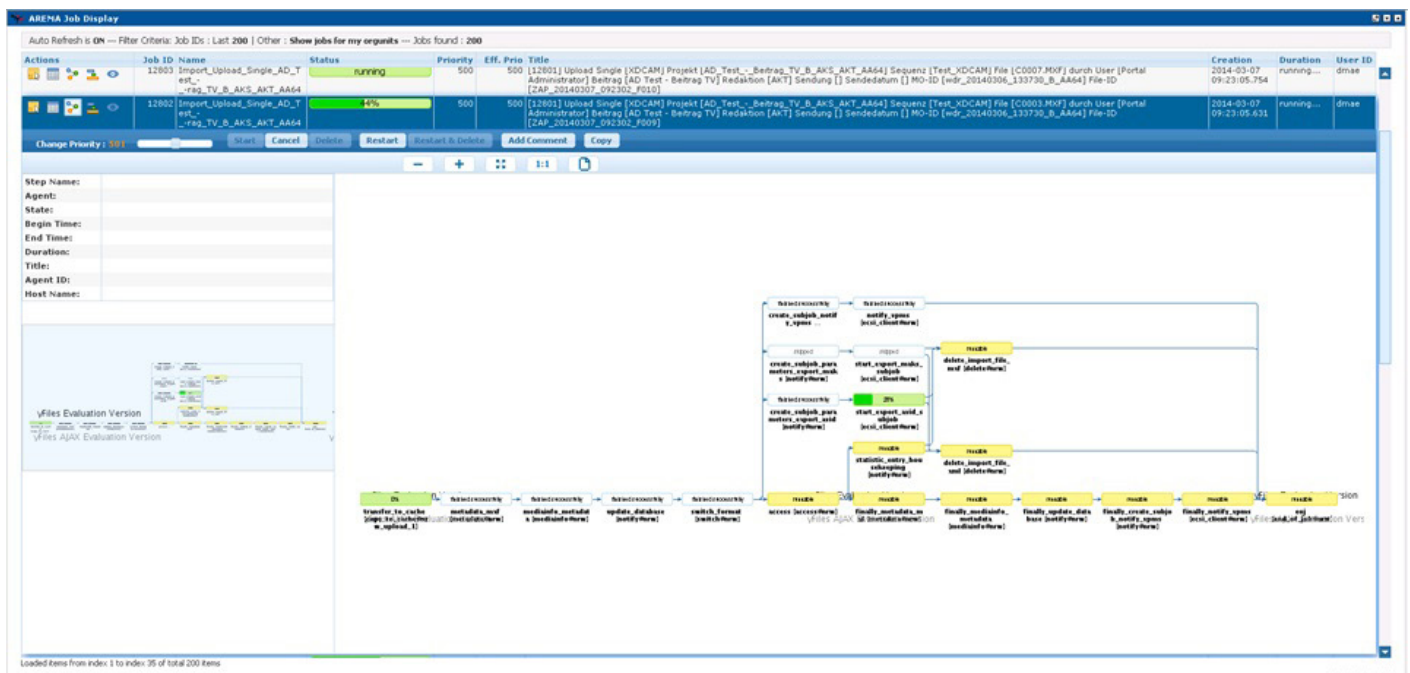
## What is IBM Archive and Essence Manager?

IBM advanced Archive and Essence Manager (AREMA) is an agile, sophisticated and multifunction solution designed to improve the agility and speed of file-based media production and distribution workflows. Widely used and adopted by dozens of broadcasters around the world, AREMA integrates flexible media workflow orchestration with embedded storage management functions. This unique solution helps enable optimal operation in virtually any new, digital cross-channel ecosystem.

## IBM Archive and Essence Manager benefits

- Provides better process visibility and insights to help safeguard quality and improve efficiency throughout the organization
- Enables the transformation to a tapeless world with the ability to reuse legacy applications for metadata management, newsroom, scheduling, etc. without the need to implement a new content management “silo” system
- Provides extensive and flexible interfaces to be controlled by third-party applications in order to provide the essence management services to them
- Facilitates a high degree of automation of media file-based workflows and is pre-integrated with many video platforms
- Scales more easily to enable organizations to start small and extend step by step, speeding time-to-market of file-based processes and providing agile implementation of business requirements
- Offers the ability to run on cloud as well as on premises
- Rationalizes implementation costs of media shared-services strategy between linear distribution and digital distribution
- Helps improve time-to-market of new media flow in heterogeneous environment
- Facilitates better capacity planning management and technical resources allocation
- Helps accelerate transition to new business model by allowing migration from legacy infrastructure environment to a hybrid model, including cloud

