

VIMN:

A Cloud-based and Workflowdriven solution for a smooth management of internal shared content

VIOCOMINTERNATIONAL MEDIA NETWORKS

October 2013



















▼ 6.3.1 TABLE OF CONTENTS

•	6.3.1 TABLE OF CONTENTS	2
▼	6.3.2 OVERVIEW AND PROPOSAL DIFFERENTIATORS	4
•	6.3.3 SUMMARY OF UNDERSTANDING OF SCOPE & ABILITY TO MEET VIACOM REQUIREMENTS	5
▼	6.3.3.1 INGEST AND METADATA	7
,	▼ 6.3.3.1.1 How do I create a placeholder?	7
,	 € 6.3.3.1.2 How does content look coming into the system from other parties (QC house, language houses)? 	
,	▼ 6.3.3.1.3 What does it look like when an asset and component (e.g. language track) arrives?	
,	▼ 6.3.3.1.4 How are the different elements displayed?	
,	▼ 6.3.3.1.5 How do I see a collated view of all metadata available – due dates, publishing dates, languaging dates?	10
,	▼ 6.3.3.1.6 Demonstrate relationships between assets – parent/child	11
\blacksquare	6.3.3.2 QC AND SOFTMARKING	14
,	▼ 6.3.3.2.1 How do I preview and QC content as well as individual components (e.g. subtitle or language track) includes	_
5	SCC/STL/PAC/TTML	
	▼ 6.3.3.2.2 Show me how a baton report can trigger a workflow	
-	▼ 6.3.3.2.3 How do I do soft-marking?	
-	▼ 6.3.3.2.4 What does multiple levels of soft-marking look like?	19
	▼ 6.3.3.2.5 How do I apply batch soft-marking to multiple assets (VOD deal – always cut out the blacks, precaps & recaps)	40
-		
	6.3.3.2.6 Mark up a 23.98 file and demonstrate those markers can be shared across frame-rate converted derivat	ives
\blacksquare	6.3.3.3 EXPORT	22
,	▼ 6.3.3.3.1 How does the shopping cart and export feature look?	
,	 6.3.3.3.2 Demonstrate remapping/muxing capabilities on export. How can I build an order of multiple assets mixi 	
á	and matching frame rates & language(s)	23
,	▼ 6.3.3.3.3 How can I see who ordered what?	24
,	▼ 6.3.3.3.4 How can I view the history of an asset, where is been sent	24
,	▼ 6.3.3.3.5 How do I choose which "version" of the soft-marking to export?	26
,	▼ 6.3.3.3.6 Create/maintain the folder structure of complex assets on export	27
lacktriangle	6.3.3.4 BPM AND SEARCH	29
,	▼ 6.3.3.4.1 Demonstrate BPM engine (how to build workflows and implement business intelligence?)	29
,	▼ 6.3.3.4.2 What are the notification levels (e.g. informing users order is ready, asset has arrived, etc.)?	30
,	▼ 6.3.3.4.3 How can I track the progress of the workflow?	31
,	▼ 6.3.3.4.4 How can I run reports on an asset or group of assets?	32
,	▼ 6.3.3.4.5 Demonstrate search functionality and advanced searches	34
,	▼ 6.3.3.4.6 How do integrations with other tools look ie if I am doing a federated search how are the results display 35	ed?
▼	6.3.3.5 EDITING	37
,	▼ 6.3.3.5.1 Demonstrate proxy editing, EDL or integration with editing to support remote compliance or localization	ı37
▼	6.3.3.6 ADMIN	39

	▼ 6.3.3.6.1 Demonstrate security features – restricted views for vendors, inheritance through content hierarchies, u	
	groups, asset collections	39
	▼ 6.3.3.6.2 Demonstrate permission levels, how do I set them	40
	▼ 6.3.3.6.3 Demonstrate how VIMN administrators are self-sufficient e.g. adding new language to system, new	
	metadata fields, create reports, etc.	41
	▼ 6.3.3.6.4 What are the levels of watermarking & how do I apply them – rotoscoping/fingerprinting, tagging by	
	user/vendor	43
	▼ 6.3.3.6.5 Describe/show operational and error handling capabilities with integrations of external systems such as	
	encoders, Signiant (parsing errors, trigger workflow based on error etc.)	44
6.3	3.4 ASSUMPTIONS	. 47
▼	6.3.5 PROVIDE A RECOMMENDED GOVERNANCE MODEL AND APPROACH TO QUALITY	
MΑ	ANAGEMENT	. 47
▼	6.3.6 PROPOSED APPROACH AND TIMELINE	. 47
▼	6.3.7 RISKS AND MITIGATION STRATEGIES	. 47
▼	6.3.8 PRICING SUMMARY	. 48

▼ 6.3.2 OVERVIEW AND PROPOSAL DIFFERENTIATORS

Viacom International Media Networks (VIMN) is the international division of Viacom, the network that oversees the production, broadcasting and promotion of key Viacom brands including MTV, BET, Comedy Central, Paramount, VIVA and Nickelodeon, which are viewed by 700 million households across the world available in 30 languages via 200 locally programmed and operated TV channels and more than 550 digital media properties. VIMN has headquarters in New York, London and Warsaw; other international offices are located in Amsterdam, Berlin, Paris, Singapore, Stockholm, and Sydney; whilst regional offices are found in Athens, Budapest, Buenos Aires, Dublin, Madrid, Miami, Milan, Sao Paolo, Seoul, Tel-Aviv, Tokyo and Zagreb.

The **international shared content** intended to be aired on international VIMN networks -after US premiere- is processed on the core facilities located in New York, where the **international content supply chain** starts, embracing creation, ingest, preparation, transcoding, localization and delivery of compliant content.

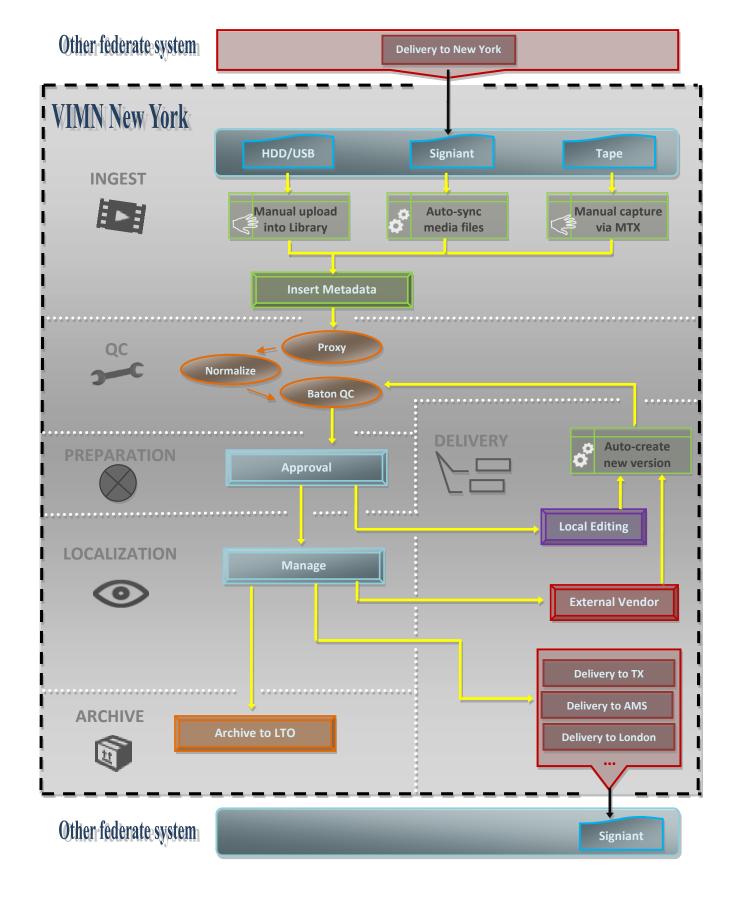
ETERE is able to provide **VIMN** with a **cloud-based and workflow-driven solution** able to improve the international media activity of the company thanks to a centralized and integrated cloud approach that perfectly fits the "hub and spoke" distribution model used by VIMN. A set of tailored workflows will permit planning and tracking every single step of the MAM process in a 100% versatile and flexible manner, enabling a high level of scalability to encompass future changes in the global chain.

This paper is aimed to provide a detailed specification on the key **Etere features** that will enable VIMN to smoothly **manage its internal shared content** from end-to-end, from the initial creation of placeholders to final delivery of localized compliant content. The use of workflow-based technology will permit **VIMN** to significantly improve its **international content supply chain** by introducing the following enterprise capabilities:

Key capabilities:

- Intelligent and tailored workflows which faithfully reflects company activities
- Clear abstraction of tasks with custom actions, results, roles and rights
- Detailed logging and monitoring of all manual and automatic tasks
- Scalability for including/modifying custom workflows and tasks at any time
- Highly automated management of media mastering and localization operations

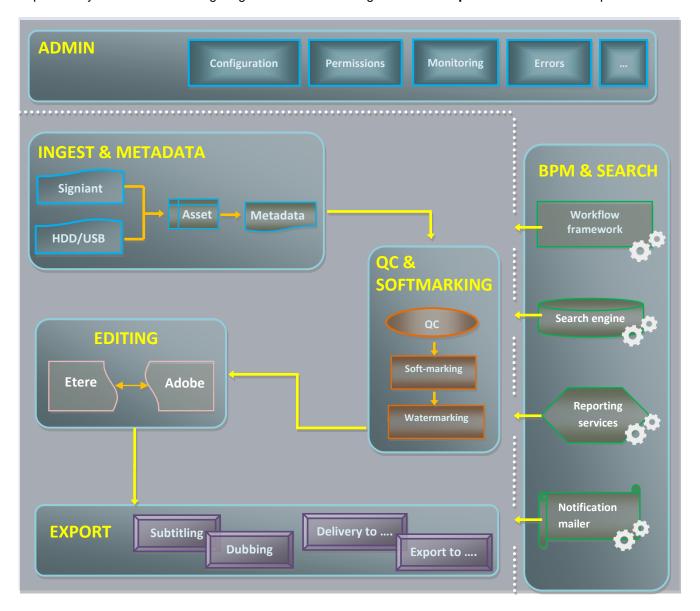
The overall management of the system proposed by Etere is illustrated in the following diagram:



▼ 6.3.3 SUMMARY OF UNDERSTANDING OF SCOPE & ABILITY TO MEET VIACOM REQUIREMENTS

The **international content supply chain** will be improved through the use of **file-based workflows** accurately designed to abstract the single operations involved in the main process, including both automatic actions performed by Etere (or integrated third-parties) and manual actions requiring operators interventions through the completion of tasks.

