

# PROPOSAL

**Etere**  
a consistent system

## RRSAT:

A Cloud-based and Workflow-driven solution for a smooth management of shared media



March 2014



# TABLE OF CONTENTS

TABLE OF CONTENTS .....	2
OVERVIEW .....	4
REQUIREMENTS AND WORKFLOWS.....	5
▼ 1. FILE MANAGER .....	6
▼ 1.1. Multi-storage .....	6
▼ 1.2. Data Mover .....	7
▼ 1.3. DIVA Archive integration .....	8
▼ 1.4. FTP support .....	9
▼ 1.5. Media Location .....	10
▼ 1.6. Importing files .....	11
▼ 2. WORKFLOW ENGINE .....	12
▼ 2.1. Creation of workflows .....	12
▼ 2.2. Common workflows .....	13
▼ 2.3. Reporting services .....	26
▼ 2.4. Batch workflow execution .....	27
▼ 3. LOW-RESOLUTION BROWSE VIEWING .....	29
▼ 3.1. Preview Browser .....	29
▼ 3.2. Subtitles and audio tracks .....	31
▼ 3.3. Workflow triggering .....	32
▼ 3.4. Multiple timecode preview .....	33
▼ 4. BROWSE & SEARCH .....	34
▼ 4.1. Robust search engine .....	34
▼ 4.2. Federate searches .....	36
▼ 5. LOGGING .....	37
▼ 5.1. Flexi-metadata .....	37
▼ 6. PROXY EDITING .....	39
▼ 6.1. EDL marking .....	39
▼ 6.2. Partial retrieve .....	40
▼ 6.3. Adobe editing integration .....	41
▼ 7. ASSETS LOGS .....	44
▼ 7.1. Detailed operations records .....	44
▼ 7.2. Asset flexi-metadata .....	46
▼ 8. CONTENT TRAFFIC MANAGEMEMENT .....	47

▼ 8.1.	Media location and tracking .....	47
▼ 8.2.	Report .....	47
▼ 9.	<b>CUSTOMER (COMPANY) DATA .....</b>	<b>47</b>
▼ 9.1.	Personal Data .....	47
▼ 10.	<b>PRICING MODULE .....</b>	<b>49</b>
▼ 10.1.	Costs structure .....	49
▼ 11.	<b>DISPATCH NOTES .....</b>	<b>51</b>
▼ 11.1.	Delivery reports.....	51
▼ 12.	<b>JOB CONTROL .....</b>	<b>51</b>
▼ 12.1.	Resources Management .....	51
▼ 13.	<b>CLIENT WEB INTERFACE .....</b>	<b>54</b>
▼ 13.1.	Web portal.....	54
▼ 13.2.	Authenticated access and rights.....	55
▼ 13.3.	Tapeless reception .....	55
▼ 13.4.	Workflow integration.....	56
▼ 13.5.	Centralized monitoring .....	57
▼ 13.6.	Workflow integration.....	58
▼ 13.7.	Users permissions .....	59
▼ 14.	<b>TRACKERS .....</b>	<b>62</b>
▼ 14.1.	Monitoring Console.....	62
▼ 15.	<b>INCIDENT MONITORING (TICKET MANAGEMENT) .....</b>	<b>64</b>
	<b>ADMINISTRATE THE SYSTEM .....</b>	<b>65</b>
	System Logs.....	65
	Users and Group Rights.....	65
	Limit control .....	66
	System Configuration.....	67
	<b>MULTI-SITE INSTALLATION .....</b>	<b>69</b>
	Federated architecture.....	69
	Easy configuration .....	70
	Automatic synchronization .....	71
	Federate search.....	72
	Remote management .....	73

## OVERVIEW

**RRSat Global Communications Network Ltd** is an Israeli based provider of content management and distribution services to the television and radio broadcasting industries. Their services include Uplink, Downlink, Playout and Turnaround, given to over more than 630 television channels and radio channels in more than 150 countries.

**RRsat** was founded in 1981 and operates in Israel under license from the Israeli Ministry of Communications, in the USA under various licenses from the Federal Communications Commission and in the UK under a license for Transportable Earth Stations.

**RRsat** has advanced media asset solutions result in efficient, robust, high quality performance, their attention to our needs, in both playout and uplink services, combined with a high level of technological know-how, is why we chose **RRsat** to playout and deliver our channel.

**ETERE** is able to provide **RRSAT** 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 **RRSAT**. 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 **RRSAT** to smoothly **manage its internal shared content** from end-to-end, from the initial creation of placeholders to final delivery of content. The use of workflow-based technology will permit **RRSAT** to significantly improve its **international content supply chain** by introducing the following enterprise capabilities:

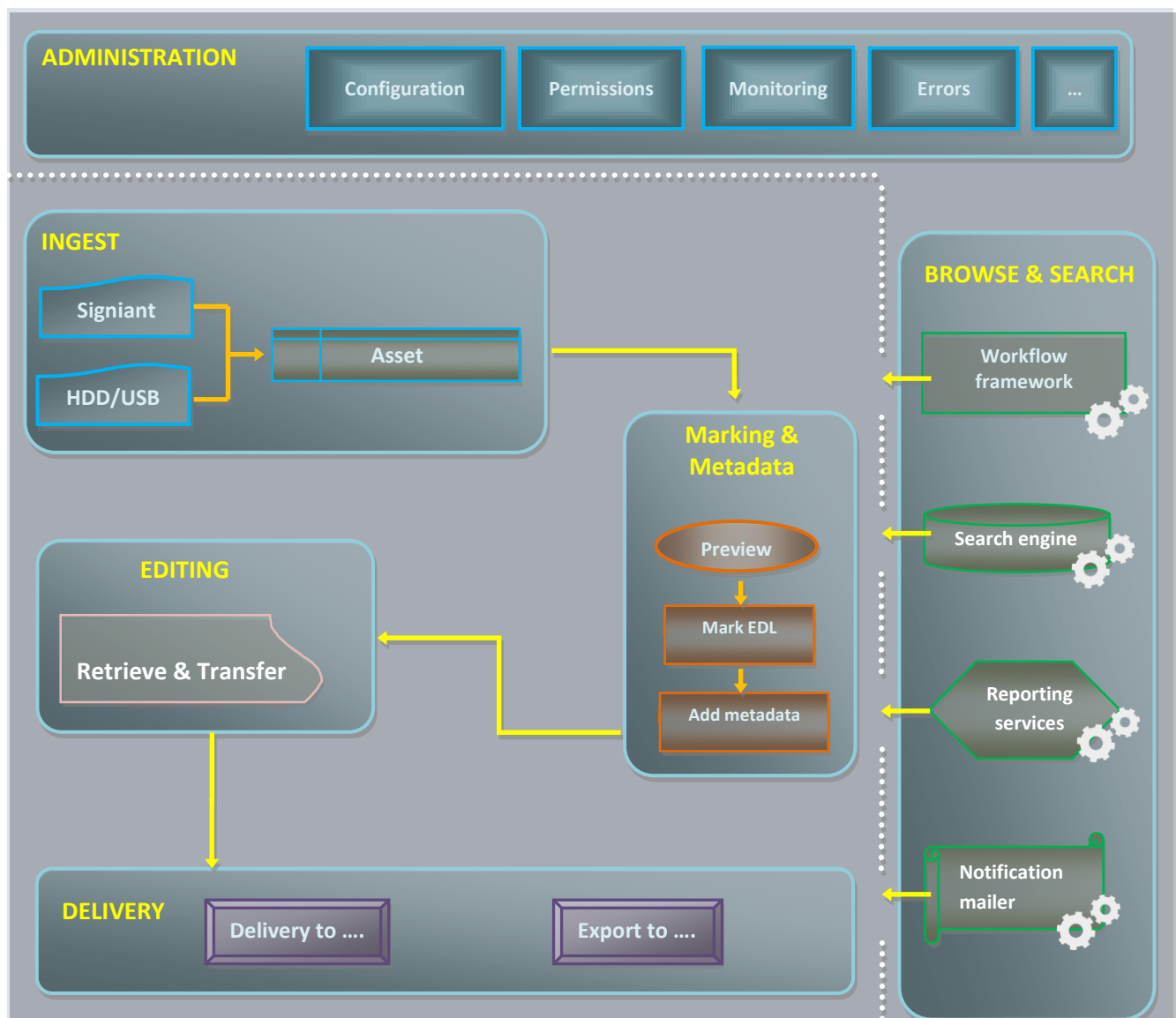
### Key capabilities:

- 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

## REQUIREMENTS AND WORKFLOWS

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 **RRSat**. The following diagram illustrates the organization of **topics** covered in this chapter:

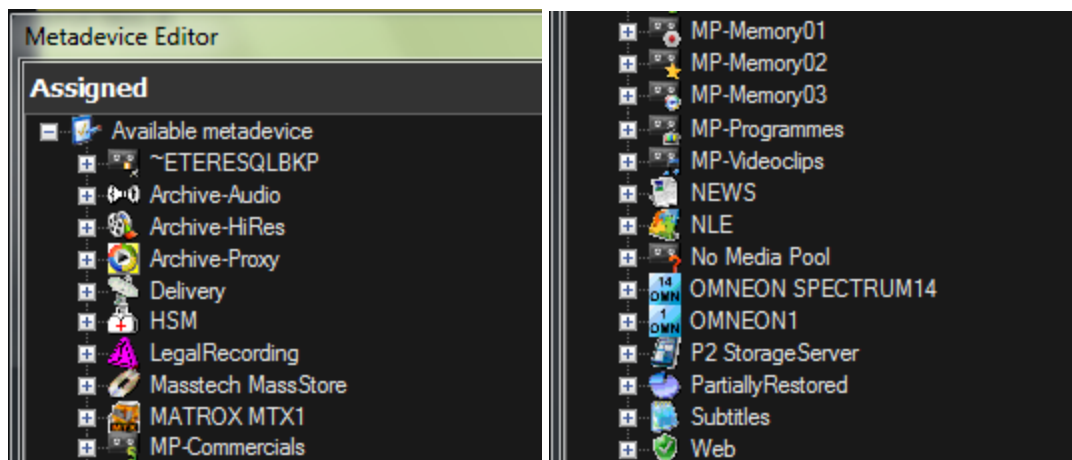


## ▼ 1. FILE MANAGER

### ▼ 1.1. Multi-storage

*(Links to a multitude of different file stores both centralized (WARP, SAN, etc.) and distributed (PCs, Macs, etc.) for the storage and management of media assets)*

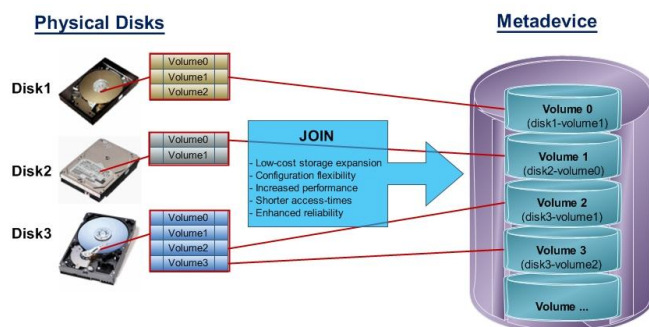
Etere systems improves the media management by introducing a **hierarchical storage management** consisting in the use of different storage levels based on the frequency of use of the files stored on them.



A **hierarchical storage** allows files which are frequently used to be stored on video servers (i.e. online servers) whereas those which are not used for a certain period of time (e.g. typically a few months) will be eventually archived in tapes (or any other long-term storage mean) and then automatically restored -to video servers- every time they are required by the broadcast playlist.

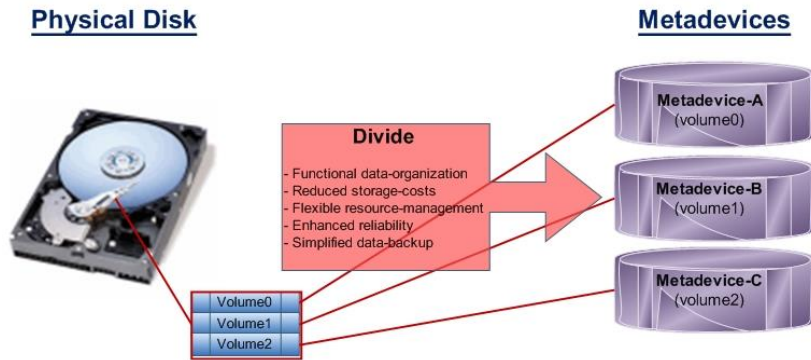
#### Metadevice management

- Automated management via workflow of logical devices including archiving, restoring, transcoding, etc.,
- Monitored storage space owing to the set of restrictions,
- Increased storage and better performance since metadevices acts as a virtual device representing several logical disks or disk systems:





- Distributed storage according to specific requirements without the need of creating partitions, just associate individual disk volumes to different:



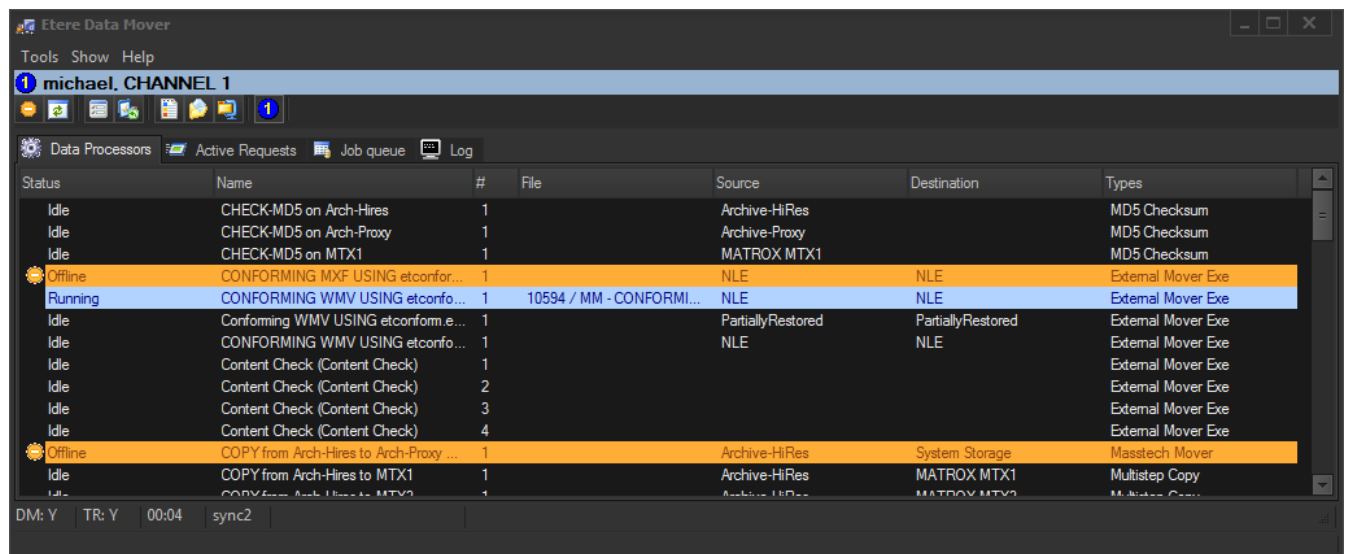
## ▼ 1.2. Data Mover

*(Ability to move files around, rename files and use watch folders to introduce new files into the system)*

The Media Management solution proposed to encompass station's content transfer and archiving goes beyond of a simple copy concept by moving video files based on custom policies, transcoding video files when required and offering a full track of all operations.

**Data Mover** is the application used to perform the physical storage and retrieval of video files, a typical Data Mover operation would be to move a video clip from a video server to an archive based on custom actions which are defined and executed via workflow.

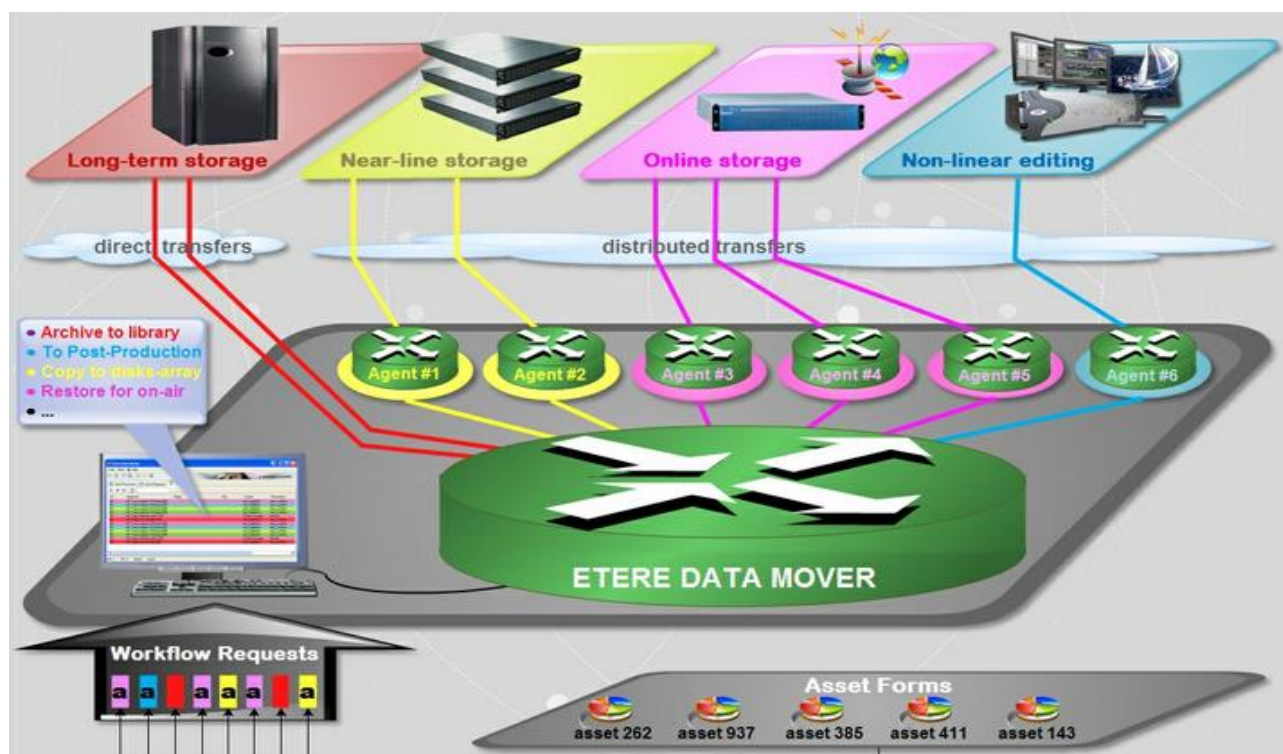
Video contents will be transferred between the various departments (e.g.: near-line storage, archive, post-production, playout, browsing, and even non-Etere systems) by **Etere DataMover**; this migration process also includes rewrapping and transcoding capabilities.



Etere's approach is oriented to "virtualize" the entire media management process, improving it with flexibility, customization and most important cost-effectiveness. Etere manages (logical) metadevices instead of (physical) devices, this approach results in a wide range of possibilities for the media management, for example, it is possible to control with one click the available space of all metadevices:

Device name	Total	Available	Free space
NLE-100	1,34 Tb	1,04 Tb	78%
NLE-220	686,50 Gb	535,78 Gb	78%
NLE-350	2,01 Tb	1,56 Tb	78%
OmneonLR			0%
P2 Storage Server	4,69 Tb	3,66 Tb	78%
VS-MTX1	Not available	0,00 b	0%
VS-MTX3	465,75 Gb	203,47 Gb	43%

**Data Mover** is capable to provide both, distributed processing for using an independent agent per data transfer and parallel processing for simultaneously performing different instances of one data transfer; these features will allow stations to exploit high computing resources to use a single workstation to perform multiple transfers, thus enhancing the flexibility, scalability and fault-tolerance of the entire Etere system.



### ▼ 1.3. DIVA Archive integration

*With integration to Diva archive system for archive and restore.*

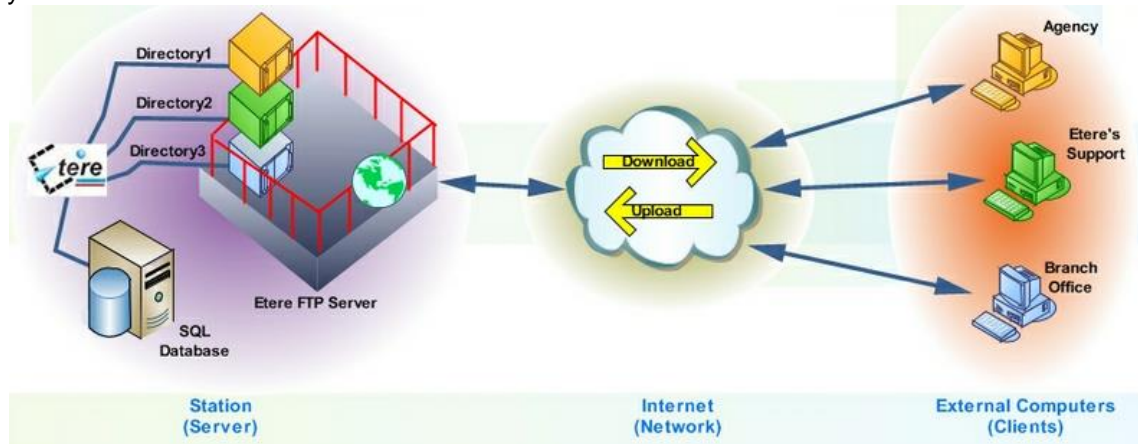
**Etere** fully supports integrating **DIVArchive** systems, allowing archiving and restoring media files via workflow as explained in chapter 2.2 **Common workflows**.



## ▼ 1.4. FTP support

*Support for SMP/FTP.*

**Etere FTP Server** is a special product mainly designed for sharing large video files, so most of its efforts are directed toward optimizing the file exchange process. Its unique architecture allows you to share large files minimizing fragmentation, improving in this way its overall performance by almost 20% more than any other currently available FTP software.



**Etere FTP Server** is a really useful tool, with a great performance and scalability as usual in Etere applications, it provides an advanced feature set, giving you total control through a simple and intuitive interface which makes of **Etere FTP Server** easy to configure and use. Its advantages are described in brief in the following key points:

- ✓ Allows external entities to exchange (either upload or download) files with your organization.
- ✓ Avoids excessive disk fragmentation,
- ✓ Easy, reliable and efficient transfer of High volumes of data,
- ✓ Capable to share an unlimited number of directories to specific users.
- ✓ EDT technology to increase the transfer rate efficiency in up to seven times on high-latency WAN networks.

**Etere FTP Server** provides a wide set of parameters (e.g. enabled users, EDT ports, etc.) and a detailed log of operations and connected users:

The image displays two screenshots of the Etere FTP Server interface. The left screenshot shows the 'Configuration' window with various settings. The right screenshot shows the 'Activity' window with a log of operations and a table of connected users.

**Configuration Window:**

- Users:** List of enabled users (featuring custom shared directories).
- Server:** IP Address, Port, Clients Max, Login timeout, Idle timeout, Transfer timeout.
- Passive mode:** IP Address, Port Range Start, Port Range Size.
- EDT:** Port Range Start, Port Range Size, Enabled, Rollover Size (MBytes), Rollover Number.
- Logfiles:** Use a different file for each client IP, Rollover Size (MBytes), Rollover Number.

**Activity Window:**

**Operations**

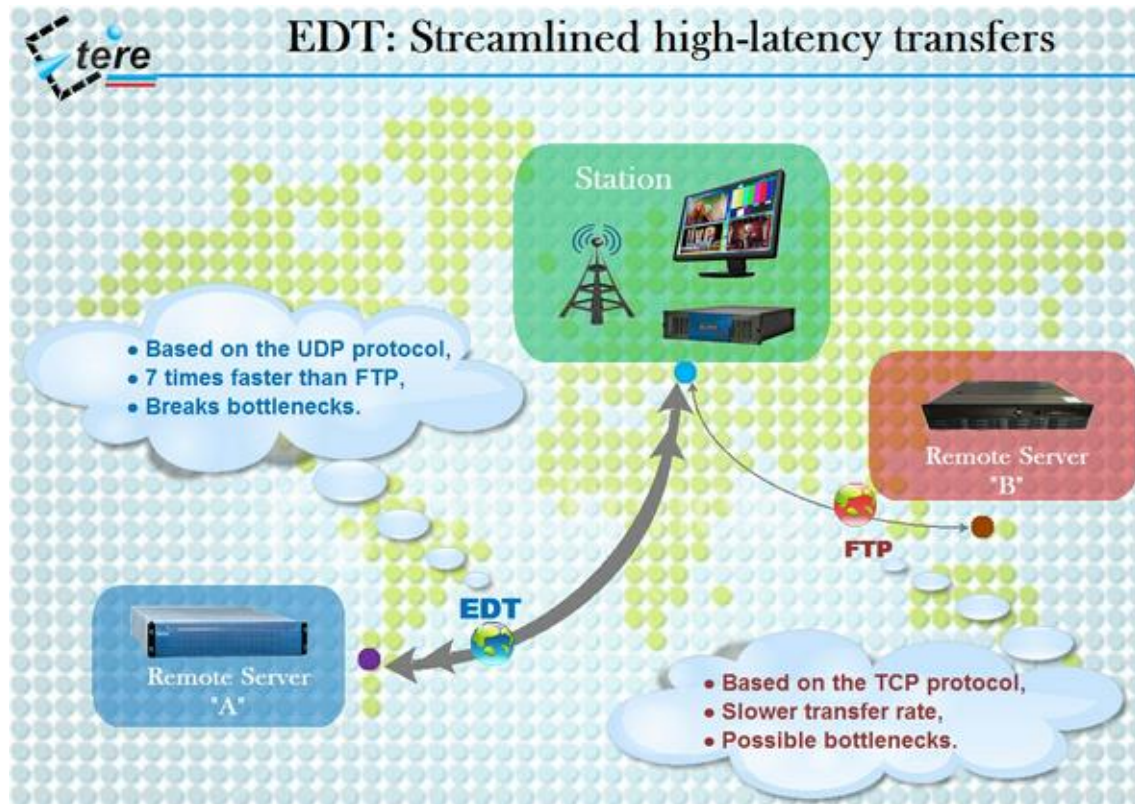
```

15:44:003 [delivery0172.31.230.106:60847] > CWD /
15:44:033 [delivery0172.31.230.106:60847] < 250 CWD command successful. "/" is current directory.
15:44:046 [delivery0172.31.230.106:60847] > NOOP
15:44:057 [delivery0172.31.230.106:60847] < 200 OK. Parameter was "".
15:44:070 [delivery0172.31.230.106:60847] > CWD /
15:44:076 [delivery0172.31.230.106:60847] < 250 CWD command successful. "/" is current directory.
15:44:082 [delivery0172.31.230.106:60847] > PWD
15:44:087 [delivery0172.31.230.106:60847] < 257 "/" is current directory.
15:44:090 [delivery0172.31.230.106:60847] > CWD /
15:44:098 [delivery0172.31.230.106:60847] < 250 CWD command successful. "/" is current directory.
15:44:113 [delivery0172.31.230.106:60847] > TYPE I
15:44:118 [delivery0172.31.230.106:60847] < 200 Type set to ASCII.
15:44:126 [delivery0172.31.230.106:60847] > PASV
15:44:129 [delivery0172.31.230.106:60847] < 227 Entering Passive Mode (172,31,230,60,225,170).
15:44:136 [delivery0172.31.230.106:60847] > SIZE projects.vmw
15:44:141 [delivery0172.31.230.106:60847] < 213 12561194
15:44:147 [delivery0172.31.230.106:60847] > RETR projects.vmw
15:44:152 [delivery0172.31.230.106:60847] < 150 Opening data connection for projects.vmw.
15:44:184 D:\demo_archive\delivery\projects.vmw 15:00bytes sent in 733 milliseconds
15:44:184 [delivery0172.31.230.106:60847] < 226 File sent ok
  
```

**Users**

Client	User	Root	Last Cmd	Cmd n.	Get bytes	Put bytes
172.31.230.68.57741	anonymous		15:17:38: CWD /C/TEMP/	10	345	106
172.31.230.68.57750	delivery	D:\demo_archive\delive...	15:19:09: STOR Tim.vmw	33	1819	16595517
172.31.230.106.60847	delivery	D:\demo_archive\delive...	15:19:44: RETR projects.vmw	19	12561194	176

Moreover, **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):

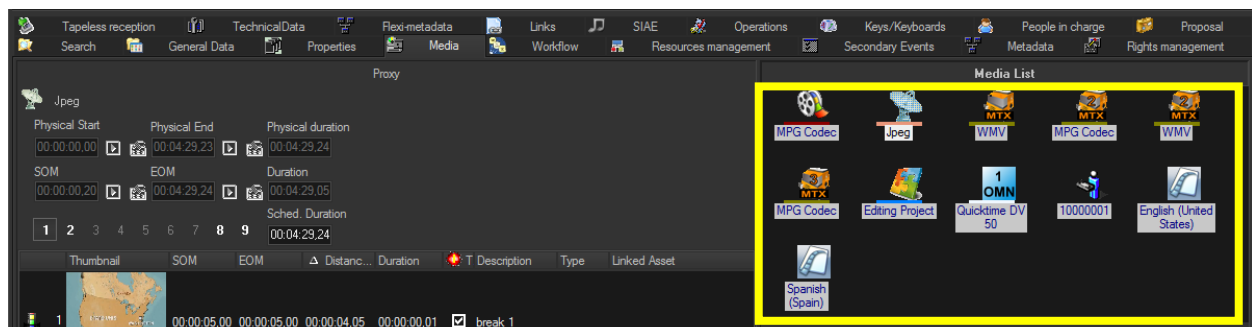


**Etere EDT** is included in the **Etere FTP server** for custom and faster FTP transfers.

## ▼ 1.5. Media Location

*See where all media is located.*

Etere offers a multi-file storage of media content, it allows organizing in devices and codecs an unlimited number of files.