## IBM Archive and Essence Manager Workflow Monitor



## How are organizations using AREMA?

IBM Archive and Essence Manager can be used in small- or large-scale deployments with a focus on archiving use cases or on orchestrating file-based (technical) workflows and processes, particularly in the broadcasting industry. An established workflow orchestrator, AREMA can also be used for just one particular use case by one department, i.e., for transcoding orchestration or Avid project parking. Many organizations use AREMA on a strategic enterprise level as a platform for essence and metadata orchestration interfacing to multiple MAM/content management systems (CMS). In these scenarios, AREMA holds the essences and related technical metadata and performs all media workflows. The MAM/CMS provide the user interface, the media player and the metadata model with a search engine.

## How it works

AREMA acts as middleware, enabling a central services layer that offers essence services such as transfer, analyze, transcode, store and archive to media management applications in the enterprise, including support of cloud deployments. AREMA provides integration with the IBM Watson™ cloud platforms for cognitive services as well as with the IBM Bluemix™ cloud platform for more ready-to-use services.

## Workflows

Workflows can be triggered via the AREMA API, by monitoring third-party systems and folders, by uploading files via the AREMA portal or by “send-to” from Avid MediaComposer. The workflow functions for media file handling are supplemented by the human task feature, which allows for human interaction during the workflow (i.e., for approvals).

The workflow configuration in AREMA (“job templates”) uses XSL language enabling users with virtually any level of technical skills to define extensive and complex process rules. New and modified job templates can be deployed into a running AREMA system. The AREMA Workflow builder can graphically configure a workflow, creating single job instances or job templates with visual support.

By centralizing prioritization and queue administration, AREMA offers a holistic view that provides overall resource management and prioritization. As an example, during the runtime of a workflow, the queue on a local (group of) transcoder can be determined to be too large; therefore, it may be more efficient to transfer the file into a cloud, use a cloud transcoder and transfer the result back on premise.

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## Exemplary AREMA use cases

- Enterprise-level workflow orchestration (“ESB”) for media and human processes, interfacing to media creation, production, management and distribution products
  - Enterprise-level archive for multiple (multi-tenant) applications including media-aware resource management and partial file restore
  - Rules-driven media distribution platform to B2B or B2C customers
  - B2B sales or download portal on top of an existing MAM system
  - Archive management (“HSM”) behind a MAM system such as Arvato VPMS, Avid MAM, Virt Ardome, Dalet Galaxy
  - Orchestration of workflows inside Avid Interplay PAM and import or export material to or from Interplay PAM
  - Avid project parking
  - Orchestration of a set of transcoders or QC tools from various vendors
  - Monitoring and dashboarding of manual media file movements (“watchfolder chains”) and island-focused media systems
  - Automated testing of file-based workflows implemented by AREMA or other products
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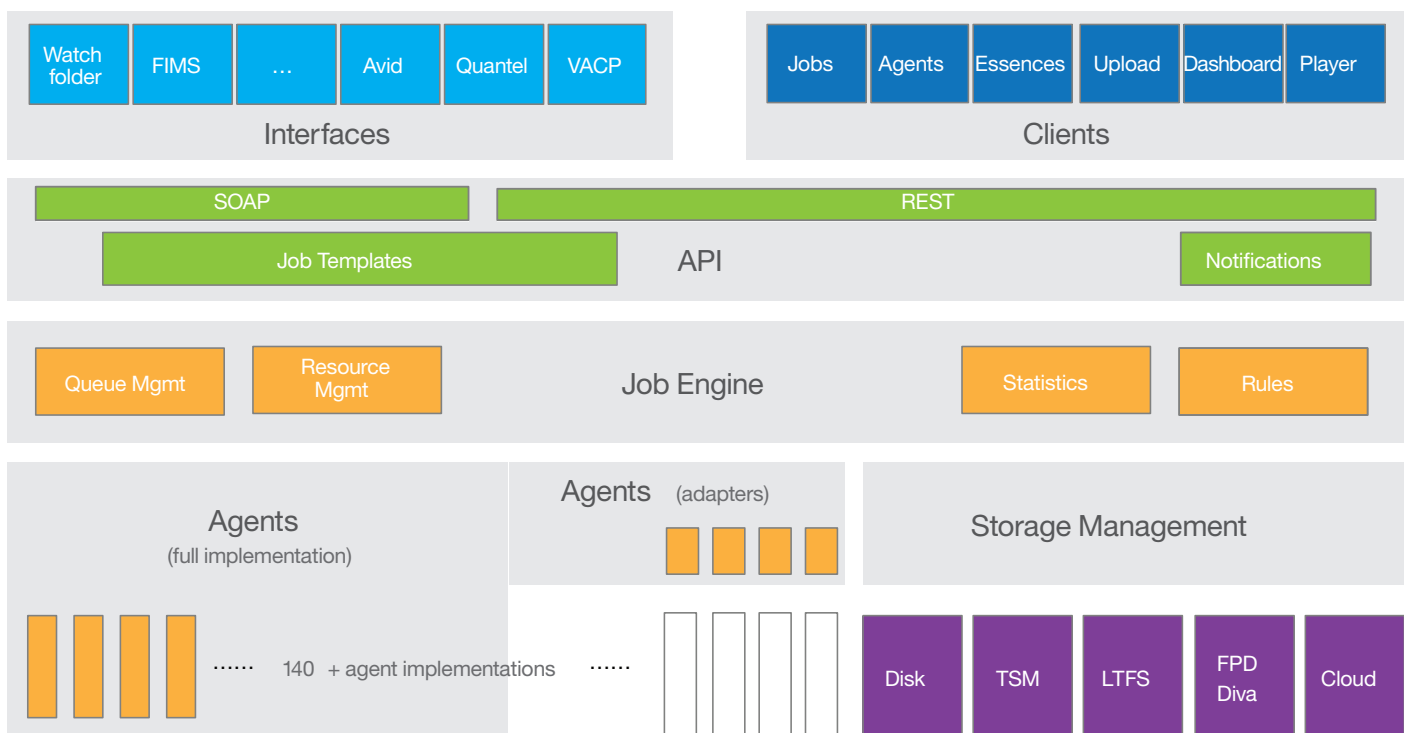
Using the AREMA rules engine, rules used in workflows can be externalized. The AREMA rules engine enables the visual definition of rules that are then applied by the workflows at runtime. The logic of the rules can be tested in the rules editor before deploying to the AREMA server.

