PROJECT

Etere
a consistent system

AVID
INTEGRATION

VTV

May 2014
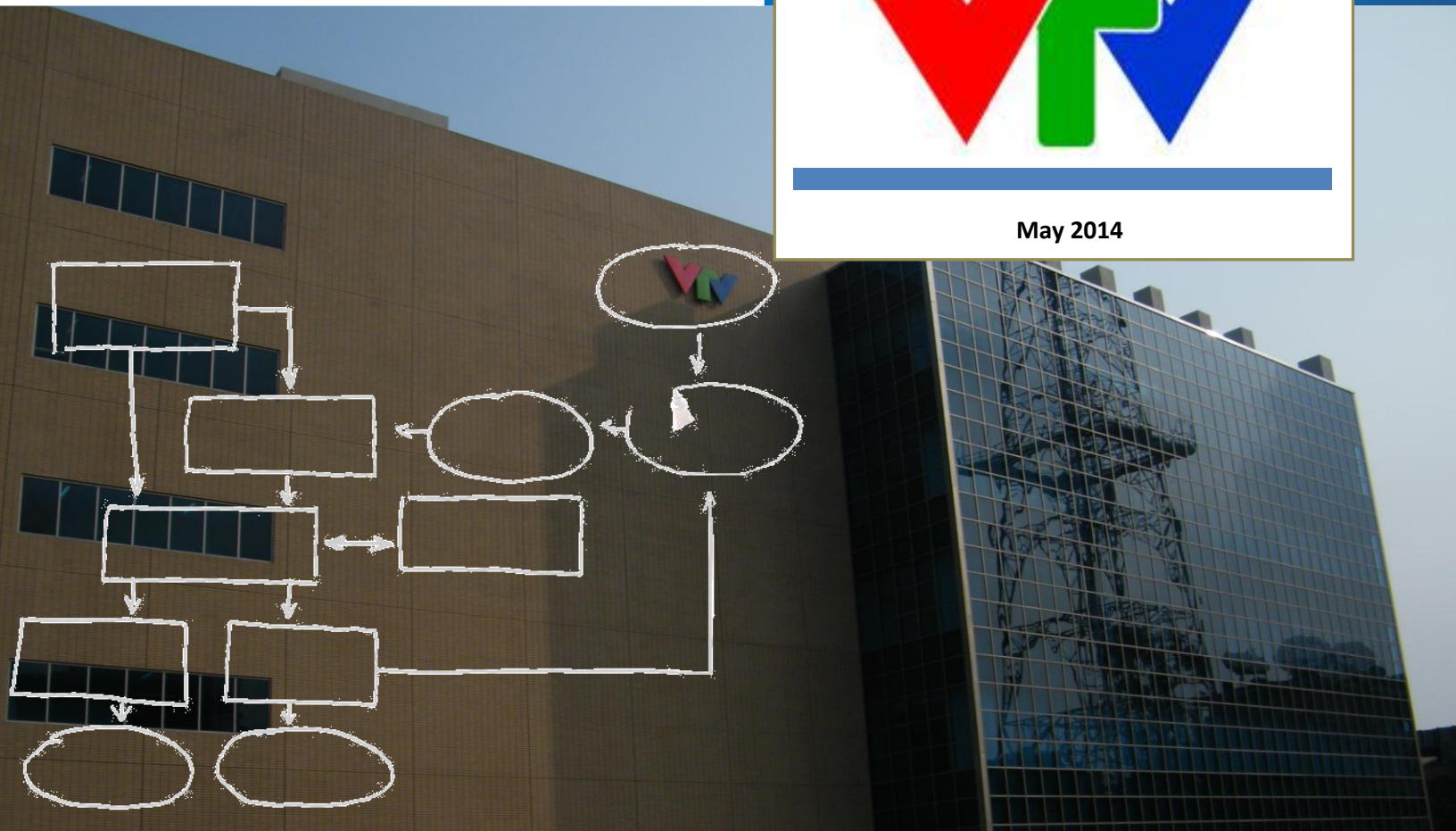
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▼ 1.   INTRODUCTION

ETERE is able to integrate all aspects of the news production workflow, seamlessly moving media and information between archive and production all the way through to air servers:
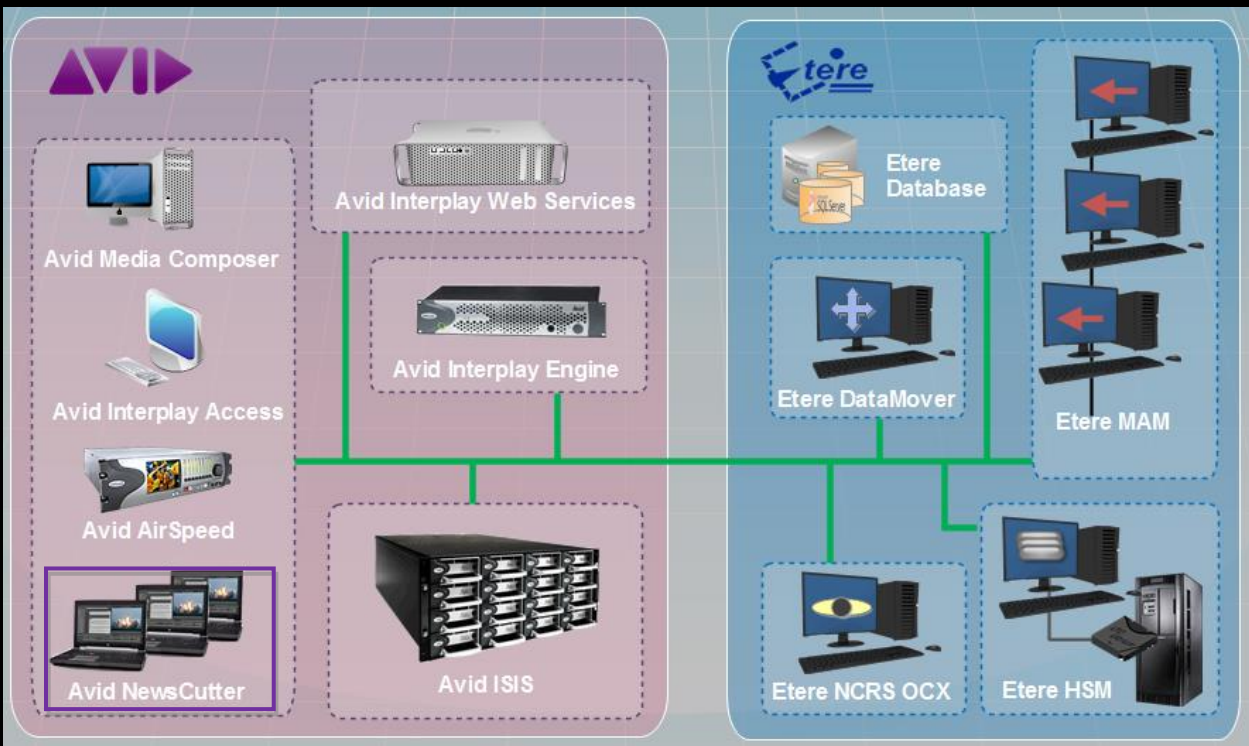
This paper is intended to provide technical information on the integration between **ETERE** and **AVID** systems, describing how the solution proposed by **ETERE** is able to provide the integration operations requested by **VTV** including:

> ➢ **NewsCutter integration**: Preview archived assets and trigger workflow-based transfers

> ➢ **Ingest**: Acquire media into AVID ISIS and register them through AVID Interplay

> ➢ **Archive and Restore**: Archive media into Etere and restore it when required

▼ 2.   NEWSCUTTER INTEGRATION

Etere is able to fully integrate **Avid NewsCutter**, enabling operators to easily archive and restore sequences without exiting the Avid environment.

▼ 2.1. Archive

1. From **Avid NewsCutter**, the user use the **"Check In To Interplay "** function to add/update all sequence's media into the **Avid Interplay database**:

2. **Etere ActiveSync** will continuously monitor the **Avid Interplay storage,** detecting new **sequences** and **master clips**:
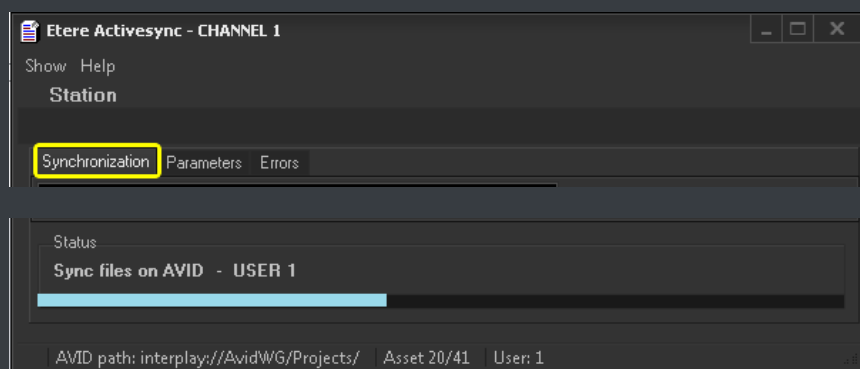
3. **Etere ActiveSync** will create one asset for the **sequence** and one for each **master clip**:

(Sequence's Avid metadata)

(Sequence's AAF and Consolidated files)

4. **Etere ActiveSync** will automatically launch a **workflow** to archive the sequence's media and generate a proxy file:

Supported actions

➢ **AVID transfers**

➢ **MD5 checksums**

➢ **HSM archive**

➢ **Proxy creation**

➢ **Notifications**

➢ **etc.**

5. The asset will hold the archived **media** and the generated **proxy:**:

(Archived consolidated files + proxy file)