In this chapter will be provided a point-by-point explanation on how Etere will fulfill the specific requirements requested by **VIMN**. The following diagram illustrates the organization of **topics** covered in this chapter:

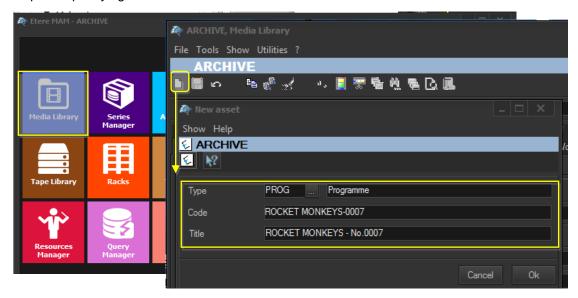


▼ 6.3.3.1 INGEST AND METADATA

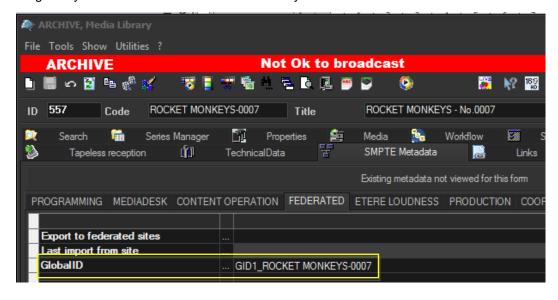
▼ 6.3.3.1.1 How do I create a placeholder?

(Content placeholders)

The **Etere Media Library** will enable authorized users forming part of the **Editorial Team** to create placeholders for **international shared content** before receiving material, this, in a **share point site**. Creating a new asset requires specifying a minimum data:

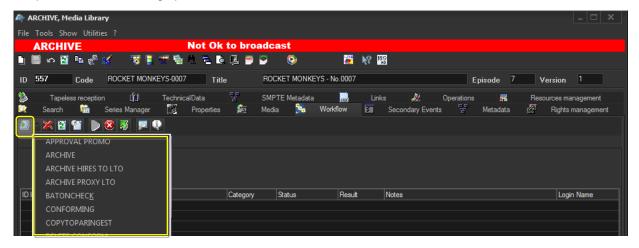


After the placeholder has been created, the **Editorial Team** will be enabled to immediately set the **"Global ID"** metadata that globally identifies the asset in the federate system:



Page 7 of 48

Internal users will be automatically notified about the availability of the new asset, thus making them able to start required tasks launching specific workflows:



It's worth mentioning that the workflow-based management implemented by Etere will allow having a truly multiformat archive enable to deliver media in the right format. As soon as a production master is ingested, the **ingest workflow** triggers the transcoding to NTSC master, PAL master and Lowres proxy.

▼ 6.3.3.1.2 How does content look coming into the system from other parties (QC house, language houses)?

(Status of external operations)

Tracking the progress of operations being performed by vendors will be possible through the status of the related workflow and specific SMPTE metadata (e.g. Completion status, Completion time, etc.), modifying said metadata - either manually or via XML- will be allowed for VIMN partners (e.g. tape ingest, QC, Subtitling) to detail the current progress status.



▼ 6.3.3.1.3 What does it look like when an asset and component (e.g. language track) arrives?

(Reception of components)

Every time a component arrives into Etere from vendors, the pertinent user groups are automatically notified so they can open the **Media Library** and see under the "Media" tab the corresponding files:



▼ 6.3.3.1.4 How are the different elements displayed?

(Media linked to assets)

All components (e.g. hires, lowres, audio, subtitles, etc.) linked to assets are displayed in the Media Library:



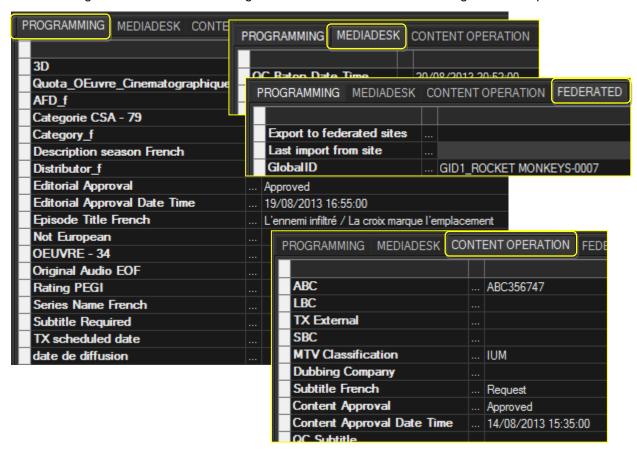
Components managed for VIMN are following listed including their equivalent in Etere:

Components managed by VIMN	Equivalent components in Etere
Locked cut proxy	LoRes file
US NTSC master	HiRes file
US NTSC proxy	LoRes file
US NTSC closed caption subtitles	Subtitle file
US Air master, with NTSC subtitles	HiRes file
International NFR master	HiRes file
International NTSC Video master	HiRes file
International PAL Video master	HiRes file
English mix	Audio file
Music & Effects	Audio files
Censored (beeped) audio stem	Audio file
Uncensored audio stem	Audio file
Laughter track	Audio file
Textless elements	HiRes file
IRM – Post 9pm version	HiRes file
IUM – All day part version	HiRes file
Subtitle files	Subtitle file
Wav files	Audio files
Episode synopsis	Text file
Local script	Text file

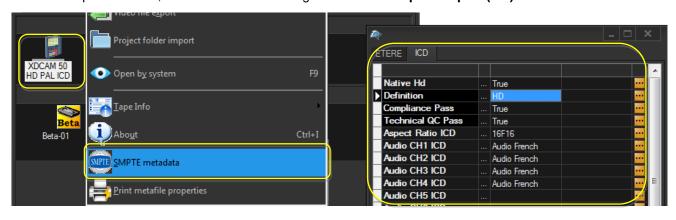
▼ 6.3.3.1.5 How do I see a collated view of all metadata available – due dates, publishing dates, languaging dates?

(Metadata views)

All placeholders have an **SMPTE metadata** section containing all the metadata needed for their management, for a better management said metadata is organized into different views according to their scope:



Besides for placeholders, metadata is also managed for each component part (file):

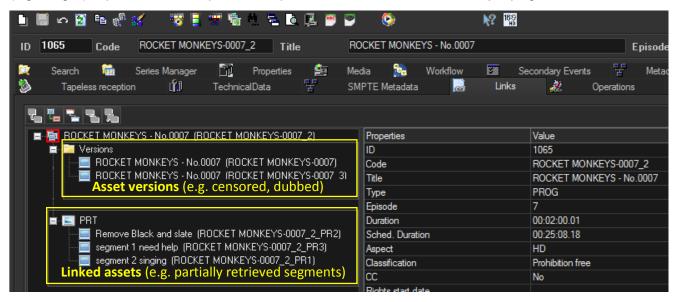


A key feature allows to take automatic decisions on workflows based on the content of asset's metadata; for instance, the "Subtitle French" (e.g. not requested, requested, delivered, received, positive QC, negative QC, etc.) will indicate if a certain asset needs or not requesting subtitles to a vendor.

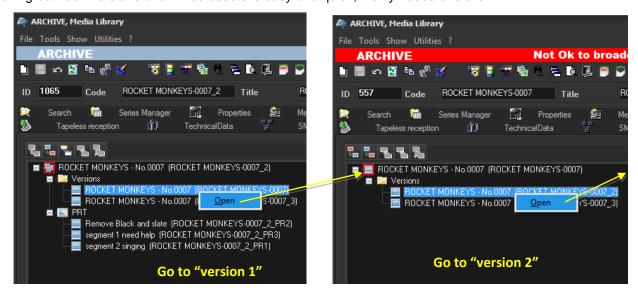
▼ 6.3.3.1.6 Demonstrate relationships between assets - parent/child

(Content relationships)

The **parent-child structure** used by Etere for managing assets allows having multiple placeholders (e.g. component parts) related to the same placeholder (e.g. episode). Adding metadata (e.g. localized) and files (e.g. images) to placeholders are possible for parent and children, it can be done jumping between them:

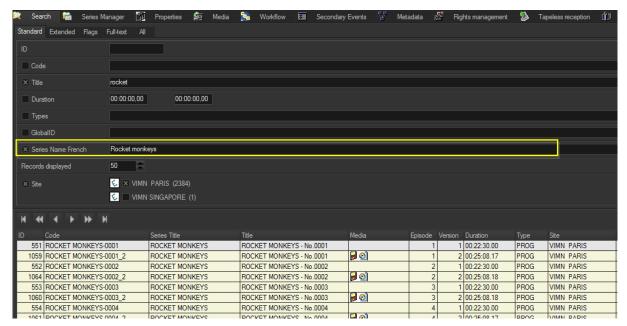


Moving between versions and linked assets is easy and quick, it only needs one click:

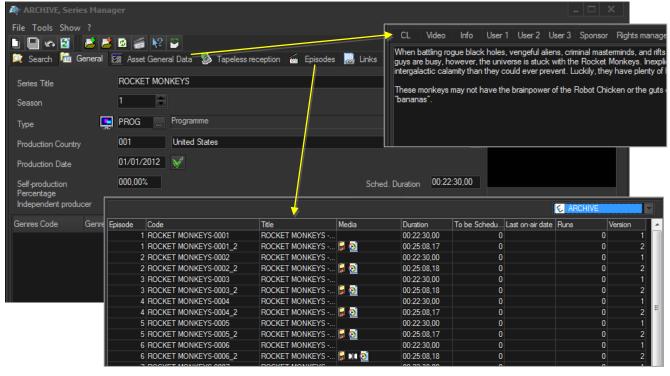


Additionally, it's worth mentioning that the structure levels needed by VIMN for its placeholders will be supported according to the following hierarchy:

Franchise is managed as a metadata exclusively available for Series, Special and Movies.