A more detailed view is provided through a “Technical Data” section, which provides all technical information on media files associated to assets:

Media Name	Codec	Last modify	Offline	Automat...	Device	Path	Filename	MD5	Original relative path	Original filename	Deadlines
CLIP0000000001	WMV	24/01/2014 11:12:29			MATROX MTX100	\\172.31.230.125\ntxdb\prox\	CLIP0000000001.w...			CLIP0000000001.w...	
1	WMV	01/10/2013 12:44:53			MATROX MTX2	\\172.31.230.86\ntxdb\prox\	1.wmv				
CLIP0000000001	QD50	28/01/2014 15:51:28			OMNEON1	\eterew10\TEST\	CLIP0000000001.M...				
1	MPG	13/01/2014 16:29:07			MATROX MTX2	\\172.31.230.86\ntxdb\video\	1.MXF				
1	MPG	28/11/2013 12:48:35			Archive-HiRes	\michaelw7\ntxdb\Video\	1.mxf				
1	MPG	13/01/2014 16:29:30			MATROX MTX3	\\172.31.230.85\MTXDB\video\	1.MXF				
1	JPG	02/10/2013 11:40:43			Delivery	\michaelw7\My FTP Server\Delivery\	1.jpg				
1	EPRJ	11/09/2013 16:55:34			NLE	\michaelw7\My FTP Server\NLE\HD100...	02BD000000000000...		Tracks\	Wonderwall (album)...	
1	EPRJ	11/09/2013 16:55:34			NLE	\michaelw7\My FTP Server\NLE\HD100...	02BD000000000000...		Pictures\	Wonderwall_thumbn...	
1	EPRJ	11/09/2013 16:55:34			NLE	\michaelw7\My FTP Server\NLE\HD100...	02BD000000000000...		Tracks\	Wonderwall (instrum...	
1	EPRJ	11/09/2013 16:55:34			NLE	\michaelw7\My FTP Server\NLE\HD100...	02BD000000000000...		Documents\	Wonderwall_Agenc...	
1	EPRJ	11/09/2013 16:55:34			NLE	\michaelw7\My FTP Server\NLE\HD100...	02BD000000000000...		EDL\	Wonderwall.ed	
1	EPRJ	11/09/2013 16:55:34			NLE	\michaelw7\My FTP Server\NLE\HD100...	02BD000000000000...		Video\	Wonderwall (live).mxf	
1	EPRJ	11/09/2013 16:55:34			NLE	\michaelw7\My FTP Server\NLE\HD100...	02BD000000000000...		Video\	Wonderwall (album)...	
1	EPRJ	11/09/2013 16:55:34			NLE	\michaelw7\My FTP Server\NLE\HD100...	02BD000000000000...		Video\	Wonderwall (live).wmv	
1	EPRJ	11/09/2013 16:55:34			NLE	\michaelw7\My FTP Server\NLE\HD100...	02BD000000000000...		Tracks\	Wonderwall (live).wav	
1	EPRJ	11/09/2013 16:55:34			NLE	\michaelw7\My FTP Server\NLE\HD100...	02BD000000000000...		Video\	Wonderwall (album)...	

## ▼ 1.6. Importing files

The **Media Library** provides a wide set of function to quickly import files into assets from local/network directories, using unique filenames and conserving their original information (path, sub-path and filename):

The screenshot shows the 'ARCHIVE, Media Library' window. The 'Import' menu is open, displaying the following options:

- Video file import
- Video file link
- Videofile multi-import
- Video file export
- Project folder import

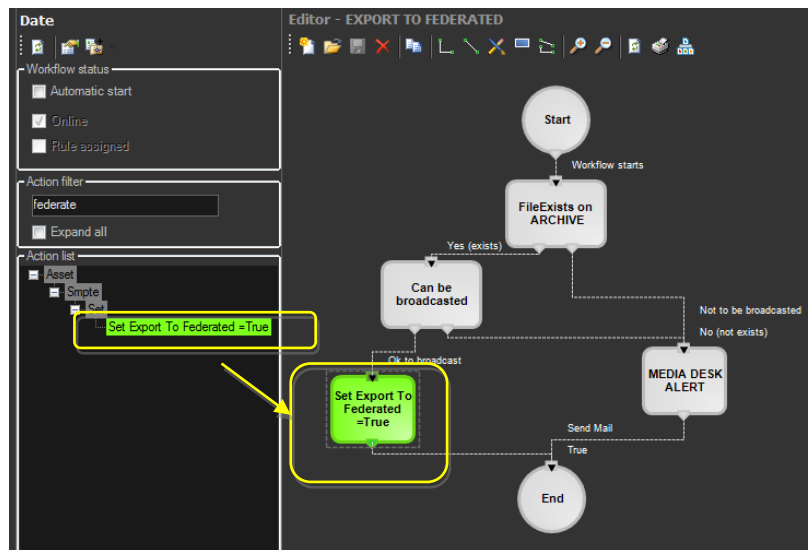
The main window displays a table of media files with columns: ID, Code, Title, Version, Physical Start, Physical End, Physical duration, and Duration. The table shows several entries for 'BUNDLE PROMO' with IDs starting with '06450000000000000000' and 'PROJ'.

## ▼ 2. WORKFLOW ENGINE

### ▼ 2.1. Creation of workflows

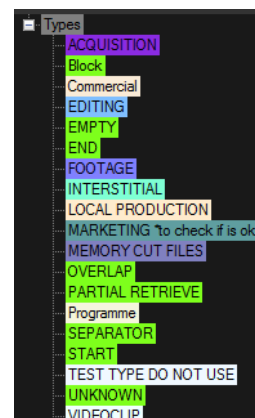
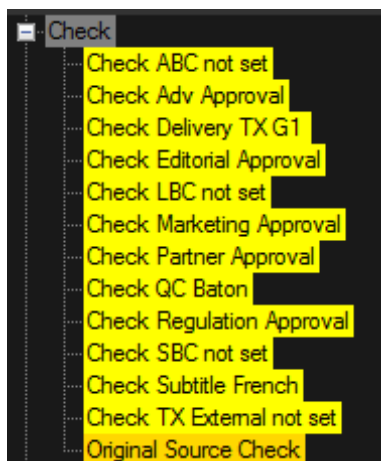
*(Create new workflow simply and easily, without the need for a highly skilled technical specialist)*

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:

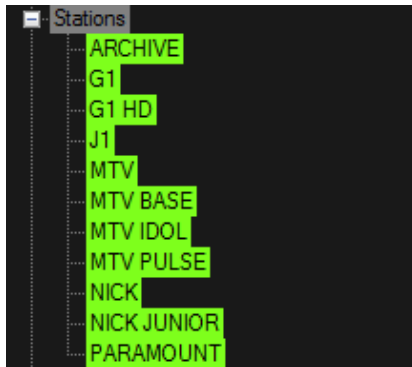


A wide number of action types are available to automate the “intelligent decision taking” of workflows, it's possible to use, for instance:

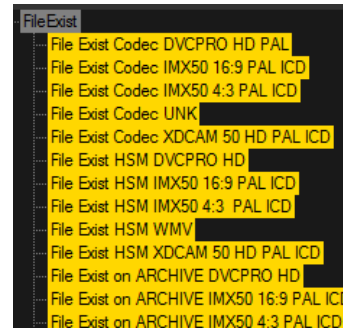
- Take an action based on **metadata**:
- Take an action based on **asset type**:



- Take an action based on **enabled station**:

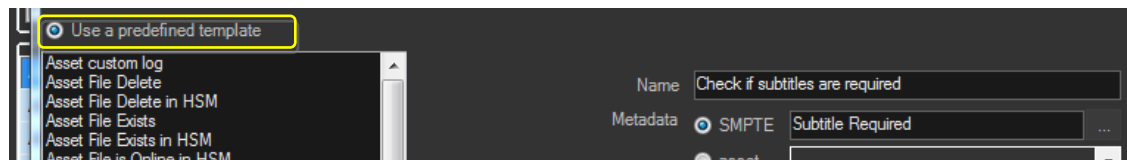


- Take an action based on **storage metadvice**:



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 one of the 60 different templates available in the system:



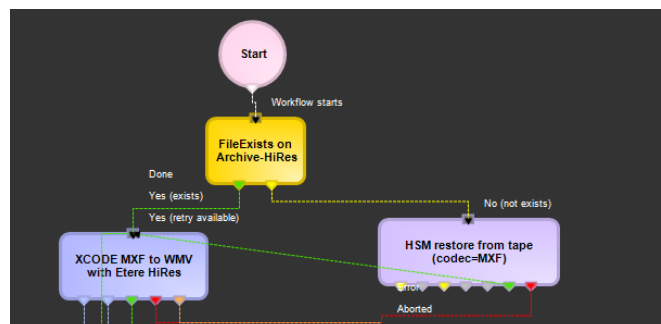
## ▼ 2.2. Common workflows

*(Control of different workflow elements)*

### i. Transcoding

*(Transcoding)*

Etere's integration with Rhonet's Carbon Coder software handles a wide array of critical operations including format conversions, workflow operations that can be launched for example, immediately after a content capture:

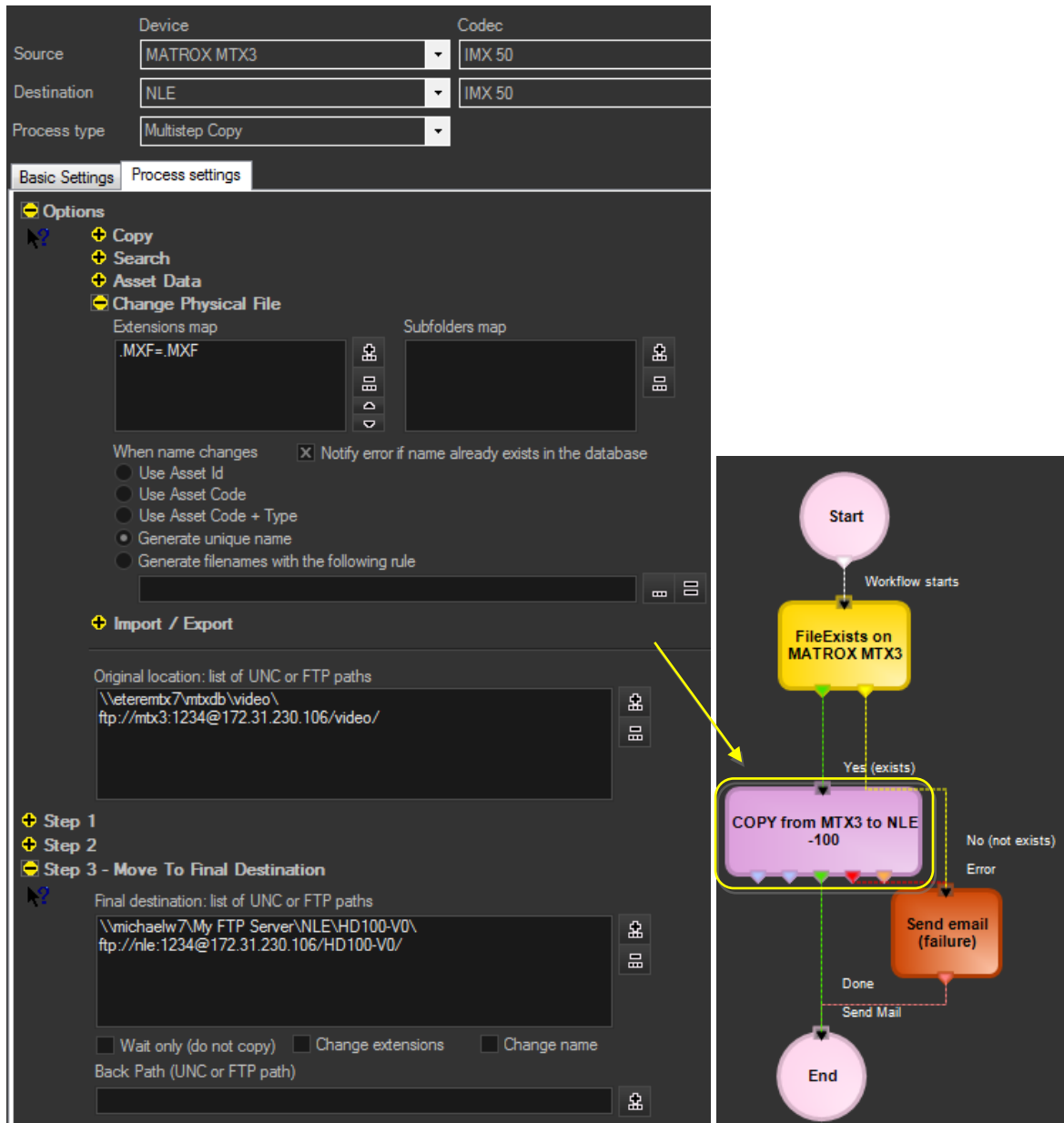




## ii. File move

(File move)

Etere provides a wide set of actions and functions to transfer media between devices:

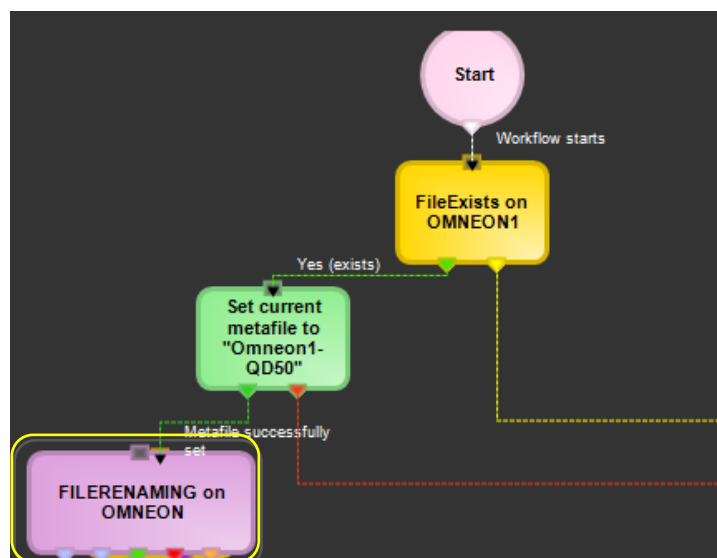


### iii. File rename

(File renaming)

A **File Renaming** action allows renaming a video file associated to a certain asset and updating its data into the Etere's database, thus keeping all data associations coherent. New names can be set either manually or automatically based on metadata (e.g. code, type, title, etc.) stored in the database:

The screenshot shows the 'File Renaming' configuration window in the Etere software. At the top right, the asset ID '2954 [mm-dm-86d66]' is displayed. The 'Source' and 'Destination' are both set to 'Archive-HiRes', and the 'Codec' is 'IMX 50'. The 'Process type' is 'File Renaming'. Below these are tabs for 'Basic Settings' and 'Process settings'. The 'Basic Settings' tab is active, showing a 'Change name' section with a yellow border. This section includes checkboxes for 'Change name' and 'Notify error if name already exists in the database', both of which are checked. Below these are radio button options: 'Use Asset Id', 'Use Asset Code', 'Use Asset Code + Type', 'Generate unique name', and 'Generate filenames with the following rule'. The 'Generate unique name' option is selected. A text input field for a custom rule is visible at the bottom of the section, with a 'set' button next to it.



#### iv. Drop folder monitor

(Monitor drop folders)

Workflow copies can be defined to put files on “**watch folders**” so automatic actions (e.g. HiRes transcoding) will be automatically executed:

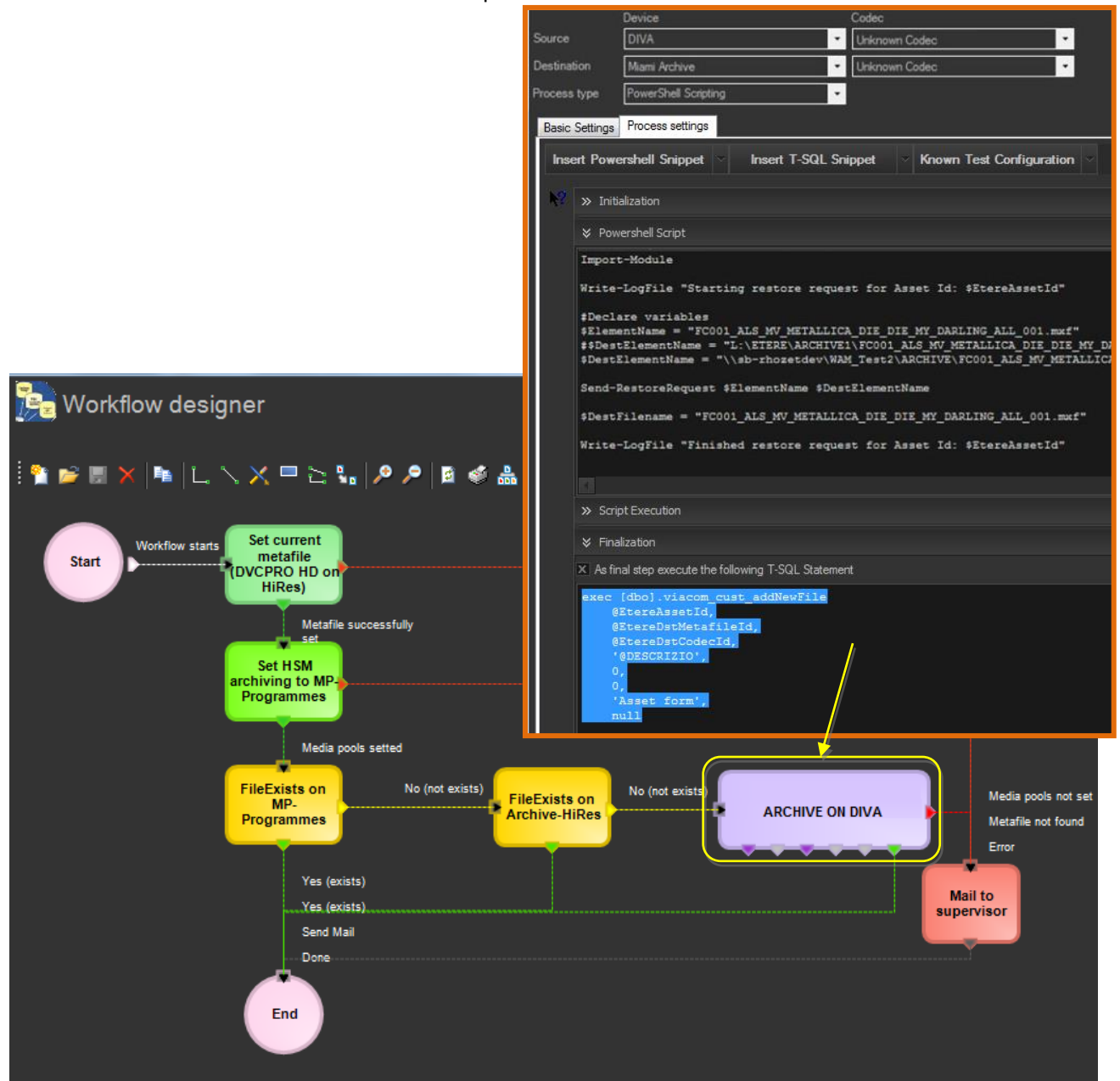
The screenshot displays the 'Process settings' tab for a workflow configuration. At the top, there are three dropdown menus: 'Device' set to 'MATROX MTX3', 'Destination' set to 'Delivery', and 'Process type' set to 'Multistep Copy'. Below these are two tabs: 'Basic Settings' and 'Process settings', with the latter being active. Under the 'Process settings' tab, there is a section titled 'Options' with a plus icon. This section contains three steps, each highlighted with a yellow border:

- Step 1:** 'First intermediate destination (UNC or FTP path)' with the text input '\\zcp500\xcoding1\'. Below the input are two checkboxes: 'Wait only (do not copy)' (unchecked) and 'Change extensions' (unchecked).
- Step 2:** 'Second intermediate destination (UNC or FTP path)' with the text input '\\zcp500\xcoding2\'. Below the input are two checkboxes: 'Wait only (do not copy)' (unchecked) and 'Change extensions' (unchecked).
- Step 3 - Move To Final Destination:** 'Final destination: list of UNC or FTP paths' with a text area containing '\\michaelw7\My FTP Server\Delivery\'. To the right of the text area are three icons: a folder, a document, and a list. Below the text area are three checkboxes: 'Wait only (do not copy)' (checked), 'Change extensions' (checked), and 'Change name' (unchecked). At the bottom of this step is a 'Back Path (UNC or FTP path)' input field.

## v. Archive file to Diva

(Archive file to DIVA)

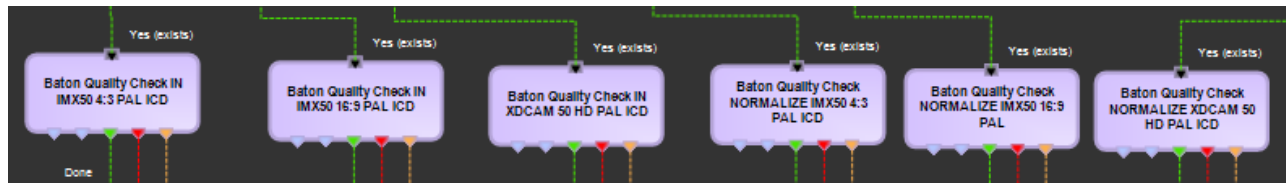
**Front Porch DIVArchive** can be interfaced to archive and restore files via workflow through the use of “PowerTools” actions based on PowerShell scripts:



## vi. QC file with Baton

(QC with baton or Harmonic or MediaInfo, and information retrieval)

Once a file is ingested, an integrity check and validation can be automatically performed against **RRSat's** specifications using an automated **Baton QC** managed via workflow:



Example of a workflow integrating Baton QC

The **Baton QC** can be automatically performed for master files or derivatives (i.e. subtitle file, dubbed file, etc.) 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**:

**Virtual Document**

Virtual Document n° 21

Date: 31/07/2013 17:47:00 | Description: Baton QC on 06450000000000004AB3

**Verification Report**

File Name: 06450000000000004AB3.MXF

Verified By: HDMXF-XDCAMHD - FRA profile June13

Task executed on: 20 Aug 13, 7:24:53 PM

Company Name: VAPCOM

Result: Failure (Errors: 1, Warnings: 58892)

**Verification Summary**

Content Verified	06450000000000004AB3.mxf
Format	MXF
Test Plan Used	SDMXF-IMX50-FRA profile June13
Task Result	Content has warnings
Number of errors	0
Number of warnings	1
Task Created on	31 Jul 13, 5:43:03 PM
Task created by	

**Content Summary**

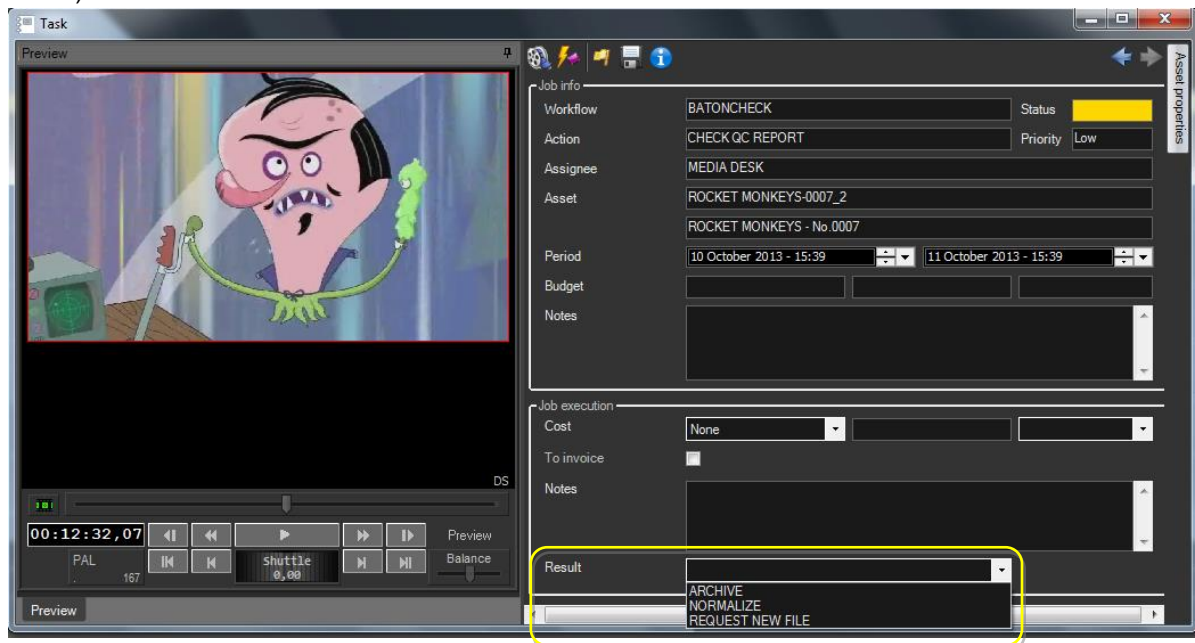
Container		Video		Audio	
Format	MXF	Format	MPEG2 Video	Format	AES3 Audio
Video tracks	1	Profile	4:2:2	Bit rate	1152 (kbps)
Audio tracks	1	Resolution	720x608	Sample rate	48000 (Hz)
		Chroma format	4:2:2	Channels	4
		Frame rate	25 fps		
		Picture scanning type	Interlaced		



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

XDCAM 50 HD PAL ICD									
XDCAM 50 HD PAL ICD									
Physical Start		Physical End		Physical duration					
09:58:00,00		10:23:08,17		00:25:08,18					
SOM		EOM		Duration					
09:58:00,00		10:23:08,17		00:25:08,16					
1		2		3		4		5	
6		7		8		9		Sched. Duration	
09:58:00,00		10:23:08,17		00:25:08,16		00:25:08,18			
SOM		EOM		Δ Distance		Duration		T Description	
1		09:58:00,00		09:58:00,00		00:00:00,00		00:00:00,01	
2		09:58:00,00		09:58:00,00		00:00:00,00		00:00:00,01	
3		19:59:53,22		19:59:53,22		10:01:53,22		00:00:00,01	
								[CAUTION]Potentially Harmful Video Flashes detected.	
								[CAUTION]Potentially Harmful Video Flashes detected.	
								Extended Flashing Video Activity Detected	

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 flexi-metadata). **Baton QC** operations can be tracked from the **Workflow Monitor**, displaying relevant information:

Workflow monitor

File View

Workflow: BatonCheck Object: Asset Status: Total by status

Workflow	Object	Status	Count
BatonCheck	Asset	Workflow complete	3

Workflow: BatonCheck Object: Asset Status: Running Exclude:

24%

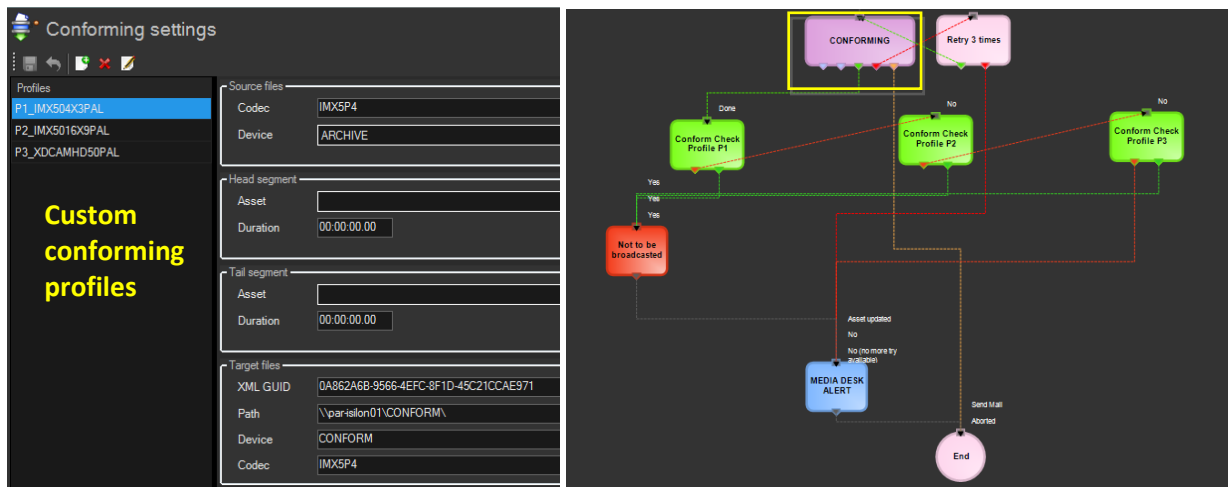
Instance: 1

ID	Code	Description	Workflow	Workflow status	Priority	Action	Action status	Creation date	Start date	Estimated end date	Estimated progress
13	13	TestIntermittent	BatonCheck	Workflow active		Baton Quality Check: MASTE	Running	10/14/2013 10:27:14	10/14/2013 10:27	10/14/2013 10:28	24%

