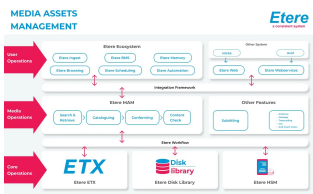


Case Study: Esplanade Theatres on the Bay

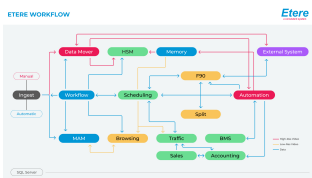
Etere Media Asset Management (MAM) is the top choice for Singapore's National performing arts centre, Esplanade – Theatres on the Bay. Etere MAM manages the storage, retention, purging and extraction of live performance recorded materials.



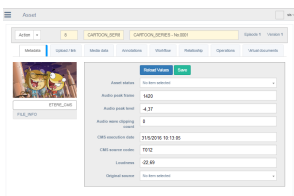
Esplanade – Theatres on the Bay



Media Asset Management



Etere Workflow



Etereweb MAM

About Esplanade

Esplanade is Singapore's National performing arts centre. Its year-round line-up involves around 3,000 performances presented by Esplanade, its collaboration partners and hirers including a diverse calendar of ticketed and non-ticketed programmes featuring dance, music, theatre, visual arts and more, making the arts accessible for everyone. The centre works in close partnership with local, regional and international artists to develop artistic capabilities and content, push artistic boundaries and engage audiences. It also develops technical capabilities for the industry nationally. The National architectural icon, with its distinctive twin shells, houses world-class performance spaces complemented by a comprehensive range of professional support services. Its two main venues are the 1,600-seat Concert Hall and a Theatre with a capacity of around 2,000.

The Challenge

With up to 3,000 performances taking place at Esplanade annually, Esplanade handles a large volume of data. Every event recording involves multiple departments and stages of approval. Esplanade needed a powerful and flexible system that is capable of handling large volumes of media files and to streamline multiple levels of approval. With its fast pace operations, the National theatre needed a reliable system that is easy to maintain and operate.

Esplanade records its performances and activities with a venue video feed. These recordings are managed from the production office where all the optical disc recorders are located. The recorders' start and end switches are controlled manually by a staff member at the beginning and end of each performance. The recordings are used for referencing, distribution to the media, artists or hirers, kept for storage and reference purposes.

Esplanade needed a system upgrade to improve the operational and cost efficiency of its process. Esplanade needed a system that allows direct recordings to their hard disk and one that is compatible with file formats including H.264 encoded MPEG4. The proposed system should also integrate seamlessly with their studio booking system.

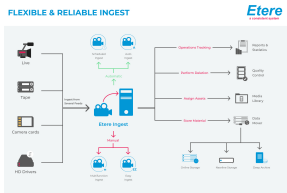
As a leading arts venue, Esplanade required a content management system that is capable of managing the recording, archive, transformation, transfer and distribution of digital content on a large scale, of up to 3,000 events annually. It needed a system that features an open architecture for both hardware and software, to allow easy expansions based on customisation or an upgrade of the system, future-proofing it for at least 10 years or more. After a tender, review and evaluation process, Etere was selected for its flexibility and reliability including capabilities for customized deliveries of approval, distribution, purging and reproduction workflows.

This paper describes the Etere Media Asset Management (MAM) solution for Esplanade as well as the key advantages and performance benefits it bring. Etere has provided an ideal solution with Etere MAM that is able to manage Esplanade's recordings with a unified workflow-based framework. Etere allows users to integrate, store and manage files easily from a software-based interface and a simple PC setup.

The Solution



ETX Channel in a Box



Playout server

Etere proposed an integrated framework of Etere Media Enterprise Resource Planning (MERP) modular solutions including Etere ETX, Ingest, MAM and Etereweb27. The unified Etere MERP is highly reliable, flexible and easy to maintain. This paper describes the configuration and setup of the system:

Media Asset Management (MAM) Workflows

Etere MAM is a software-based solution that enables the complete and easy management of all digital assets. It features a centralized database for the streamlined management of digital assets including customized workflow deliveries such as the process of ingest, browsing, transcoding, index, storage and retrieval. Etere MAM serves as a workflow orchestration, simplifying complex tasks across the entire enterprise. It also integrates with Esplanade's studio booking system, enabling operators to manage data seamlessly.

Additionally, Etere also empowers Esplanade with **EtereWeb27**, the latest version of web-based MAM tool for the management of all assets and operations. Etereweb27 enables operators to access real-time updates and use the most common features from any location as long as they are connected to the internet.

Esplanade is also equipped with **Etere Ingest**, a versatile and complete software-based module that is capable of fulfilling all types of ingest requirements including manual, scheduled and automated ingest. Etere Ingest is capable of ingestion from all of the most common feeds and supports all commonly-used compression schemas. Esplanade leverages the benefits of Etere scheduled ingest for the recording of live events and performances.

Workflows

Trigger, Record and Archive Workflow

Etere powers an automated trigger and record workflow. Upon completion of the recording, Low-Res proxy files will be generated automatically for retention purposes. All the commonly used formats including H264, and MP4 formats are fully supported. Simultaneously, a notification alert will be sent to the archive department once the process is completed successfully. The files will be retained for a period of 30 days after creation. If no activity is detected after 30 days, the files will be purged automatically via Etere workflow. In the event of a process error, Etere Workflow will trigger an instant notification alert to the assigned contact list of Esplanade, enabling the relevant departments to investigate and resolve the issue without delay.

Manual Deletion of Media

Authenticated users are also able to manually delete a video, image or audio permanently from the system's database without the need for multiple layers of approvals. They have the option to select and delete multiple videos as a batch.