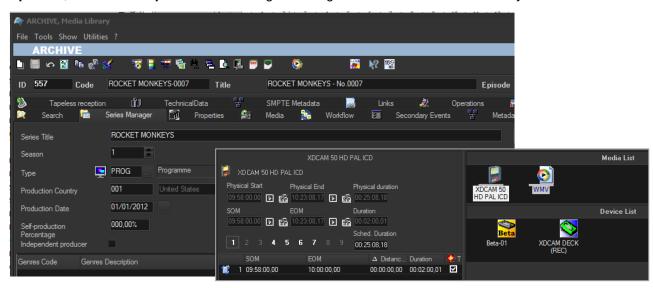


Series are managed as container of multiple episodes related to a specific season, this, from the Series
 Manager.

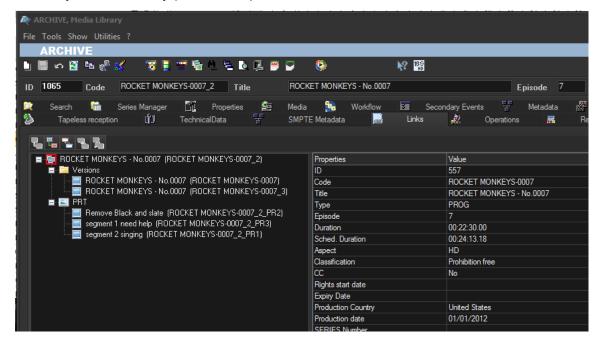


Page 12 of 48

Specials, Movies and Episodes are managed as single assets from the Media Library:



• **Variations** made for Specials, Movies and Episodes are managed as "versions", they are created either manually or automatically (via workflow):



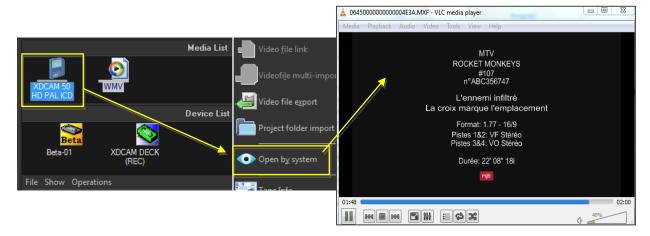
▼ 6.3.3.2 QC AND SOFTMARKING

▼ 6.3.3.2.1 How do I preview and QC content as well as individual components (e.g. subtitle or language track) including SCC/STL/PAC/TTML

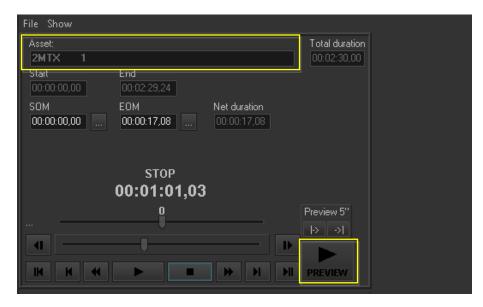
(Preview and control)

Etere provides multiple ways for previewing media depending on the browsing scope, for instance:

• External player: HiRes media can be opened using the external player (e.g. VLC) set in the Windows system as the *default application* for opening the requested **file type** (e.g. MXF):



Video server: HiRes media stored on video servers can be directly played in a professional built-it
player to allow, for instance, previewing it in an <u>external monitor</u>:



• **Subtitles**: Subtitled media can be previewed in the "**Subtitles Tool**", which also allows importing and exporting subtitles as well as manually editing:



It's worth mentioning that choosing the **audio language** to be played during the preview is possible for *multilanguage media*:



▼ 6.3.3.2.2 Show me how a baton report can trigger a workflow

(Baton integration)

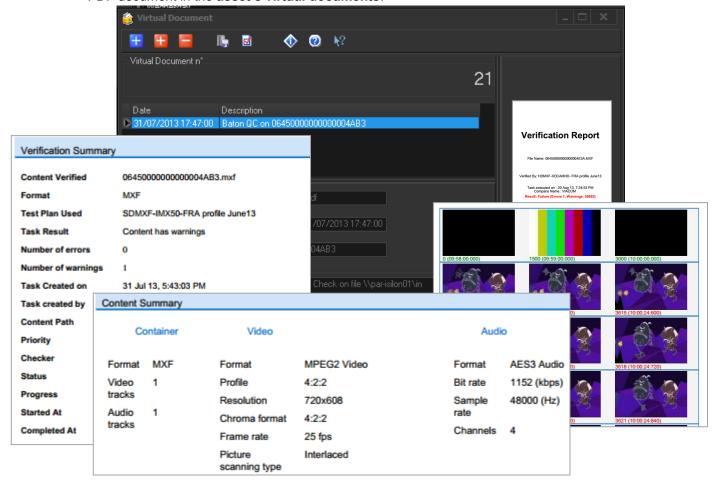
Once ingested (via Signiant or HardDisk from internal studios, partners and other 3rd party studios) a file integrity check and validate will be automatically performed against VIMN's specifications using an automated **Baton QC** managed via workflow:



Example of a workflow integrating Baton QC

The **Baton QC** will be also automatically performed for for "mastered" files or derivatives (ie subtitle file, Language customized video master, M & E track) received into the system. When the auto QC is completed, Baton's technical information is saved into Etere as:

PDF document in the asset's virtual documents:



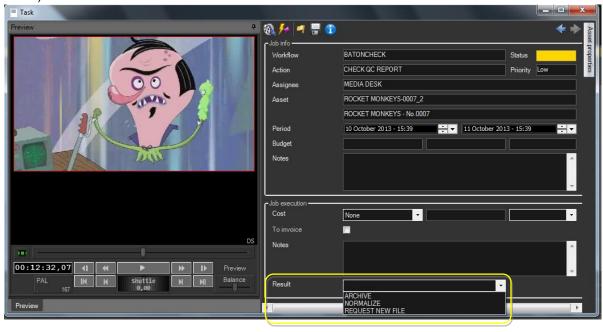
Page 16 of 48

[©] Contents of this publication may not be reproduced in any form without the written permission of Etere.

An asset EDL containing timecode marks to, for instance, transcoding media:



If the **Baton QC** fails, a **task** will be assigned to a "**Supervisor QC**" (who will be notified) to investigate the issue using HiRes QC and engage with the partner who submitted the content (a new version will be created for the content):



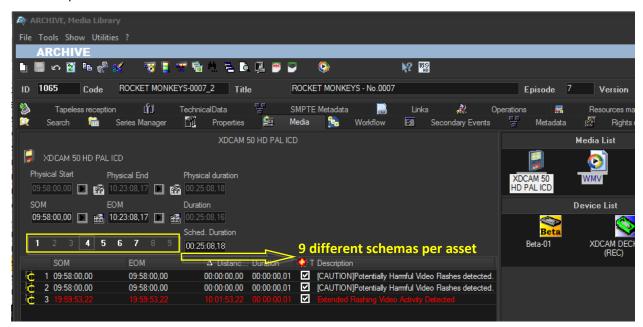
Once the **QC process** is completed, MAM users specified in the workflow are automatically alerted about the availability of the component part (based on a SMPTE metadata). **Baton QC** operations can be tracked from the **Workflow Monitor**, displaying relevant information:



▼ 6.3.3.2.3 How do I do soft-marking?

(Soft-marking)

The **NY ICM team** and **External post-production partners** will be enabled to add marks into an asset EDL (up to nine different schemas) to match specific break patterns, this, can be done on a new asset version containing all EDL copied from the master asset:



The **international master** will be marked up from the **Etere Media Library**, inserting technical parts (e.g. black cuts) and editorial content related parts (e.g. bumper, intro, outro, etc.) to be subsequently conformed.

One or all EDL schemas can be consulted generating a "cue sheet" report:

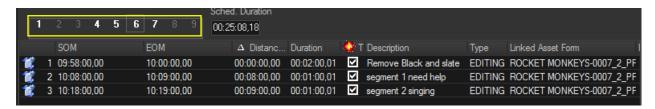


It's worth mentioning that EDL mark points set for the **international master** will be inherited by subsequently added derivatives including frame rate converted versions (PAL/NTSC).

▼ 6.3.3.2.4 What does multiple levels of soft-marking look like?