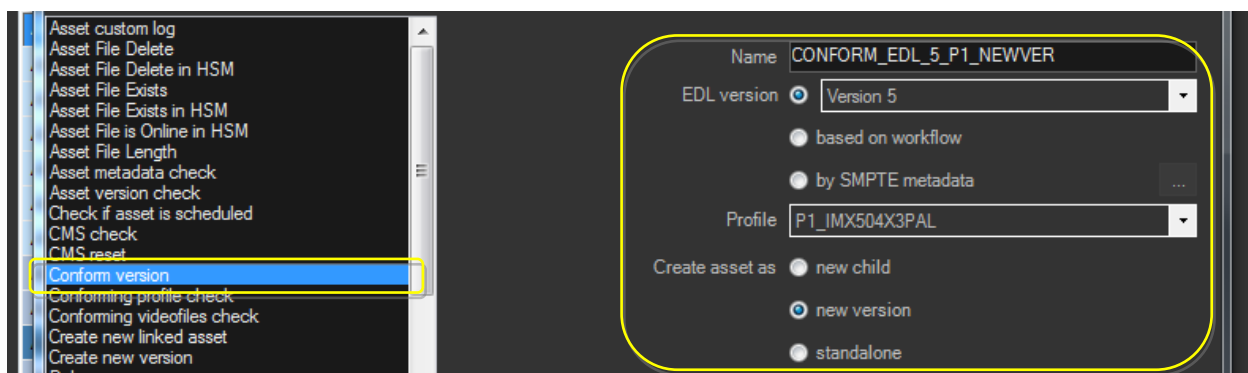
## vii. Auto-edit

(Auto edit, like remove black)

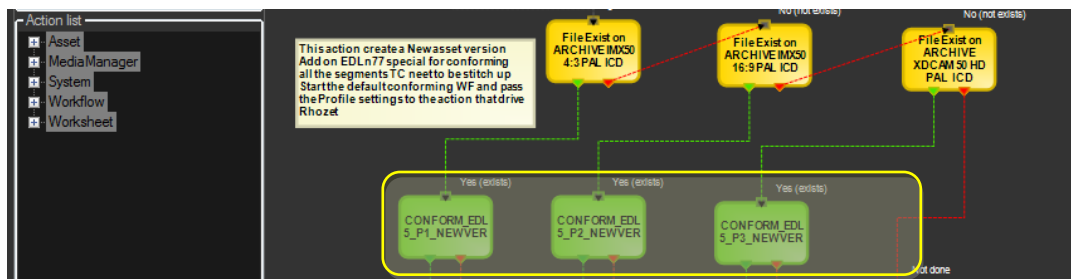
Technical parts (e.g. black cuts) or editorial content related parts (e.g. bumper, intro, outro, etc.) can be conformed according to custom **conforming profiles** including head and tail segments as well as dedicated transcoding presets:



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



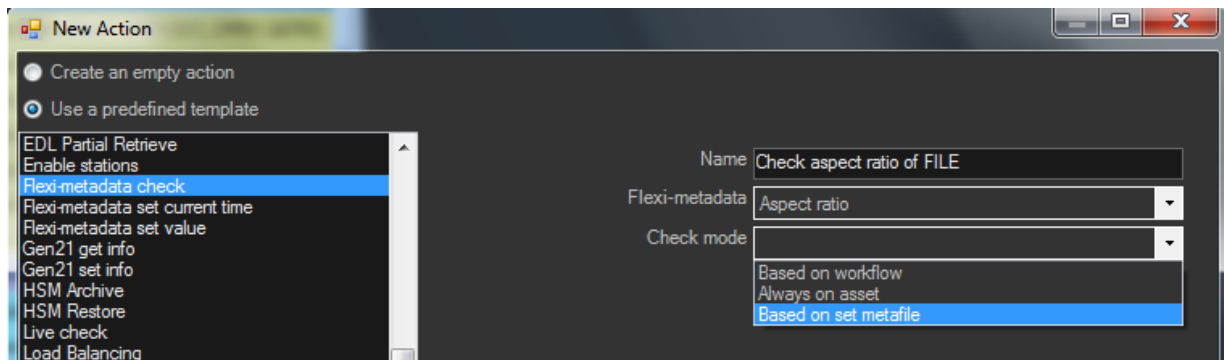
Once created, conforming actions can be included within workflows to execute the required tasks for which they have been configured:



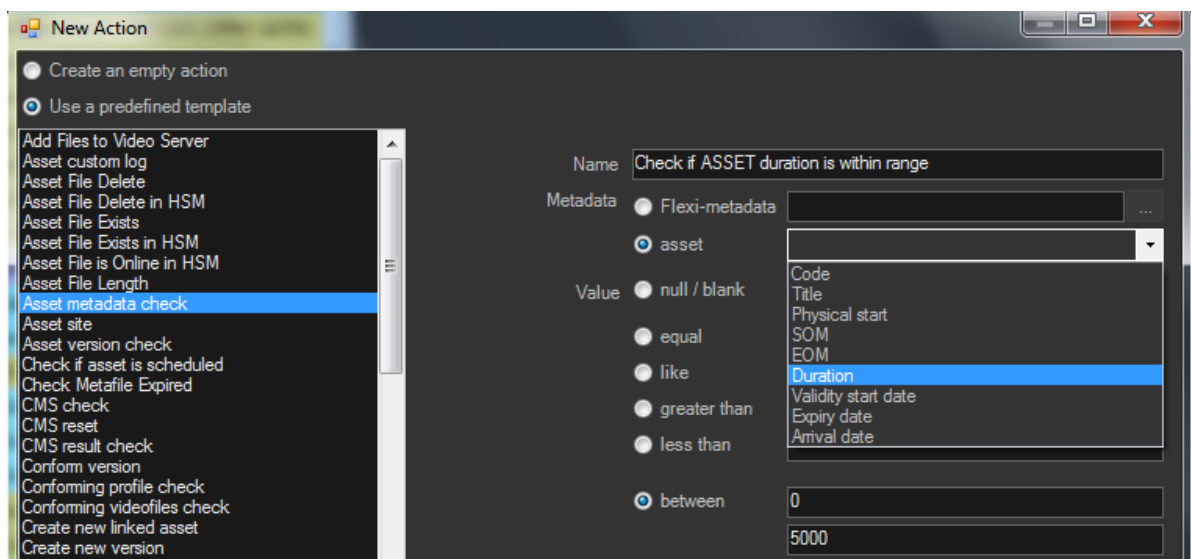
### *viii. Check database status of file*

*(Check status of file in the SQL, location or any metadata)*

Etere provides a wide set of actions to check the status of any metadata related to assets and files; for instance:



*(check file metadata values)*



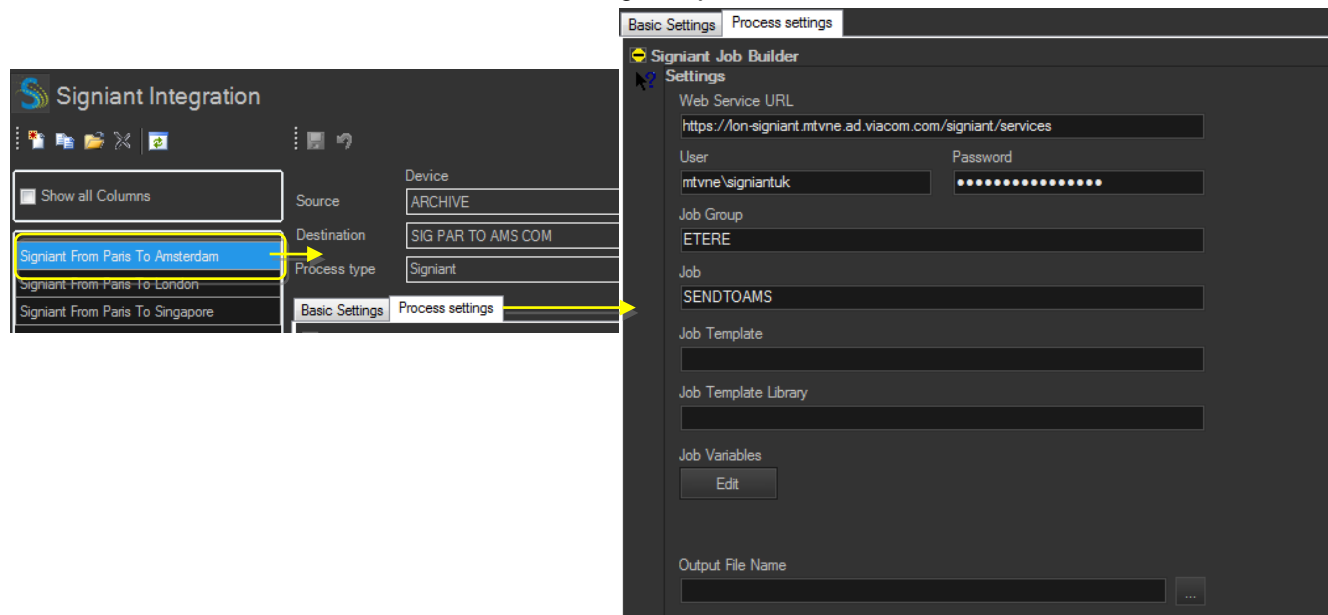
*(check file asset properties)*

## ix. File delivery (e.g. Signiant)

(File delivery with Aspera , FTP , SFTP , Signiant , SMB, CIFS)

Etere provides tight integration with major transfer solutions such as Signiant and Aspera, supporting transfers based on standard protocols including FTP, SFTP, SMB and CIFS.

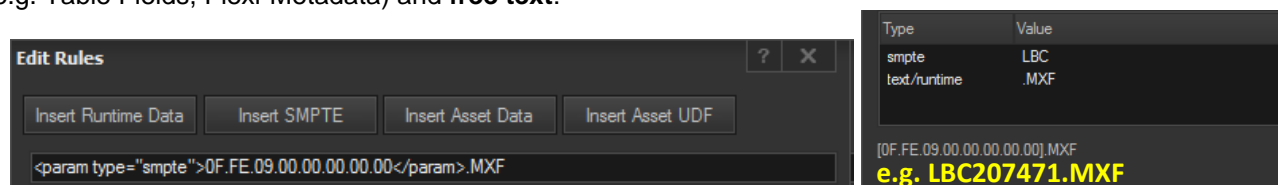
In this chapter is illustrated the tight integration of Etere with **Signiant**, allowing to trigger jobs and get updates of progress and status information. Custom "**Signiant integration**" workflow actions allows requesting -via workflow- the execution of file transfers based on Signiant jobs for files stored in Etere:



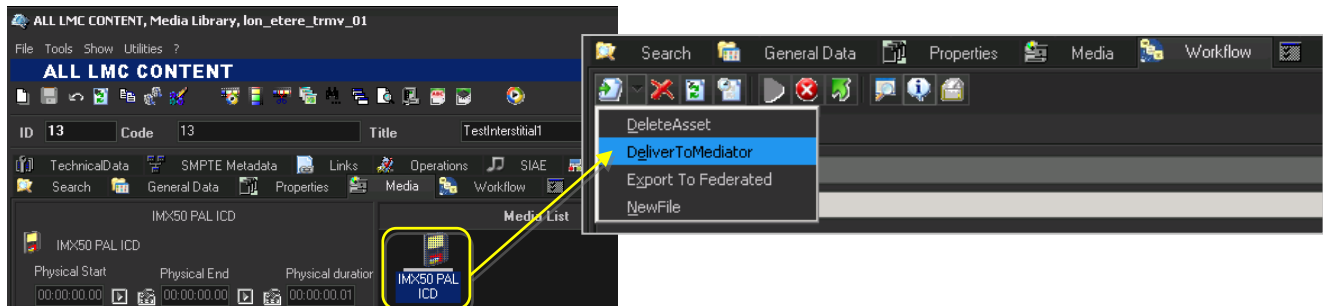
As shown above, the workflow action that enables the integration allows configuring all the parameters required for a tight integration including:

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

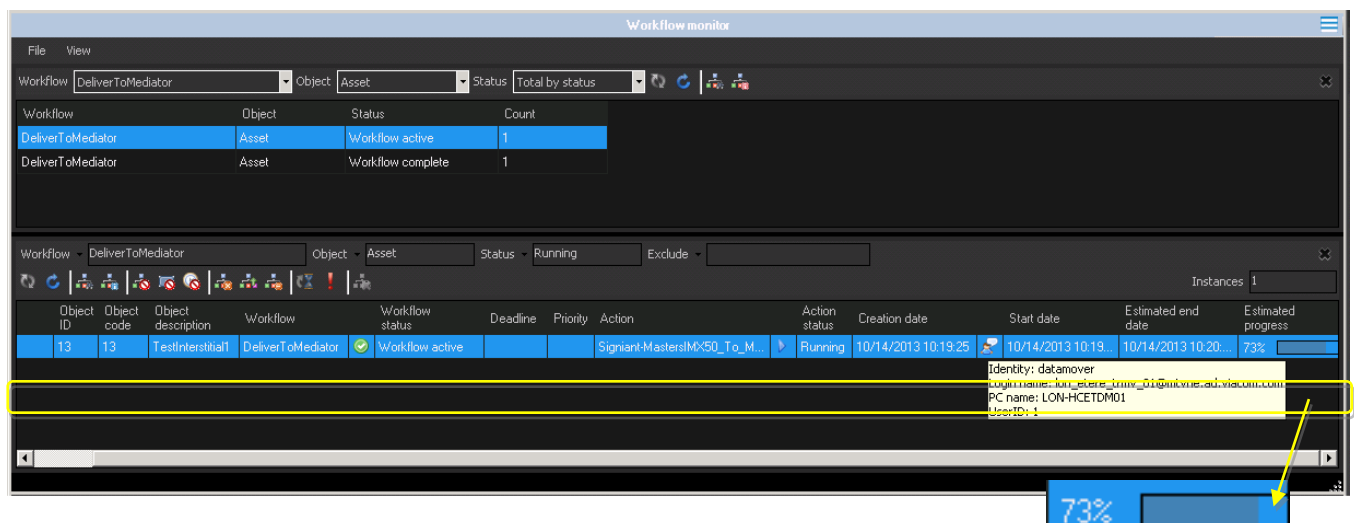
Both **job variables** and **output filename** parameters are set using the **Rules Editor** tool, which enables users to freely build custom names (e.g. to name files on their target destinations) combining **database references** (e.g. Table Fields, Flexi-Metadata) and **free text**:



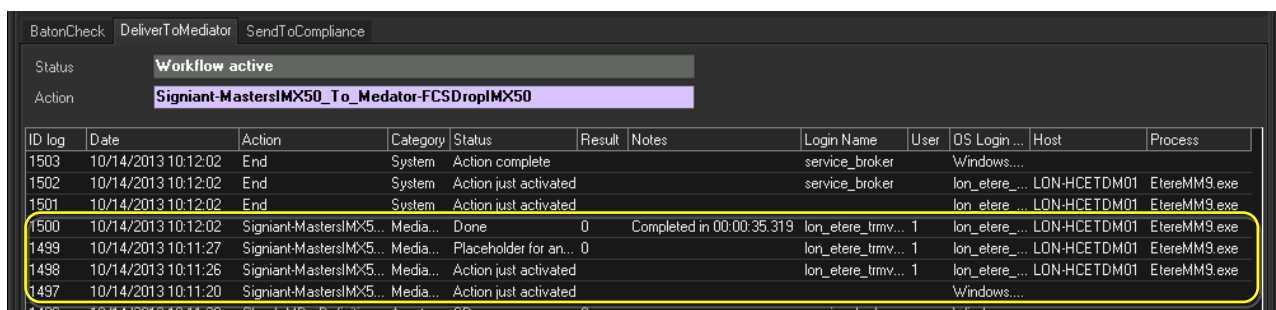
**Delivery workflows** can be easily and quickly triggered by enabled users from the **Media Library**, just by launching the pertinent workflow:



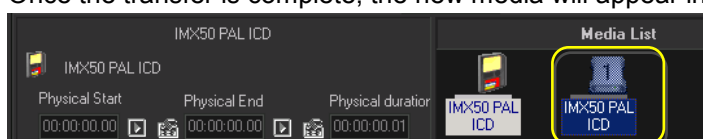
The status and progress of requested transfers will be traceable -from the Workflow Monitor- that will display all information regarding the delivery action including a progress bar:



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



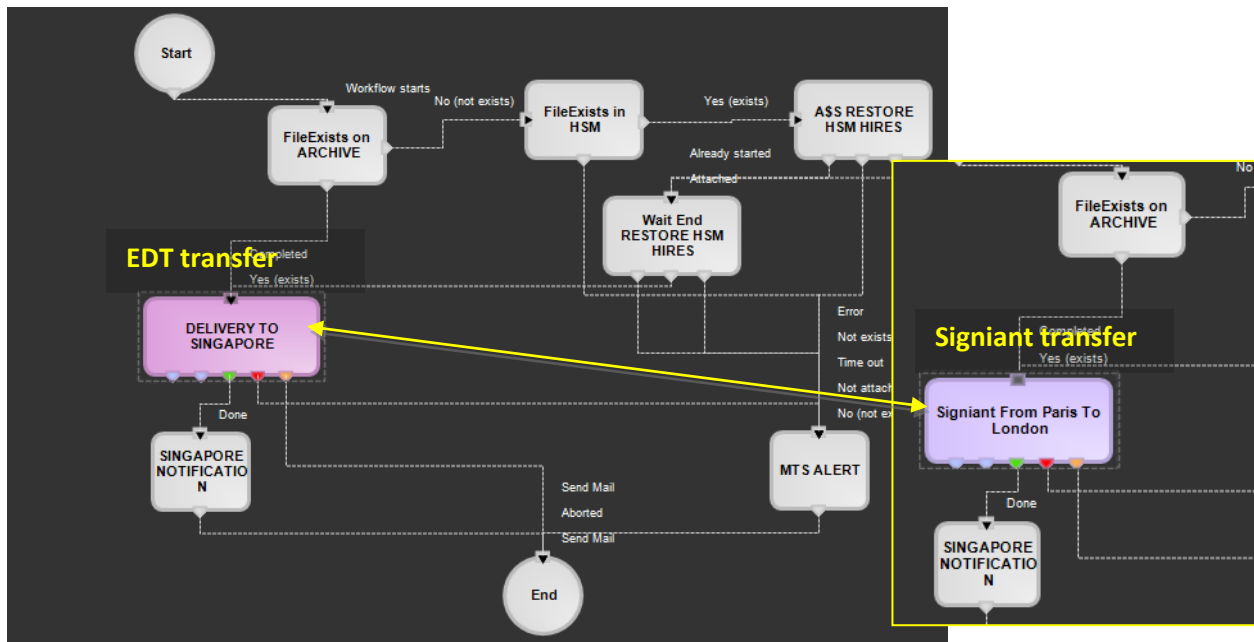
Once the transfer is complete, the new media will appear in the asset's **Media** tab:





## x. File delivery (Etere EDT)

It's worth mentioning that **EDT transfers** can be also used, 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 operations and connected users:

**Users**

Default User  
External Delivery  
Editing

Server

Any IP: ☒ 0.0.0.0 Port: 21

Clients Max: 0 Login timeout: 60 Idle timeout: 300 Transfer timeout: 0

Passive mode

IP Address: Port Range Start: Port Range Size: 0 0

EDT

Enabled: ☒ Port Range Start: 9000 Port Range Size: 10

Logfiles

Use a different file for each client IP: ☐ Rollover Size (MBytes): 2 Rollover Number: 10

**Operations**

```

15.19.44.030 [delivery@172.31.230.106:60847] > CWD /
15.19.44.046 [delivery@172.31.230.106:60847] > NOOP
15.19.44.057 [delivery@172.31.230.106:60847] > 200 Ok. Parameter was ''.
15.19.44.070 [delivery@172.31.230.106:60847] > CWD /
15.19.44.076 [delivery@172.31.230.106:60847] > 250 CWD command successful. '/' is current directory.
15.19.44.087 [delivery@172.31.230.106:60847] > PWD
15.19.44.087 [delivery@172.31.230.106:60847] < 257 '/' is current directory.
15.19.44.090 [delivery@172.31.230.106:60847] > CWD /
15.19.44.096 [delivery@172.31.230.106:60847] > 250 CWD command successful. '/' is current directory.
15.19.44.110 [delivery@172.31.230.106:60847] > TYPE I
15.19.44.118 [delivery@172.31.230.106:60847] < 200 Type set to I.
15.19.44.125 [delivery@172.31.230.106:60847] > PASV
15.19.44.129 [delivery@172.31.230.106:60847] < 227 Entering Passive Mode (172,31,230,68,225,170)..
15.19.44.136 [delivery@172.31.230.106:60847] > STOR projectx.wmv
15.19.44.141 [delivery@172.31.230.106:60847] < 213 11660188
15.19.44.147 [delivery@172.31.230.106:60847] > RETR projectx.wmv
15.19.44.152 [delivery@172.31.230.106:60847] < 150 Opening data connection for projectx.wmv.
15.19.44.884 [delivery@172.31.230.106:60847] < 12.0MBytes sent in 733 milliseconds
15.19.44.894 [delivery@172.31.230.106:60847] < 226 File sent ok
  
```

**Users**

Client	User	Root	Last Cmd	Cmd'n	Get bytes	Put bytes
172.31.230.68.57741	anonymous		15:17:36: CWD /C:/TEMP/	10	345	105
172.31.230.68.57750	delivery	D:\demo_archive\delive	15:19:09: STOR Tim.wmv	33	1819	16595517
172.31.230.106.60847	delivery	D:\demo_archive\delive	15:19:44: RETR projectx.wmv	19	12561194	176

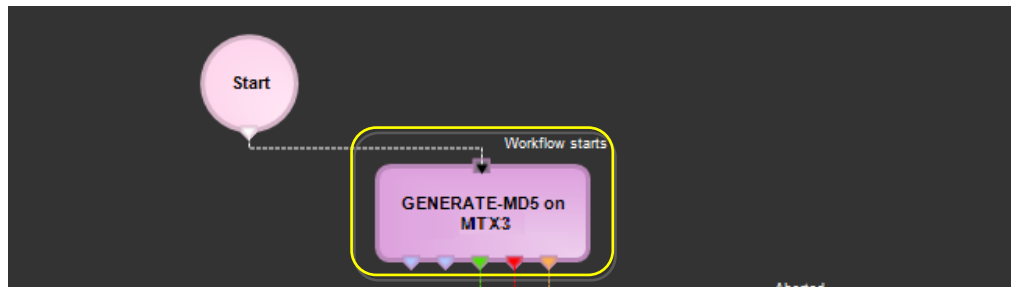
## xi. Checksum creation and verification

*(Create checksum for file, check checksum for the file)*

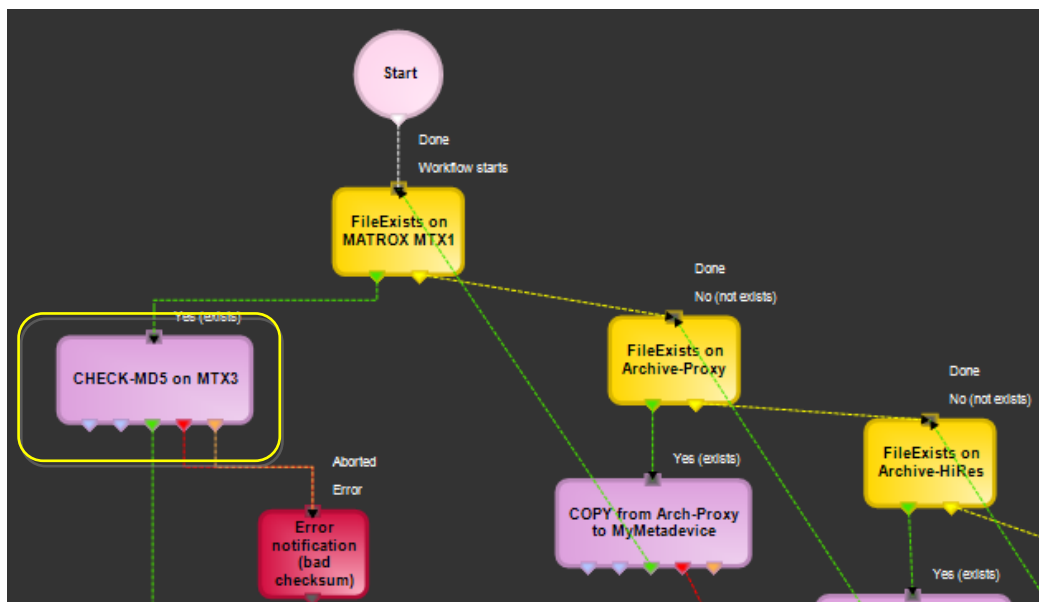
Etere offers an enterprise control of video files integrity; it keeps a **log** of the hash MD5 of video files such in a way that it is possible to verify at any time if they have been modified after their approval.

All video files registered on the Etere's database can be **verified** through an md5 checksum, this control is performed via workflow, each time that a video file is moved from one device to another, its initial hash MD5 is calculated to allow a future checking:

The **workflow editor** allows creating custom checksum workflows to either generate or check the MD5 hash of a video file:



(generate checksum)

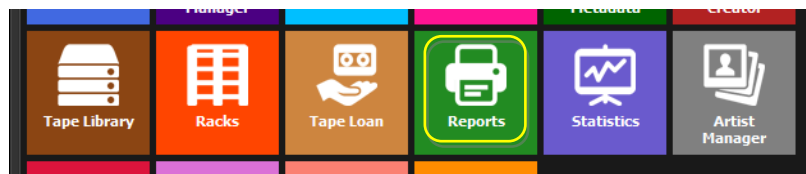


(verify checksum)

## ▼ 2.3. Reporting services

(Generate report in Html , PDF)

**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 through 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):

ARCHIVE Media library logs [Resources manager]									
Media library logs [Resources manager]									
ZZ-000069 - ZOOLANDER									
Date	Workflow	Action	Result	Machine	Operator	Notes	Certified	Pwd	
20/08/2013 3:40:08 PM	INGEST	IMPORT FILE MEDIA DESK (451)	DONE	CD 00504	gaucherp@mtvne.ad.viacom.com		Yes	No	
20/08/2013 6:52:18 PM	MANAGING	ADDRESSING JOB (227)	Subtitling	CD 00488	harangeb@mtvne.ad.viacom.com		Yes	No	
22/08/2013 12:56:46 PM	MANAGING	PROXY WITH TC NEEDED? (230)	No Not Needed	CD 00467	fenarm@mtvne.ad.viacom.com		Yes	No	
2/09/2013 6:12:00 PM	MANAGING	IMPORT SUBTITLE (234)	Done	CD 00467	fenarm@mtvne.ad.viacom.com		Yes	No	
10/10/2013 2:32:10 PM	MANAGING	QC Subtitle Check (288)	Passed	MICHAELW7	michael@italy.eter.com		Yes	No	
10/10/2013 2:36:47 PM	APPROVAL	Content Approval Check (287)	Approved	MICHAELW7	michael@italy.eter.com		Yes	No	
10/10/2013 2:40:02 PM	APPROVAL	Editorial Approval Paramount	Approved	MICHAELW7	michael@italy.eter.com		Yes	No	

- Devices used space:

ARCHIVE Devices used space		
Device	ARCHIVE	
Types	All	
Stations	ARCHIVE	
Device	Type	Used space
ARCHIVE	ACQU ACQUISITION	54:22:44.07
	ADSP Commercial	0:00:00.01
	RUSH FOOTAGE	0:00:00.01
	INT INTERSTITIAL	0:10:58.13
	LOPD LOCAL PRODUCTION	29:57:32.24

Media data logs:

Media library logs							
ARCHIVE							
Asset:	ID 394	Code	ZZ-000069	Type	ACQU		
Date	Status	Operation	Machine	Operator	Process	Application	
30/07/2013 18:1...	Done	Create asset	CL00922	VMERE@...	Import Asset Louise CSV	Asset form	
30/07/2013 18:1...	Done	Edit	CL00922	VMERE@...	Import Asset Louise CSV	Import	
30/07/2013 18:2...	Done	Edit	CL00922	VMERE@...	ASSET MANAGER	Asset form	
06/08/2013 15:0...	Done	Edit	CD00458	rigga@nt v...	ASSET MANAGER	Asset form	
19/08/2013 12:0...	Done	Archive	WEB CLIENT		Etere Web		
19/08/2013 12:1...	Done	Delete	PAR-ETERE...	fr_eter_e_t...	DELETING	Recording	
19/08/2013 12:5...	Done	Archive	WEB CLIENT		Etere Web		
20/08/2013 15:4...	Done	Generic opera...	CD00504	gaucherp...	[Workflow]: INGEST [Action]:...	Workflow	
20/08/2013 15:4...	Done	Coov	PAR-INGEST	fr_eter_e...	FILE INFO IN	Media Manager	

Loudness:

Loudness			
ARCHIVE			
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
ROCKET MONKEY	ROCKET MONKEYS - No.0001	0022:30,00	-22,76

Reports can be exported in the most common formats including PDF, CSV, Excel, MHTML, TIFF, Word, etc.

## ▼ 2.4. Batch workflow execution

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 screenshot displays the Etere Media Library interface. At the top, there are tabs for 'Standard', 'Extended', 'Flags', 'Full-text', and 'All'. Below these, a search filter for 'bluedragon' is applied. The main table shows search results with columns for ID, Code, Series Title, Title, and Media. Several rows are highlighted in blue, indicating they are selected. A context menu is open over the selected rows, showing various actions. The 'Launch workflow' option is highlighted, and a sub-menu is visible on the right, listing various conforming workflows such as 'CONFORMING', 'CONFORMINGEDL1', 'CONFORMINGEDL2', 'COPYTOPARINGEST', 'DELETE CONFORM', 'DELETE NORMALIZE', 'DELETE ON ARCHIVE', 'DELETE ON DIGITAL', 'DELETE ON IN', 'DELETE ON MTX', 'DELETE ON PROXY', 'DELIVERY TO AMS', 'DELIVERY TO G1', 'DELIVERY TO JONE', 'DELIVERY TO LONDON', 'DELIVERY TO SINGAPORE', 'DELIVERY TO XSAN DIGITAL', 'DELIVERY TO XSAN EDITING', 'DIGITAL1', 'EXPORT TO FEDERATED', 'FILEINFO ARCHIVE DURATION', and 'FILEINFO ARCHIVE METADATA'.





