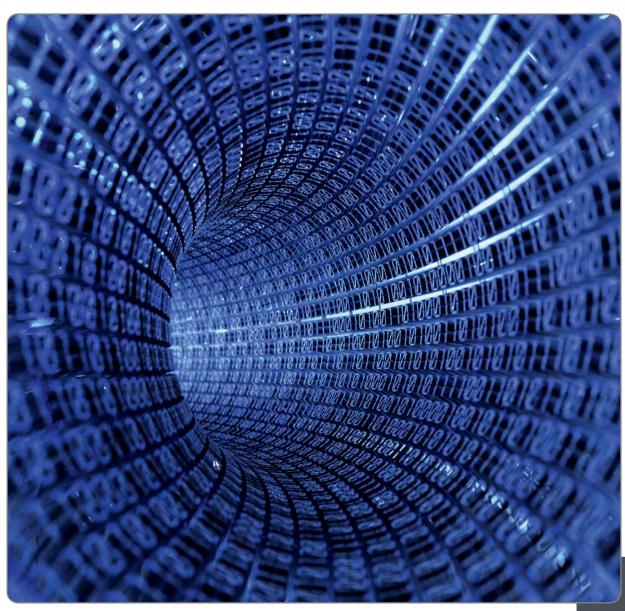
User's Manual

Version 1.14 - July 2010





EVS Server Gigabit Ethernet Gateway



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IMPROVEMENT REQUESTS

Your comments will help us improve the quality of the user documentation. Do not hesitate to send improvement requests, or report any error or inaccuracy in this user manual, by e-mail to doc@evs.tv.

REGIONAL CONTACTS

The address and phone number of the EVS headquarters are mentioned in the Help > About menu in the user interface.

You will find the full list of addresses and phone numbers of local offices on the EVS website, on the following page:

http://www.evs.tv/Europe,+Middle+East+Africa/English/Contact-us/Contact-Us/Regional-contacts-new-/page.aspx/2038

USER MANUALS ON EVS WEBSITE

The latest version of the user manual, if any, and other user manuals on EVS products can be found on the EVS download center, on the following webpage:

http://www.evs.tv/Europe,+Middle+East+Africa/English/Download-center/page.aspx/1887

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1. Introduction

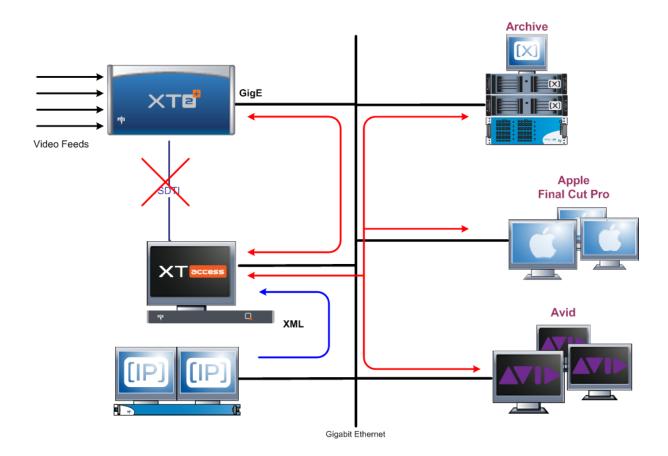
The Gigabit connection on EVS server makes it possible to transfer video and audio material from the EVS servers to external systems via the TCP/IP network.

The external systems can be the following ones:

- A storage system or an archiving system, such as XStore, XFile or a 3rd party storage.
- A non-linear Editing system, such as EVS CleanEdit, Apple Final Cut Pro or Avid.
- Another EVS server

However, the external systems cannot read the raw files coming from the EVS servers. For this reason, XTAccess is used as a "gateway" between the EVS Server and the IT world. It takes up the role of gateway used so far by XFile/XStream as it creates file formats compliant with external systems.

XTAccess is directly connected to the EVS servers through the Gigabit network. It runs on an XP workstation and is mainly controlled by the external systems (no user interface) via XML files or other processes.



The Gigabit connection fulfills the following functions in relation with the EVS servers:

- Backup of clips or trains from an EVS server to an Archive
- (Partial) restore and copy of clips from an Archive to an EVS server
- Backup of clips or trains from an EVS server to EVS CleanEdit Suite
- Exchange of EVS content (clips or trains) with Avid systems via Avid Transfer Manager or using Avid WebService
- Exchange of EVS content (clips or trains) with Apple Final Cut Pro
- Exchange of EVS content (clips only) with another EVS server
- (Partial) rewrap of file from an Archive
- Rendering of EDL from files or clips
- Backup of EDL from files or clips
- Grab frames of a clip on a EVS server in order to create thumbnails (e.g. for IPDirector)

2. Hardware Recommendations

The XTAccess software is installed on a workstation operating under Windows XP or Windows 2003 Server.

The minimum system requirements are:

- Workstation or Laptop
- XP Pro OS, Windows 2003 Server
- CPU Pentium P4, 2.0 Ghz +
- 512 MB RAM (2GB for the rendering of playlist and transcoding jobs)
- GigE board with Jumbo Frame capabilities
- VGA 1024x768

The XTAccess software runs either on EVS workstations like IPDirector, XFile, XStore, or on any standalone third-party workstation.