(Soft-marking levels)

Etere allows managing up to **9 different EDL** for each asset; this key feature allows storing different schemas separately, for instance:

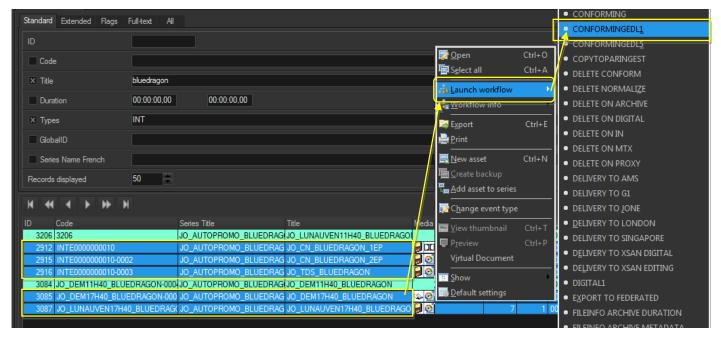


EDL #1 EDL #4		EDL #5	EDL #6, 7	
Visible segments marks	Baton results marks	CMS automatic marks	Censorship editing marks	

▼ 6.3.3.2.5 How do I apply batch soft-marking to multiple assets (VOD deal – always cut out the blacks, precaps & recaps)

(Batch conforming)

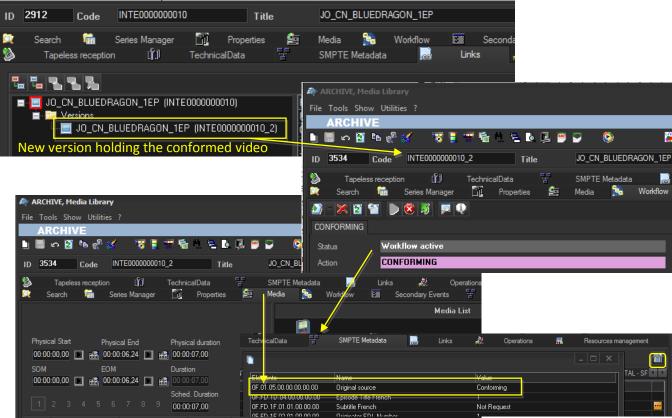
The ability of **Etere Media Library** to launch workflows for multiple assets allows performing a soft-marking for several assets with just one click, this, by selecting them from the search results and choosing the pertinent **conforming workflow**:



The selected **conforming workflow** will be started for all selected assets:



A <u>new version</u> will be created for each requested asset; versions will contain the conformed file (useful information will be indicated):



The capability to **create on-the-fly derivatives** (by transcoding the master asset will be possible through the use of specific workflows) will eliminate the need to keep all derivatives generated along the management process (they can be automatically deleted based on their oldness).

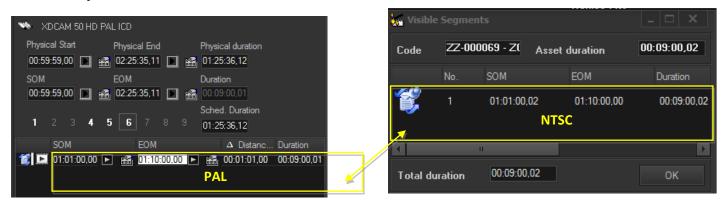
▼ 6.3.3.2.6 Mark up a 23.98 file and demonstrate those markers can be shared across frame-rate converted derivatives

(Multiple frame-rate support)

Etere is able to preview media (e.g. frame rate converted PAL/NTSC versions) displaying the timecode in both, PAL and NTSC format:



Additionally, displaying **EDL schemas** in different video standards (PAL, NTSC) is possible from the **Media Library**:

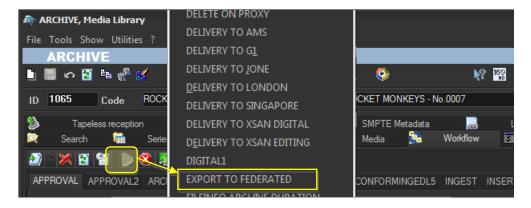


▼ 6.3.3.3 EXPORT

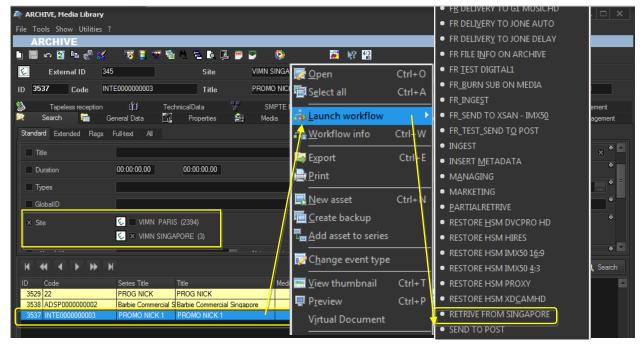
▼ 6.3.3.3.1 How does the shopping cart and export feature look?

(Request of orders)

Once **international content** is ready for being supplied, the **"Export to federate"** workflow is launched to publish the asset on other federate sites and notify subscribed users about its availability for request.



Published assets can be retrieved (**pulled**) by users of remote sites; for instance, a **Paris** user can search for an asset stored in **Singapore** and launch a workflow to request it (the launched workflow will trigger in the remote system a workflow that will make the file locally available for the requester e.g. on a shared FTP path):

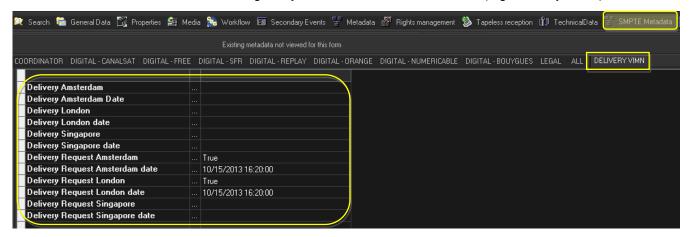


Alternatively, **international content** can be directly delivered (**pushed**) through a set of workflows specific for each vendor as explained in the "**Custom delivery orders**" chapter.

▼ 6.3.3.3.2 Demonstrate remapping/muxing capabilities on export. How can I build an order of multiple assets mixing and matching frame rates & language(s)

(Delivery of orders)

A wide set of delivery workflows are provided to deliver assets to specific targets following **specific criteria** (e.g. Pal video with only M&E, NTSC with only English, production master with all audio tracks etc.). Delivery of **international content** is controlled through a **special set of SMPTE metadata** (e.g. Delivery VIMN):



As shown above, every time a certain delivery is requested (e.g. Amsterdam) its related metadata is set to "true" and once the delivery is completed a metadata is set with the date and time.

Once requested, deliveries can be launched either individually or grouped, just as described below:

Individual: Launching one of the available delivery workflows (e.g. Delivery to Amsterdam, Delivery to London, etc.) will make only the requested delivery to be automatically performed:



Group: Launching only one workflow (e.g. Delivery VIMN) can automatically trigger <u>all the deliveries</u> for
which a request has been received (i.e. for which the related metadata is compiled). Creating workflows
that mix different deliveries is an easy task that can significantly speed-up the delivery process.



It's worth mentioning that in case a delivery metadata is set for an asset, future asset versions will inherit this property so requesting the file will be always possible at any time.

▼ 6.3.3.3.3 How can I see who ordered what?

(Requests monitoring)

Delivery orders requested by federate sites (e.g. Amsterdam) can be easily monitored from the **Workflow Monitoring** module, filtering the **related delivery workflow** (e.g. Delivery to AMS) and consulting their info:

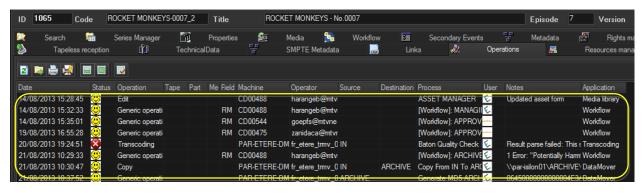


▼ 6.3.3.3.4 How can I view the history of an asset, where is been sent

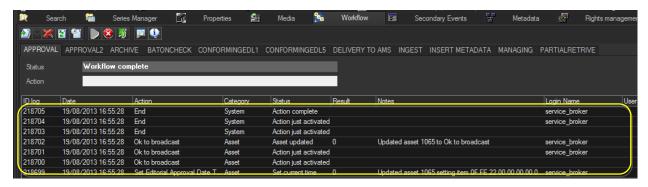
(Operations history)

All actions performed in Etere are recorded, this make available to consult almost any particular including:

 Asset operation logs: All operations performed for asses (e.g. copy, transcode, edit, etc.) are logged under the "Operations" tab of the Media Library:

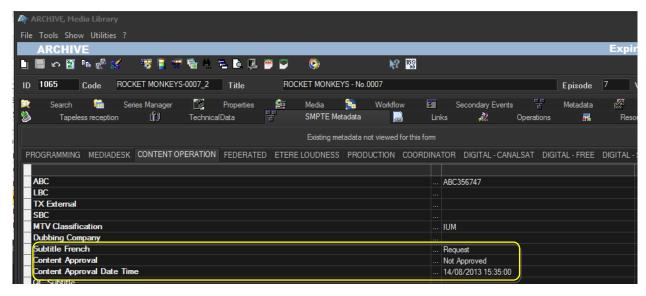


• **Workflow logs**: In the same way as for asset operations, all workflow operations are logged, they can be consulted under the "Workflow" tab of the **Media Library**:

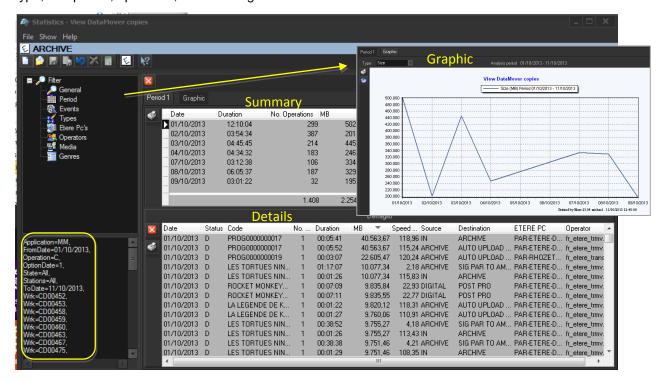


Page 24 of 48

• **SMPTE stored values**: Metadata automatically/manually compiled during the management of an asset can be consulted from the **"SMPTE metadata"** tab:



• **Statistics**: View statistics on a certain function (e.g. DataMover copies), detailed by period, events, type, computers, operators, media and genres:



▼ 6.3.3.3.5 How do I choose which "version" of the soft-marking to export?