▼ 2.2. Access to archive

Etere NCRS OCX is the ActiveX browser that allows users to search and preview archived media and transfer files to any destination (NLE servers, playout servers, etc.) from the Newsroom interface. Etere's MOS integration allows users to search for archived assets from within **Avid INews** and **NewsCutter**, listing all assets matching a given keyword:
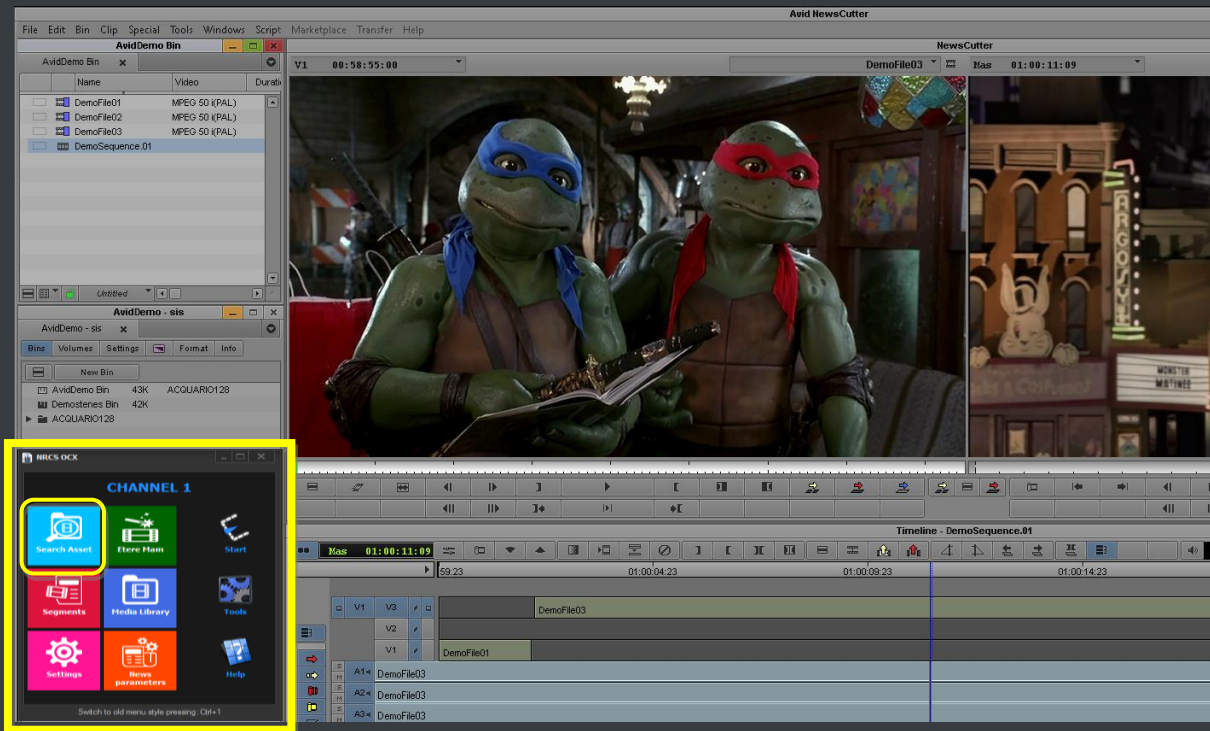
The **Search Asset** module provides a robust **search engine** to look for assets stored in the **archive**. Making right-click on an asset and selecting the **"open"** option allows loading it in the **Media Library**:
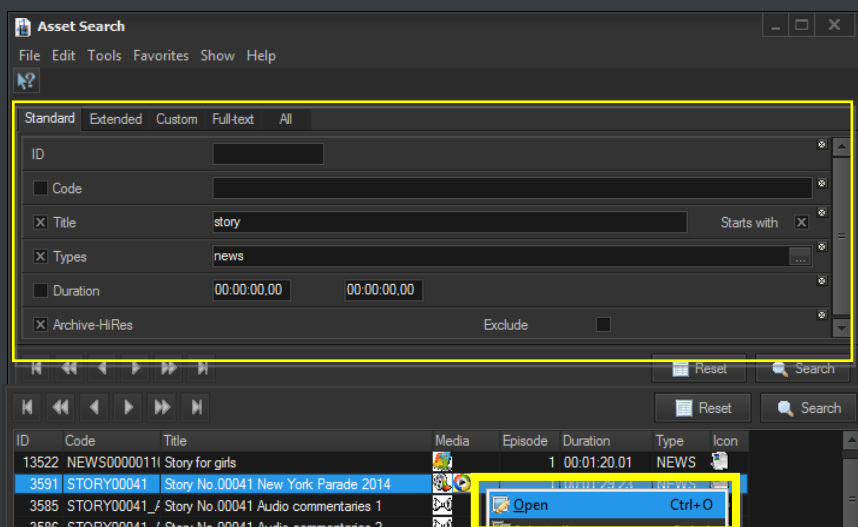
▼ 2.3. Restore

Restoring **sequence's media** into **Avid** is possible thanks to the tight integration with **Etere Workflow**, users will only need to follow the steps described below:

1. Search for an asset and right-click on it and trigger any available workflow *(e.g. **retrieve** media in **News Cutter)*:
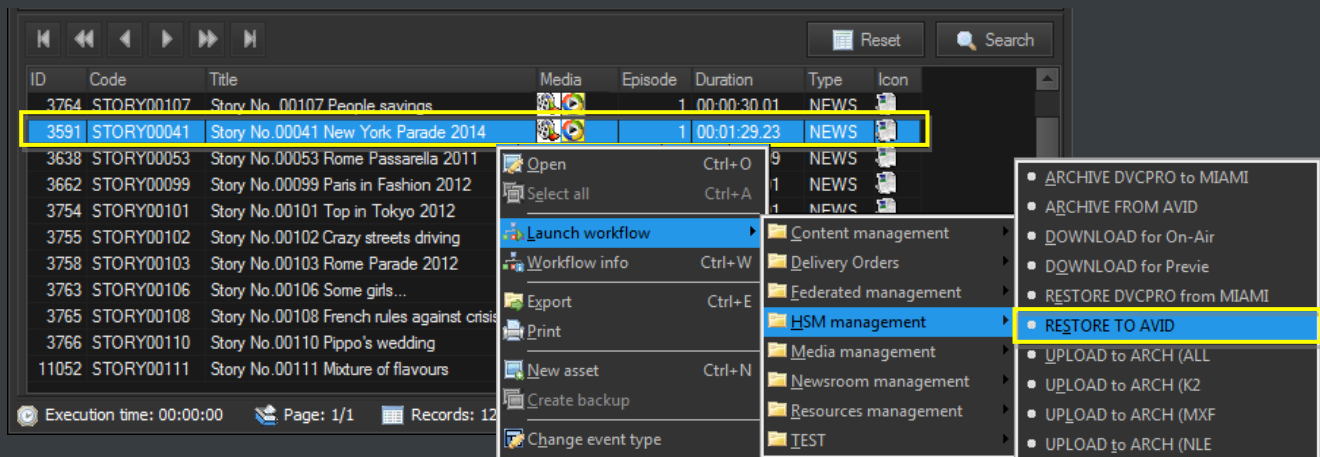
2. The **restore** workflow will be executed to make the sequence's media available on AVID:

It's worth mentioning that the **status** of launched workflows can be monitored in real-time:
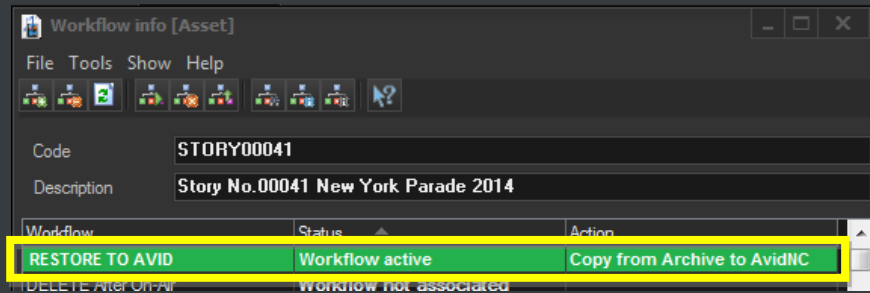
3. All sequence's media will be automatically restored into their original location within **Avid Interplay**, being available from use from NewsCutter:
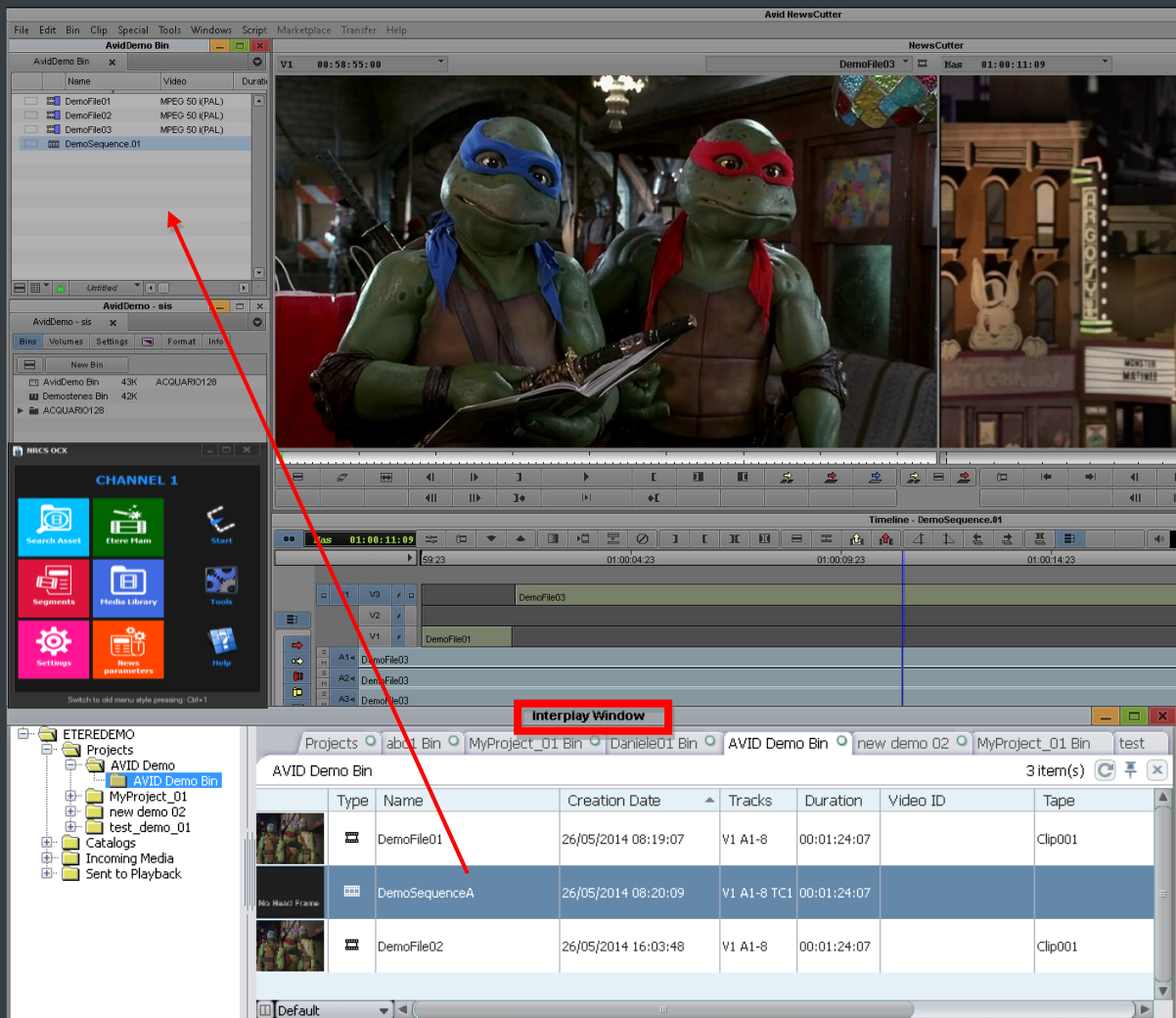
▼ 2.4. Preview

Previewing archived media can be done from the **Media Library**, which also allows viewing and modifying asset's **metadata**:

(Media proxy)
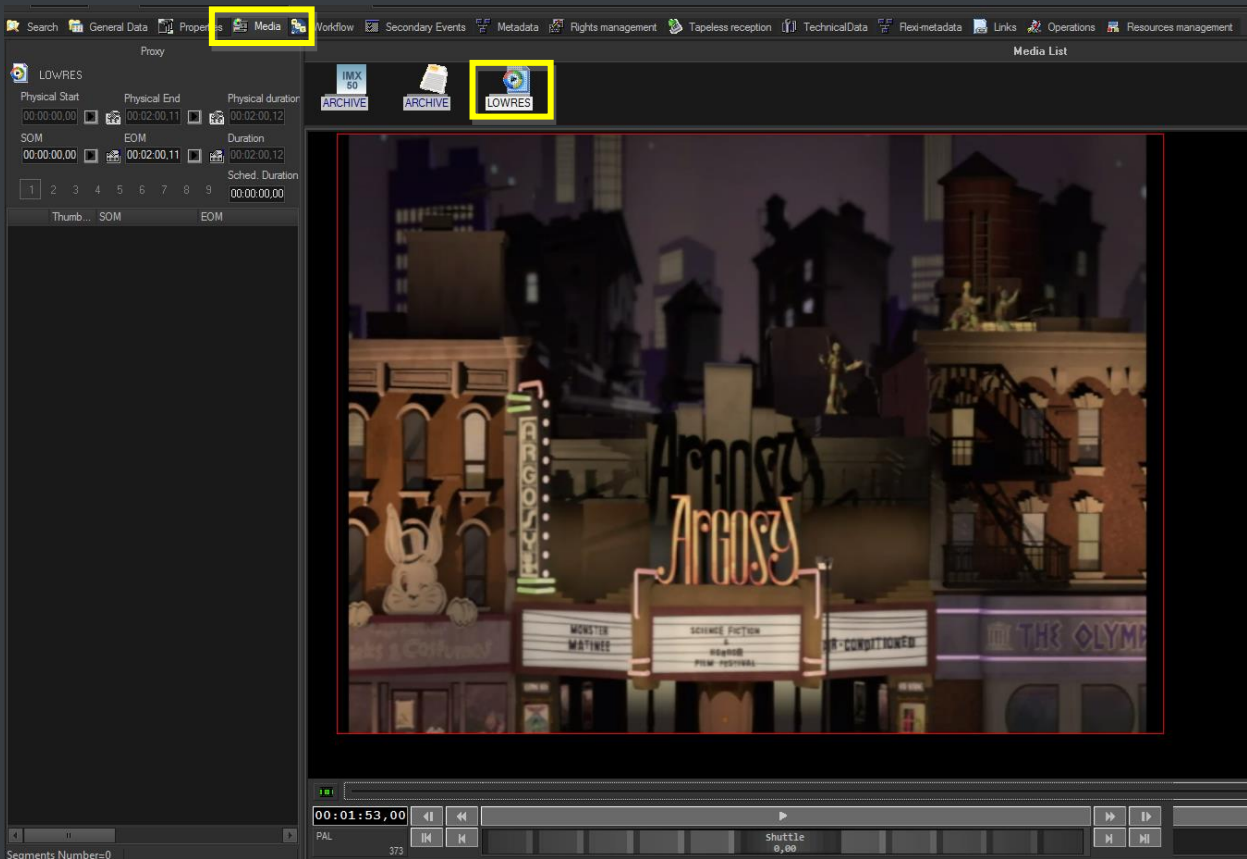
▼ 3.   INGEST

Etere allows ingesting files and registering them through **AVID Interplay** as detailed below. Material managed in the Etere MAM system can be either acquired from scratch or synchronized from Avid.

▼ 3.1. Acquisition

The acquisition of new material is performed through the **Etere Multi-file Import**:
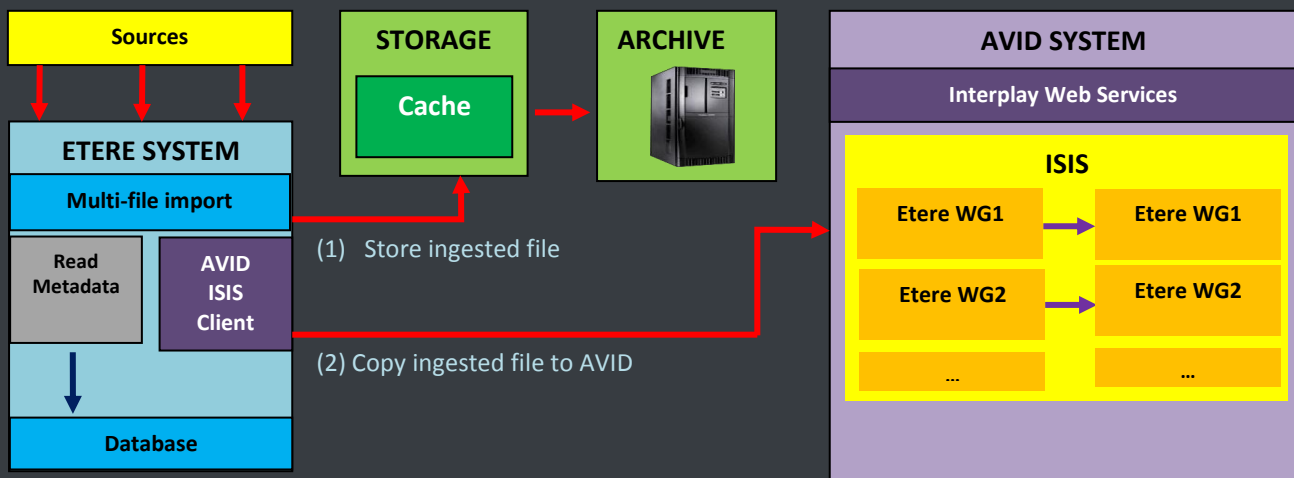
- Content can be imported from **different sources** (e.g. Sony SxS cards, Canon CF cards , EVS servers)
- Ingest is performed in **Etere MAM**, including **metadata** related to imported assets

Note: Each **ISIS system** has one **input** and one **output** workgroup, **workgroups** are represented within ETERE as import/export **metadevices** (WG1, WG2, WG3) with limited space; when limit is reached a workflow is triggered to automatically clean metadevices by deleting older files (already archived).

2.1.1 Post-ingest workflow

After ingest, a workflow will allow to transfer a copy of ingested content to the correct workgroup of ISIS using ISIS client:
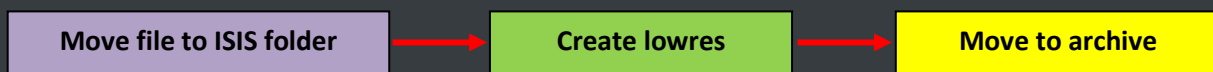

- The ingested **hires** file is moved to the correct ISIS folder (along with **metadata**)
- At the same time, a **lowres** file is also created
- The **hires** file is moved to the archive