Important

Jobs like transcoding, backup of clips or trains, restore/copy of files to EVS Server use CPU resources on the device where XTAccess runs. It is then advised not to run any other critical application simultaneously on the XTAccess device, especially when the CleanEdit Suite or IPDirector are installed as standalone systems with a local database.

3. Software Installation

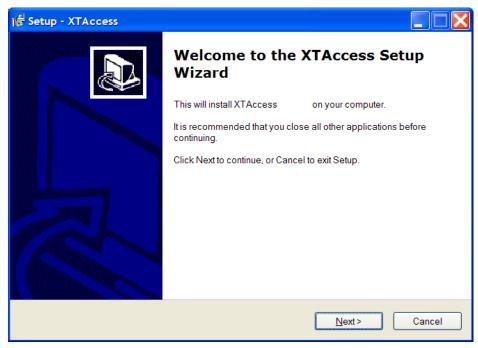
The installation package is based on one installshield:

XTAccess_1.14.xx_Setup.exe

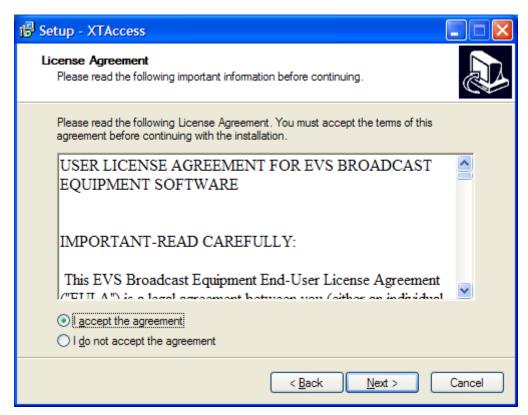
For the CleanEdit Integration Option, contact the CleanEdit support to install the compliant software.

To install XTAccess; proceed as follows:

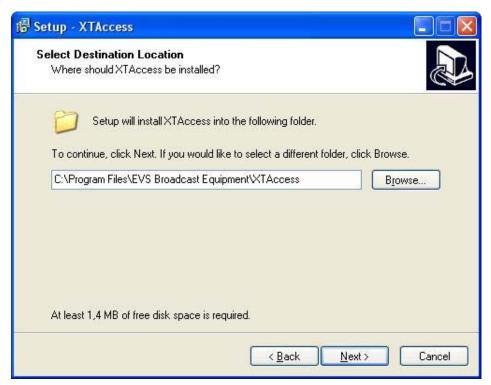
- 1. Copy the installshield XTAccess_1.14.xx_Setup.exe in a temp directory (e.g. C:\Install Software\XTAccess\).
- 2. Run XTAccess installshield XTAccess_1.14.xx_Setup.exe and then follow the steps of the Setup wizard.



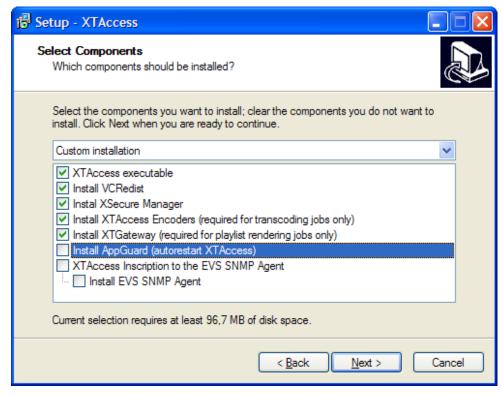
3. Press NEXT.



4. Select "I accept the agreement" and press NEXT



5. Select the destination directory to install the new software and then press **NEXT**.

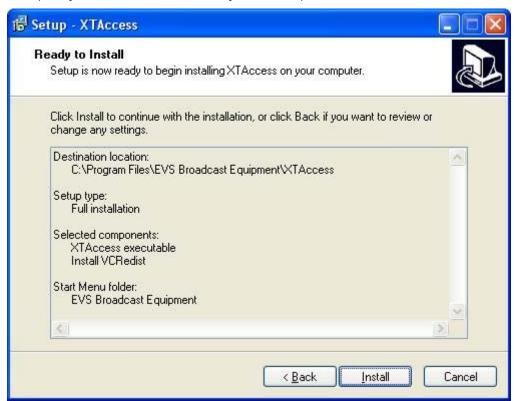


- 6. You can select here the different XTAccess components:
 - Install VCRedist: If you install XTAccess for the first time on this
 workstation, you need to install Microsoft Visual C++ Redistributable
 application by selecting "Install VCRedist". For future installations or
 upgrade, you may deselect this option to reduce installation time.
 - Install XSecure Manager: This option will install the EVS License software (EVS Licenses XSecure code are necessary for the transcoding jobs and rendering of playlists).
 - Install XTAccess Encoders: This option will install all the codec dll necessary for the transcoding jobs and for the rendering of playlists.
 - Install XTGateway: This option will install XTGateway. XTGateway is a Windows service required for rendering playlists with XTAccess.
 - Install AppGuard: This option will install AppGuard. AppGuard will restart automatically XTAccess in case of crash.
 - XTAccess Inscription to the EVS SNMP: This option will inscribe XTAccess to the EVS SNMP Agent (the EVS SNMP Agent must be installed on the computer).
 - Install EVS SNMP Agent: If you install XTAccess for the first time on this workstation, you should select this option to install the EVS SNMP Agent.