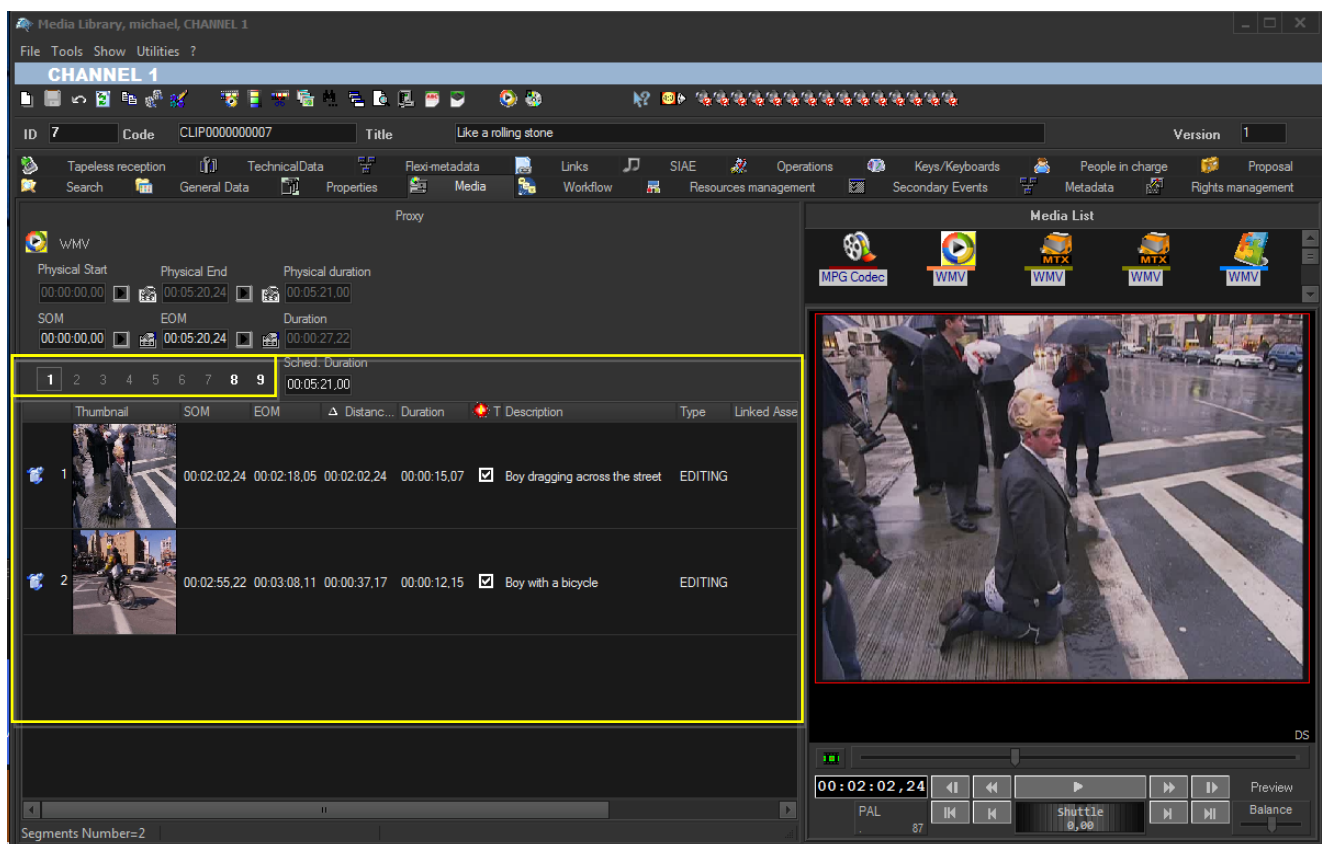
## ▼ 3. LOW-RESOLUTION BROWSE VIEWING

Etere's preview capabilities are fully compliant and based on the low-res file format. Etere provides different low-res player fully configurable. The low-res preview also supports different frame-rates (e.g. PAL, NTSC, NTSC drop, etc.).

### ▼ 3.1. Preview Browser

Low-res browsing of content with the ability to add metadata in keyframe location with frame acquire.

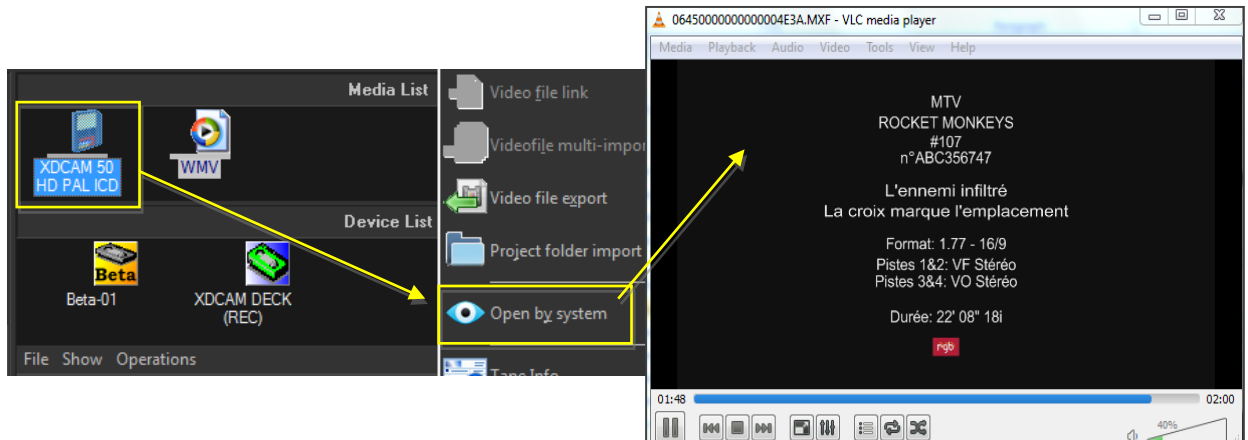
The friendly interface of the **preview browser** allows operators to view proxy media linked to assets and check the video stream (after an ingest operation or just before an on-air transmission). Key features include:



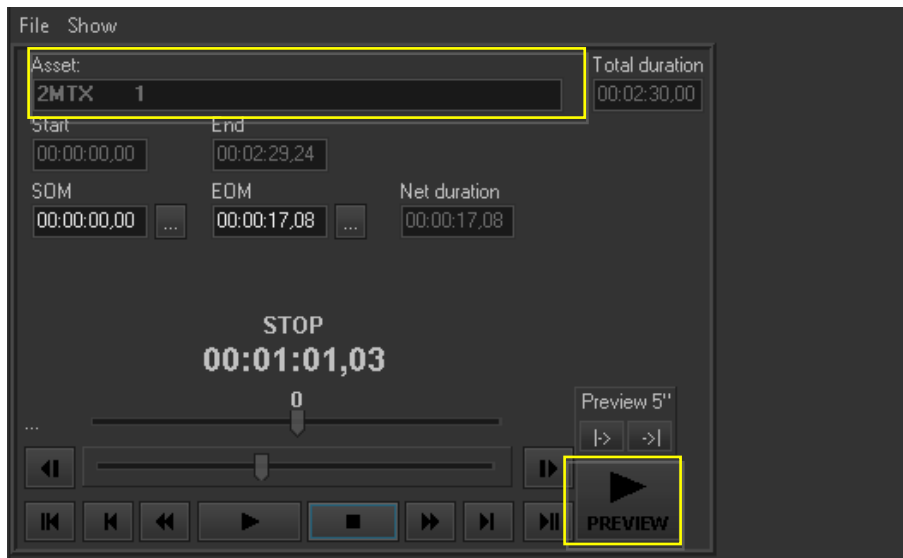
- On-screen properties, counters and time codes
- Multilanguage support of subtitles and audio tracks
- Inclusion of the most common playback controls
- Up to 9 schemas for EDL marking and metadata insertion

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):



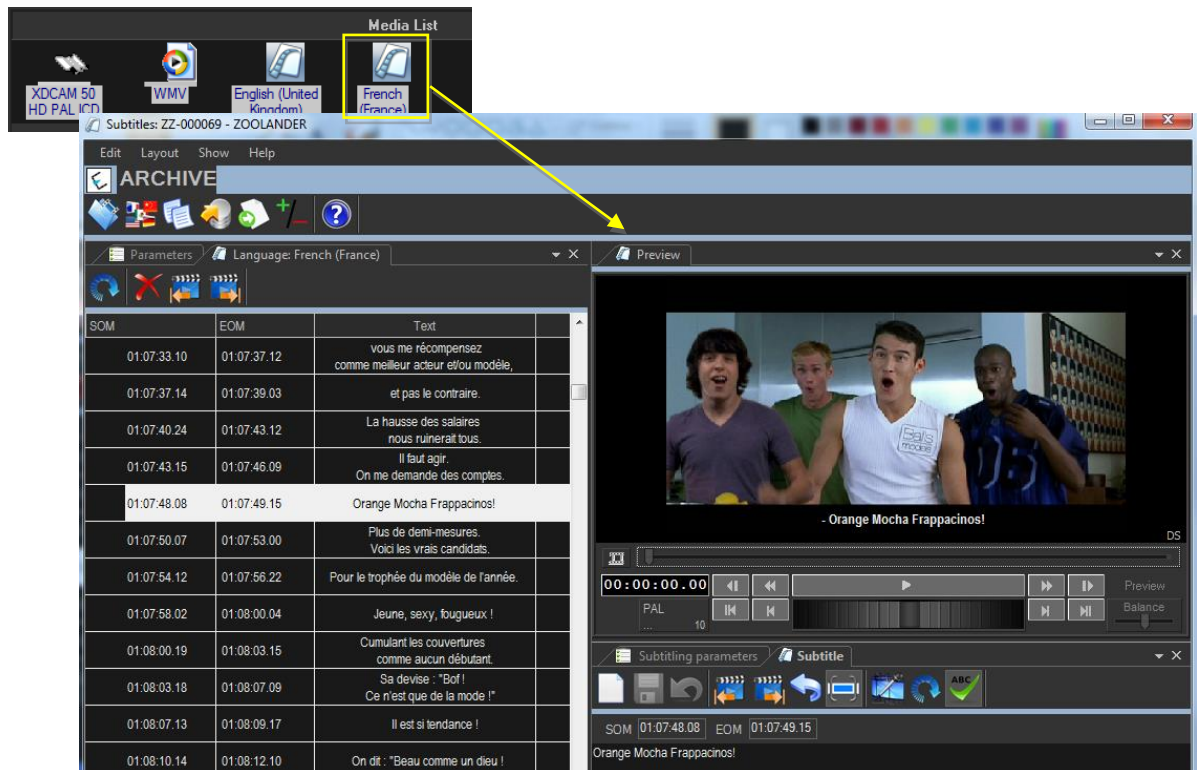
- **Video server:** HiRes media stored on video servers can be directly played in a professional built-it player to allow, for instance, previewing it in an external monitor:



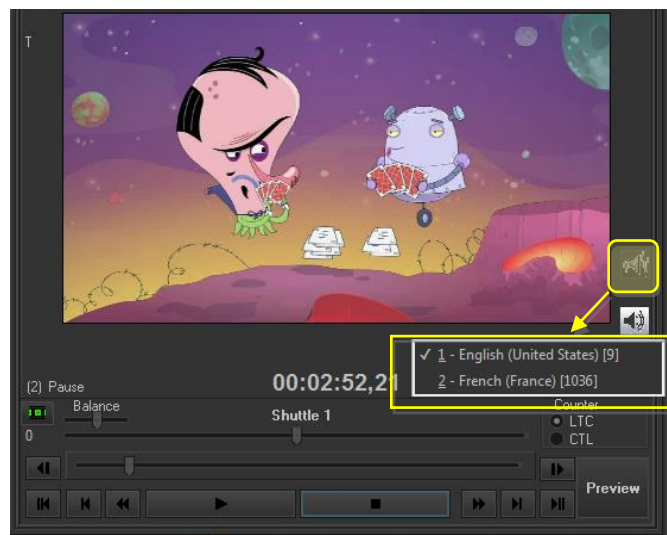
## ▼ 3.2. Subtitles and audio tracks

Ability the “see” different subtitle files on top or next to the video with capabilities to select different audio files.

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



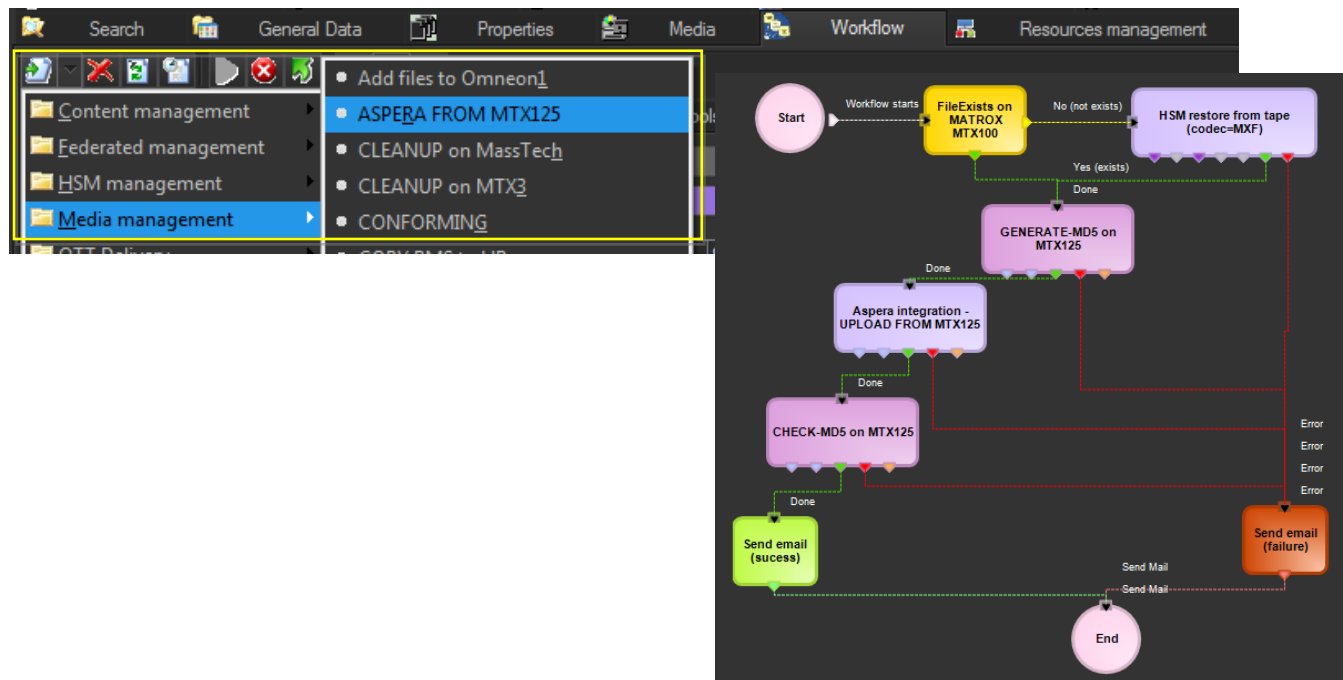
Moreover, choosing the **audio language** to be played during the preview is possible for *multilanguage media*:



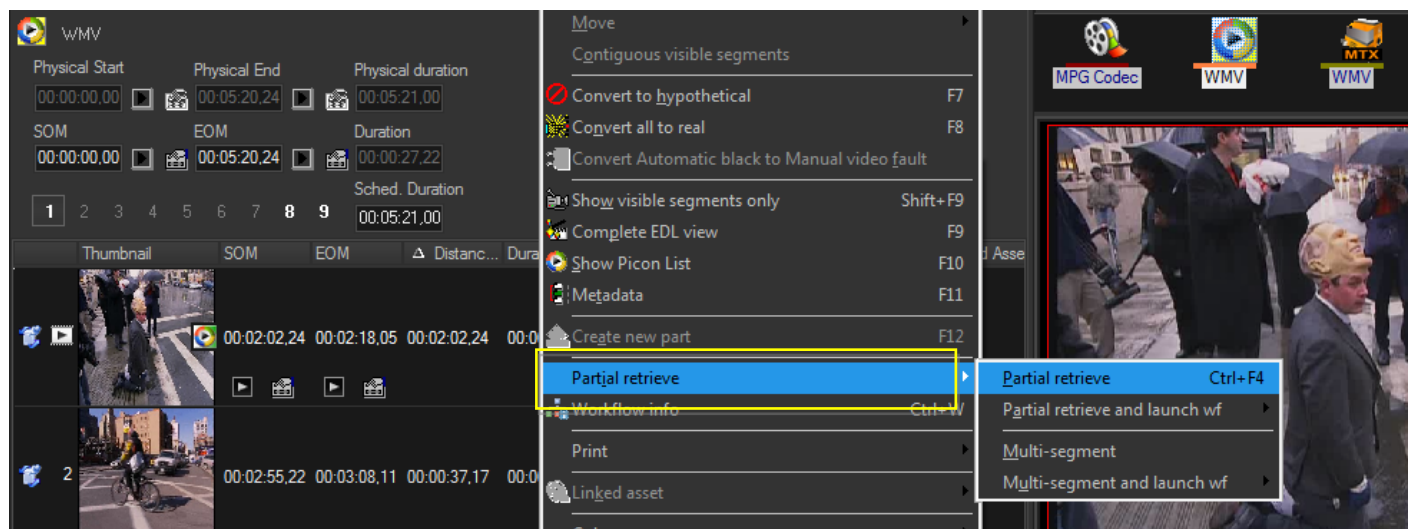
### ▼ 3.3. Workflow triggering

The ability to start a workflow to the file like send the high res file to the customer ftp with Aspera from the viewing page). Including use of partial file. All operation is log with the user info. Need to see timecode info.

Besides allowing previewing assets and defining its main properties, the **Media Library** also allows quickly triggering workflows for assets (e.g. Delivery using Aspera):



Workflows can be also launched for specific segments, using a “partial retrieve” workflow:



The execution of all workflows is recorded into a detailed log:

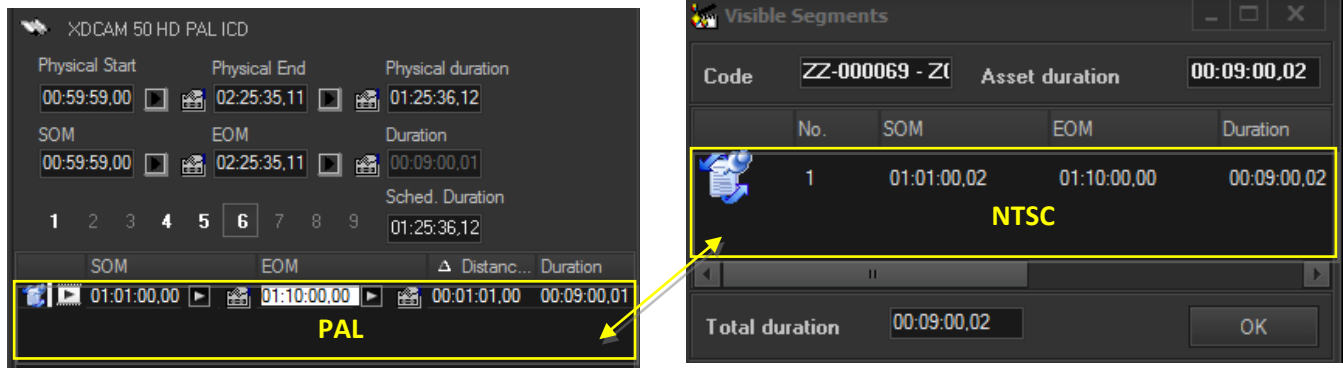
Workflow complete							
ID log	Date	Action	Category	Status	Result	Notes	OS Login Name
102545	12/07/2013 12:02:16	End	System	Action complete			Windows.Unknown
102544	12/07/2013 12:02:16	End	System	Action just activated			Windows.Unknown
102543	12/07/2013 12:02:16	End	System	Action just activated			Windows.Unknown
102542	12/07/2013 12:02:16	Send email (sucess)	System	Send Mail	0	mail sent	Windows.Unknown
102541	12/07/2013 12:02:16	Send email (sucess)	System	Action just activated			Windows.Unknown
102540	12/07/2013 12:02:16	Send email (sucess)	System	Action just activated			Windows.Unknown
102539	12/07/2013 12:02:16	EDL Partial Retrieve [9]	Asset	Done	0	Workflow "CC - Partial Retrieve MXF" attached to the 2 available segment(s) ...	Windows.Unknown
102538	12/07/2013 12:02:16	EDL Partial Retrieve [9]	Asset	Action just activated			Windows.Unknown
102537	12/07/2013 12:02:16	EDL Partial Retrieve [9]	Asset	Action just activated			Windows.Unknown
102536	12/07/2013 12:02:16	Start	System	Workflow starts	0		Windows.Unknown
102535	12/07/2013 12:02:16	Start	System	Action just activated			michael
102534	12/07/2013 12:02:16	Start	System	Action just activated			michael

### ▼ 3.4. Multiple timecode preview

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**:



## ▼ 4. BROWSE & SEARCH

The "full text search" function, (like Google style), needs to provide multiple search criteria based on standard metadata fields (Key-frames, Subtitling, Media ID, title, format, audio, aspect ratio etc.) while the "advanced search" function supports filtered search on one or more metadata fields to narrow the result, and allows individual favorite search setups to be saved.

Both search types include a text completion function which suggests similar words to avoid misspellings, and wildcard characters are supported. The ability to filter result based on customer, date of creation workflow use of any other parameters.

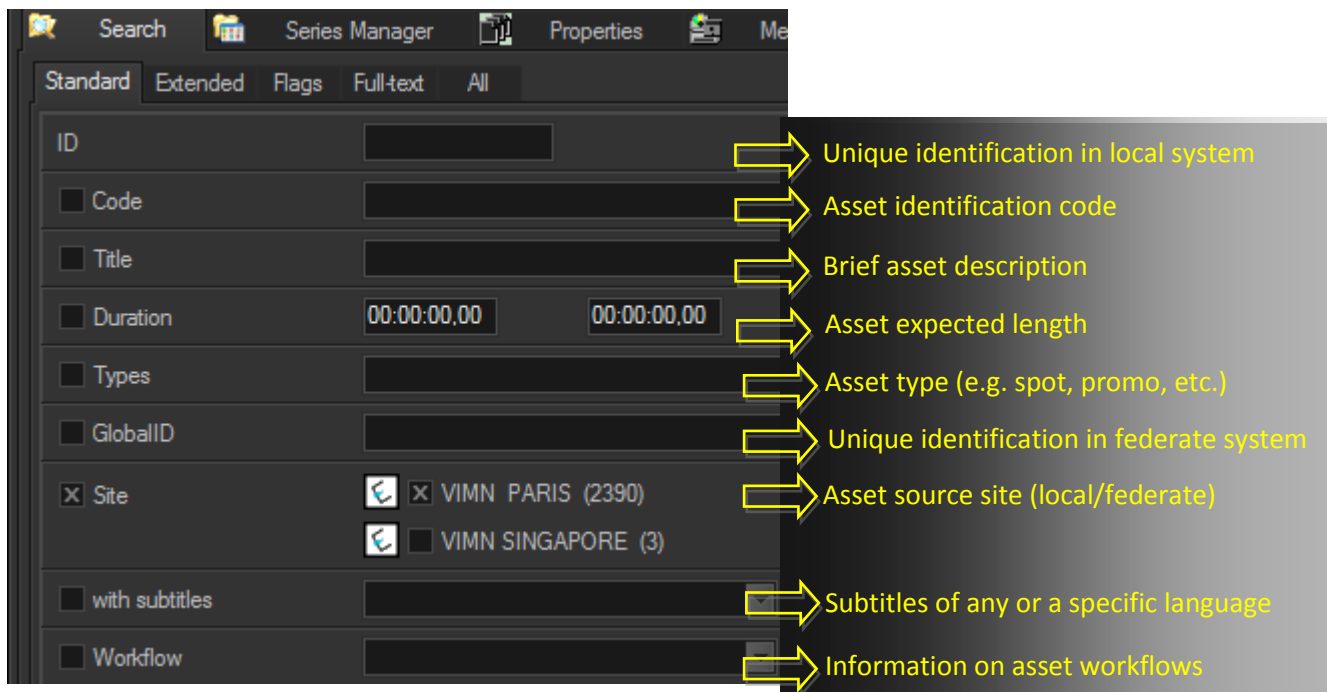
### ▼ 4.1. Robust search engine

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:

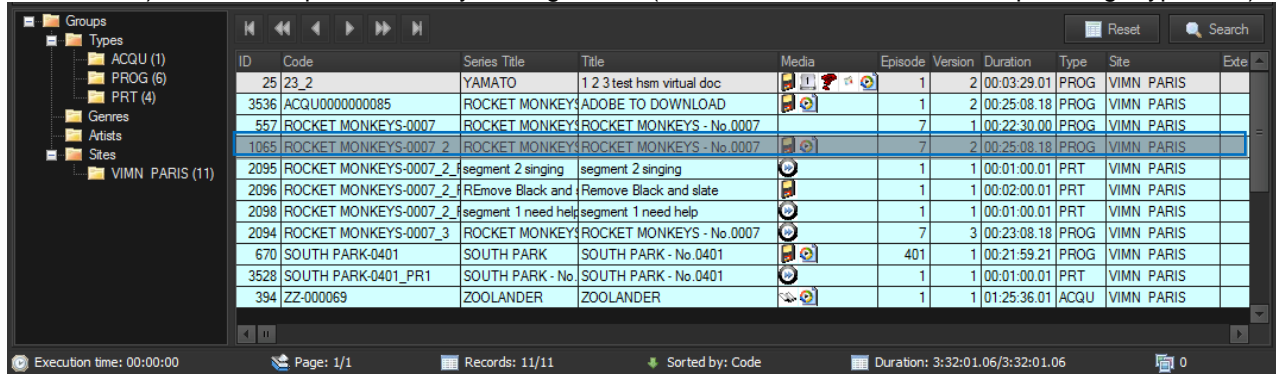
- Search for assets based on **database fields**,
- A **Full-text** search across various fields of assets,
- Full-text results are sorted on **degree of relevance**,
- Search for **synonyms** to extend the range of results,
- Searches can be saved as **profiles**,
- **Batch** management of several assets 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 **Flexi-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 (workflow, add to series, backup, change type, etc.):



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

<b>Base</b>	Base descriptions about the asset: <b>Id, code, title, type, stations, sites, genre, artist, etc</b>
<b>Media</b>	Media information regarding devices, files and processes: <b>Duration, metadvice, codec, video file, workflows, worksheets, etc</b>
<b>Dates</b>	Dates on which specific asset operations have been performed: <b>Production, ingest, creation, arrival, scheduling, validity start, expiry, etc</b>
<b>Flags</b>	Flags detailing specific asset properties: <b>Ok to broadcast, live, expired, ingested, archived, inactive, not tapeless, etc</b>

<b>With</b>	Properties that indicates the existence of a certain object associated to the asset: <b>Edl, video tape, data tape, subtitles, cad approval, detected blacks, etc</b>
<b>Full-text</b>	Special search performed simultaneously performed across multiple tables: <b>Title, segments, artists, genres, roles, metadata, subtitles, documents, etc</b>

## ▼ 4.2. Federate searches

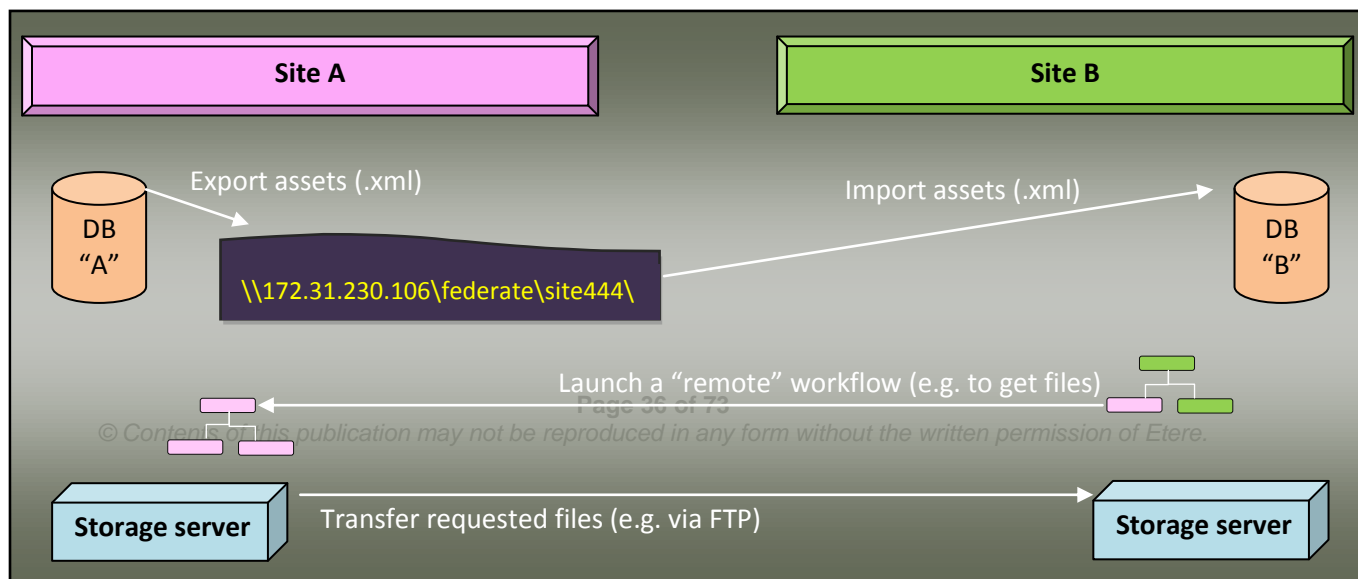
Etere's federated capabilities will permit the station to take full advantage of federated technologies, allowing them to import/export assets between systems such in a way that it will be possible to manage external assets as local ones. Federate sites are interfaced through a web service locally installed;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

Site	Description	Icon	Color	Local	Url	Username	Password	Import path
1605	VIMN PARIS			<input checked="" type="checkbox"/>	http://localhost/EtereWSApi/1605/Ete...	ETEREAPI1605	*****	
1603	VIMN SINGAPORE			<input checked="" type="checkbox"/>	http://localhost/EtereWSApi/1603/Ete...	ETEREAPI1603	*****	\\marketing18\demo_archive\impexp\...