▼ 3.2. Synchronization

Material already existing in AVID is synchronized in MAM system by **Etere ActiveSync**:
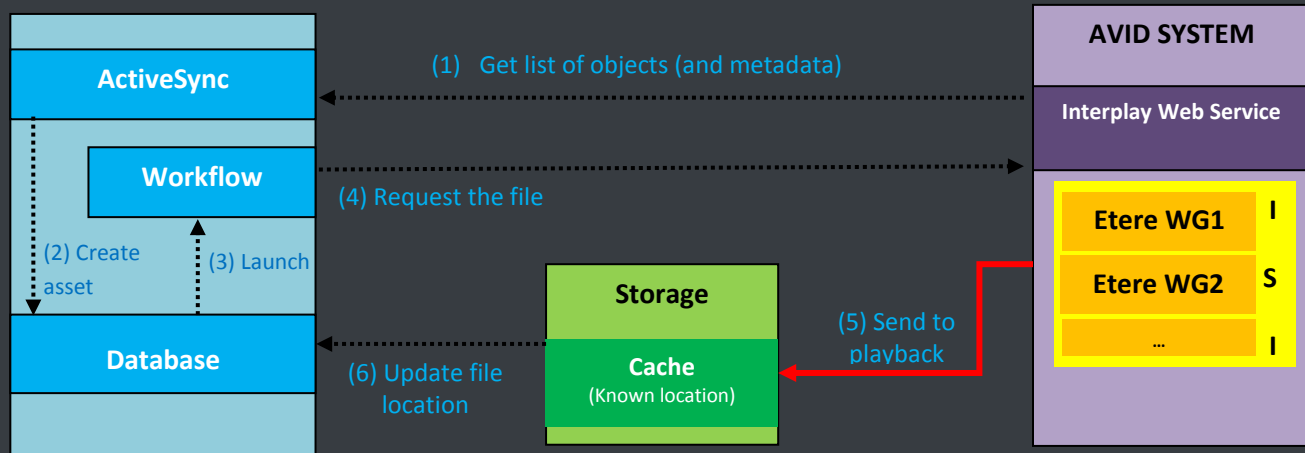
ActiveSync access the **AVID Interplay WS** to get all available objects:
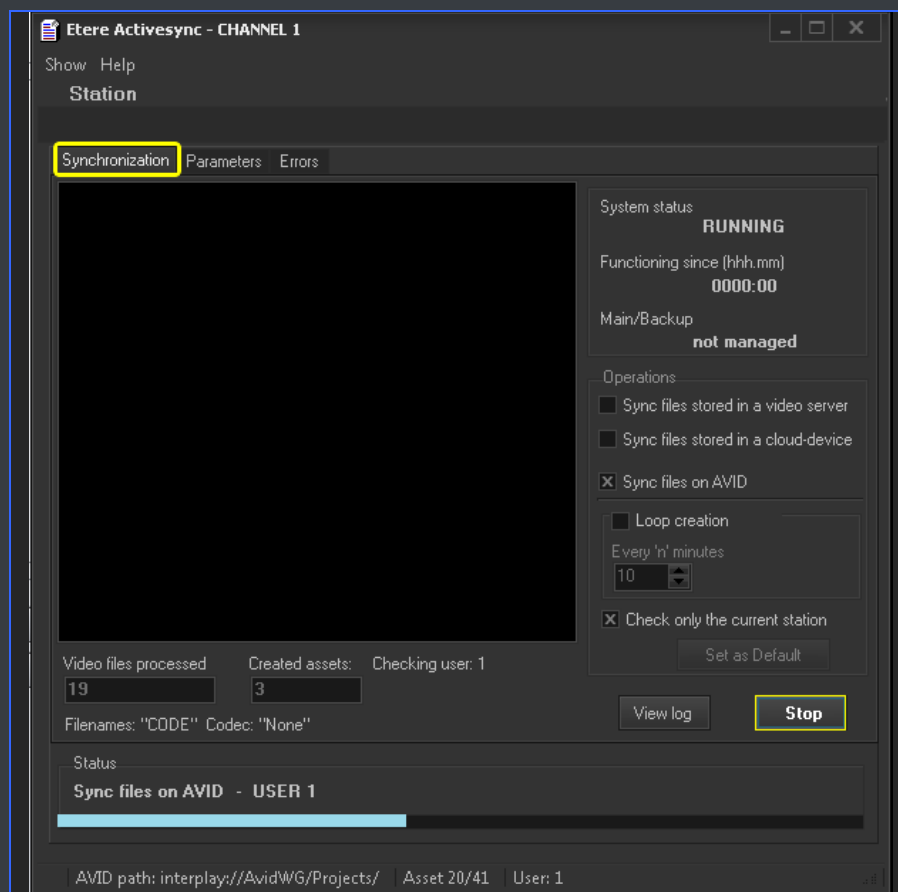
ActiveSync automatically synchronizes all **master clips** and **sequences** found in the **AVID workgroups**, recreating them in the Etere system as assets with the following characteristics:

File	The file is linked to the **metadevice** related to the **AVID WG**
Type	**AVSQ** (for sequences), **AVMC** (for master clips)
Code	**AVID.VideiID** + **idFilmati**
Metadata	Some metadata is matched with "filmati" fields whereas others with Flexi-metadata. Retrieved metadata includes:

| AVID data	Corresponding field in ETERE
AVID.CFPS	SMPTE.name='AVID-CFPS'
AVID.Comments	SMPTE.name='AVID-Comments'
AVID.CreatedBy	SMPTE.name='AVID-CreatedBy'
AVID.CreationDate	FILMATI.DATA_PROD
AVID.Dur	FILMATI.DUR_FISICA
AVID.Eom	FILMATI.POS_FIN
AVID.EtereAssetCode	SMPTE.name='AVID-EtereAssetCode'
AVID.FileSize	SMPTE.name='AVID-FileSize'
AVID.MediaFileFormat	SMPTE.name='AVID-MediaFileFormat'
AVID.MediaSize	SMPTE.name='AVID-MediaSize'
AVID.MediaStatus	SMPTE.name='AVID-MediaStatus'
AVID.MOBID	FILMATI.DESCRIZIO_1
AVID.ModifiedBy	SMPTE.name='AVID-ModifiedBy'
AVID.ModifiedDate	SMPTE.name='AVID-ModifiedDate'
AVID.Moniker	SMPTE.name='AVID-Moniker'
AVID.Path	SMPTE.name='AVID-Path'
AVID.SourceID	SMPTE.name='AVID-SourceID'
AVID.Som	FILMATI.INF_DIGIT
AVID.Tape	SMPTE.name='AVID-Tape'
AVID.Title	FILMATI.DESCRIZIO
AVID.Tracks	SMPTE.name='AVID-Tracks'
AVID.Type	FILMATI.NEWTYPE
AVID.UNCPath	SMPTE.name='AVID-UNCPath'
AVID.VersionComment	SMPTE.name='AVID-VersionComment'
AVID.VideoId	FILMATI.COD_PROGRA + FILMATI.ID_FILMATI