Then press **NEXT**.



7. Specify the start folder directory and then press **NEXT**.



- 8. Press INSTALL to begin the installation of XTAccess.
- 9. If you have selected "Install XTGateway": the XTGateway Setup will appear XTAccess has been installed.
- 10. If you have selected "Install XSecure Manager": the Xsecure Setup will appear after the installation of XTAccess.



The XTAccess software installation is successfully completed.



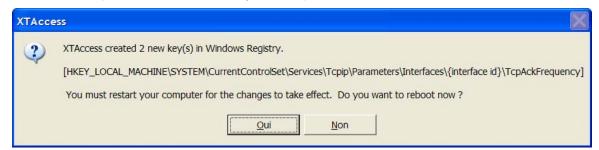
Note

The installer includes a registry key that disables the autorun function on USB keys to avoid virus intrusion.

Note that a Shortcut of XTAccess has been automatically created on the desktop. XTAccess icon is the following:



When you first launch XTAccess, the application modifies or adds the TcpAckFrequency in the registry. This key allows having better performances for Backup. You need to restart your computer afterwards.



4. XSecure Management

From XTAccess v.1.07.22, XSecure is used. XSecure can be installed with XTAccess installshield (see the chapter 'Software Installation').

XSecure uses hardware information from the device where XTAccess is running. This means it is impossible to exchange licenses or codes between devices.

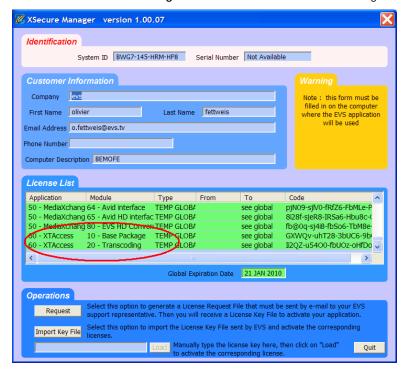
Please refer to the XSecure User's Manual to:

- Start XSecure Manager
- Collect information about your device
- Request a license key from the EVS support
- Import new license keys

4.1 LIST OF CODES

60 - XTAccess

- 10 Base Package: Not use for the moment
- 20 Transcoding: Needed to use the transcoding on the fly

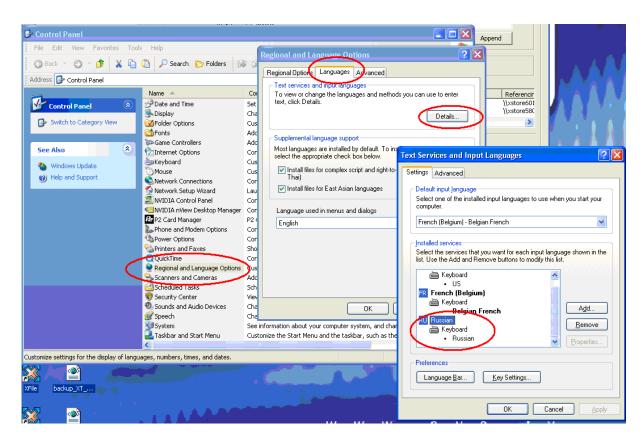


5. Unicode and XTAccess

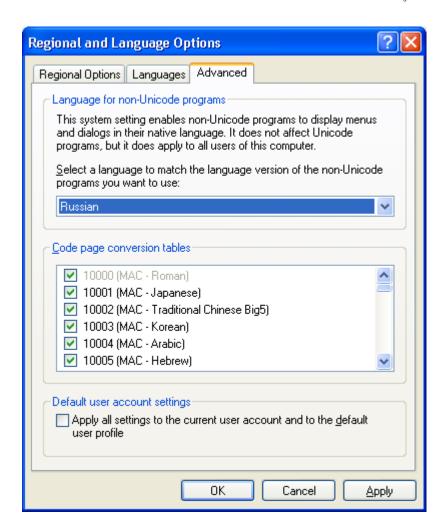
5.1 CONFIGURATION

To use different languages and Unicode instead of ASCII characters: you have first to configure Windows:

1. Select your keyboard in your Unicode language



2. And then you have to set up the default Language for non Unicode programs: Start\Settings\Control Panel\Regional and Language Settings\Advanced



5.2 METADATA

These Metadata Tags can be used in Unicode:

- ClipName
- Keyword
- VarID

The UmID cannot be Unicode.

5.3 FILENAME

XTAccess never generates files with Unicode filenames. Files are named "UnicodeFilename.mxf" instead of the "real" Unicode clipname.

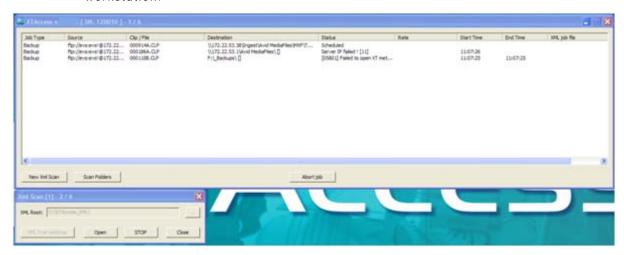
XTAccess is capable to use files with Unicode filenames. These files can be located in a folder having a Unicode filename. And these Unicode files can be used into scan folder without any trouble.