(Exporting specific soft-marking schemas)

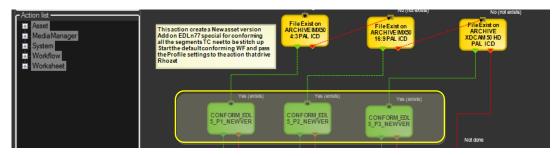
The **international master** will be marked up from the **Etere Media Library**, inserting technical parts (e.g. black cuts) and editorial content related parts (e.g. bumper, intro, outro, etc.) will be conformed according to custom **conforming profiles** including head and tail segments as well as dedicated transcoding presets:



Custom **conforming actions** can created to conform a specific EDL schema using a given **conforming profile** on either a new asset child, asset version or standalone asset:



Once created, conforming actions can be included within workflows to execute the required tasks for which they have been configured:

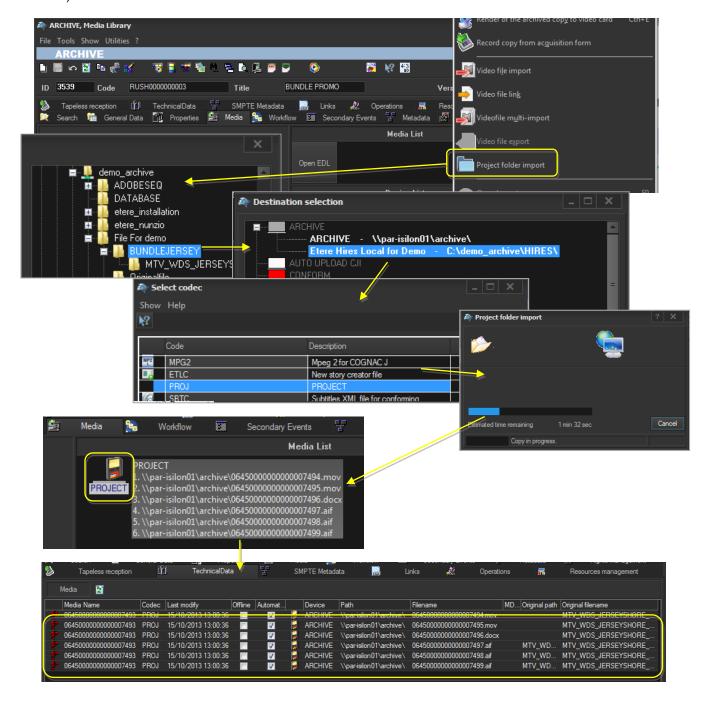


Page 26 of 48

▼ 6.3.3.3.6 Create/maintain the folder structure of complex assets on export

(Exporting entire projects)

The **Media Library** provides a "project folder import" function allows importing all files within a local/network directory into a metadevice using unique filenames and conserving their original information (path, sub-path and filename):



Page 27 of 48

As shown above, multiple files belonging to a project can be loaded in the Etere system as a single metafile, keeping and moving all them together when requested:

External storage (source)				Etere archive (target)				
Original path Original Original sub-path filename			Target path	Target unique name	metafile			
\\Projects\BundleJersey\		Script.docx	->	\\Archive\Hires\	06450000000000007443			
\\Projects \BundleJersey\		Lowres.mov	->	\\Archive\Hires\	06450000000000007444			
\\Projects \BundleJersey\		Hires.mov	->	\\Archive\Hires\	06450000000000007445			
\\Projects \BundleJersey\	Audio	musix.aif	->	\\Archive\Hires\	06450000000000007446	064500000000000007442		
\\Projects \BundleJersey\	Audio	sfx.aif	->	\\Archive\Hires\	06450000000000007447			
\\Projects \BundleJersey\	Audio	sot.aif	->	\\Archive\Hires\	06450000000000007448			

Additionally, a key feature allows exporting projects restoring their original structure (i.e. path, sub-path, filename) using a "Multistep Copy DataMover" action:

Eter	e archive (tarį		External storage (source)			
metafile	Target path	Target unique name		Original path	Original sub-path	Original filename
	\\Archive\Hires\	06450000000000007443	->	\\Projects\BundleJersey\		Script.docx
	\\Archive\Hires\	06450000000000007444	->	\\Projects\BundleJersey\		Lowres.mov
06450000000000007442	\\Archive\Hires\	06450000000000007445	->	\\Projects\BundleJersey\		Hires.mov
064500000000000007442	\\Archive\Hires\	06450000000000007446	->	\\Projects\BundleJersey\	Audio	musix.aif
	\\Archive\Hires\	06450000000000007447	->	\\Projects\BundleJersey\	Audio	sfx.aif
	\\Archive\Hires\	06450000000000007448	->	\\Projects\BundleJersey\	Audio	sot.aif

A detailed **report** on all imported files can be generated at any time making right-click -under the Media tab- on the metafile and selecting the "Print Metafile Properties" function:

Metafile properties

 Name
 06450000000000000007442

 Codec
 PROJ - PROJECT

 Device
 ARCHIVE

Path	Filename	Size	Original subpath	Original filename
C:\demo_archive\HIRES\	064500000000000007443	16.1435 M b		MTV_WDS_JERSEYSHORE_S5_EP_ 502_15SEC_LOWRES.mov
C:\demo_archive\HIRES\	064500000000000007444	110.715 M b		MTV_WDS_JERSEYSHORE_S5_EP_ 502_15SEC_PAL_CL_IMX.mov
C:\demo_archive\HIRE S\	064500000000000007445	11.71 Kb		MTV_WDS_JERSEYSHORE_S5_EP_ 502_15SEC_SCRIPT.docx
C:\demo_archive\HIRES\	064500000000000007446	2.74982 M b	MTV_WDS_JERSEYSHORE_S5_EP_502_15SEC_AUDIO\	MTV_WDS_JERSEYSHORE_S5_EP_ 502_15SEC_MUSIC.aif
C:\demo_archive\HIRES\	064500000000000007447	2.74982 M b	MTV_WDS_JERSEYSHORE_S5_EP_502_15SEC_AUDIO\	MTV_WDS_JERSEYSHORE_S5_EP_ 502_15SEC_SFX.aif
C:\demo_archive\HIRE S\	064500000000000007448	2.74982 M b	MTV_WDS_JERSEYSHORE_S5_EP_502_15SEC_AUDIO\	MTV_WDS_JERSEYSHORE_S5_EP_ 502_15SEC_SOT.aif

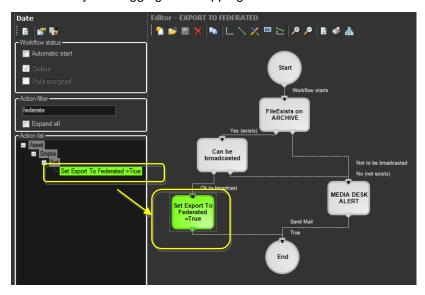
Page 28 of 48

▼ 6.3.3.4 BPM AND SEARCH

▼ 6.3.3.4.1 Demonstrate BPM engine (how to build workflows and implement business intelligence?)

(Workflow management)

Etere provides a highly intuitive and user-friendly interface for the design and implementation of workflows, creating your own workflow is easy as dragging and dropping action blocks:



A wide number of action types are available to automate the "intelligent decision taking" of workflows, it's possible to use, for instance:

• Take an action based on metadata:



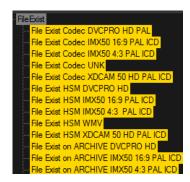
• Take an action based on asset type:



Take an action based on enabled station:



Take an action based on storage metadevice:



Besides to the several actions provided by default, users can create a wide number of custom actions to meet their actual needs; new actions can be created as:

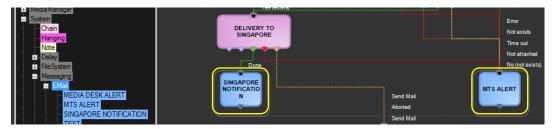
- DataMover: Actions created for copying, transcoding, Baton integration, Signiant integration and MTX.
- Content management: Actions created for media check, retrieve and regeneration purposes.
- Template-based: Actions created based on of the 60 different templates available in the system:



▼ 6.3.3.4.2 What are the notification levels (e.g. informing users order is ready, asset has arrived, etc.)?

(Notification capabilities)

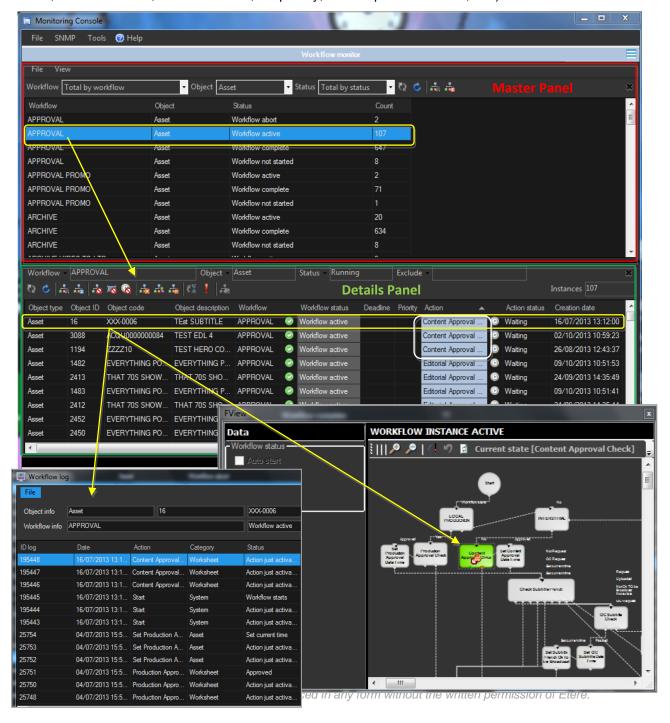
The workflow framework of Etere allows including so many notification actions as required by a workflow, notifications are customized for specific receivers (e.g. MediaDesk, MTS, etc.) and purposes (media is ready, media is arrived, media error, etc.):



▼ 6.3.3.4.3 How can I track the progress of the workflow?