ActiveSync automatically synchronizes all **master clips** and **sequences** found in the **AVID workgroups** according to the following cases:

a.	The *Sequence/MasterClip* **exist** in AVID **but not** in ETERE	A new asset is created in ETERE
b.	The *Sequence/MasterClip* **exist** in AVID **and** ETERE	No asset is updated on ETERE
c.	The *Sequence/MasterClip* **exists** in ETERE **but not** in AVID	The asset is deleted from ETERE (if not linked to media)

2.2.1 Post-sync workflow

A **workflow** is triggered for all synchronized assets to retrieve **sequences** (raw material) and **finished material** (master clip) along with related metadata

A **workflow action** is executed to perform the **SendToPlayback**, to move the file into a location known (configured in AVID and mapped in ETERE)

The workflow action is based on the **Etere.WF.Avid.exe** executable, which requires the following parameters:

wsurl	URL address of the AVID web service
usr	Login username for authentication in the AVID web service
pwd	User password for authentication in the AVID web service
wg	Name of the AVID workgroup to monitor.
clip	MOB ID of the asset to be exported
apd	Name of the Playback Device set in Avid for SendToPlayback
epc	Name of the computer where AVID Transfer Manager is installed

Etere automatically copies **metadata** from the source project into the new asset (using the **"copy asset"** function).

▼ 4.   ARCHIVE AND RESTORE

ETERE is able to integrate **AVID ISIS systems** interfacing the **Interplay Web Service**:

- ✓ **Archive** and **restore** raw materials (**sequences**) and finished video (**master clips**)
- ✓ Archive/restore material either **ingested** from Etere
- ✓ Archive/restore material along with their **related AVID metadata**

▼ 4.1. Archive

In Etere's **desktop** or **web GUI**, the user searches for **"sequences"** (AVSQ) or **"master clips"** (AVMC) stored in a certain metadevice (e.g. Avid WG1):

DESKTOP/WEB SEARCH on ETERE				
Asset ID	**Description**	**Type**	**Storage**	**Archived**
112344	Super bowl 2013	AVMC	Etere WG1	No
234838	Federer special reportage	AVMC	Etere WG1	No
321515	New York parade 2014 - day1	AVSQ	Etere WG1	No
321563	New York parade 2014 – day2	AVSQ	Etere WG1	No
338422	Kasparov interview	AVMC	Etere WG1	No
632318	Obama speech about security	AVMC	Etere WG1	No
789651	Brazil 2014 – more than soccer	AVSQ	• Launch "archive" workflow	
813898	Sochi 2014 – billion expectations	AVSQ	Etere WG1	No
…	…	…	…	…

The user launches a **workflow** to **archive** the selected file from its **workgroup** (e.g. WG1). **AVID** will receive a command to send the file to the Etere WG and **AVID WS** to provide all metadata:
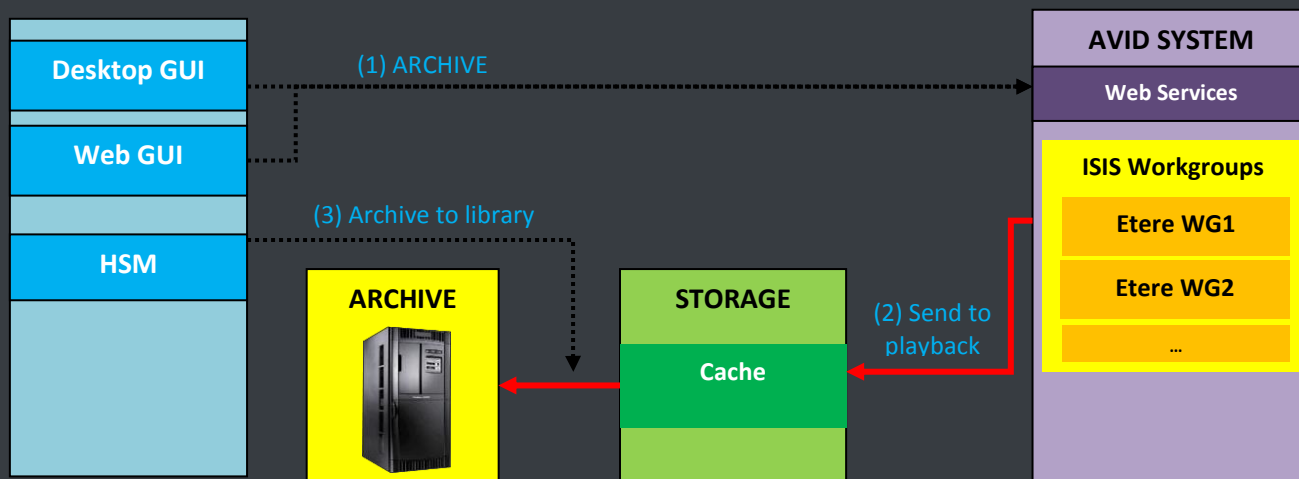
▼ 4.2. Restore

In Etere's **desktop** or **web GUI**, the user searches for **"sequences"** (AVSQ) or **"master clips"** (AVMC) stored in a certain metadevice (e.g. Avid WG1):

DESKTOP/WEB SEARCH on ETERE				
Asset ID	**Description**	**Type**	**Storage**	**Archived**
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321563	New York parade 2014 – day2	AVSQ	Etere WG1	Yes
338422	Kasparov interview	AVMC	Etere WG1	Yes
632318	Obama speech about security	AVMC	• Launch "restore" workflow	
789651	Brazil 2014 – more than soccer	AVSQ		
813898	Sochi 2014 – billion expectations	AVSQ		
…	…	…	…	…