6. User Interface

6.1 INTRODUCTION

XTAccess has been designed to be used as a black box. It is mainly controlled by external systems via XML files or other processes.

When the XTAccess application is launched the following GUI is displayed on the workstation.



6.2 JOBS MONITORING

The main window displays the status of each job handled by XTAccess.

Description of the columns:

Column heading	Description
Job Type	Type of Job: Backup, Avid Ingest, Restore, XT Transfer, etc.
Source Source server:	
	 Backup, Avid Ingest, XT Copy, Grab Field: FTP address and path of the EVS server.
	 Restore/Copy, File Rewrap: the source directory where the file to be processed is located.
Clip/File	Source Clip or File:
	 ClipID of the clip processed on the EVS server
	 Filename stored in the Source path (defined above)

Column heading	Description		
Destination	This is the target destination of the job.		
	 Backup: folder to store the file 		
	 Avid Ingest Name 		
	• Restore, XT Copy: FTP address of the EVS server		
Status	Status of the job:		
	In Progress: The job is running		
	 Done: the job is done and successful 		
	 Error Message: the transfer has failed. Please check the list of error messages and the reason in Section 20.1 		
MB/s	Backup Restore: Instantaneous bit rate during job progress. Between brackets, the value displayed is the mean transfer rate since the beginning of the job. At the end of the job, the mean transfer rate is displayed. Not available for Avid Ingest.		
Frm/s	Transcoding: Number of frames decoded by second.		
Start Time	Start Time of the job		
End Time	End Time of the job		
XML job file	Path of the xml job file used		

6.3 ADDITIONAL BUTTONS/MENUS

Several buttons and menus are available at the bottom of XTAccess window.

Button Name	Description	
New XML Scan	Launch of XML scan window. (described in section 7 'XML Jobs Scan' on page 24)	
Scan Folders	Launch of scan folder for restore/copy/transcode processes (described in section 10 'Restore/Copy of Files to EVS Server' on page52)	
Abort job	Abort job When pushed, the selected job is immediately aborted. You can also press on CTRL + Abort to abort all the jobs (need reboot of XTAccess afterwards).	

6.4 APPLICATION TITLE BAR

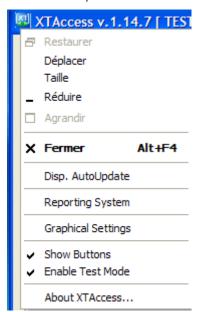
6.4.1 Introduction

XTAccess Title bar displays some useful information:

- XTAccess 1.14.xx: Version of the running application
- [SN: 120010]: EVS Serial Number of the computer
- X/Y: Ratio of Running Jobs (X) versus the Max. Running Jobs available (Y). Example 2/6: This means 2 jobs are currently running. 4 additional jobs can be launched for a maximum of 6 simultaneous running jobs.

6.4.2 Configuration Menu

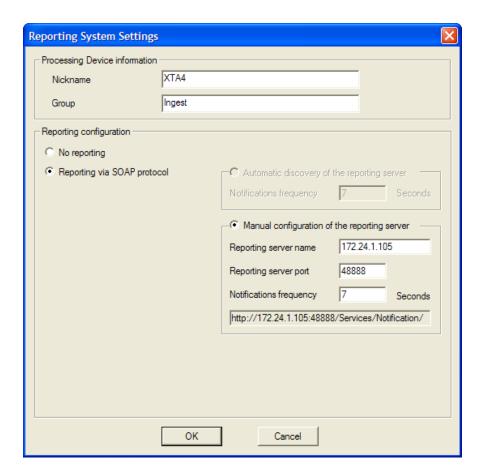
Right-clicking on the link on the Application Title bar displays the configuration menu, with specific commands for XTAccess.



DISP. AUTOUPDATE

Select it to update the interface each time there is a new transfer.

REPORTING SYSTEM

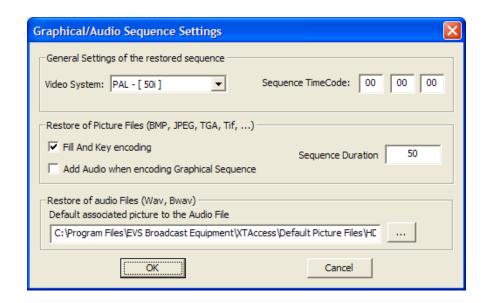


This window allows you to activate the reporting system of XTAccess to Vedio.

Command name	Description		
Nickname	Allows you to define a nickname for XTAccess		
Group	Allows you to define a group to which XTAccess will belong in the Vedio user interface.		
Reporting Server Name	Host name or IP Address of the Vedio Notification Server		
Reporting Server Port	Port of the Vedio Notification Server		
Notification Frequency	Duration between two notifications to Vedio		

GRAPHICAL SETTINGS

These settings relate to the generation of files/clips from a picture (BMP, TIFF & TGA formats) or audio (Wav, BWav).



