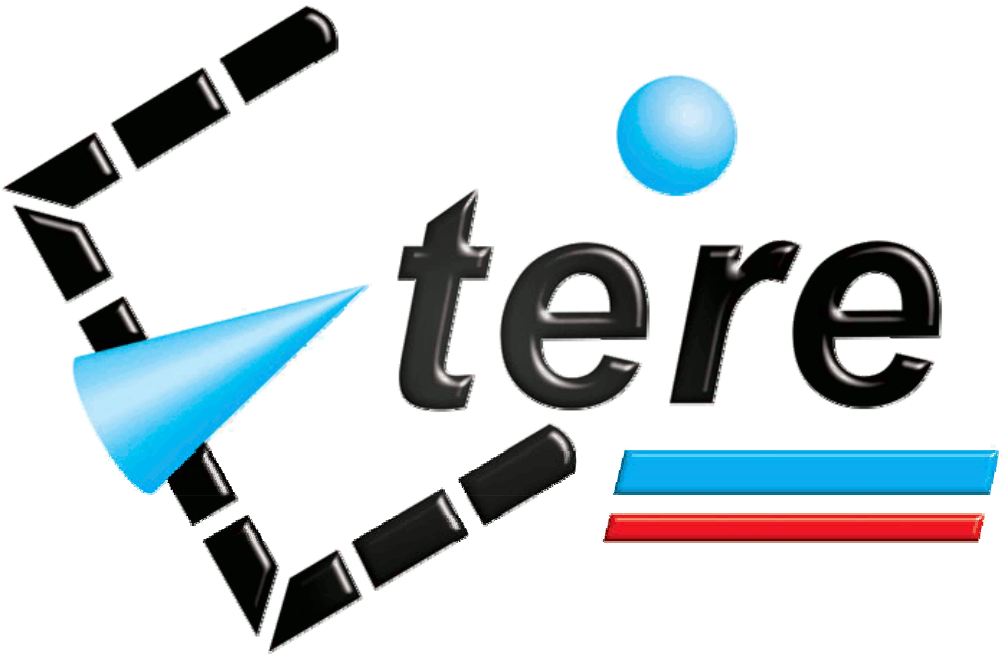


Media Asset Management (MAM)

Table of contents

Table of figures

Further information about *ETERE* is available on the website: www.etere.com

A. *ETERE* MAM OVERVIEW

ETERE MAM can index and manage a huge amount of video asset. Actually, MAM is an acronym standing for *Media Asset Management*. Assets are tapes, video files or other formats usually described with a lot of metadata. Metadata were, in the past, written down piling up an impressive amount of paper growing more and more. Nowadays, four hundred customers worldwide use *ETERE* MAM enhancing their productivity.

ETERE MAM ensure to be:

- Secure because based on MS Window Server standards.
- Human friendly like the overall *ETERE* Environment.
- Stable being tested under several customers' conditions.
- Modular to satisfy a wide rage of different needs
- Fault tolerant sharing the *ETERE* Automation architecture

A.1 Requirements

ETERE MAM is a pure software solution. It doesn't require dedicated hardware of any kind. MAM can be installed as part of standard *ETERE* architecture. Preexistent *ETERE* system can easily upgrade to *ETERE* MAM.
MAM employs the widespread Microsoft architecture in order to be compatible with the greatest number of World Wide Systems.
Native MS SQL 2000 integration allows easy upgrade of pre-existent *ETERE* solutions.
Pay attention. For further information about MS window OS and MS SQL 2000 Server requirements see the *ETERE Architecture Manual.*

A.2 Core features

ETERE MAM answers complex and widespread needs for data storage and retrieval system. Even if, from the very beginning, it has been meant for broadcasters, to better understand *ETERE* MAM we can easily imagine its extensive application in the following fields:
Broadcasters - Corporate companies - Multimedia libraries and museums – E-commerce companies - Marketing agencies, and so on.

ETERE offers a complete Media Asset Management solution whose core features include:

- Advanced data storage and retrieval system.
- High/low resolution previews.
- View of digital asset metadata.
- Group and single user access management.
- Integrated document management for complete paperless operations.
- Query builder to improve quicker searches.
- Storyboard Basic and advanced view
- Static ingest/ upload

A.3 Data storage and retrieval system

The powerful *Data Storage and Retrieval System* returns accurate user search results with amazing speed. MAM system allows direct access to any available asset in the overall system. Assets may be searched according to:

- Specific parameters (i.e. asset formats, descriptions, etc.).
- Unique IDs.
- Categories.