The user launches a **workflow** to **restore** the selected file into its **workgroup** (e.g. WG1). **AVID** will receive a command to send the file to the Etere WG and **AVID WS** to provide all metadata:
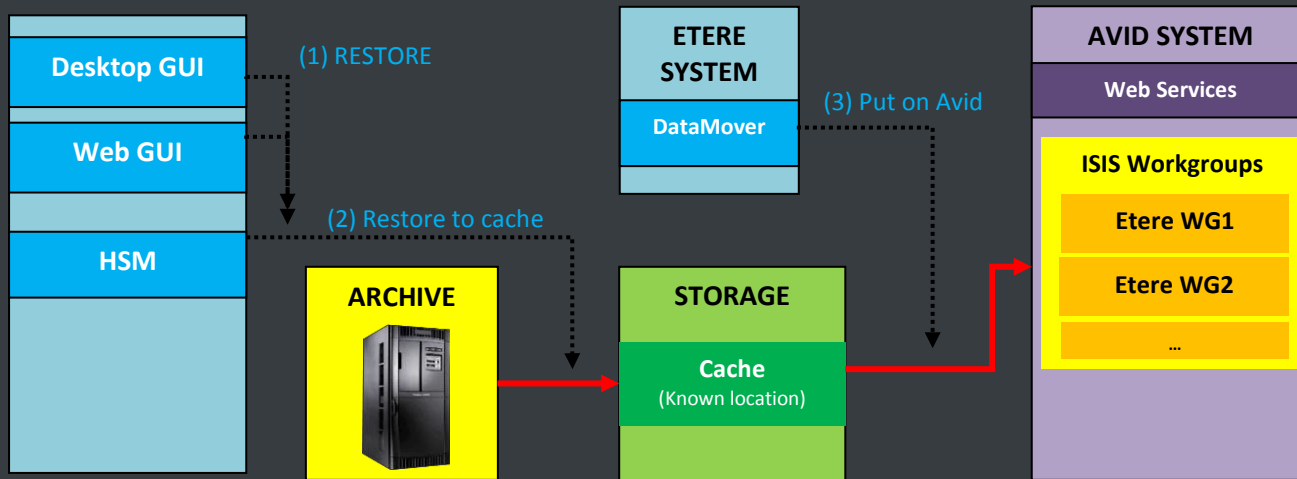
Desktop GUI	(1) RESTORE	ETERE SYSTEM	(3) Put on Avid	AVID SYSTEM
Web GUI		DataMover		Web Services
HSM	(2) Restore to cache			ISIS Workgroups
				Etere WG1
ARCHIVE		STORAGE		Etere WG2
		Cache (Known location)		…

Note: One **DataMover** server can be used for all file transfers, thus saving the number of licenses for ISIS clients.
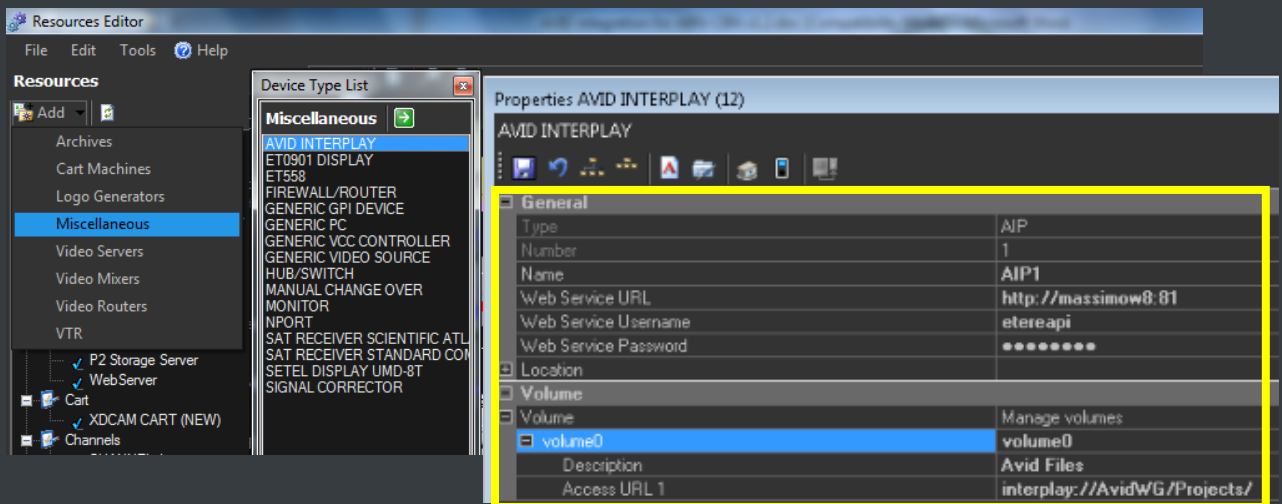
▼ 4.3. Settings

The parameters needed to be configured in ETERE are following listed:

- **ASSET TYPES: AVID master clips** (**AVMC**) and **sequences** (AVSQ) types are automatically created in Etere:
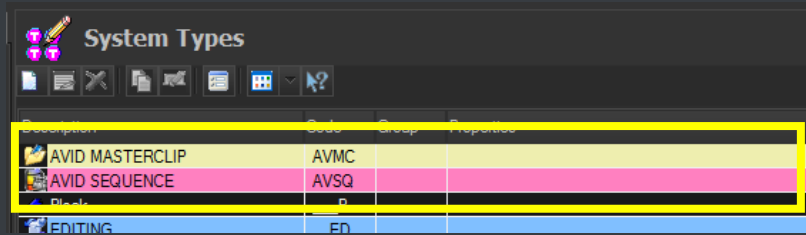
- **METADEVICES:** An **AVID INTERPLAY** miscellaneous resource is created with the following parameters:

Web service URL	WS username	WS password	Volume