Command name	Description		
Video System	Select either Pal or NTSC, in progressive or not.		
Sequence TimeCode	Enter the value of the first TC included in the destination file/clip.		
Fill & Key encoding	Check this option if you want to generate two synchronous files/clips based on Alpha Channel: one file/clip with the Fill sequence and one file/clip with the Key sequence.		
Add Audio when encoding Graphical	Check this option if you want to add audio to the seque created with your graphic files.		
Sequence	The audio files must be 16-bit audio files of 48 kHz (1 to 8 channels). The file format must be Broadcast Wave Uncompressed (BWAVE) (.wav).		
Sequence Duration	Type the duration (only valid for pictures, not for animated sequences).		
Default Audio Bitmap	Select the default picture you want to add to your audio encoding. The EVS server does not support audio only so you have to add a graphic picture.		
	Some default pictures are available in the XTAccess folder		
	<pre>C:\Program Files\EVS Broadcast Equipment\XTAccess\Default Picture Files\</pre>		

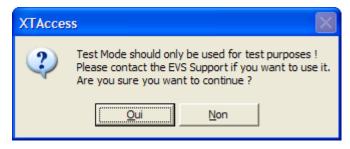
SHOW BUTTONS

Select this option if you want to see the buttons in the XTAccess Interface.

If the option is not selected you can right click on XTaccess to create XML scan unit or open the Scan folder.

ENABLE TESTMODE

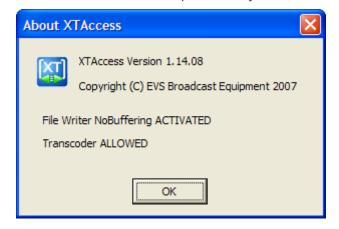
Select this option if you want to use the test mode of XTAccess. Please contact EVS support if you want to use it as it is not supported. This feature is only present for test purposes.



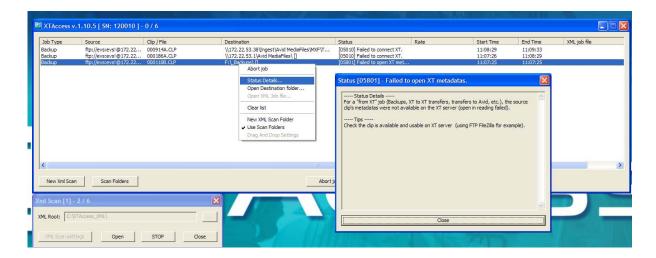
ABOUT XTACCESS

It shows the version of XTAccess. Additional information:

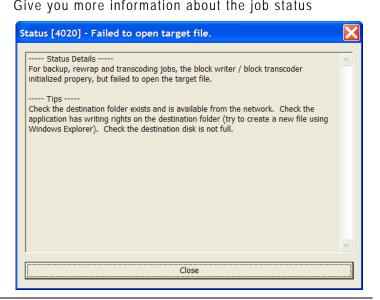
- FileWriter No Buffering: Activated or Not Activated (see Section 9.3.1 'Registry Settings' on page 51)
- Transcoder Allowed: Specifies if you have the XSecure code for transcoding.



6.5 CONTEXTUAL MENU



Command Name	Description
Abort job	The selected job is immediately aborted.
Status Details	Give you more information about the job status



Open Destination folder	Open the destination folder
Open XML Job file	For test and debug only
Clear List	Clear the whole list of the jobs done by XTAccess
New XML Scan Folder	Select it to create new XML Scan folder
Use Scan Folder	Select it to open the Scan folder Windows
Drag And Drop Settings	For test and debug only

7. XML Jobs Scan

7.1 INTRODUCTION

XTAccess is triggered by external applications (like IPDirector), mainly via XML files.

XTAccess scans pre-defined folders to check for new XML jobs to process.

The details of the XML format will be described in the following sections, especially for each job type.

The scan process of XML jobs is anyway identical for any type of job.

7.2 JOB TYPES

The table below shows the list of all jobs available according to the version number of IPDirector.

Abbreviations used:

• XFI: XFile

XTA: XTAccess

MXC: MediaXchange

XST: XStream

Job_Type					Supported from XTAccess version	Supported from IPDirector version
0		Backup Clip	from XT	to file	1.05	4.3
11	Short	Backup Clip	from XT	to file	1.05	5
20		Backup Train	from XT	to file	1.05	5
21		Update Backup Train			1.05	5
9		Backup Playlist /cut	from XT or files	to files	1.09	
10		Render Playlist /concat	from XT or files	to 1 file	1.09	4.3
24		Render Playlist /concat	from XT	to XT	1.09	5
40		Transfer	from file	to file	1.04	4.4
41	Partial	Transfer	from file	to file	1.04	4.4
1		Restore Clip	from file	to XT	1.05	5
2		Copy Clip	from file	to XT	1.05	5
12	Short	Copy Clip	from file	to XT	1.05	5
7		Transfer Clip	from XT	to Avid	1.05	4.3
43	Short	Transfer Clip	from XT	to Avid	1.04	4.4
22		Stream record train	from XT	to Avid	1.05	5
8		Transfer	from file	to Avid	1.05	5
42	Short	Transfer	from file	to Avid	1.04	4.4
13		XT Copy	from XT	to XT	1.00	4.4
44	Short	XT Copy	from XT	to XT	1.07	
6		Grab Clip/Trn Field	from XT	to file	1.05	4.3
17		Grab Clip/Trn Frame	from XT	to file		
16		Grab File Field	from file	to file	1.07	5.5
3		Delete Clip	from XT		1.08	
5		Delete File	from file		1.05	
4		Cancel Job			1.05	5