The federate nature of the system (allowing assets to be managed as local assets for almost all intents and purposes (i.e. consultation, workflows, etc.):

ID	Code	Series Title	Title	Media	Episode	Version	Duration	Type	Site
3529	22	PROG NICK	PROG NICK		1	1	00:05:41.00	PROG	VIMN SINGAPORE
2476	ASIA ALARM-0004	ASIA ALARM - SAISON 1	ASIA ALARM - SAISON 1		4	1	00:26:00.00	PROG	VIMN PARIS
2475	ASIA ALARM-0003	ASIA ALARM - SAISON 1	ASIA ALARM - SAISON 1		3	1	00:26:00.00	PROG	VIMN PARIS
2474	ASIA ALARM-0002	ASIA ALARM - SAISON 1	ASIA ALARM - SAISON 1		2	1	00:26:00.00	PROG	VIMN PARIS
1265	ASIA ALARM-0001	ASIA ALARM - SAISON 1	ASIA ALARM SAISON 1 - No. 0001		1	1	00:26:00.00	PROG	VIMN PARIS
2661	ASIA ALARM - SAISON 2-0020	ASIA ALARM - SAISON 2	ASIA ALARM - SAISON 2 - No. 0020		20	1	00:01:46.21	PROG	VIMN PARIS
2660	ASIA ALARM - SAISON 2-0019	ASIA ALARM - SAISON 2	ASIA ALARM - SAISON 2 - No. 0019		19	1	00:01:46.21	PROG	VIMN PARIS

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

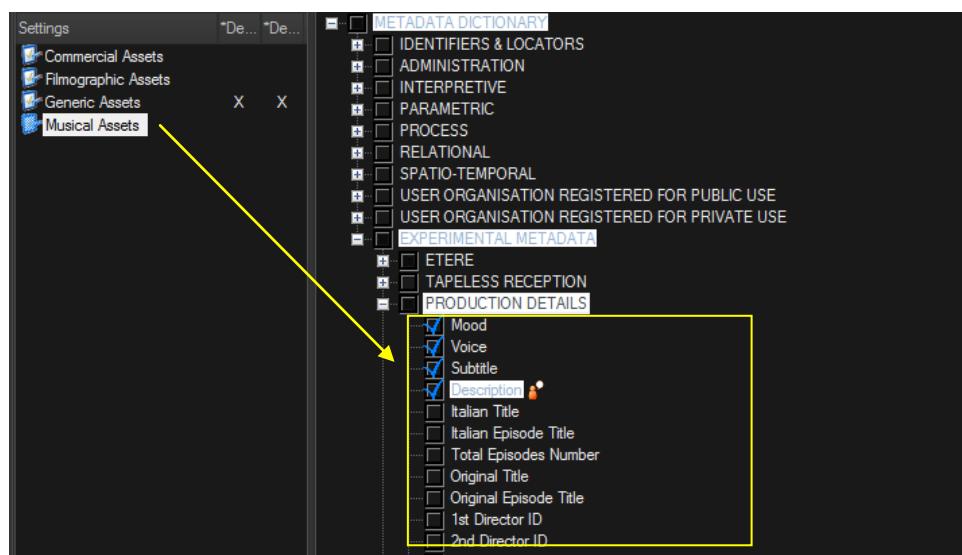


## ▼ 5. LOGGING

*Allows metadata to be inserted, updated or modified. Metadata may be adopted from third party applications, such as traffic and QC systems which analyze the clip wrapper and essence, and technical information is extracted. (like harmonic QC, Baton MediaInfo, or from pebble beach DB). Supported metadata types are: free text, numeric, date & time, and collections. In addition the system need to supports hierarchical metadata so that, for example, if the program type is set to 'Football', only metadata fields relevant to that program type will be displayed.*

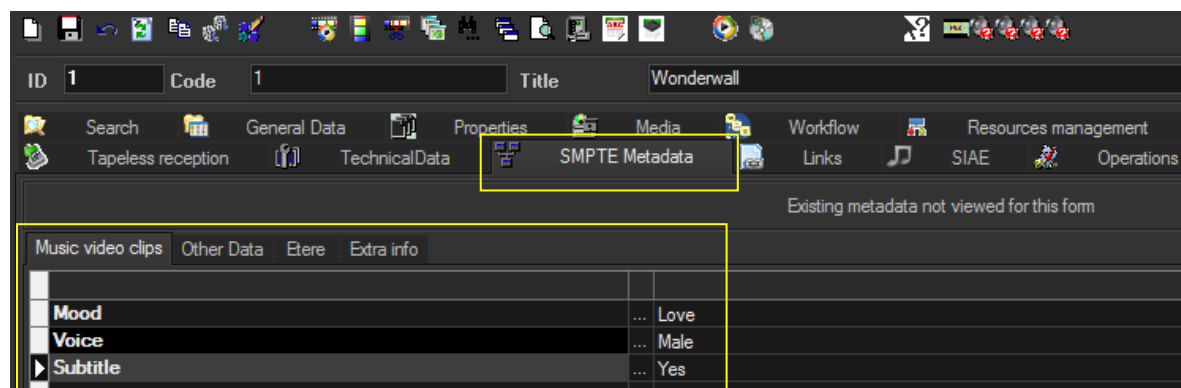
### ▼ 5.1. Flexi-metadata

Flexi-metadata is a key part of the media management, a dedicated module for defining eventually useful metadata (e.g. technical comments, descriptive names) and store them into a robust dictionary:



In Etere, all assets contain user-defined metadata fields, these fields can be either manually compiled or automatically compiled (retrieved from specific asset properties):

Media Library, michael, CHANNEL 1



Flexi-metadata can be used also for cataloguing media content, allowing operators to quickly add specific information to a video segment.

When creating or editing elements under the **Flexi-metadata** section, the following *data types* will be supported:

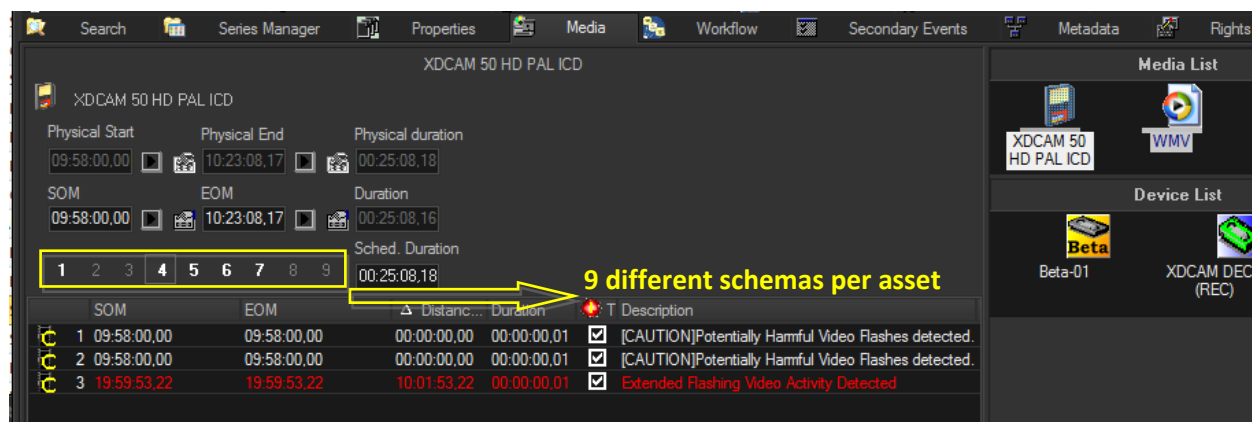
Type	Description	Sample
<b>Node</b>	Merely used to <u>group</u> metadata items and avoid them to be placed in the root of the <i>experimental metadata</i> category.	<i>CustomCategory</i>
<b>Binary</b>	Metadata used for holding any type of binary data such as <i>binary</i> , <i>varbinary</i> , <i>image</i> and <i>bit</i> . Binary fields can be used by Etere to, for example, store mapped assets thumbnails.	<i>010001010010110</i>
<b>Boolean</b>	Metadata holding one of a fixed number of values (i.e. true or false).	<i>true</i>
<b>Date time</b>	Metadata used to hold a date and time combination (or just one of them).	<i>21/02/2012 15:33:45.123</i>
<b>Integer</b>	Metadata holding an exact and signed mathematical integer. Integers are stored in 1, 2, 3, 4, 6, or 8 bytes depending on the magnitude of the value. The range of stored integer numbers (int64) goes from -9223372036854775808 to 9223372036854775807 (or -263 to 263 -1).	<i>27</i>
<b>Real</b>	Metadata holding a floating point value. Reals are stored as an 8-byte IEEE floating point number; range of stored real numbers is 1.7E +/-308 (15 digits of precision).	<i>13,65468</i>
<b>String</b>	Metadata holding a text string values. Strings are stored using the database encoding (e.g. UTF-8).	<i>fantasyland</i>

## ▼ 6. PROXY EDITING

### ▼ 6.1. EDL marking

*(Editing projects manually by importing keyframes (with mark-in and mark-out) stored in database. Once the project is set up, an operator can search for suitable material, view it, select segments, and assemble them into a 'rough cut' which can be previewed in the editing client.)*

Users are 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:



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

	1	2	3	4	5	6	7	8	9	Sched. Duration
										00:25:08,18
	SOM	EOM	Δ	Distanc...	Duration	T	Description	Type	Linked Asset Form	
1	09:58:00,00	10:00:00,00	00:00:00,00	00:02:00,01	00:02:00,01	✓	Remove Black and slate	EDITING	ROCKET MONKEYS-0007_2_PF	
2	10:08:00,00	10:09:00,00	00:08:00,00	00:01:00,01	00:01:00,01	✓	segment 1 need help	EDITING	ROCKET MONKEYS-0007_2_PF	
3	10:18:00,00	10:19:00,00	00:09:00,00	00:01:00,01	00:01:00,01	✓	segment 2 singing	EDITING	ROCKET MONKEYS-0007_2_PF	

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

The **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:

 ARCHIVE	Cue sheet
---	-----------

### Cue sheet

Asset: ROCKET MONKEYS-0007\_2 - ROCKET MONKEYS - No.0007

N.4	ARCHIVE	00:00:00.00	00:25:08.17		
		SOM	EOM	Description	Type
	Video Fault	00:00:00.00	00:00:00.00	[CAUTION]Potentially Harmful Video Flashes detected.	
	Video Fault	00:00:00.00	00:00:00.00	[CAUTION]Potentially Harmful Video Flashes detected.	
	Video Fault	00:01:53.22	00:01:53.22	Extended Flashing Video Activity Detected	

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

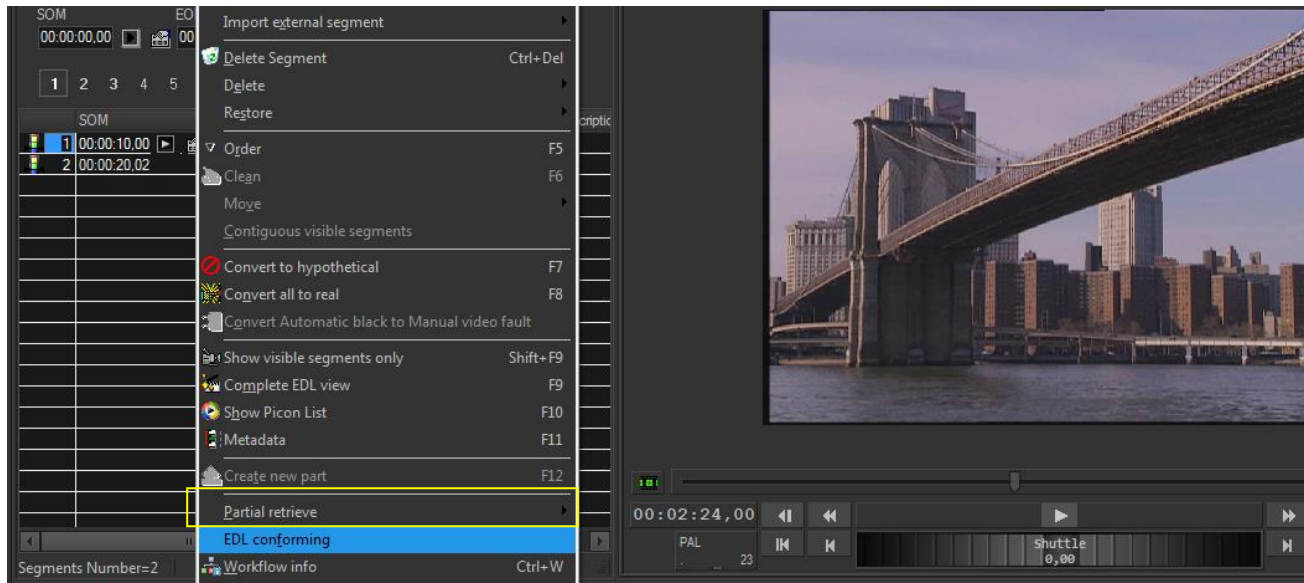
## ▼ 6.2. Partial retrieve

*(The system then store the created EDL and the high-res restore/partial restore list. Video files can be sent or restored via CIFS or FTP to any chosen destination, The partial restore process depends on the type of archive used)*

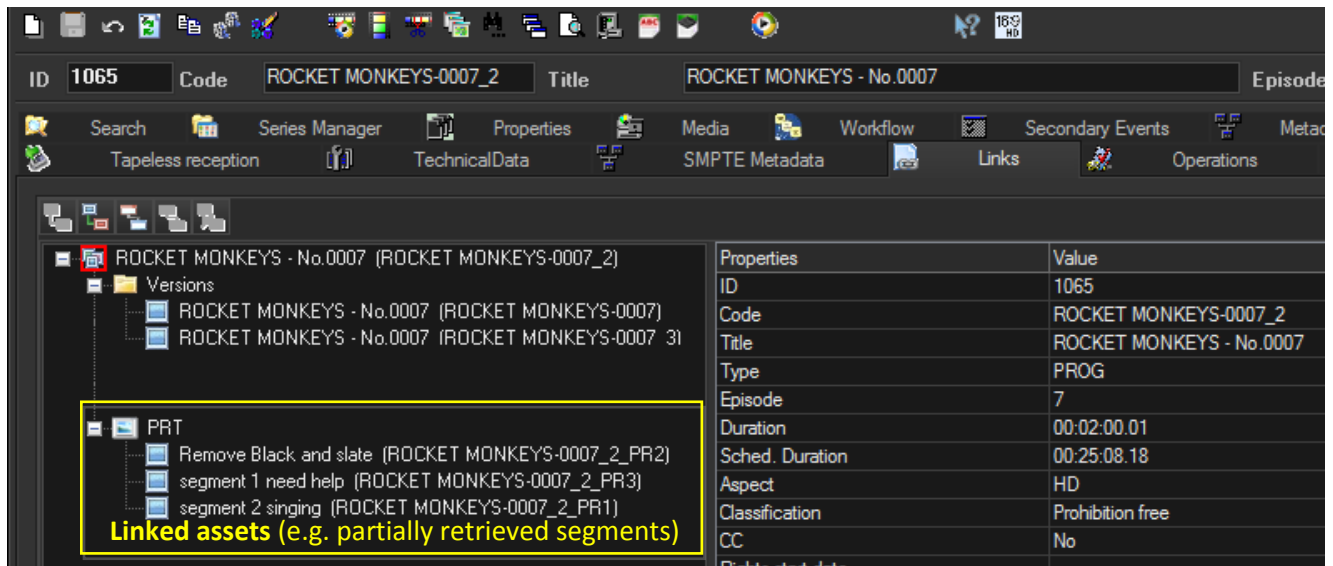
*(DIVArchive partial restore is done from the LTO tape directly, and with Pebble Beach Systems. The user simply sets the in & out points, and the process is carried out seamlessly in the background. Both of the partial restore processes described above are format dependent. With the ability to archive and restore this EDL's)*

The Etere also allows retrieving only a part of video files by creating either high or low resolution video files including specific segments described on the source video EDL, it is important to note that as usual on Etere's operations, the conforming of video files is fully performed via workflow:





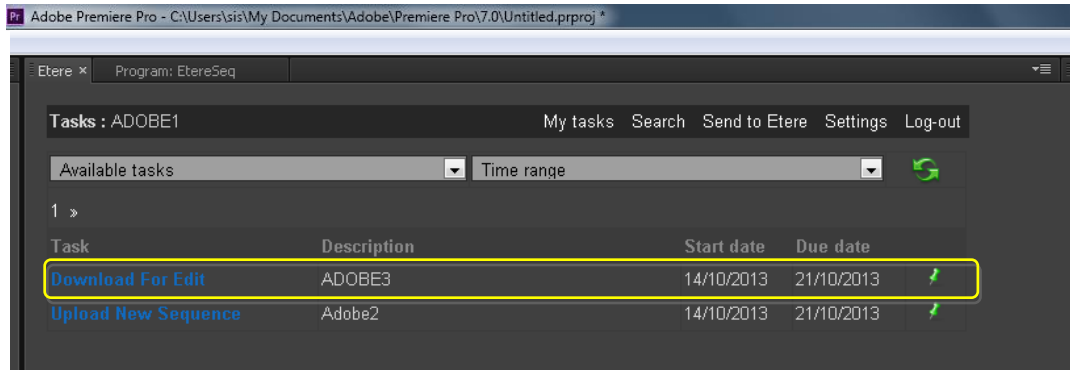
The **parent-child structure** used by Etere keeps all master files and their derivatives (e.g. partial retrieved segments) linked, allowing to quickly access them in just one click:



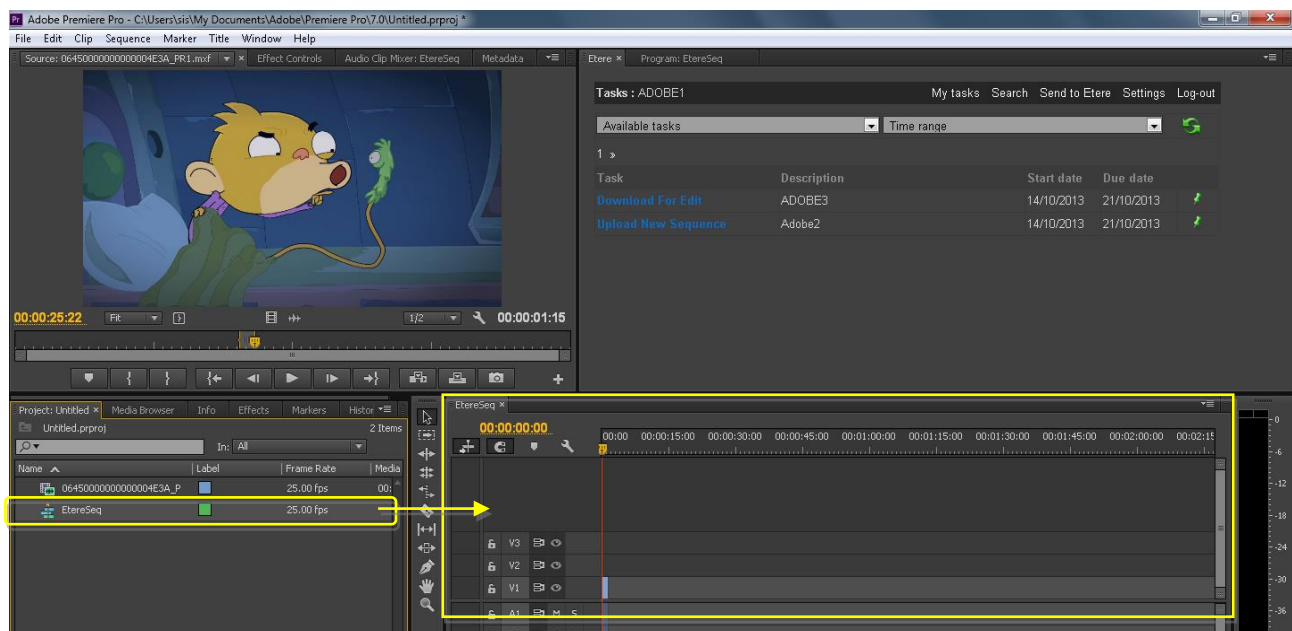
### ▼ 6.3. Adobe editing integration

The Compliance operations for **content** performed inside **RRSat** 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.

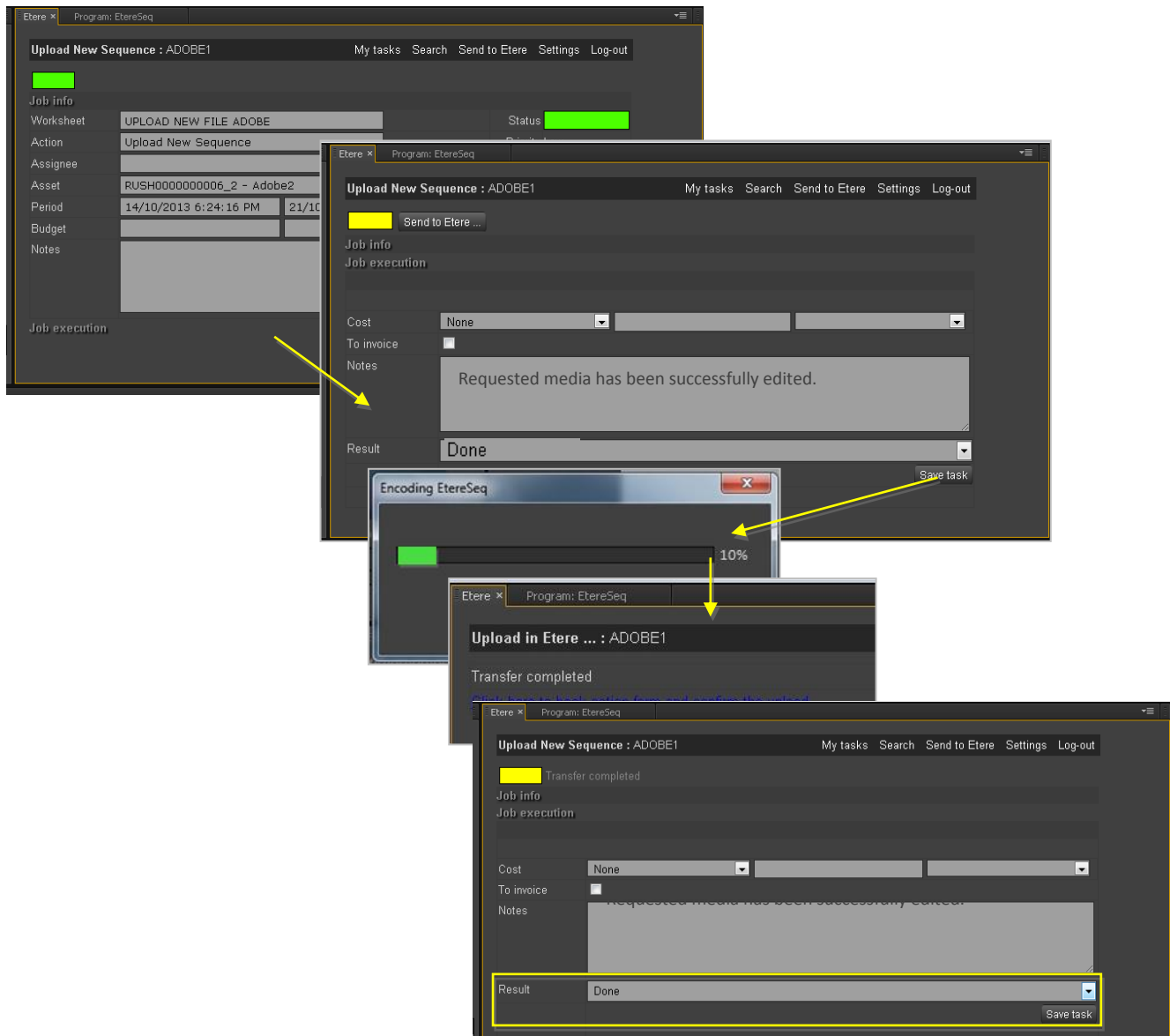
Our Adobe Premiere extension will give **Editing operators** with a user-friendly interface to view their assigned tasks, select and take the one to be performed:



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 continues its execution (e.g. notifying availability of the edited version and starting a QC).

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

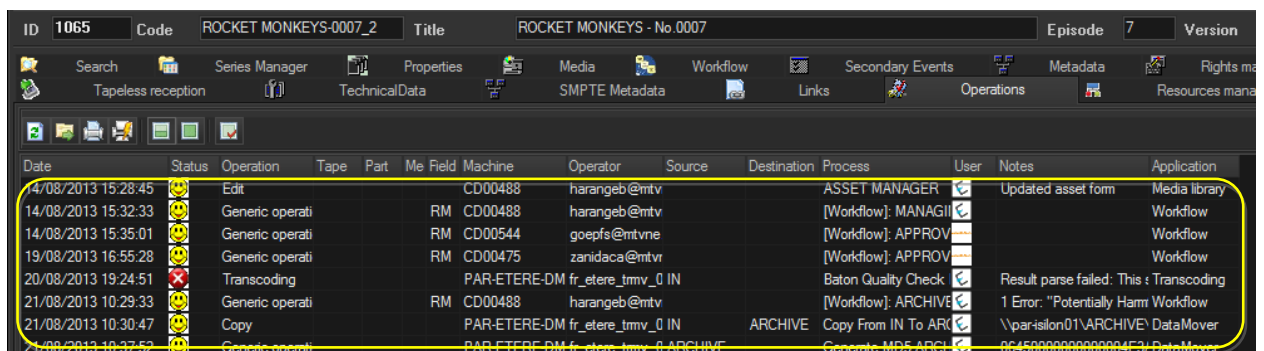
## ▼ 7. ASSETS LOGS

The system needs to keep a record of all changes applied to each asset. This will include the registration, QC processes, metadata changes, key frame addition or deletion etc. Each change is recorded with the date and time, and with details of the user who initiated the change. This information is recorded separately for each version of an asset, and for each component (e.g., video, each audio track, and each subtitle track).