Customized metadata and categories can be freely edited. Obviously, the more metadata are used, the faster and more accurate will be the database research.

A.4 Multiple platform and transcoding

ETERE MAM is a solution to manage both digital media assets and their delivery. It can be used at any level, from small in-house systems to globally distributed networks who want to trade, track and ingest digital assets. Actually *ETERE* MAM allows automatic ingestion from multiple platforms (i.e. VTR, satellite and cable TV, etc.). Digital data can be easily transcoded in any digital format and directly stored in the main database without user involvement (e.g. files can be easily converted from/to common formats as Mpeg2/DV/Mpeg4). As soon as assets are ingested they can be previewed straightaway and delivered on multiple platforms (i.e. Internet, satellite, etc.).

A.5 Data portability

ETERE MAM is perfectly integrated with pre-existent *ETERE* Video Contents Management. Actually, the System can be upgraded any time. Asset data can migrate with ease without loosing information or changing workflow. Dedicated *Automation Tools* take care of proper database connection and data exchange.
ETERE MAM external data exchange is ensured by XML import/export. Broadcasters are provided with full control over their own data. Latest technologies in open data access ensure to export data easily and freely.

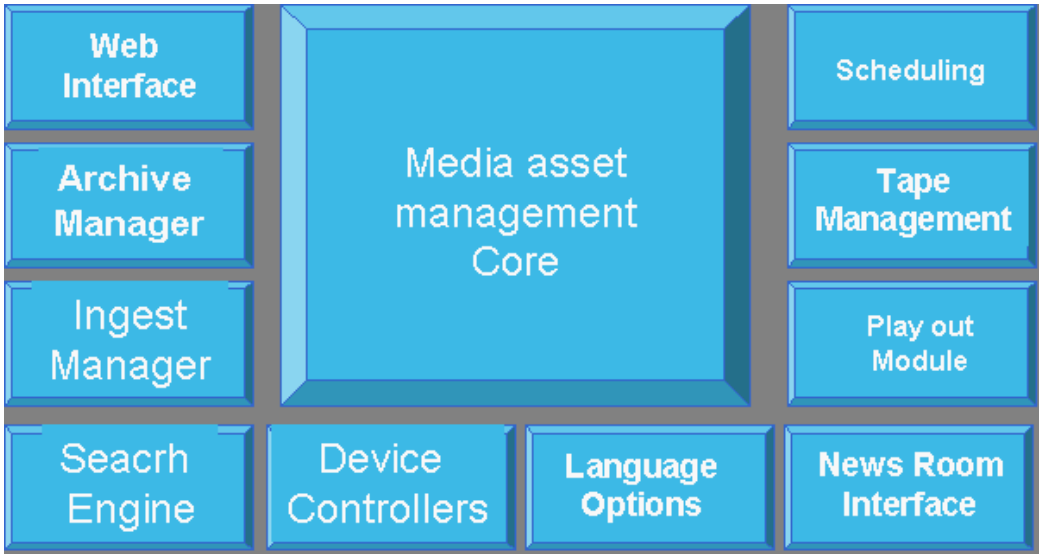
A.6 Worldwide Language support

The *ETERE* MAM integrates with *ETERE* Automation for what concerns the language support. Actually *ETERE* Automation supports all languages according to MS Windows OS (e.g. virtually all worldwide languages, 'Double Byte' languages included: Chinese, Thai, Japanese, Korean, etc.). Only *ETERE* can provide this plus.
English language is given by default while other languages are provided on demand. In this way all functions can be easily recognized and operators can move more quickly. At the same time, on different systems can be set different languages, satisfying international organizations requirements. Even 2 languages mix on same field descriptions can be available without any extra cost.

B. *ETERE* MAM modular solution

ETERE automation is a software solution completely modular and flexible. MAM is a part of *ETERE* Automation; it can be installed either straightaway from the very beginning or can upgrade the *ETERE* pre-existent system. In both cases, MAM becomes the basis for other integrated functions.