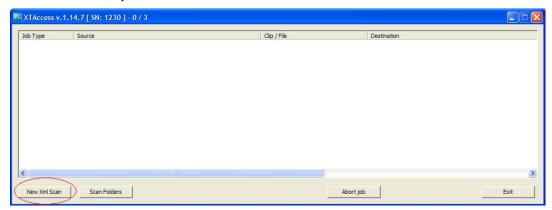
Color legend

<u>color legeria</u>	
Backups	XT → XT copy
Playlists	Grabs
File rewraps	Transcode
Restores	Delete
To Avid	Misc

7.3 CREATION OF A XML JOBS SCAN

7.3.1 CREATING A NEW XML SCAN

On the XTAccess GUI, select the **New XML Scan** button to create a new scan session for XML jobs:



The following window is displayed:



Point to the folder where XTAccess will check for XML jobs, and click **Start** after you have checked the XML Scan settings.

7.3.2 XML SCAN DIALOG BOX

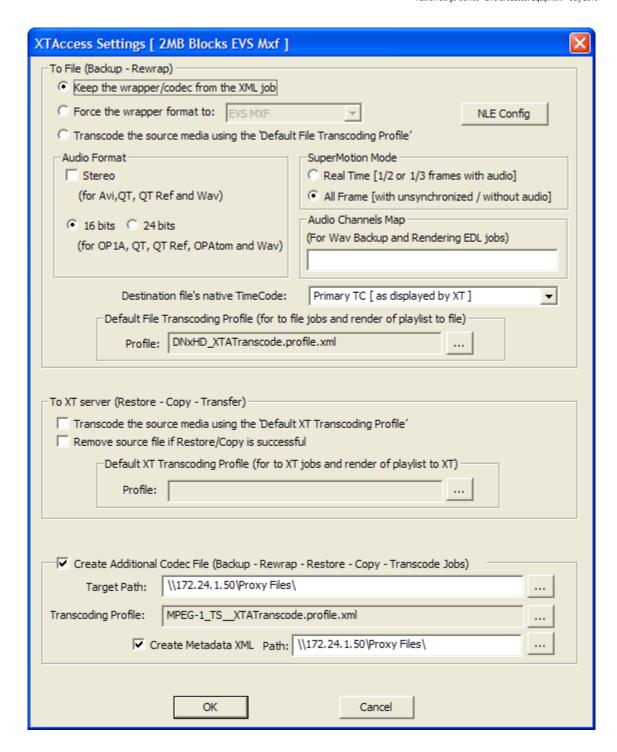
Field/Button	Description
Title Bar XML Scan[1] -0/6	The Title Bar specifies the ID of Scan XML Jobs folder. It also displays the number of running jobs vs the max. running jobs allowed for this scan folder.
XML Root	Folder to be scanned by XTAccess. This folder can be entered manually or selected using Windows Explorer with the associated button.
	By default, the scan folder is C:\XTAccess_XML\. XTAccess automatically creates this folder during the XTAccess installation process.
XML Scan Settings	This button is used to display the scan XML Job settings. Those settings are the default settings of this XML Jobs scan.
	The XML file generated to trigger a XTAccess job replaces the General Settings (see section 9.3 'Local XTAccess Settings (non XML)51) and XML Jobs default settings by its own values. This means the default settings are only used in case the XML file triggering the job does not contain the specific tag.
OPEN	This button is used to open the XML Root folder.
START/STOP	This button is used to start and stop scanning the specified folder
CLOSE	This button is used to close the specified scan folder.

7.3.3 XML SCAN SETTINGS

OVERVIEW

When you click the **XML Scan settings** button, you access the following window. The settings are split in 3 categories:

- Job To File
- Job To XT Server
- Create Additional codec File



TITLE BAR

The Title Bar displays one of the following information:

- [2MB Blocks EVS MXF]: A backup of clip or train will be wrapped in EVS MXF in native 2 MB Blocks. This is the default setting for backup.
- [8MB Blocks EVS MXF]: A backup of clip or train will be wrapped in EVS MXF in native 8 MB Blocks. This setting only exists if the user has modified the default settings, which is 2 MB Blocks.

To FILE

Possible Options

Three options are submitted:

• Keep the Wrapper/codec from the XML job:

Use this option if you do not want to change the file wrapper which will be created by XTAccess

Force the Wrapper format to: "EVS MXF"

Use this option if you want to change the file wrapper which will be created by XTAccess

Transcode the source media using the 'Default File Transcoding Profile'

Use this option if you want to transcode the source clip, and so define the codec and the wrapper of the destination

NLE

See below the NLE configuration

Audio Format

- Stereo: if selected, audio essences are considered as a stereo tracks, otherwise mono tracks. <u>Only used for Quick Time Movies and Quick Time Reference, wav backup jobs.</u>
- <u>16-Bit/24-Bit</u>: stereo button to select the audio resolution. <u>Only used for transfer to Avid and OP-1a,QT,QT Ref, OPATOM and Wav format</u>

SuperMotion Mode

This setting allows you to select the SuperMotion backup mode

- Real Time [1/2 or 1/3 frames with audio]: XTAccess will keep only one frame over 2 or 3 (following the Super Motion Rec mode) and keep the audio. Audio & TC will be consist
- All Frame [with unsynchronized/without audio]: XTAccess will keep the entire frame of the SSLM Clip.