Selection for the Permanent Retention of Venue Video Feed

Authenticated users are able to select specific videos, mark the videos to save them from the automatic purge workflow in a one-step process. With the configurations in place, Etere workflow will automatically exclude the marked videos when the purge workflow is triggered. This helps to improve operational efficiency as requirements can be configured in advance and performed in batches.

Create Proxy or Surrogate Workflow

Selected videos files can be reproduced in different resolutions and compression rates via workflow delivery.

Add Esplanade Logo Watermark

Operators are able to insert the Esplanade logo watermark to video assets with **Etere ETX**, a software-based channel-in-a-box solution capable of the insertion of multiple layers of 2D/3D logos, animations and crawlers all from a single interface. Esplanade operators are also able to select from a pre-configured media library of Esplanade logos and corporate images for a quick insertion.

Copy and Duplication of Files

This feature enables authenticated users to copy, duplicate and reproduce video assets at different resolutions or compression rates.

Approval Process

With Etere workflow, the approval process across various departments is streamlined and centralised in a single location. The process only involves a few steps: Archive staff submits a ticket to either check all assets recommended for purge or to automatically move materials which are not selected for permanent retention within 30 days of its creation into the approved list/ticket. Once the head of department has approved the ticket, a notification will be sent to the archive operator for permanent deletion of the files, if the head of department does not approve the request after 7 days, the request goes directly to the CEO. All information regarding the request, including dates/times of approvals, approvers, endorsers, date/time of deletion, user responsible for the deletion and reasons for the deletion, will be logged and retained for future reference, even after the deletion.

Distribution Workflow for Venue Video Feed

The distribution workflow is capable of delivering venue video feeds including those for:

- AVI assets other than venue video feeds, including those of artists whose performance was captured within the footage
- Distribution workflow for official media/news outlets
- Distribution workflows for external parties (i.e. for foreign producers to see work of artists, etc)
- Distribution for official media/news outlets
- Distribution for external parties for reference

Additionally, reproduction workflows are customized to fit the requirements of the team.

Reproduction Workflow

- Reproduction of AVI assets for Esplanade's own use
- Reproduction of AVI assets for staff accounts, for personal and other uses (e.g. staff portfolio, application for scholarship, presentations, etc)
- Reproduction of AVI assets for other third parties / external requestors

Creation of Playlist

All users are able to create their own playlist for personal reference and also to keep tab of reference videos.

Automated Embargo Workflow

Etere Workflow manages the automated embargo workflows for materials that need to be kept confidential until a certain period of time.

Automated IP Management Trigger to Public Domain Work

In the instance that a conversion of ownership status is needed, for e.g. the death of the creator or publication, Etere workflow is able to automatically trigger the IP management to public domain work.

Key Benefits:

With Etere, media assets are configurable by customisable parameters set by Esplanade. The assets can be retrieved quickly using metadata search and enable a more accessible media library. The solution is also cost-effective and enables a substantially lower operation costs with the reduction of manual operations.

- Streamlined approval and store process across multiple departments
- Efficiency, intuitive user interface in the content management system and organised assets and metadata in the recordings library allow easy access to information
- Cost Efficiency, channel-in-a-box set-up reduces reliance on complex and expensive systems with a simple PC setup. Reduces operational expenditure with a more efficient way of working

- Flexibility, enables metadata exploration, generation and edits on the fly, intuitive interface for media library management and meta-data tagging for an easy maintenance of the recordings library
- Advanced archive, equipped with high-quality archiving, duplication, viewing and extraction capabilities that adapts to fast-paced operations and large-scale operations.
- Content management, file naming with customizable metadata relationships and organisation
- High level of compatibility, compatible with a variety of media distribution mediums including both digital and tactile. The open system also features interoperability with a wide range of third-party softwares and hardware
- The system is also compatible with a variety of media distribution mediums including both digital and tactile files. Etere features a fully scaleable architecture that adapts easily to operational changes and can be easily adapted for future expansions
- Etere also integrates with Esplanade's Studio booking system for a seamless experience

Hardware

The installation includes Blackmagic Decklink video card for playout which interfaces **Etere ETX**.

About Etere

Founded in 1987, Etere is amongst the worldwide leaders in Media Asset Management and channel in a box software solutions for broadcasters and media companies. Etere's unique MERP software-only solution is used by many of the world's leading Media Enterprises to power their digital assets. Its modular solutions including Airsales, Ad Insertion, playout, HSM archive, TV automation and Censorship are built with an innovative architecture, offering the best flexibility and reliability in the market. Etere is headquartered in Singapore, with a dedicated 24/7 support centre in Italy.



About Esplanade – Theatres on the Bay

[Esplanade – Theatres on the Bay](#) serves as Singapore's national performing arts centre. The world-class venue is one of the busiest arts centres in the world and since its inception in 2002, it has presented more than 34,000 performances, drawing an audience of 24 million patrons and 88 million visitors. Esplanade regularly presents world-renowned companies and artists that attract international attention and add to Singapore's cultural vibrancy. The venue is also a world architectural icon with its distinctive twin shells design. In March 2014, Esplanade's Concert Hall was listed as one of the "world's 15 most beautiful concert halls" by Hamburg-based building data company Emporis. Esplanade – Theatres on the Bay is operated by The Esplanade Co Ltd (TECL), which is a not-for-profit organisation, a registered Charity and an Institution of a Public Character. In September 2016, The Charity Council awarded TECL the Charity Transparency Award and the Special Commendation Award – Clarity of Strategy.