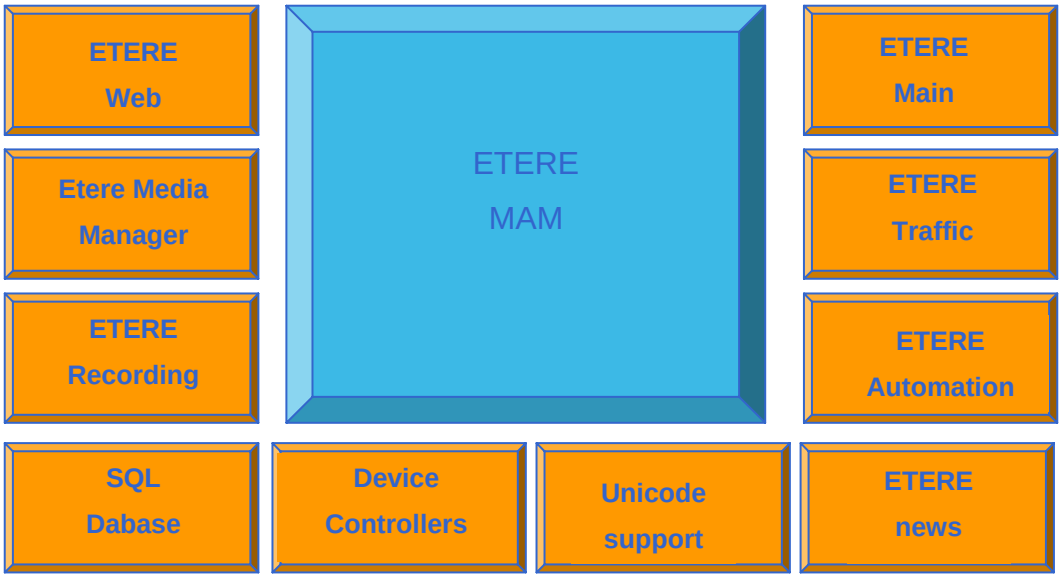
Figure B.1shows how MAM makes broadcasters functions more rational.



In *ETERE* Automation most functions already exist. Installing *ETERE* MAM the whole *ETERE* Automation reorganizes itself in a whole greater than the sum of its parts where MAM has got a central role in using pre-existent tasks. *ETERE* MAM is modular in order to give broadcasters the time to better understand their needs and expand with ease according to their growing technological demand (see next page Figure 2; chapter B.1).

Figure B.2 ETERE MAM integration with pre-existent automation:

The orange displays the already existent *ETERE* Automation functions before mounting *ETERE* MAM. As evident, all system critical parts were already installed and *ETERE* MAM just makes them more rational.



B.1 *ETERE* MAM & Recording

The *ETERE* MAM integrates with *ETERE* Recording to ingest digital video clips.
ETERE Recording provides key function as encoding, ingesting and logging multimedia contents.
It enables the automatic capture of content from any device and makes users to control encoders, and VTRs.
ETERE MAM cooperating with *ETERE* recording offers the most flexible, powerful and modular solution currently available on the market.
ETERE MAM cooperates with *ETERE* recording in controlling the following devices:

- Remote encoders.
- Remote devices (i.e. video routers, VTR, video server, etc.).
- Satellite receivers.
- Dish antennas.

Moreover the following functions are enhanced:

- Automatic Ingestion
- Format and bit rate encode
- Engine analysis (i.e. key-frame grabber, speech to text engine and face recognition, etc.)
- Ingestion planning at specific date
- Check of digital video presence for programs scheduled in future.

B.2 *ETERE* MAM & Archive Manager

ETERE MAM integrates with *ETERE* Archive Manager enhancing the video management from one hardware device to another. It doesn't matter how many Video servers and libraries are employed in the process. *ETERE* MAM always relates the right video to the right device.
The *ETERE* MAM support both Tape Libraries and Disk Libraries.

C. Conclusions

ETERE MAM represents a significant step forward in the management, storage, manipulation and control of digital media assets.
It's modular architecture enables organizations to require specific functions on demand.
ETERE MAM is likely the most complete solution currently available on the worldwide market. That's why leading worldwide broadcasters have already experienced a boost in their productivity choosing *ETERE* MAM to manage their digital assets. Actually, *ETERE* MAM manages the entire content cycle (i.e.: ingestion, handling, distribution, storage etc.).
ETERE MAM includes *ETERE* CMS server as well. *ETERE* CMS is the powerful video analyzer indexing video through both scene changes detected automatically and operators' back-video analysis.

ETERE MAM functions are enhanced by the full integration with the following *ETERE* products:

- Recording: Ingest management.
- Browsing: Frame accurate EDL on low resolution.
- Transcoding: low resolution generation.
- Media Manager: Server to server copy.
- Media Manager: Server to archive copy.
- Media Manager: either tape or disk archive management.
- Main: Database management.
- Time flooder: frame accurate time sync.
- Automation: Realtime device control.