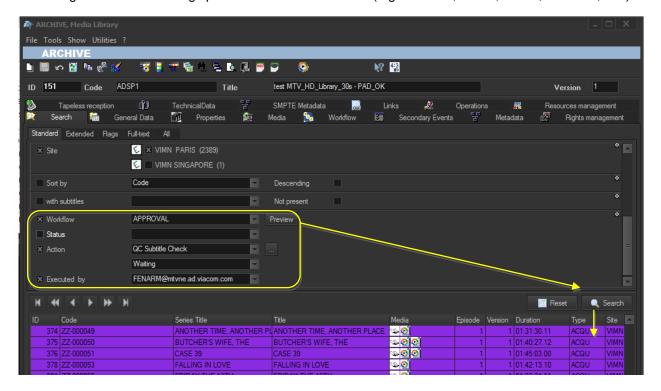
(Workflow monitoring)

The **Etere's Monitoring Console** gives administrator a valuable tool, a **robust dashboard** for <u>monitoring</u> the status of workflows and <u>directly controlling</u> their execution (e.g. restart failed workflows, abort unwanted instances, etc.). This interface provides useful filters (e.g. workflow, object, status) to list only workflows you are interested to see and a wide set of functions to manage their execution (e.g. show workflow, view log, abort workflow, restart workflow, delete workflow, set priority, clean orphan workflows, etc.):



As shown in the image above, accessing the <u>operations log</u> and <u>sequential flow</u> of all "approval" workflows which are currently waiting for a "content approval" is an easy task.

Moreover, workflow monitoring is also possible from the "Media Library", where a special filter allows searching for assets matching specific workflow information (e.g. instance, status, action, executor, etc.):



▼ 6.3.3.4.4 How can I run reports on an asset or group of assets?

(Reporting services)

Etere Reporting Services provides an intuitive report environment to enable users to have an enterprise reporting environment enhanced with an unlimited number of custom reports; it permits reports to be easily designed and accurately managed though a reporting engine that allows to preview, print and export any report under a user-friendly user interface. Etere Reporting Services integrates a dedicated reports database with the main system database, thus improving the reliability and performance of the system:

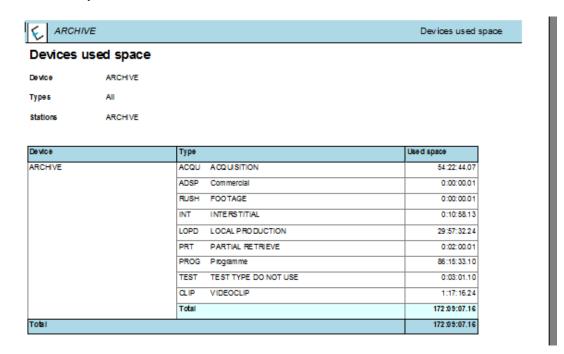


Available reports cover all the spectrum of the broadcasting process (assets, orders, events, schedules, etc.) providing, for instance, the following asset-related reports:

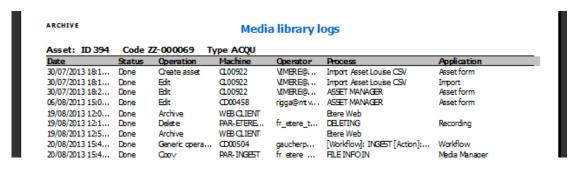
Media library operations (resource manager):



Devices used space:



Media data logs:



Page 33 of 48

Loudness:

ARCHIVE		Loudness
Loudness: All		
Code	Description	Duration Loudness
Prefix20130611su	test ROCKET MONKEYS - No.0001	0022:00,01
Prefix20130612su	test ROCKET MONKEYS - No.0002	0026:13,00 -22,98
DOCKET MONKEY	POCKET MONKEYS - No 0001	0022:30 00 -22 76

Etere Reporting Services is based on SQL Server Reporting Services technology to leverage all key features of a web-based reporting server focused on simplifying the process of creating and editing reports by including a **user-friendly interface**, **modify existing reports**, **interactive reports**, **presentation formats** and much more.

▼ 6.3.3.4.5 Demonstrate search functionality and advanced searches

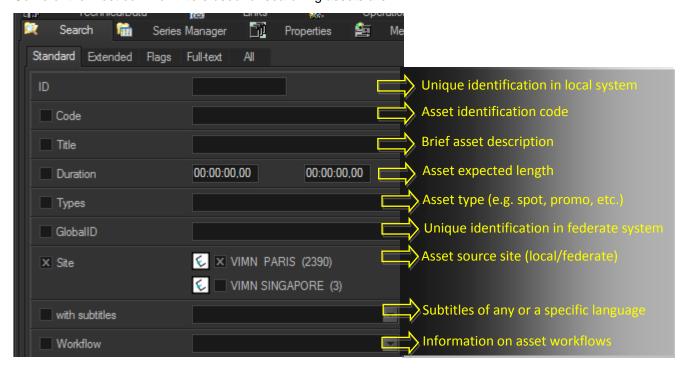
(Search engine)

Etere comes with a complete, versatile and powerful **search engine** which allows users to search for assets and interact with them. The user is able to search assets based on their information stored in the database. Among the several searching features which are available in this section, we can mention the following ones:

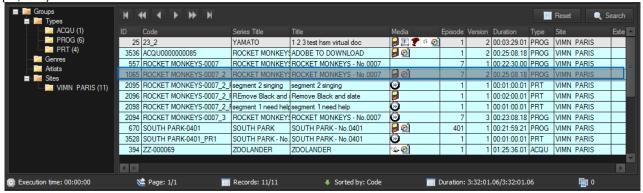
- Search for assets based on database fields.
- A Full-text search across various fields of assets.
- Full-text results are sorted on degree of relevance,
- Search for **synonyms** to extend the range of results,
- Searches can be saved as profiles,

- Batch management of several assets at once,
- Customizable tabs and fields, drag & drop enabled,
- Results can be **grouped** by types, genres or artists,
- Add, launch and view workflows on-the-fly,
- Filter results by SMPTE metadata or Metadevice.

Some of the most common filters used for searching assets are:



Assets matching the filters criteria are retrieved in the bottom part of the window, there, they can be selected (or multi-selected) in order to open or directly manage them (launch workflow, add to series, create backup, change type, etc.):



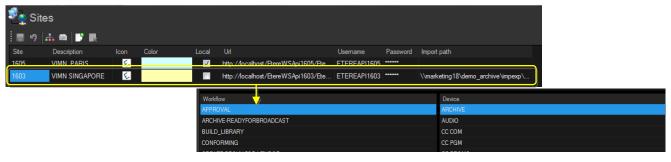
Filters can be classified according to their nature into the following categories:

Base	Base descriptions about the asset: Id, code, title, type, stations, sites, genre, artist, etc
Media	Media information regarding devices, files and processes: Duration, metadevice, codec, video file, workflows, worksheets, etc
Dates	Dates on which specific asset operations have been performed: Production, ingest, creation, arrival, scheduling, validity start, expiry, etc
Flags	Flags detailing specific asset properties: Ok to broadcast, live, expired, ingested, archived, inactive, not tapeless, etc
With	Properties that indicates the existence of a certain object associated to the asset: Edl, video tape, data tape, subtitles, cad approval, detected blacks, etc
Full-text	Special search performed simultaneously performed across multiple tables: Title, segments, artists, genres, roles, metadata, subtitles, documents, etc

▼ 6.3.3.4.6 How do integrations with other tools look ie if I am doing a federated search how are the results displayed?

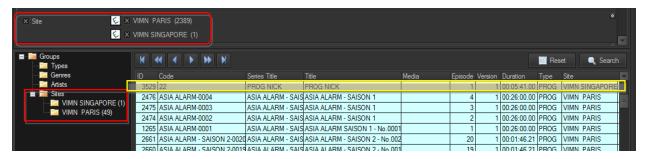
(Federate search results)

Etere's federated capabilities will permit the station to take full advantage of federated technologies, allowing them to import/export assets between systems such in a way that it will be possible to manage external assets as local ones. Federate sites are interfaced through a web service locally installed; it will allow other sites to remotely manage its assets, workflows and metadevices:

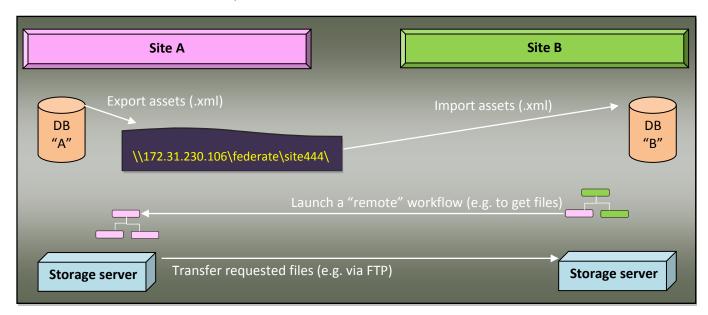


Page 35 of 48

The federate nature of the system will allow remote sites to search for content in the central system (and vice versa), <u>highlighting</u> assets according to their source installation and once retrieved, they can be managed as local assets for almost all intents and purposes (i.e. consultation, workflows, etc.):



Federate assets can be managed through federate workflows and import/export functions. Data managed between federate sites can be easily transferred between them:



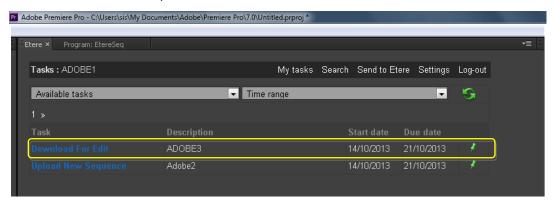
▼ 6.3.3.5 EDITING

▼ 6.3.3.5.1 Demonstrate proxy editing, EDL or integration with editing to support remote compliance or localization

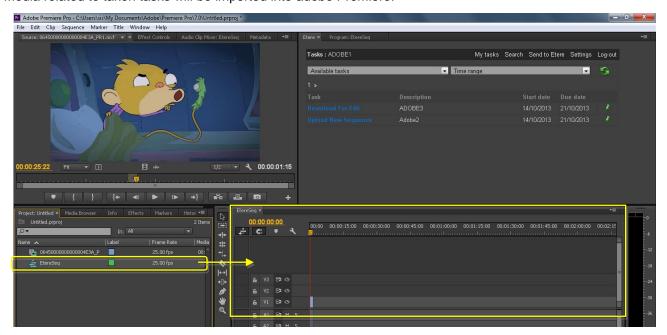
(Adobe integration)

Compliance operations for **international content** performed inside VIMN using **Adobe Premiere** ® **Pro** will be integrated into **Etere MAM**, empowering **authenticated users** to interactively run faster video editing from the Etere archive across virtually any network.

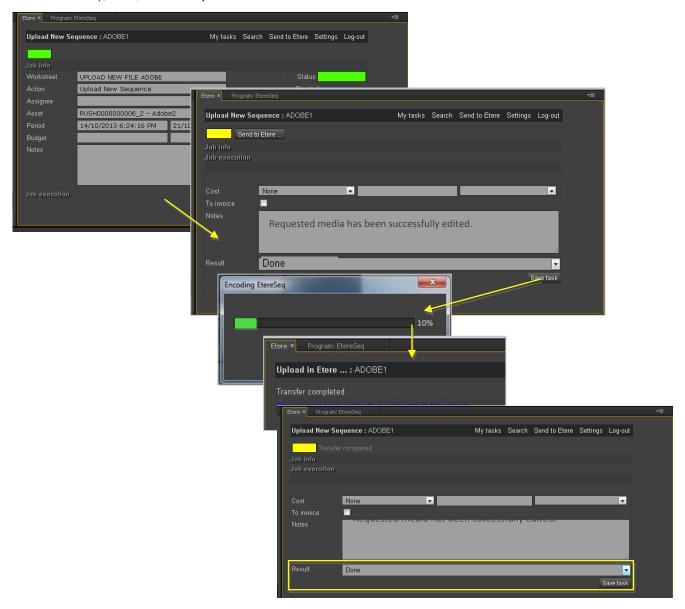
Our Adobe Premiere extension will give **Editing operators** with a user-friendly interface to view their <u>assigned tasks</u>, select and take the one to be performed:



Media related to taken tasks will be imported into adobe Premiere:



Once editing is finished, final media will be automatically rendered based on a preset **EPR profile** (e.g. DV25 MOV 4 Tracks), then, it will be uploaded into the Etere archive:



Once media is uploaded into the archive the task is set as completed and the workflow continue its execution (e.g. notifying availability of the edited version and starting a QC).

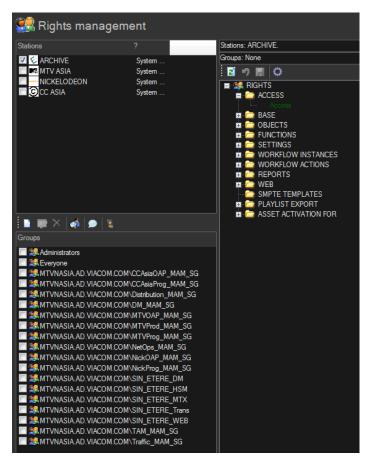
It's worth mentioning that asset versions uploaded during editing process will be managed using the Etere's versioning standard, maintaining a parent-child relationship with the master.

▼ 6.3.3.6 ADMIN

▼ 6.3.3.6.1 Demonstrate security features – restricted views for vendors, inheritance through content hierarchies, user groups, asset collections

(Security management)

Etere provides stations with a "Rights Management" interface to control and track access to its various modules and functions, with it, stations will be able to freely assign (grant or deny) access to specific user groups (i.e. roles to which one or more users belongs to), thus allowing to set different mixtures of access levels for each group.



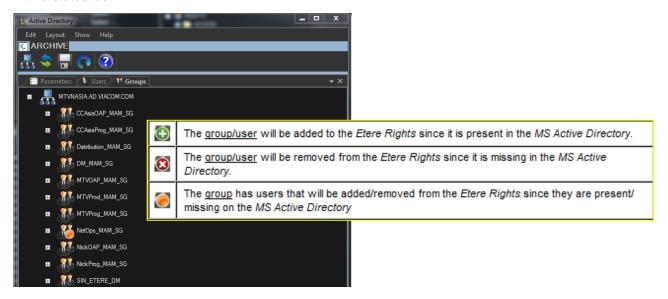
Etere allows managing different –and fully customizable- access levels for users which form part of the system, with Etere; set specific access rights not only for different users, but also for different stations.

It's worth mentioning that when a new version is created of a placeholder, said version will have the same type (e.g. clip) as the original asset, thus inheriting the restrictions active for it.

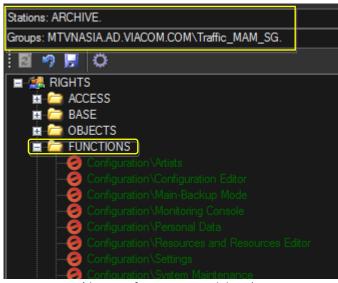
▼ 6.3.3.6.2 Demonstrate permission levels, how do I set them

(Permission levels)

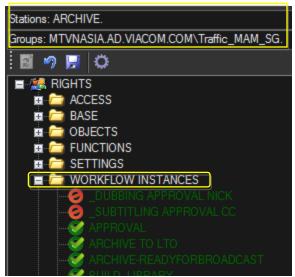
Etere allows creating a new rights structure importing groups and users from your organization's **MS Active Directory**. All groups and users present in the Etere Rights structure can be displayed, allowing to update the Etere Rights structure by synchronizing it against the MS Active Directory. Groups and users will be displayed with a status icon:



All features provided by Etere (e.g. functions, workflows, stations, etc.) falls under different <u>categories</u> according to their, the availability of these functions is determined by the "Rights Management Tool", where rights are set for *specific groups* of users:



(deny configuration capabilities)



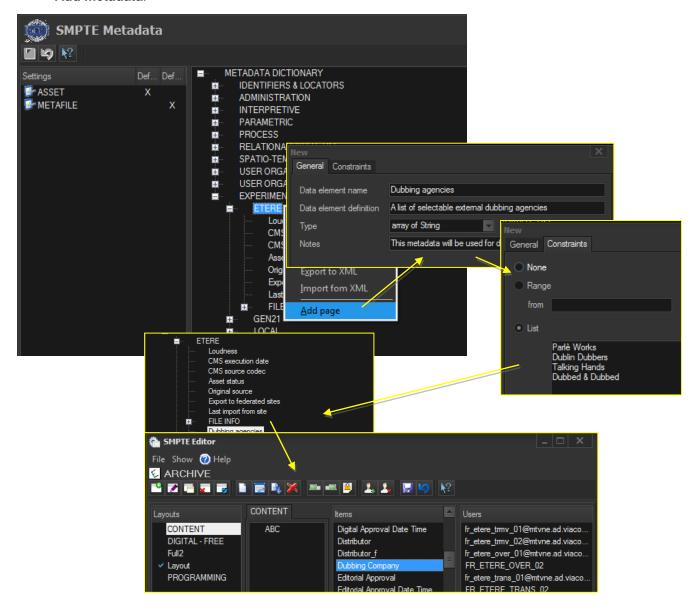
(grant execution of specific workflows)

▼ 6.3.3.6.3 Demonstrate how VIMN administrators are self-sufficient e.g. adding new language to system, new metadata fields, create reports, etc.

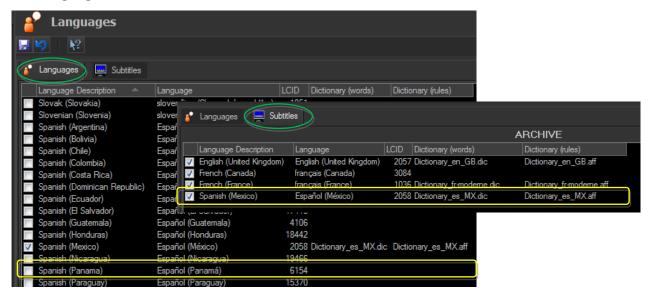
(Configuration and monitoring)

Administrators (i.e. users granted with a "system admin" right) are able to configure and modify all elements that compose the system. For instance, they are able to:

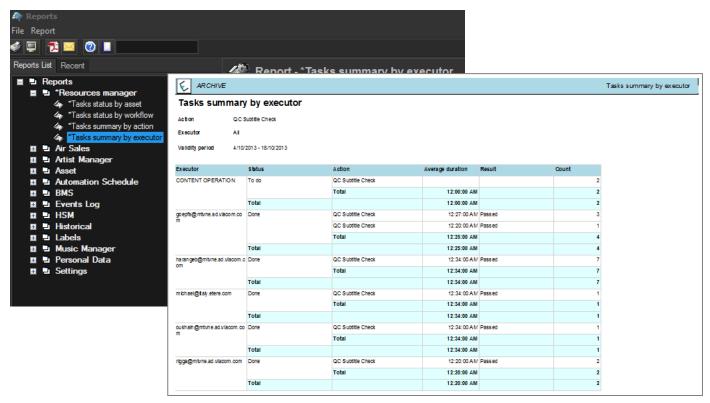
Add metadata:



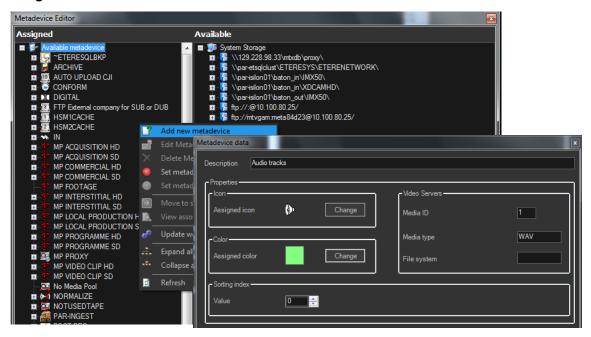
Add languages:



Consult reports:



Add storage metadevices:



▼ 6.3.3.6.4 What are the levels of watermarking & how do I apply them – rotoscoping/fingerprinting, tagging by user/vendor

(Watermark transcoding)

The workflow that export video files to subtitle and dubbing agencies will be enabled to automatically watermark the clip (depending on vendor), thus protecting content from unauthorized use. A set of transcoding actions will be automatically executed from within "Managing" workflow to create the **proxy files** (4:3 or 16:9) required by **vendors**:



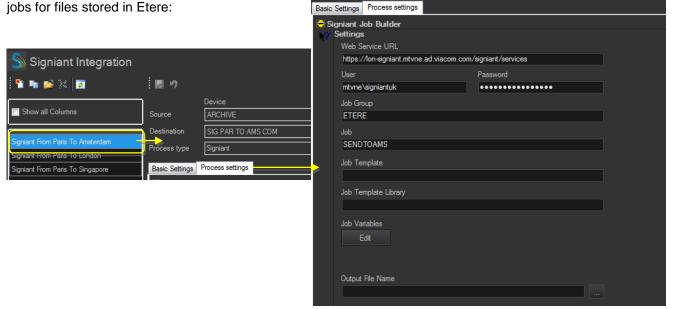
As soon as a production master is prepared (e.g. watermarked) for being sent to subtitling and dubbing agencies, the **ICM team** will be alerted to proceed with the delivery.

▼ 6.3.3.6.5 Describe/show operational and error handling capabilities with integrations of external systems such as encoders, Signiant (parsing errors, trigger workflow based on error etc.)

(External integration)

The tight integration of Etere with major broadcast solutions ensures the integration of existing Signiant systems, allowing to trigger jobs and get updates of progress and status information. Custom "Signiant integration" workflow actions allows requesting -via workflow- the execution of file transfers based on Signiant

jobs for files stored in Etere:



As shown above, the workflow action that enables the integration allows configuring all the parameters required for a tight integration including:

Web service URL	URL on which the Signiant web services is available (i.e. where jobs are managed)
User	Username for accessing the web service.
Password	Password for authenticating the username in the web service.
Job group	The organization group under which the job falls.
Job	ID of the job the in Signiant system
Job template	Signiant job template. If this parameter is blank, the existing job will run.
Job template library	Signiant job template library
Job variables	Set of <i>custom variables</i> to pass to Signiant web service for carrying out the job.
Output filename	The custom name with which files will be named on the target location.

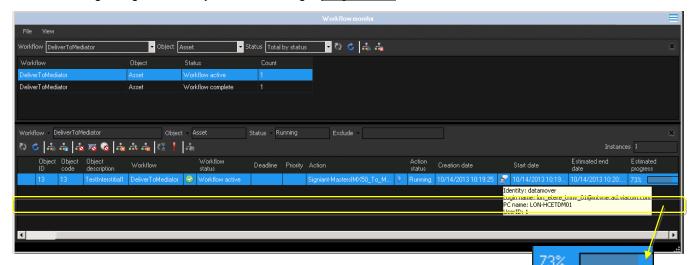
Both job variables and output filename parameters are set using the Rules Editor tool, which enables users to freely build custom names (e.g. to name files on their target destinations) combining database references (e.g. Table Fields, SMPTE Metadata) and free text:



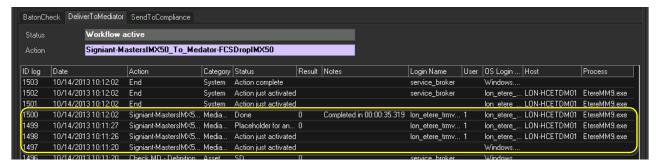
Delivery workflows can be easily and quickly triggered by enabled users from the **Media Library**, just by launching the pertinent workflow:



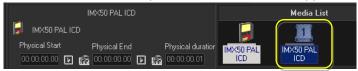
The status and progress of requested transfers will be traceable -from the Workflow Monitor- that will display all information regarding the delivery action including a <u>progress bar</u>:



Besides from the Workflow Monitor, a detailed report on the delivery workflow can be consumed from the Media Library:

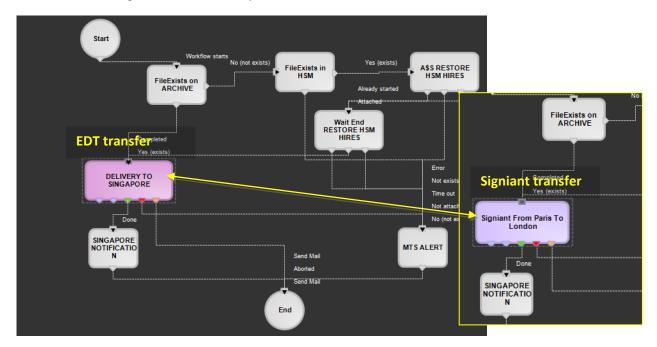


Once the transfer is complete, the new media will appear in the asset's **Media** tab:



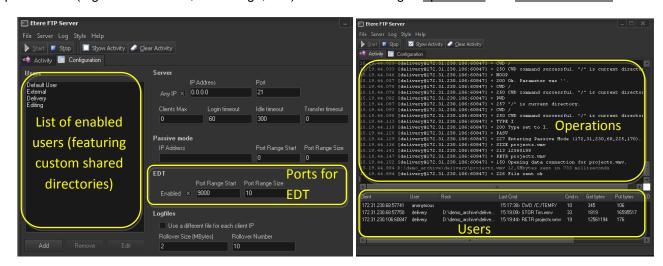
Page 45 of 48

It's worth mentioning that **EDT transfers** can be also used instead of **Signiant transfers** to transfer data, workflows are designed to allow an easy switch between both methods:



EDT (Etere Data Transfer) is a technology developed by **Etere** based on the high-performance data transfer protocol UDT (UDP-based Data Transfer), it uses a streamlined algorithm capable to utilize all the available WAN bandwidth, making of it the ideal solution for data intensive transfers over high speed wide area networks (it's 7 times faster than FTP).

Etere EDT is included in the **Etere FTP server** for custom and faster FTP transfers, providing a wide set of parameters (e.g. enabled users, EDT range, etc.) and a detailed log of <u>operations</u> and <u>connected users</u>:



6.3.4 ASSUMPTIONS

The solution provided is intended only software solution, in the proposal is not included any hardware devices or third party software, an additional document is provided in order to declare the hardware necessary to run correctly the system based on the specification of VIMN.

Based on the agreement with Viacom worldwide Etere is intended to provide the full software packages with unlimited ETERE user CAL, in case is necessary to implement the IT based playout system the software to run the Matrox card is included but the hardware with Matrox card must be purchased separately.

In one of the Q/A we assume that the devices or third party software are the following:

- 2 x Tachyon servers
- 2 x Rhozet transcoders
- 2 x Vantage transcoders
- 2 x Baton (AutoQC)
- 1 x Diva, 2 robots, 2 actors and approx. 1000 slots

Etere will provide a system drawing based on the above list of devices, in case is needed to increment the number of devices to be controlled the price will not change but we need to eventually redesign the system drawing (project management task).

▼ 6.3.5 PROVIDE A RECOMMENDED GOVERNANCE MODEL AND APPROACH TO QUALITY MANAGEMENT

Based on Etere experience is possible to have multiple governance models.

It is difficult to provide governance model if we don't know almost anything about the NY organization, usually this is a task that will be done during the project management session with Etere and VIMN (already quoted for this RFQ).

▼ 6.3.6 PROPOSED APPROACH AND TIMELINE

Q4 2013 or Q1 2014 planning and finalizing the project in details

Q1 2014 to Q2 2014 deploying the system on site

The timeline can vary (faster or slower) depending on the availability of the hardware necessary to deploy the system.

▼ 6.3.7 RISKS AND MITIGATION STRATEGIES

please refer to the Viacom Worldwide agreement

▼ 6.3.8 PRICING SUMMARY

the system is sold and not rent.

Below you can see the pricing summary with the detailed items cost.

items codes	ETERE Pricing summary	units	cost per unit \$ USD	TOTAL \$ USD
basic license	Based on Viacom Worldwide agreement, Etere full software modules packages and unlimited Etere CAL (user license)	1	0	0
maintenance	Support Maintenance, Upgrade and updates, cost per year (must be paid from the first year)	1	\$35.000,00	\$35.000,00
Project management	project management service ON SITE meeting (days)	15	\$1.500,00	\$22.500,00
installation	Etere installation and setup ON SITE (days) all inclusive	60	\$1.350,00	\$81.000,00
Training	Etere training ON SITE (days), all inclusive	30	\$1.350,00	\$40.500,00
Customization	Etere customization and develope special request price per day	25	\$600,00	\$15.000,00
			TOTAL	\$194.000,00