Audio Channels Map

This setting is used to define how the output audio channels will be distributed to the generated audio files:

- Use <;> to separate the content of the various audio files to generate
- Use a space between each audio channel to be included in an audio file
- Use <-1> to mute a channel (not for the Wav backup)
- Audio channel are between 0 and 7

Example: 0 1 3 4; 7 2; 4 5; 3 6 will create 4 BWAV files

Destination file's native TimeCode

This setting allows you to define which timecode will be saved in the video file

- Primary TC: Saves the XT Primary TC in the video file
- LTC: Saves the LTC in the video file
- User TC: Saves the User TC in the video file

Default File Transcoding Profile

Default Transcoding profile is used for the **job to file** (if you have selected the 3rd option "Transcode the source media using ...") or for the **Rendering of playlist**

In this field, you have to define an XML profile file that defines the codec and parameter of the codec used to transcode the file.

You can find some encoder profiles into the "C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles" folder

To XT Server

Transcode Restored File

Select this option if you want to transcode the file during the restore operation.

Remove Source file if restore successful

In case of Restore and Copy, it could be useful to automatically delete the source file to clean the source storage. The file will be removed only if the job is successful.

Default File Transcoding Profile

Default Transcoding profile used for the **job to XT** (if you have selected the 3rd option "Transcode the source media using ...") or for the **Rendering of playlist**.

In this field, you have to define an XML profile file that defines the codec and parameter of the codec used to transcode the file.

You can find some encoder profiles in the "C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles" folder

CREATE ADDITIONAL CODEC

Create Additional Codec File: Select this option if you want to create an additional file, for example a proxy file, at the same time as your hires backup. The additional codec file will be generated on the fly with the principal job.

- Target Path: This is the destination target path used for the additional file.
 This path can be entered manually or by browsing Windows Explorer with the associated button.
- Transcoding profile: This is the XML profile used by XTAccess. It defines the codec and parameter of the codec used by XTAccess to transcode the file. You can find some encoder profiles in the "C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles" folder.
- Create Metadata XML: Select this option if you want to create EVS XML metadata file with you additional codec file

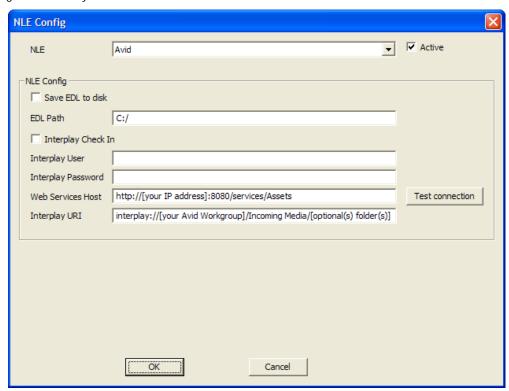
Path: This is the destination target path used for the metadata XML file

7.3.4 NLE CONFIGURATION

The NLE settings are used to set up the integration with AVID, FCP, Xedio or EVS. The NLE settings can also be used directly in the XML job but some of them are not yet implemented in IPDirector.

AVID

For Avid applications, the settings allow you to save the Avid AAF file with the file generated by XTAccess or to use the Avid WebService



Description
Allows you to activate or not the settings
Allows you to back up the AAF file on disk before checking it into Avid Interplay. The AFF file can then be used to directly drag your transferred clip or playlist into MediaComposer without using Avid Interplay Access.
Path where you want to store your AAF file
Allows you to activate or not the Interplay check-in
Interplay user who must have enough rights to check files into Interplay.
Password of the previous user

Password

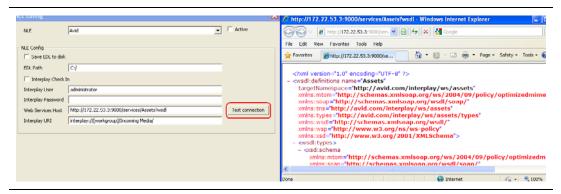
Web Services Host

Link to the Web Service on the Avid Interplay System.

You have to replace:

- [IP] by the IP address of the computer where the Avid web Services are running
- [PORT] by the port that you have configured for your Avid Web Services (example: 8080)

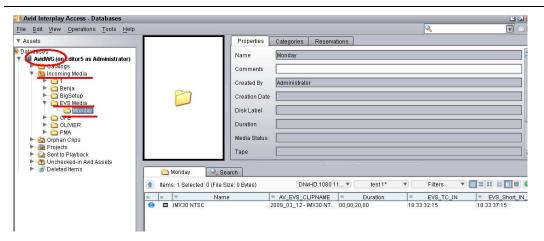
You can also test the connection by clicking on the **Test Connection** button



Interplay URI

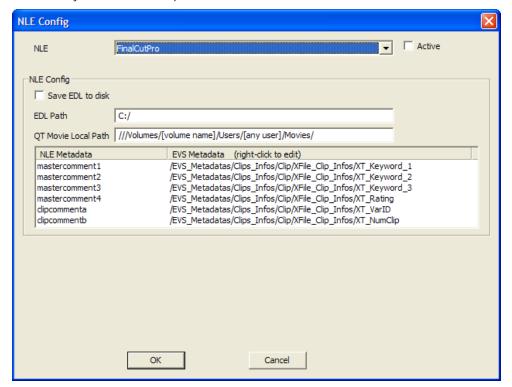
Path where the clip/playlist will be seen in the Interplay DB. You can add sub-folder after the Incoming Media folder. You have to replace [Workgroup] by your Avid workgroup.