While AREMA is a workflow and not a media asset management (MAM) system, the AREMA Media Portal offers a lightweight portal to search, browse and order material from AREMA. The Media Portal is built on an Apache Solr search index and provides a frame-accurate HTML-5 video player.

### Agents

In order to execute the workflow steps, AREMA uses agents. Agents are software components that interact with the workflow engine and execute one specific functionality. AREMA offers more than 140 different agents. Some of them implement the actual functionality (such as FTP transfers or MXF-related functions), while others act as an adapter to control third-party systems (as in the case of most transcoders). There are also agents available that allow the creation of organization-specific agent functionality.

## AREMA Functional Overview



### Central monitoring and management

The central administration of all service agents via the AREMA middleware offers many advantages in the monitoring and administration of the entire file-based production system. Experience shows that a loose coupling of services via messages is not sufficient in order to provide an efficient operation at scale of several thousands of files per day. Instead, the central AREMA middleware can monitor multiple stand-alone services

AREMA offers extensive monitoring functions and dashboards. This provides insight in what happens in the overall system, which is important in high-volume systems. IBM Cognos Business Analytics can be used to create business dashboards.

### Openness

AREMA provides an extensive web services API using REST and SOAP protocol as well as specific interfaces via FIMS protocol, to Avid Interplay, to Automation systems via VACP, to MAM systems such as Arvato VPMS, Dalet Media Life and Galaxy and Vizrt Ardome and many others. In addition, AREMA offers “composite services” to third-party applications such as MAM systems and business process tools such as IBM WebSphere® Business Process Manager and can be extended by the client via plugins and own agent functionality.

AREMA embeds virtually all client applications elements into a portal framework that can be used to embed other monitoring-related (web) pages, such as IT monitoring systems to help ensure relevant workflow monitoring information for workflow monitoring is available at one single place. AREMA also supports the open Linear Tape File System (LTFS) as well as IBM Tivoli® Storage Manager and Oracle FrontPorch DivArchive for archiving in automated tape libraries.

### For more information

To learn more about IBM Archive and Essence Manager, visit [ibm.biz/ibmarema](http://ibm.biz/ibmarema).

To learn more about IBM solutions for Media & Entertainment, visit [ibm.com/media](http://ibm.com/media).



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