### ▼ 7.1. Detailed operations records

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**:

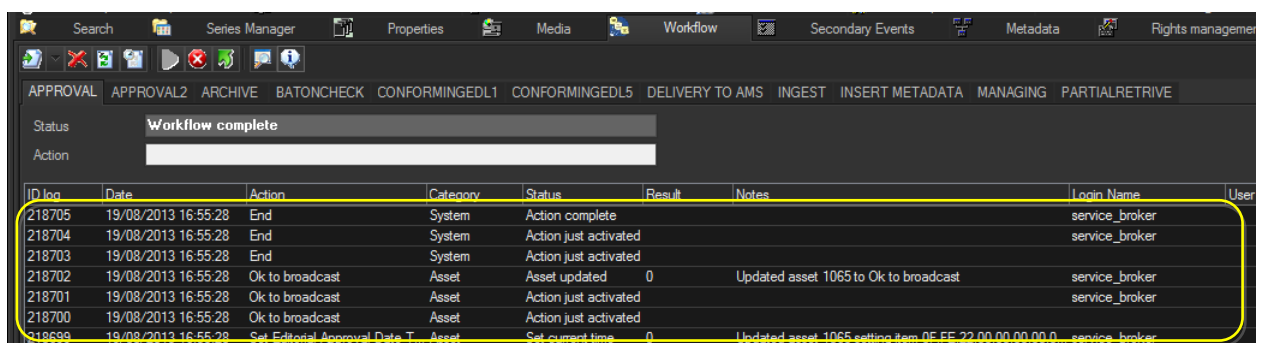


ID	Code	Title	Episode	Version
1065	ROCKET MONKEYS-0007_2	ROCKET MONKEYS - No.0007	7	

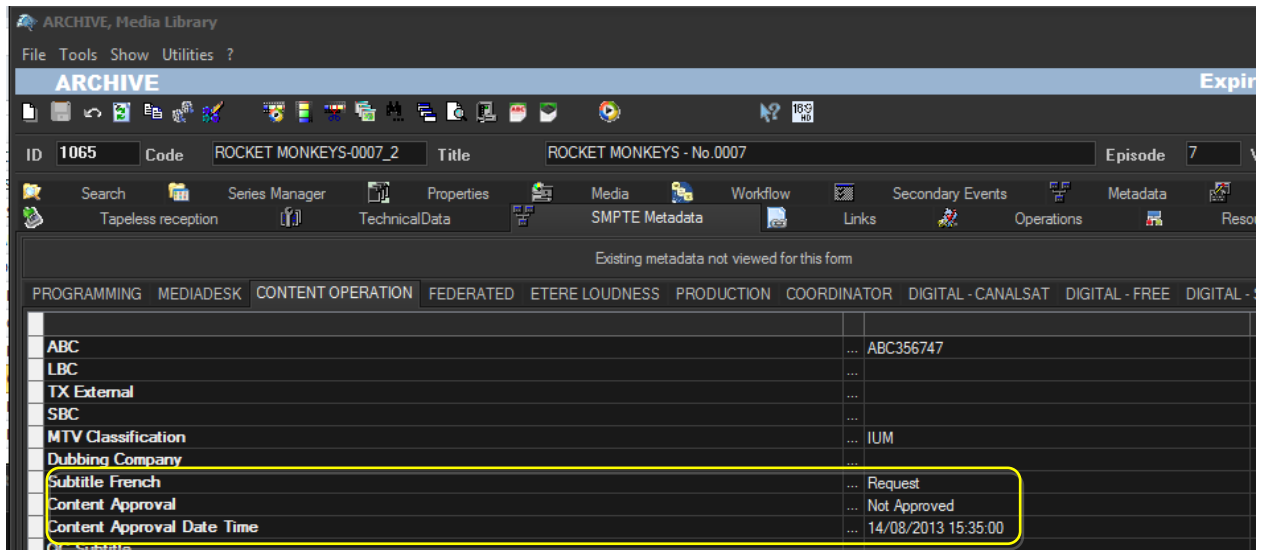
Date	Status	Operation	Tape	Part	Me	Field	Machine	Operator	Source	Destination	Process	User	Notes	Application
14/08/2013 15:28:45	😊	Edit					CD00488	harangeb@mtv			ASSET MANAGER		Updated asset form	Media library
14/08/2013 15:32:33	😊	Generic operati					RM CD00488	harangeb@mtv			[Workflow]: MANAGI			Workflow
14/08/2013 15:35:01	😊	Generic operati					RM CD00544	goepfs@mtvne			[Workflow]: APPROV			Workflow
19/08/2013 16:55:28	😊	Generic operati					RM CD00475	zanidaca@mtvr			[Workflow]: APPROV			Workflow
20/08/2013 19:24:51	😊	Transcoding					PAR-ETERE-DM fr_eter	imv_0 IN			Baton Quality Check		Result parse failed: This t	Transcoding
21/08/2013 10:29:33	😊	Generic operati					RM CD00488	harangeb@mtv			[Workflow]: ARCHIVE		1 Error: "Potentially Harm	Workflow
21/08/2013 10:30:47	😊	Copy					PAR-ETERE-DM fr_eter	imv_0 IN		ARCHIVE	Copy From IN To ARC		\\parislon01\ARCHIVE\ DataMover	
21/08/2013 10:37:52	😊	Generic operati					PAR-ETERE-DM fr_eter	imv_0 ARCHIVE			Generate MD5 ARG		064566666666666666664E3\ DataMover	

- **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**:

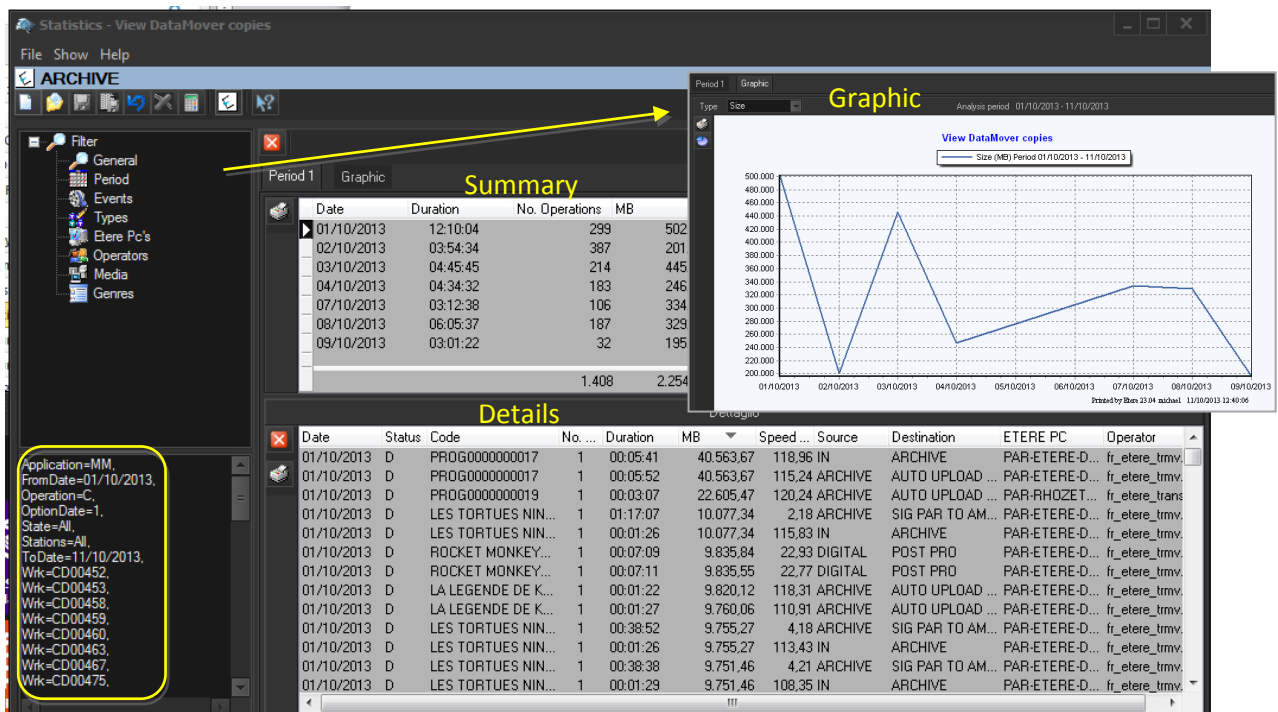


ID	Log	Date	Action	Category	Status	Result	Notes	Login Name	User
218705		19/08/2013 16:55:28	End	System	Action complete			service_broker	
218704		19/08/2013 16:55:28	End	System	Action just activated			service_broker	
218703		19/08/2013 16:55:28	End	System	Action just activated			service_broker	
218702		19/08/2013 16:55:28	Ok to broadcast	Asset	Asset updated	0	Updated asset 1065 to Ok to broadcast	service_broker	
218701		19/08/2013 16:55:28	Ok to broadcast	Asset	Action just activated			service_broker	
218700		19/08/2013 16:55:28	Ok to broadcast	Asset	Action just activated			service_broker	
218699		19/08/2013 16:55:28	Set Editorial Approval Date T	Asset	Set current time	0	Updated asset 1065 setting item 06 FE 22 00 00 00 00 0	service_broker	

- **Flexi-metadata stored values:** Metadata automatically/manually compiled during the management of an asset can be consulted from the “**Flexi-metadata**” tab:

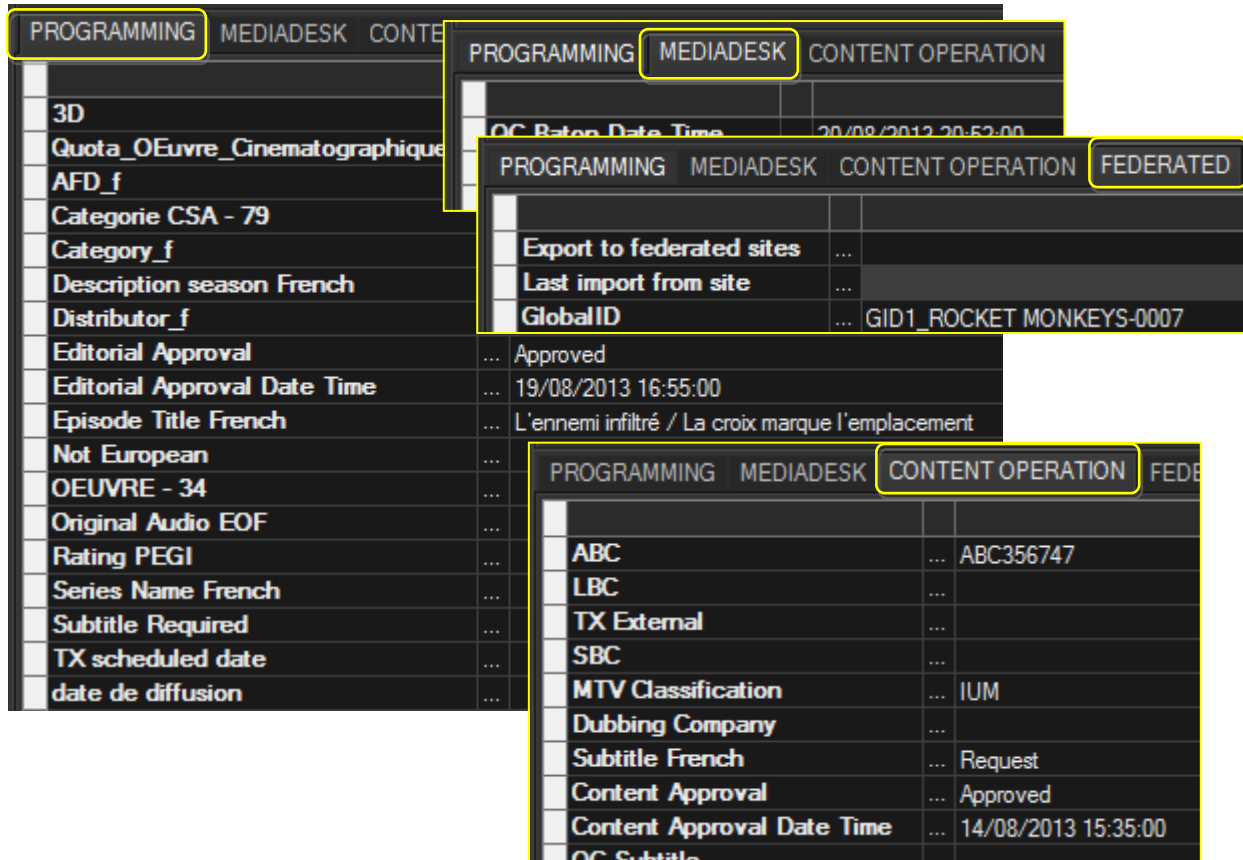


- **Statistics:** View statistics on a certain function (e.g. DataMover copies), detailed by period, events, type, computers, operators, media and genres:

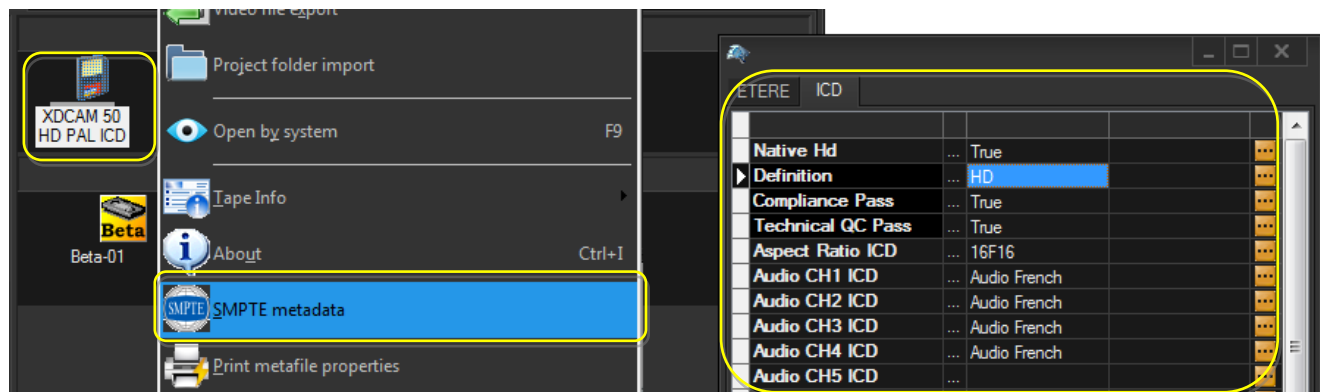


## ▼ 7.2. Asset flexi-metadata

All placeholders have an **flexi-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.

## ▼ 8. CONTENT TRAFFIC MANAGEMENT

### ▼ 8.1. Media location and tracking

*(Module that manages all the physical media (such as Tapes and HDDs) in the facility. Enables to locate the physical location of each media on the shelf and to keep track of each media coming in and out of the facility from a large number of content providers/customers.)*

See **chapter 1.5**.

### ▼ 8.2. Report

*(Produces shipment invoice and import client information from excel or other format.)*

See **chapter 12**.

## ▼ 9. CUSTOMER (COMPANY) DATA

*The system need to stores and provides access to all Customer (Company) data. This includes the basics such as contact(s) name and address, billing information and Customer Management Information. There is also the functionality to provide support to any manual processes such as sending things through the physical post.*

### ▼ 9.1. Personal Data






*(Client Records – Contact Information providing a basic CRM capability. Rate Cards As part of the Customer Data, the system need to holds complex Rate Card information for all combinations of job the customer may require.)*

**Etere Personal Data** is a very useful tool for managing your business contacts, it allows recording all data related to the contacts involved in the system workflow (e.g. production, sales, invoicing) into contact cards classified as companies, persons, locations, equipment and users.

Information managed under this module is made available across the entire system. This centralized database will help you on keeping key information (e.g. emails, accounts, taxes, etc) in one place accessible to all the

station departments which require it (e.g. commercial planning, accounting), thus ensuring you a more efficient and organized workflow.

Etere supports up to five different types of contacts within its database categorized according to their specific nature and functions as shown below:

Icon	Type	Description
	<b>Company</b>	Juristic persons (e.g. agencies, customers, suppliers, etc) forming part of the contacts database.
	<b>Person</b>	Natural persons (e.g. executives, salesmen, etc.) forming part of the contacts database.
	<b>Location</b>	Places (e.g. studios, cities, buildings, etc) on which specific tasks are performed.
	<b>Equipment</b>	Material (e.g. cameras, cars, tapes, etc) managed by the station to carry out specific tasks.
	<b>Users</b>	Users of the Etere system.

Supported data types stored for contacts include:

- **General information**
- **Invoicing Data**
- **Other Data** (e.g. rate cards)

Personal Data, michael, CHANNEL 1

File Tools Help

Code: DevilsAgency

Search Personal Data Form Invoicing Data Other data Banks Contacts Web and Rights Proposal

Inventory data  
D.D.T. Shipping

Shipping code: ES  
Transport code: ET

Administration office

CL

Target customer: S-Pho  
Media Center: API M  
Agency: Devil

User Name: evil66  
PASSWORD: .....

Resources management  
Can take jobs

CL	Description	Top	Bottom	Priority	Rotation	Optimization
	Top-Active	500,00	400,00	300,00	200,00	100,00
	Medium-Active	500,00	400,00	300,00	200,00	100,00
	Low-Active	500,00	400,00	300,00	200,00	100,00
	Inactive	500,00	400,00	300,00	200,00	100,00
	New Customer	500,00	400,00	300,00	200,00	100,00
	Undefined	0,00	0,00	0,00	0,00	0,00

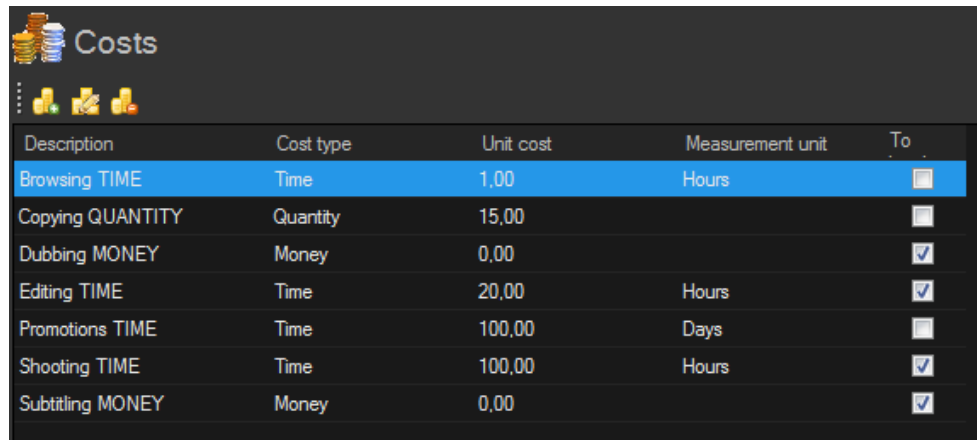
- Banks
- Contacts
- Web and Rights
- Proposals

## ▼ 10. PRICING MODULE

### ▼ 10.1. Costs structure

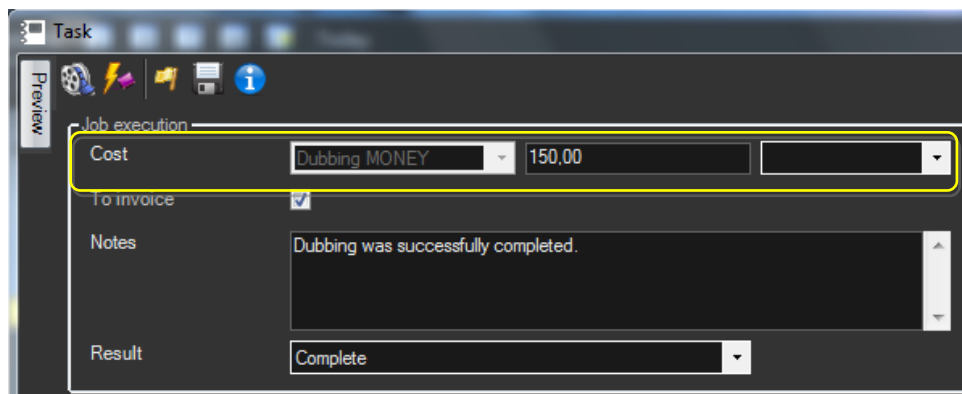
*(As service provider we need that the system will be able to generate price of use of difference workflow or use of devices in the system.)*

The Costs of jobs can be defined under a costs structure based on user-defined templates that will be used by job actions (during both their creation and compilation):



Description	Cost type	Unit cost	Measurement unit	To
Browsing TIME	Time	1,00	Hours	<input type="checkbox"/>
Copying QUANTITY	Quantity	15,00		<input type="checkbox"/>
Dubbing MONEY	Money	0,00		<input checked="" type="checkbox"/>
Editing TIME	Time	20,00	Hours	<input checked="" type="checkbox"/>
Promotions TIME	Time	100,00	Days	<input type="checkbox"/>
Shooting TIME	Time	100,00	Hours	<input checked="" type="checkbox"/>
Subtitling MONEY	Money	0,00		<input checked="" type="checkbox"/>

(costs structure)



Task

Preview

Job execution

Cost: Dubbing MONEY 150,00

To invoice: ☒

Notes: Dubbing was successfully completed.

Result: Complete

(costs insertion)

1 CHANNEL 1							Project costs
<b>Project costs</b>							
3746 - A blue automobile							
Workflow	Action	Status	Cost type	Value	*Measurement unit	To invoice	*Economic value
RES - Dubbing (auto+none)	WS Audio dubbing	Complete	Dubbing MONEY	270.00		x	270.00
RES - QUICK Censorship	WS Censorship Approval (w/p)	Complete	Browsing TIME	5.00	Minutes		0.08
<b>*Total to invoice</b>							<b>270.00</b>
<b>Total</b>							<b>270.08</b>

(costs report per asset)

## ▼ 11. DISPATCH NOTES

*Related to Jobs & Library, the dispatch note module enables dispatch notes to be created and printed. These dispatch notes may contain items from a variety of Jobs. The system needs to take in to account that it is possible for a delivery to be both physical and digital files and can manage both on a single dispatch note.*

### ▼ 11.1. Delivery reports

The wide range of reports provided by Etere allows generating reports on delivery jobs. For instance, the **Task Status by Workflow** report allows generating a document containing the current status of all the **jobs** contained on a certain workflow:

Report [Resources manager/Tasks status by workflow]

1 of 1

Whole Page

Find | Next

XML file with report data  
CSV (comma delimited)  
PDF  
MHTML (web archive)  
Excel  
TIFF file  
Word

Tasks status by workflow

Workflow Subtitling workflow

Assignee All

Action All

Validity period 28/02/2010 - 14/03/2014

Workflow - Action									
Code	Title	Assignee	Validity start	Validity end	Status	Executor	Execution time	Duration	Result
Subtitling workflow - WS Media subtitling									
FILM000000070	Jeux D'Enfants	Vasquez Michael	24/07/2012 5:49:49 PM	29/07/2012 5:49:49 PM	Running				
FILM0000003068	Deep Trip	Vasquez Michael	24/07/2012 5:49:49 PM	29/07/2012 5:49:49 PM	To do				
FILM0000003671	Casablanca	Vasquez Michael	24/07/2012 5:49:49 PM	29/07/2012 5:49:49 PM	Done				

## ▼ 12. JOB CONTROL

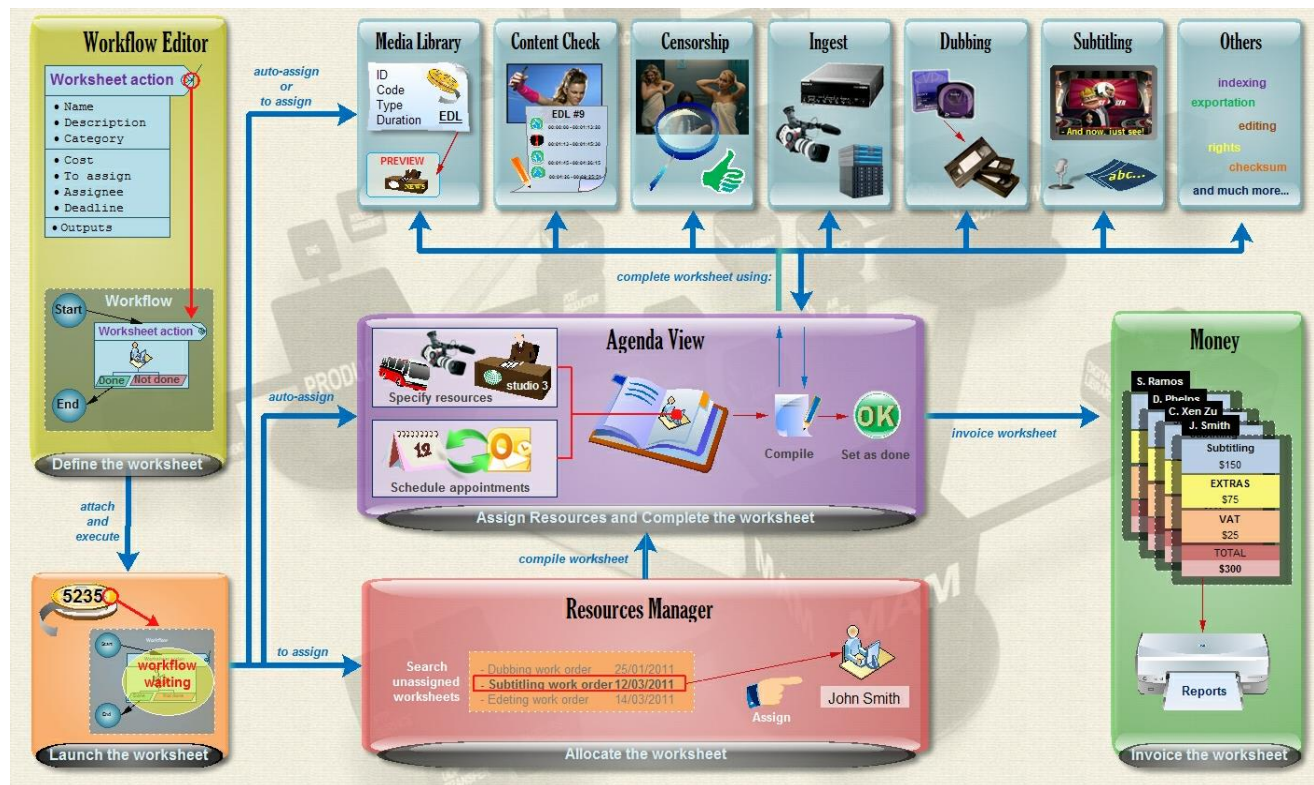
### ▼ 12.1. Resources Management

*(Control the process of work to be done for customer after receive a Purchase Orders, jobs need to create in the system. Equally, clients can create jobs via their WEB login. The jobs can then be assigned and where there are multiple activities within a single job that can span more than one person, these tasks can be correctly assigned.)*

*(Job control also enables appropriate media to be ordered, costs to be calculated and finalized and provides the costing content for invoices. It then generates the invoices and provides printed or file based invoices to send to the customer.)*

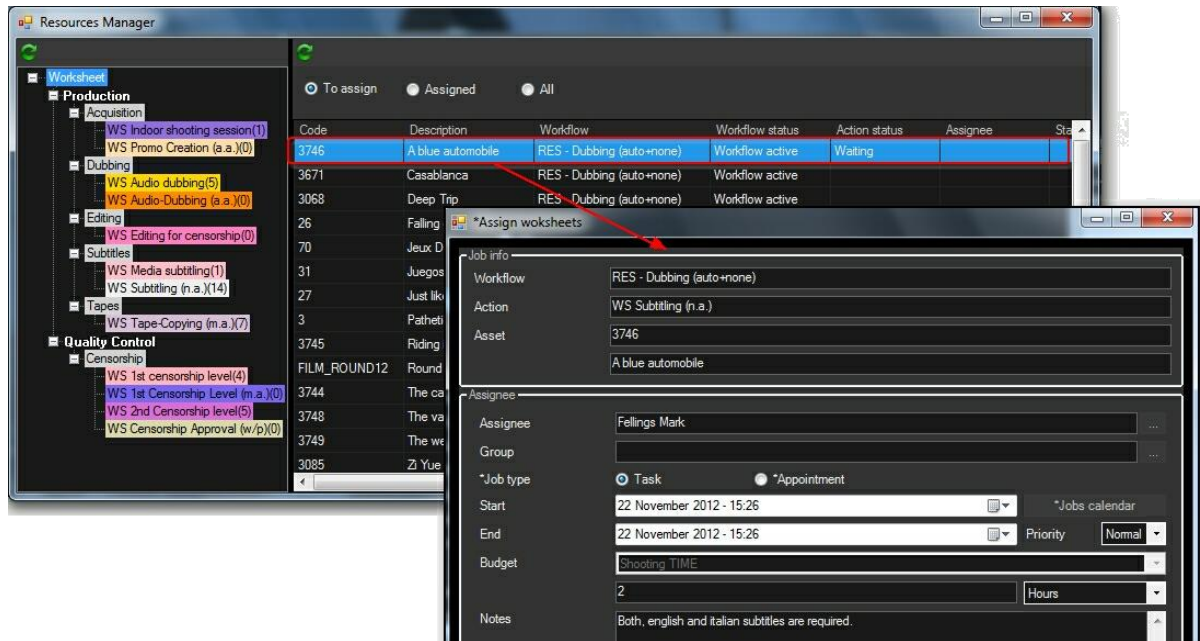
*(A further stage is the exporting of the subsequent invoice data to the external accounting systems.)*

**Resources Management** is the flexible solution that permits to virtually manage all operations actually involved in the media asset management, such as for example, subtitles generation, promo creation, tape copying, media editing, audio dubbing, etc. Etere integrates the management of worksheets, from their creation and compilation to their tracking and invoicing.

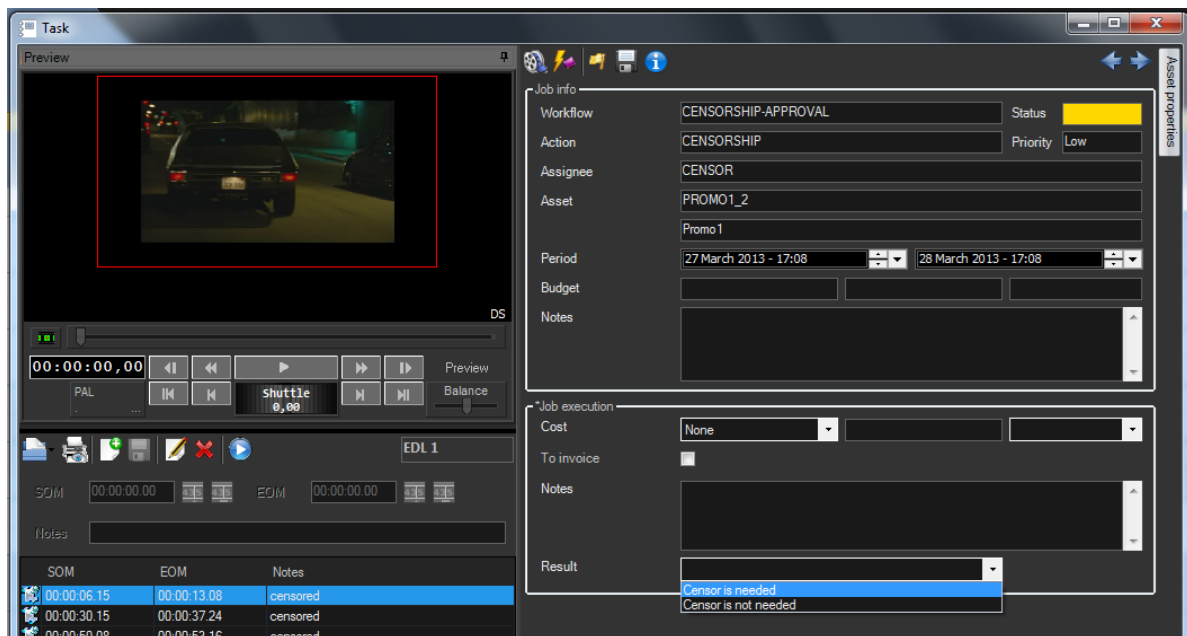


Worksheets are based on a custom structure and are fully integrated into the workflow management, being possible to create user-defined worksheets and include them in automated workflows which current status can be consulted at any time in real-time from either a desktop or web interface:





Worksheets related to media tasks (e.g. delivery, censorship, trimming, segmenting, subtitling, etc.) are greatly improved with the inclusion on key features such as proxy preview, slow-motion playback, EDL timecode marking, bookmarking navigation and metadata insertion:



A report on costs of jobs can be generated for each asset:

1 CHANNEL 1							Project costs
<b>Project costs</b>							
3746 - A blue automobile							
Workflow	Action	Status	Cost type	Value	*Measurement unit	To invoice	*Economic value
RES - Dubbing (auto-none)	WS Audio dubbing	Complete	Dubbing MONEY	270.00		x	270.00
RES - QUICK Censorship	WS Censorship Approval (w/p)	Complete	Browsing TIME	5.00	Minutes		0.08
							<b>*Total to invoice</b>
							<b>Total</b>
							270.00
							270.08

## ▼ 13. CLIENT WEB INTERFACE

*The client web interface window need to provides external customers with a view of data in the system including asset.*

*Clients are capable of managing distribution as well.*

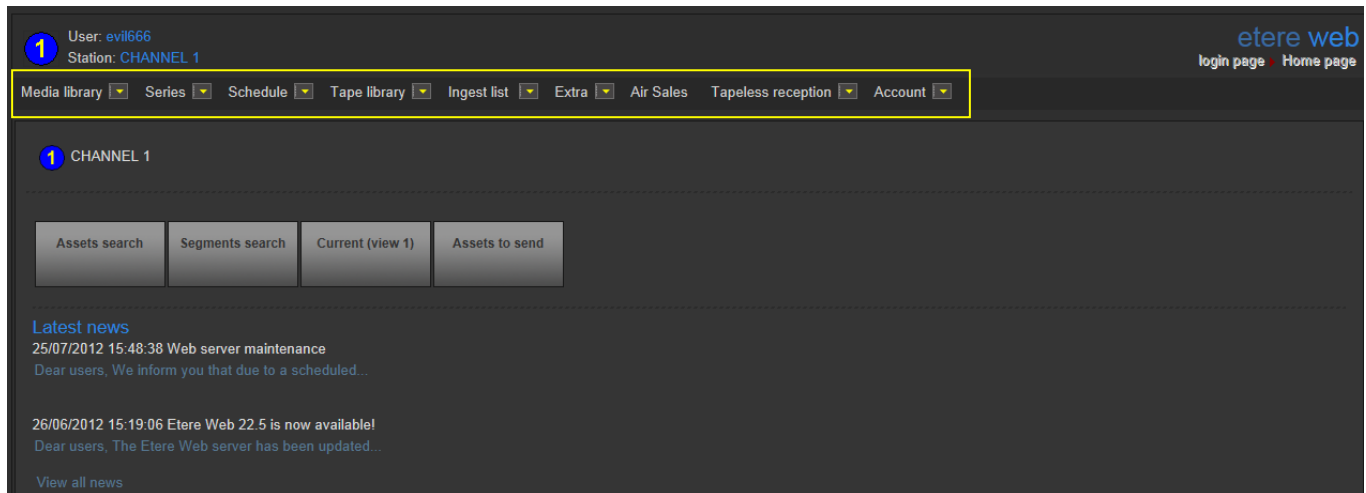
*The web interface need to give the clients with a “self-serve” system allowing them to perform their own distribution service. they can upload master material, automate screen file and thumbnail creation of the material, create cut down versions of the master file for showreel or teaser materials, transcode to different specifications and ultimately provide a download delivery system for their clients.*

*The web interface allows customers to see progress on jobs, watch completed digital content and request downloads of completed digital content.*

*This interface can be white-labelled to provide an experience that integrates in to a customer’s existing style and design.*

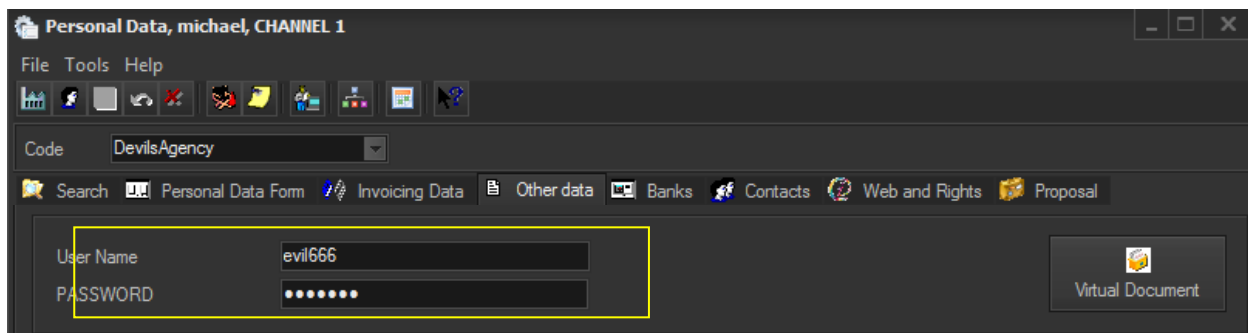
### ▼ 13.1. Web portal

**EtereWeb** web service supports all major browsers including Microsoft Internet Explorer, Mozilla Firefox and Apple Safari; thus ensuring the reliability and quality of the service. EtereWeb integrates the latest streaming technologies for video distribution and a comprehensive rights management system that gives to authorized users the possibility to access via web to a user-friendly interface:



## ▼ 13.2. Authenticated access and rights

In order to ensure that only authorized persons access the web service, EtereWeb counts with an encrypted authentication method on which users must count with a username and password in order to enter the web portal:



## ▼ 13.3. Tapeless reception

**Tapeless Reception** is an extension of **EtereWeb** designed with the purpose of offering an efficient solution for **digital content delivery** between external agencies and stations, it integrates the latest streaming technologies for video distribution and a comprehensive rights management system that gives to authorized users the possibility to access via web to a user-friendly interface:

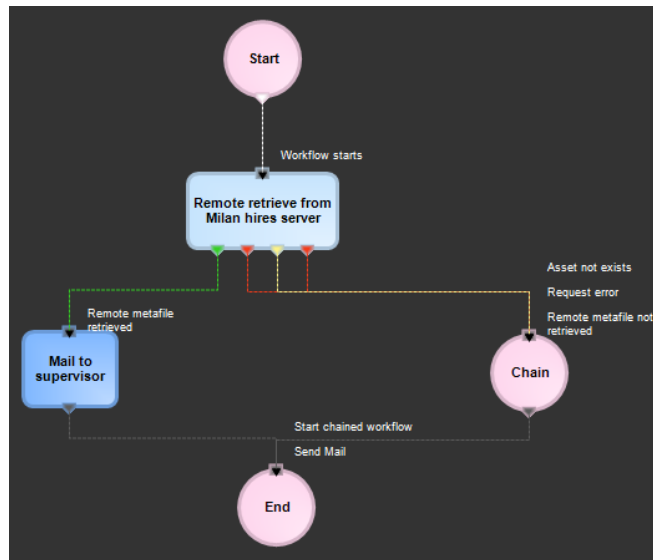
Sent Assets			
(Hide search panel...)			
Code			
Title			
Date			
Search		Reset	
Code	Description	Scheduled arrival	
28	Blank Bottles 2009-IV	01/09/2010	Select
PromoE02	PROMO EtereTV 002	30/04/2010	Select
3082	"Bee Beer" 2012 (1st-quarter)	19/01/2010	Select
ADV-0001	New Collection "EMO CLOTHES" 2010-I	31/12/2009	Select
3065	Testing Advertising Commercial 01	31/12/2009	Select
PromoE03	PROMO EtereTV 003	01/12/2009	Select
41	Alejandro Sanz - Mi soledad y yo	20/11/2009	Select
55	Cuenta la historia	20/11/2009	Select
VirtualAsset01	Wonderwall	04/08/2009	Select

Etere provides **Tapeless Reception** to allow remote clients to deliver digital content into the library, this web portal will permit other station's areas (e.g. Post-production houses, NLE systems, News providers, MAM systems) to easily and safely **upload content** (e.g. dubbed audio, conformed video, subtitles, etc.) and related metadata into a web server; once content is delivered (i.e. uploaded), a post-upload workflow (e.g. nearline archiving) is automatically triggered and a confirmation email is sent to the deliverer (attaching a proxy video) and the station operator.

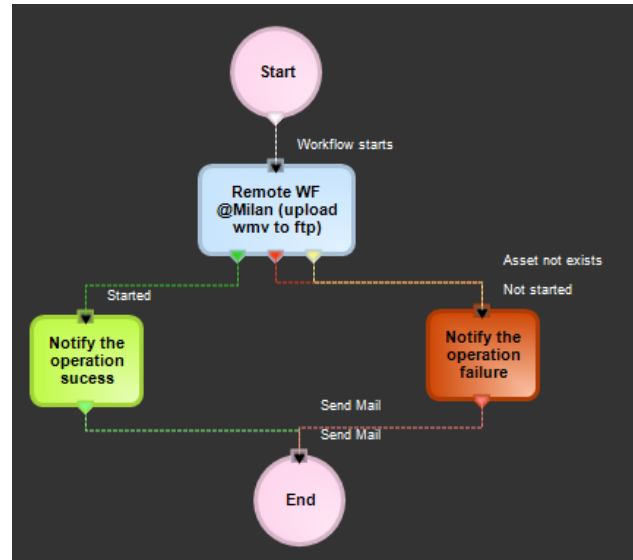
Additionally, a customizable security policy will allow the station to determine different levels for accessing the files delivered through the web portal, thus making possible, for example, to dictate that a certain web user (e.g. NLE system) will be allowed to retrieve only its own delivered files whereas another web user (e.g. MAM system) to retrieve its own delivered files and also other user's files.

## ▼ 13.4. Workflow integration

Thanks to the file-based approach of its media management, EtereWeb supports interfacing centralized NLE systems (Avid Transfer manager, Final cut pro server) via workflow. With Etere, it will be possible to transfer video files from and to NLE systems automatically via workflow, these workflows can be attached, for example, to assets which requires editing:



(remote retrieve from a federated system)



(remote upload to ftp)

## ▼ 13.5. Centralized monitoring

EtereWeb provides administrators with two key sections from which they will be able to consult:

- **Login Report** : Detailed information about user-specific accesses:

User: ewil666  
Station: CHANNEL 1

Media library ▾ Series ▾ Schedule ▾ Tape library ▾ Ingest list ▾ Extra ▾ Air Sales ▾ Tapeless reception ▾ Account ▾

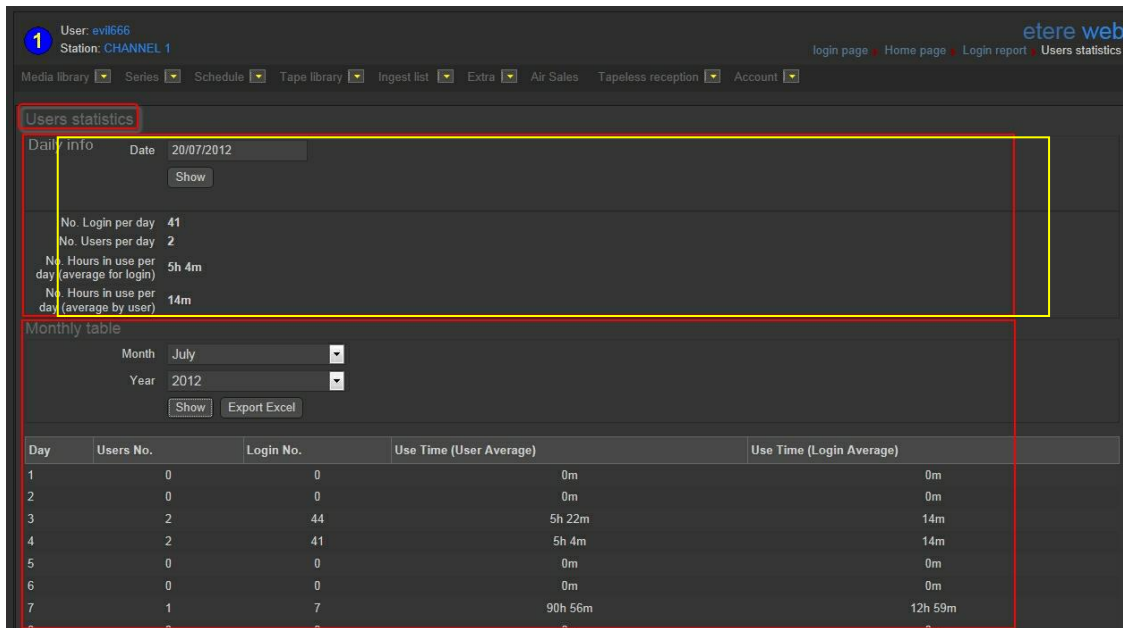
Login report

Load

Search (Company Name/Surname)  Search

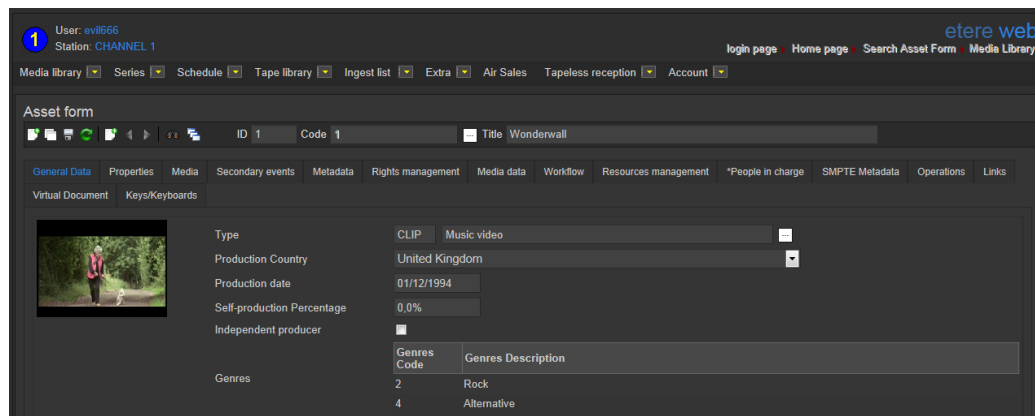
Code	Company Name/Surname	Data Login	Data LogOut	Time in Etere Web
Devil's Agency	Devil's Agency	25/07/2012 15:49:00	25/07/2012 15:59:00	00:10:00
JonesAndJones	Jones & Jones	26/06/2012 16:49:04	26/06/2012 16:49:25	00:00:20
Michael	Vasquez	25/07/2012 15:19:50	25/07/2012 15:19:53	00:00:02
Devil's Agency	Devil's Agency	25/07/2012 15:17:44	25/07/2012 15:27:44	00:10:00
Mark	Fellings	25/07/2012 13:29:49	25/07/2012 13:29:53	00:00:03
Devil's Agency	Devil's Agency	25/07/2012 13:22:31	25/07/2012 13:32:31	00:10:00
System admin	System admin	20/07/2012 17:40:55	20/07/2012 17:50:55	00:10:00
Devil's Agency	Devil's Agency	23/07/2012 17:28:42	25/07/2012 13:22:32	1d 19:53:49
Devil's Agency	Devil's Agency	23/07/2012 15:53:21	25/07/2012 13:22:32	1d 21:29:10
Devil's Agency	Devil's Agency	23/07/2012 10:32:57	23/07/2012 10:42:57	00:10:00

- **User Statistics** : Overall information about daily and weekly accesses:



## ▼ 13.6. Workflow integration

EtereWeb allows web users to check and also control the digital archive remotely via web. Web users will be provided with a fully-tracked access to the most relevant Asset Management operations through a robust search engine and including a wide set of function-specific sections (i.e. general information, media, properties, metadata, rights, technical data, workflows and much more).

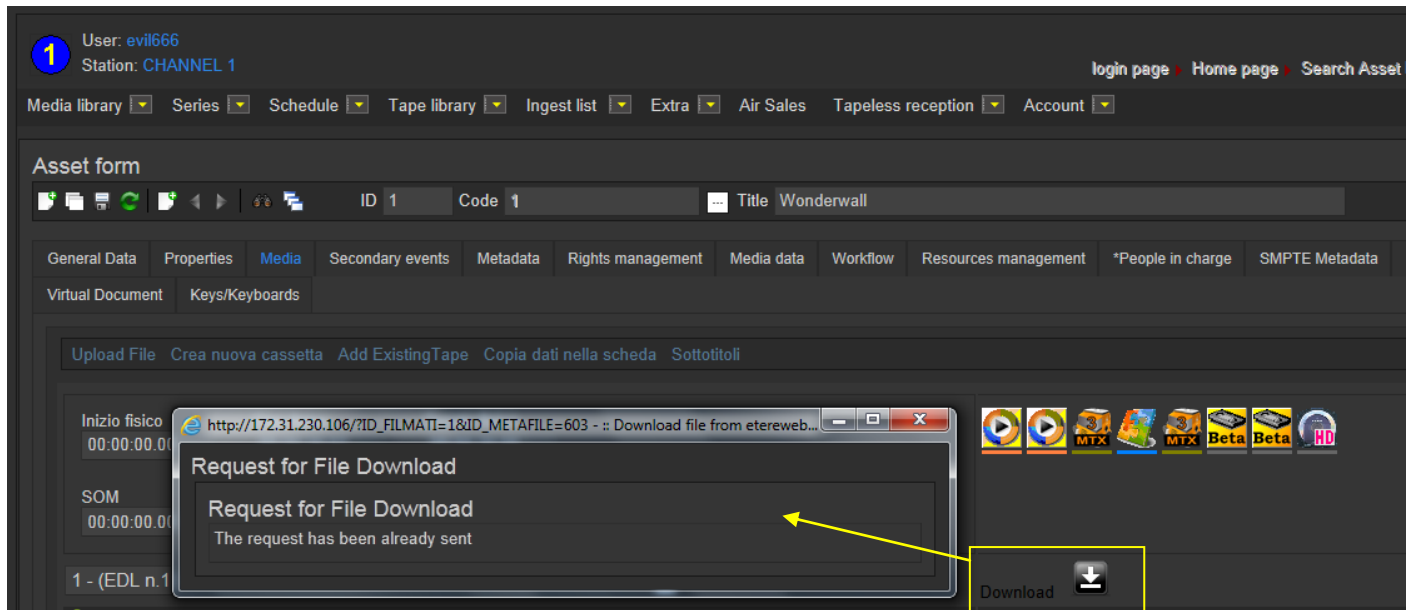


Specially, a section dedicated to the media management will provide information regarding all media files associated to the asset, indicating for all of them the timecode details and EDL configuration with further preview/cut/download/upload capabilities.

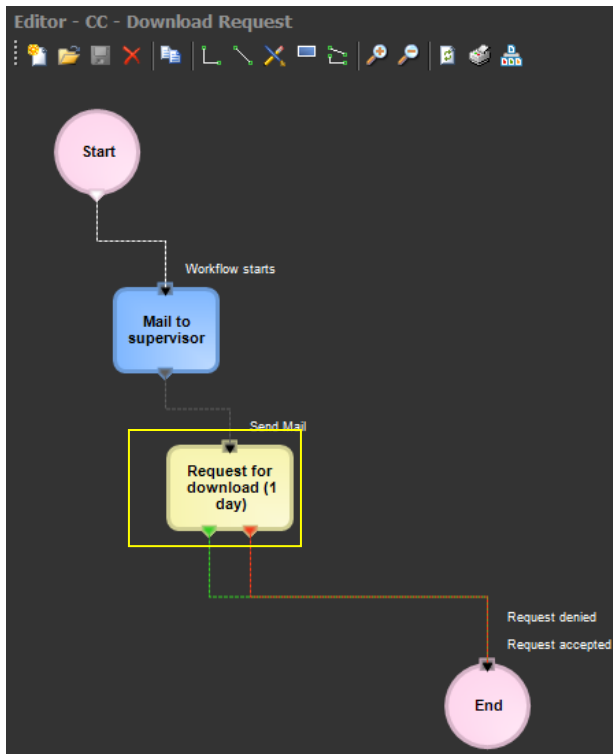


## ▼ 13.7. Users permissions

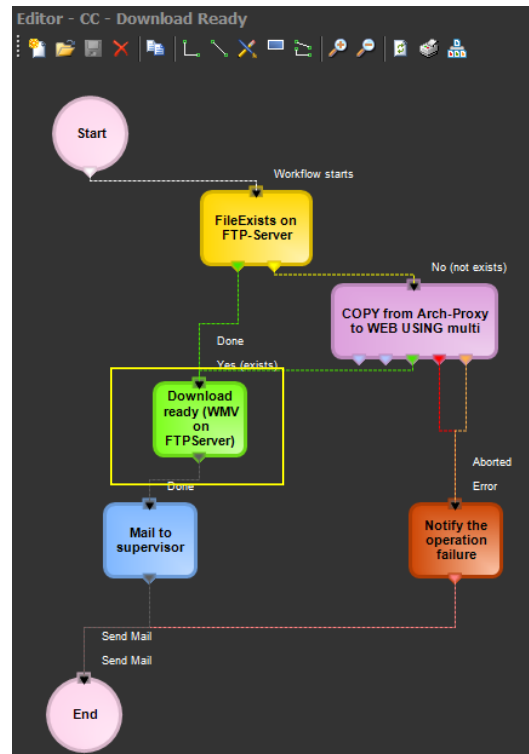
**EtereWeb** allow stations not only to share the right files to the right persons but it also allows sharing contents with the right permission levels; this capability is based on granting/denying function-specific permissions through Etere Worksheets, the module that allows web users to request temporary permission for specific functions (e.g. download a file linked to a certain asset):



Web requests are managed via workflow to allow a custom and automatic launch of worksheets:



(download request)



(download ready)

Supervisors count with a dedicated interface for viewing pending requests and accept/deny them:

Media Library, michael, CHANNEL 1

File Tools Show Utilities ?

**CHANNEL 1**

ID 1 Code 1 Title Wonderwall

Tapeless reception TechnicalData SMPTE Metadata Links SIAE Operations Keys/Keyboards \*People in charge Proposal

Search General Data Properties Media Workflow Resources management Secondary Events Metadata Rights management

Requester Devil's Agency Request Download metafile Codec WMV

Notes Response Request accepted

Requester Jones & Jones Request Download metafile Codec WMV

Notes Response

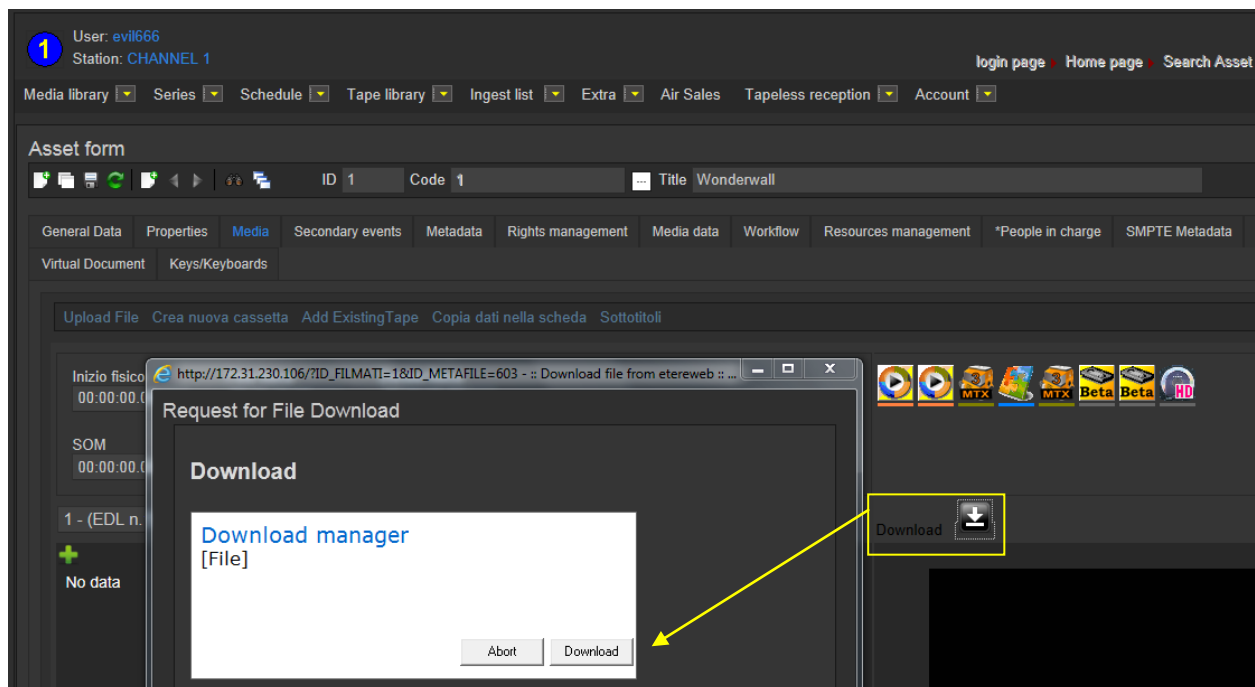
\*Hide temporary rights

Requester	Request	Codec	Expiry date
Skywalker Luke	Download metafile	WMV	05/12/2124 15:18:50

Once the requested is evaluated, web-users will automatically receive an email notification containing the information (e.g. ID, codec, fixed note and an evaluation note) about the asset for which the request has been performed. The email notification will be sent to the email specified in the personal data of the web-user who performed the request, this, depending on the entity type:

From:	supervisor@mytv.com [system-profile email account]
To:	user5@agencies.com [personal-data email account]
Subject:	WORKFLOW INFO ----( workflow status report )---- Personal data ID : 7 [personal-data code] workflow: CC - Download for NLE [workflow holding the web request action] status: Workflow active result: 0 message: <empty>

Finally, in case the request is accepted, the web-user will be now allowed to download the requested file(s) through EtereWeb:



## ▼ 14. TRACKERS

*Allow RRsat staff (and customers via the web interface) to track the progress of items through complex workflows. A complex workflow is defined for this purpose as being something greater than just a “send us something...we do something with it...we send something out again”.*

*Trackers incorporate Header information, progress information and conclusion information. Depending on the workflow being tracked, it may be possible to utilize a generic configurable workflow, or for more intricate situations.*

### ▼ 14.1. Monitoring Console

The **Etere's Monitoring Console** gives administrator a valuable tool, a **robust dashboard** for monitoring the status of workflows and directly controlling 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.):

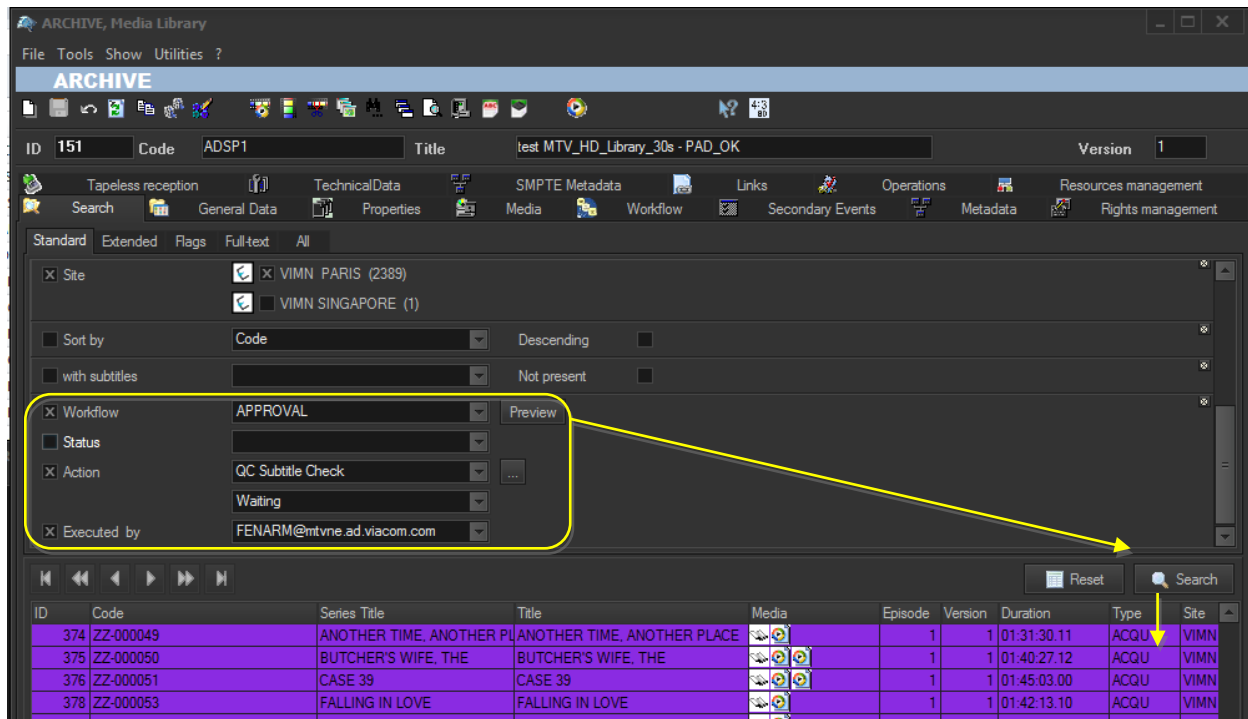
The screenshot displays the Monitoring Console interface, which is divided into several panels:

- Master Panel:** Shows a summary table of workflows. The 'APPROVAL' workflow for 'Asset' is highlighted, showing a count of 107.
- Details Panel:** Provides a detailed view of the selected workflow instance. It shows a table of instances with columns for Object type, Object ID, Object code, Object description, Workflow, Workflow status, Deadline, Priority, Action, Action status, and Creation date. The first instance is highlighted.
- Workflow log:** A log of actions performed on the workflow. It includes columns for ID log, Date, Action, Category, and Status. The log shows various actions such as 'Content Approval...', 'Production Approval Check', and 'Set Production A...'.
- Workflow Instance Active:** A diagram showing the current state of the workflow. The diagram includes nodes for 'LOCAL PRODUCTION', 'INITIAL', 'Approval', 'Production Approval Check', 'Content Approval Check', 'Set Content Approval Date Time', 'No Request', 'OC Request', 'Check Subtitle Input', 'OC Subtitle Check', 'Set Subtitle French OK to be processed', and 'Set OC Subtitle Live Time'. The 'Content Approval Check' node is highlighted.

Yellow arrows indicate the flow of information from the Master Panel to the Details Panel, and from the Details Panel to the Workflow log and Workflow Instance Active panels.

As shown in the image above, accessing the operations log and sequential flow 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.):



## ▼ 15. INCIDENT MONITORING (TICKET MANAGEMENT)

*This module records all incidents that have been raised by customers regarding work done, and tracks the investigations of the incident and eventual conclusions that were reached.*

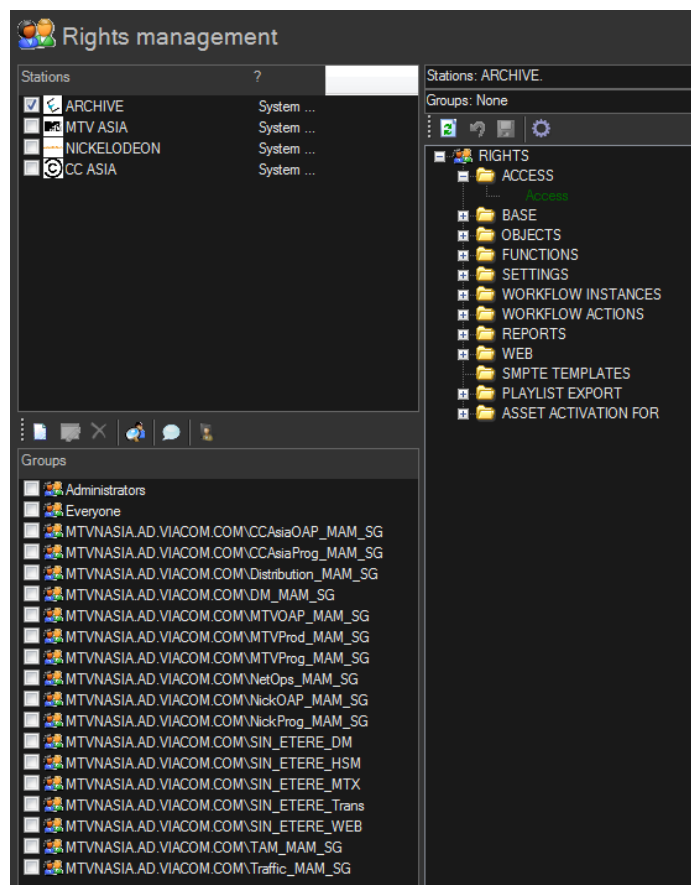


# ADMINISTRATE THE SYSTEM

## System Logs

## Users and Group Rights

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.

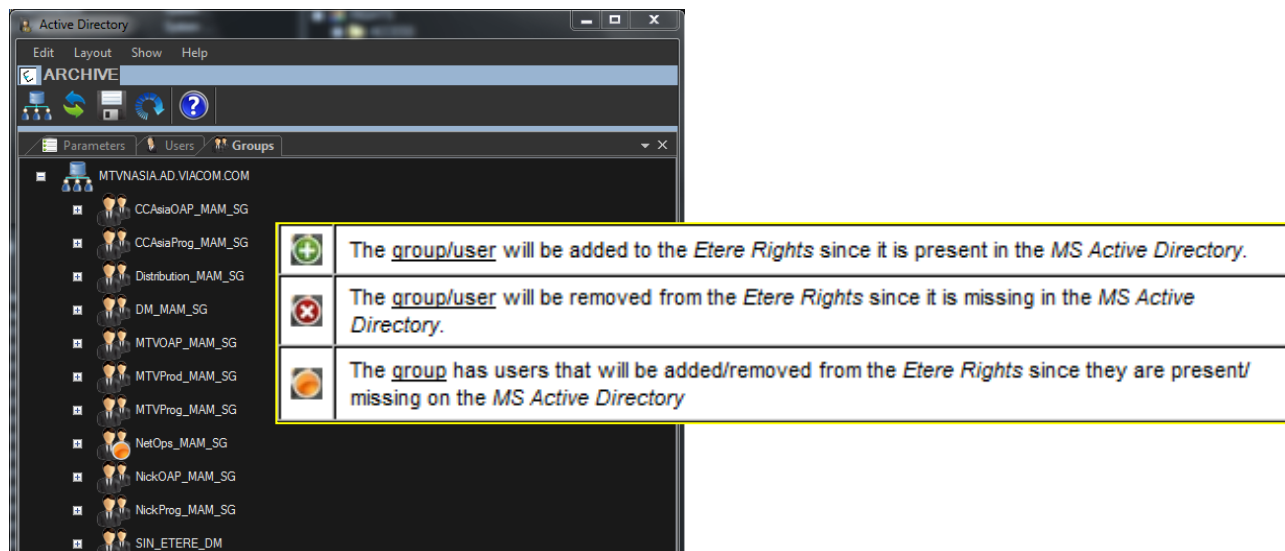


Etere allows managing different –and fully customizable- access levels for users which form part of the system, with Etere; set specific access rights not only for different users, but also for different stations.

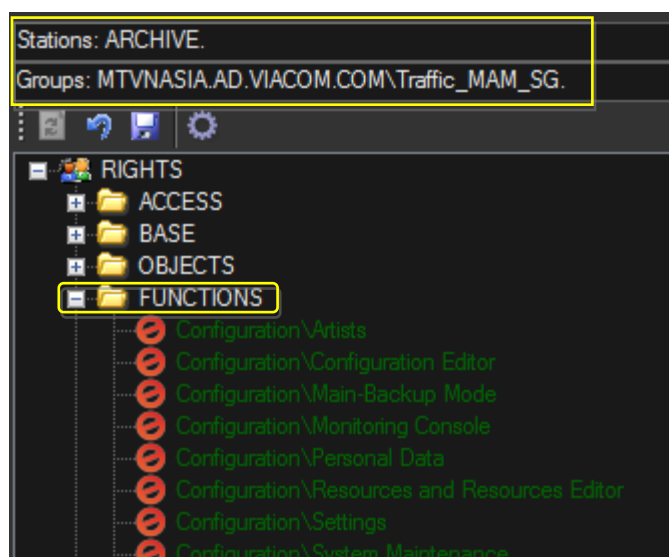
It's worth mentioning that when a new version is created of a placeholder, said version will have the same type (e.g. clip) as the original asset, thus inheriting the restrictions active for it.

## Limit control

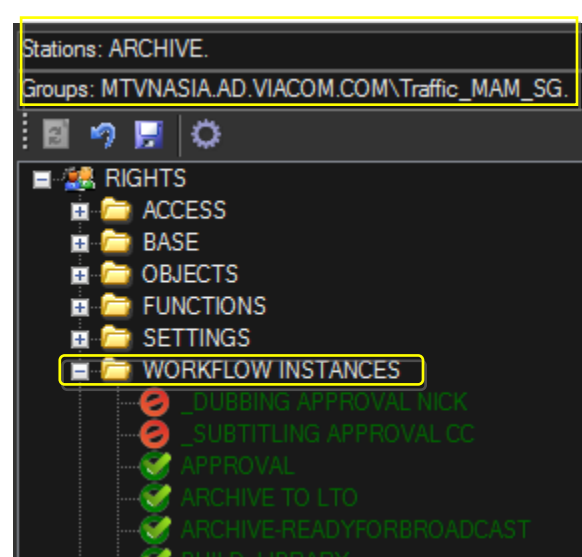
Etere allows creating a new rights structure importing groups and users from your organization's **MS Active Directory**. All groups and users present in the Etere Rights structure can be displayed, allowing to update the Etere Rights structure by synchronizing it against the MS Active Directory. Groups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



All features provided by Etere (e.g. functions, workflows, stations, etc.) falls under different categories 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)

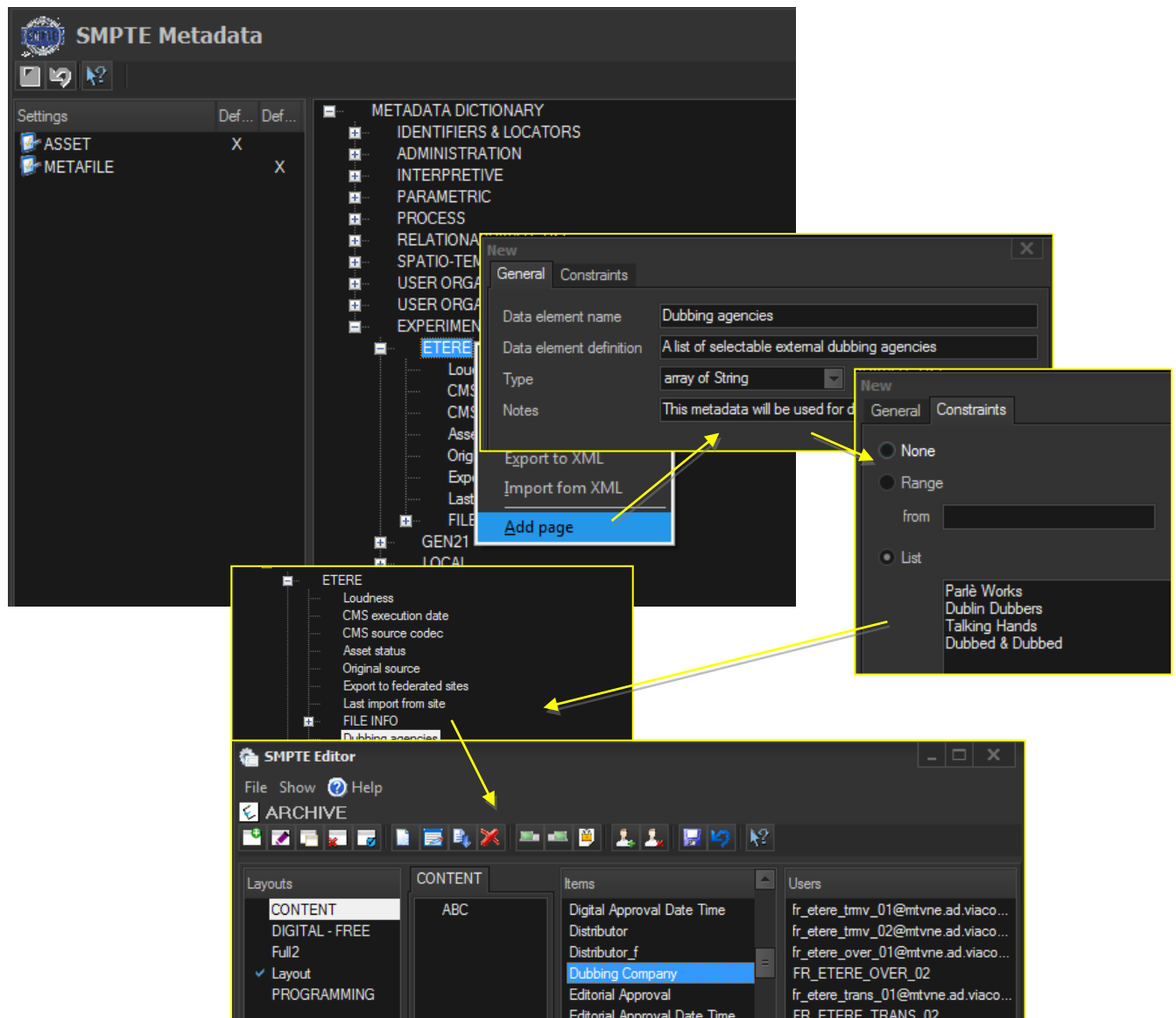


(grant execution of specific workflows)

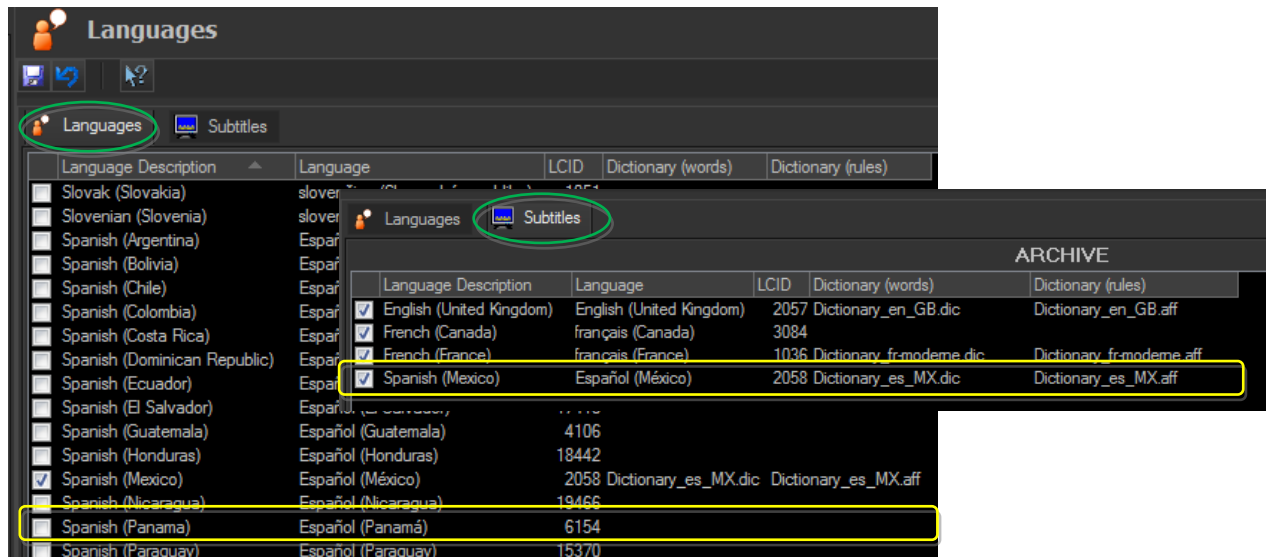
## System Configuration

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:

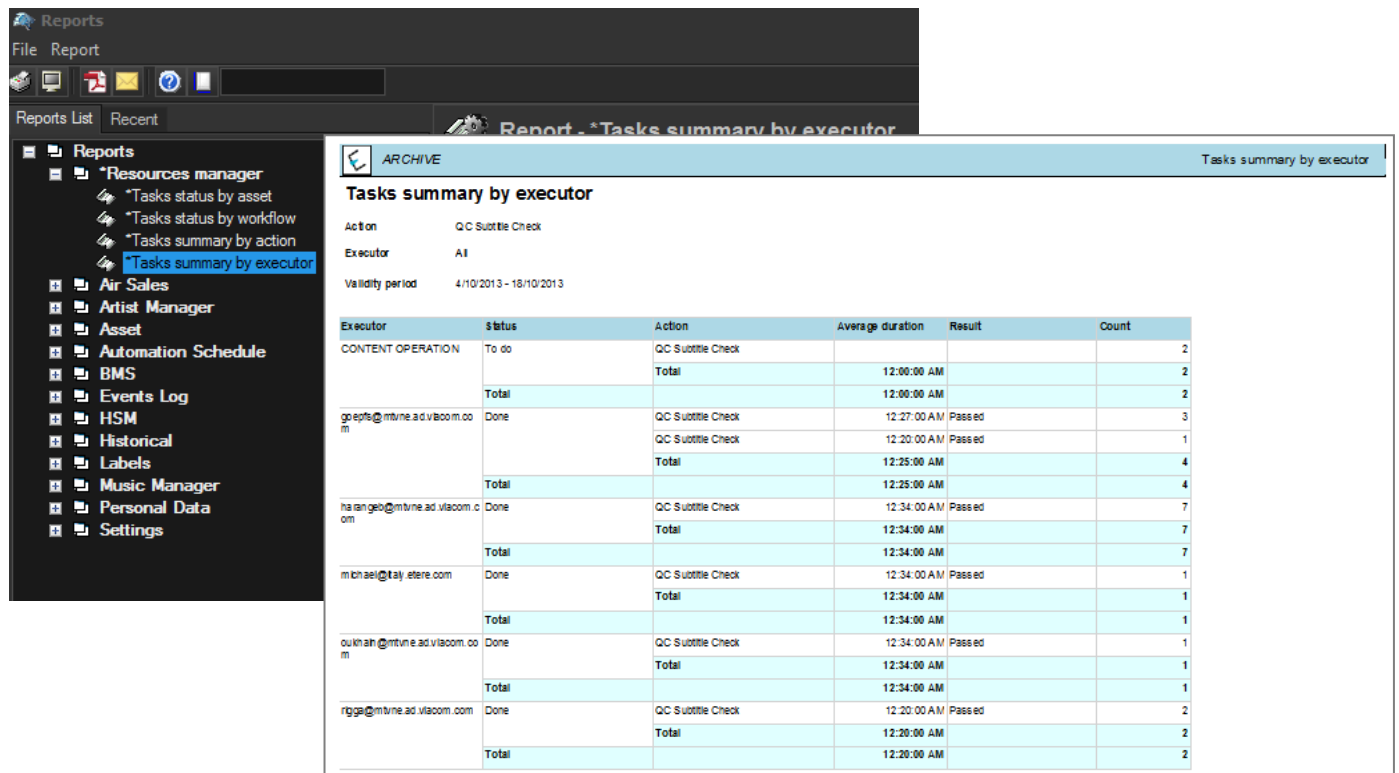
- **Add metadata:**



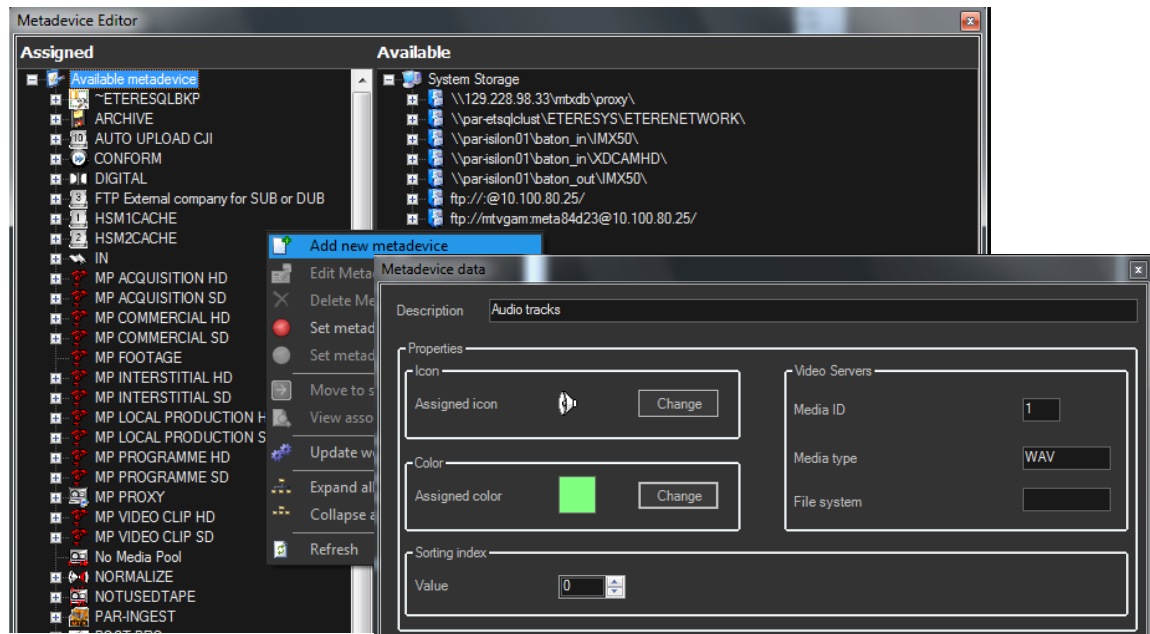
- Add languages:



- Consult reports:



- Add storage metadevices:

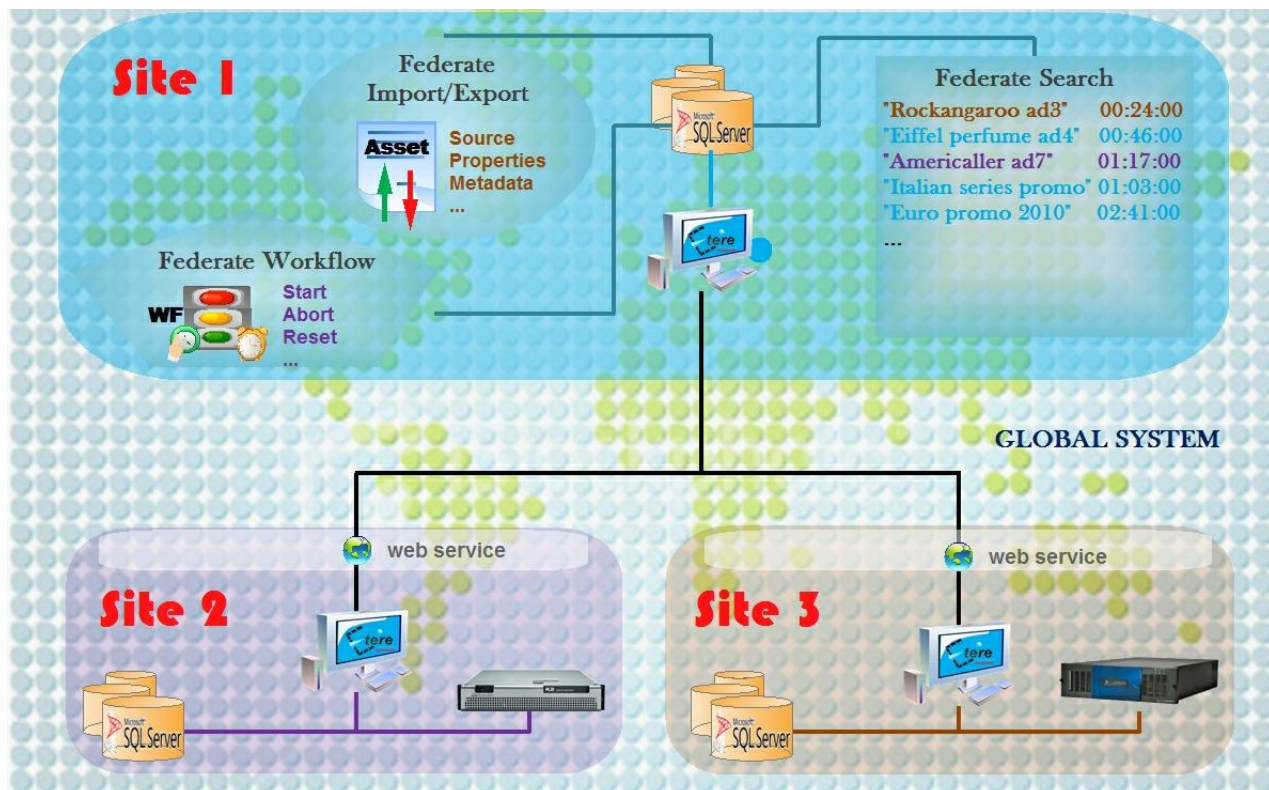


## MULTI-SITE INSTALLATION

### Federated architecture

The **Federated Architecture** of Etere allows a coordinated interoperability and safe information sharing between semi-autonomous de-centrally organized Etere sites (systems); a Federate Etere System will make that all constituent systems (e.g. geographically decentralized but interconnected via a computer network) to share assets under a secure and efficient framework.

Etere enables stations to take full advantage of federated technologies, allowing them to import/export assets between remote Etere sites such in a way that it will be possible to manage external assets as local. It will be possible from the local site to search and handle external assets and also to orchestrate external workflows. Here below is illustrated how Etere orchestrate assets and workflows:



Etere's enhanced federated capabilities allow integrating different systems and provide the global system with the following features:

- An extensible access and extended catalog with optimized retrieval performances
- Search, open and manage assets' data and content stored across diverse sources
- Centralized processing of media data with further replication over different systems
- Best use of proven technologies including as SQL, XML and Web services

## Easy configuration

A simple and intuitive interface allows configuring the parameters that will permit federate systems to communicate and exchange data between them.

The **"Sites"** section allows managing the local and remote Etere sites making part of the global federated system, allowing to specify their names, icons, colors, web services as well as their available workflows and devices. It's worth mentioning that **Etere sites** can be added in the **Sites list** either automatically (every time an Etere F90's federated search import is performed) or manually (using the "add" button located in the toolbar).



Site	Description	Icon	Color	Local	Url	Username	Password	*Import path
701	Etere TV (Rome)			<input checked="" type="checkbox"/>				
555	Etere TV (Australia)			<input type="checkbox"/>	http://172.31.230.111/EtereWSApi/E...	RemoteUser01	*****	D:\MyStorage\My Tests\F90-ImportEx...
444	Etere TV (Milan)			<input type="checkbox"/>	http://172.31.230.124/EtereWSApi/E...	RemoteUser01	*****	D:\MyStorage\My Tests\F90-ImportEx...
666	Etere TV (Naples)			<input type="checkbox"/>	http://172.31.230.156/EtereWSApi/E...	RemoteUser01	*****	D:\MyStorage\My Tests\F90-ImportEx...

Workflow	Device
Archive MXF from BMS	Archive- HiRes
Archive WMV USING rhozet	Archive-Proxy
BalancedCopy to MyMetadev	CACHE
CheckLength on Arch-Proxy	FTP-Server
CheckLength on BMS	LegalRecording
Checksum	Masstech MassStore

**Remote Workflow Actions** allows to remotely control, from a local site, workflows of assets stored on an external site. **Remote workflow actions** are useful when a **local site** counts with *federated assets* imported from **external site**, it will allow to remotely manage this kind of assets **directly** on their owning systems. The **remote execution** of *workflow actions* (e.g. attach and start, abort, reset, etc) takes place by requesting them to the web services of the asset's owning remote site, once received, *workflow actions* will be locally performed for the related assets.



## Automatic synchronization

The **federate capabilities** of Etere provides stations with a wide set of features that will enable them to automatically share assets between remote sites (e.g. geographically segregated), allowing each site to transparently manage assets stored on other sites as they were in their own system.

Federate sites are able to share their data and digital content with other sites forming part of the same **federate system**. Shared assets can be managed within the **federated workflow** through the execution of workflows on remote sites to manage remote assets (e.g. put an asset media into a shared location):

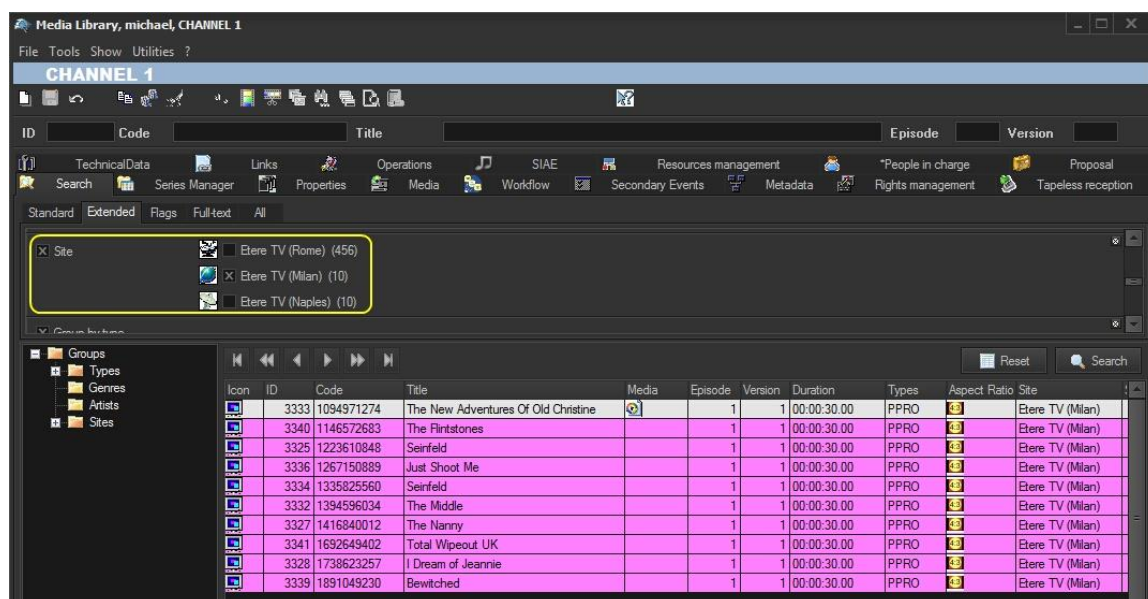


The **F90 - XML Assets Full export** allows to export assets from the current site (by using the **asset full export**) to a given path. **Etere F90** will create a reconciliation file named **etere.asset.Totals.txt** containing a list of the ID's of all the exported assets. In the other hand, the **F90 - XML Assets Full import** allows to import assets from external sites which have been saved as XML files and placed into a certain path (using the F90 - Federated search export). Once imported, for all assets will be detailed in the **media library** all import information.

## Federate search

Etere implements a '**federated search**' system based on Microsoft SQL technology, it permits to search across assets belonging to different systems. During the search it is possible to highlight 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).

The Etere **search engine** provides a wide range of filters to narrow search to only those assets really needed to be retrieved. For the federate management, Etere provides the following filter:



**Site**

Indicate the federated Etere site to which the assets to be retrieved must belong.

## Remote management

Etere's advanced workflow management allows all data and digital content of all external installations (repositories) to be able to participate in the federated workflow processes, that is, it will be possible to execute workflows for external assets locally.

The federated workflow management is based on **Etere Web Services**; a web service that permits to remotely execute workflows, this key feature will take the station to a top media management level in which media files can be transferred remotely. The **Etere Web Services** counts with a wide set of operations for sending/requesting data and executing functions in remote systems, operations include creation, consultation, modification and deletion of:

- **Assets** (e.g. get list, get artists, get genres, etc.)
- **Metadevices** (e.g. get list, get files on devices, etc.)
- **Workflows** (e.g. get list, execute, reset, etc.).