Example: interplay://AvidWG/Incoming Media/EVS Media/Monday/

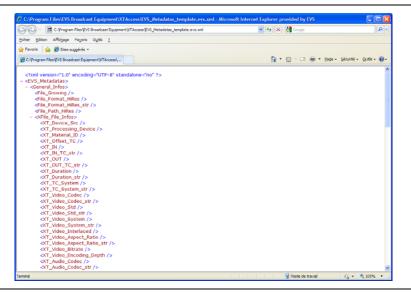


FINALCUTPRO

For FinalCutPro applications, these settings allow you to save the FCP XML Metadata file with the file generated with XTAccess and configure which EVS metadata you want to keep to FCP

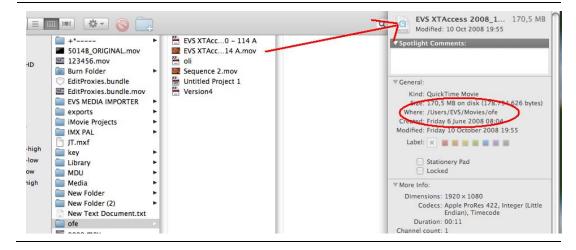


Field/Button	Description
Active	Allows you to activate or not the settings.
Save EDL to disk	Allows you to back up the FCP XML file on disk.
EDL path	Path where you want to store the FCP XML file
Generate FinalCutPro XML	Only 6 EVS custom metadata can be imported in Final Cut Pro Project fields. In this field box, you can create a matrix with the EVS metadata and FCP metadata.
	The Matrix is based on an EVS metadata template that you can find using the following path:
	<pre>C:\Program Files\EVS Broadcast Equipment\XTAccess\EVS_Metadatas_template.evs.xml</pre>



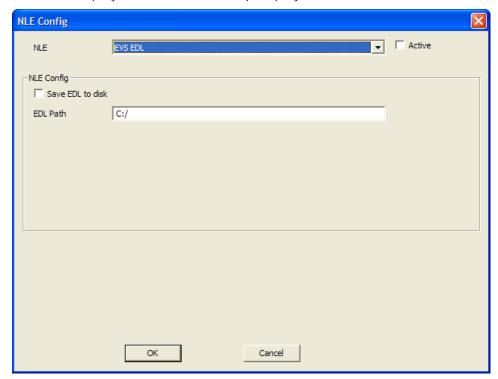
Quick Time Movies Local Path

Local path (where your backed up clip is saved on your FCP computer) referenced into the XML FCP to point to the Quick Time Movies File. Final Cut Pro only supports local paths.



EVSEDL

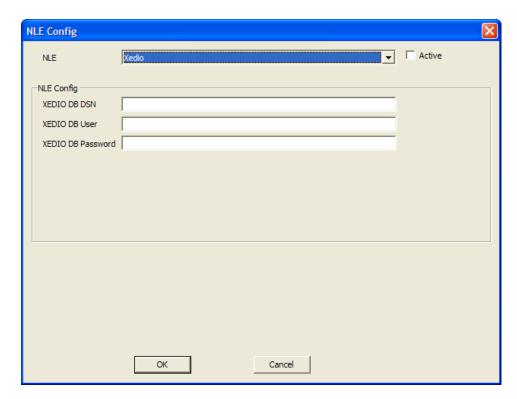
For EVS applications, these settings allow you to save the EDL with the concatenate playlist file or the backup of playlist.



Field/Button	Description
Active	Allows you to activate or not the settings.
Save EDL to disk	Allows you to back up the EVS EDL file
EDL path	Path where you want to store your EVS EDL file

XEDIO

For Xedio applications, the settings allow you to reference media to the Xedio database in case of Backup file



Field/Button	Description
Active	Allows you to activate or not the settings.
XEDIO DB DNS	DNS Name of Xedio database target
XEDIO DB User	DNS User of Xedio database target
XEDIO DB Pass	DNS Password of Xedio database target

7.4 XML JOBS PROCESSING

7.4.1 Launch of Multiple XML Jobs Scan

One can launch as many XML Jobs Scan folders as wished. Each XML Jobs Scan window can be positioned anywhere on the desktop.

7.4.2 START OF XML JOBS SCAN

When the XML Jobs Scan folder is displayed, the scan process begins when clicking the START button.

- Note 1: The first time the START button is clicked, XTAccess will automatically generate the XML scan subfolders:
 - o \Jobs_Done\
 - o \Jobs_In_Progress\
 - o \Jobs_Incoming\
 - o \Jobs_Scheduled\
- Note 2: In case the XML Jobs Scan was already used before, each time you launch this XML Jobs Scan, it will start automatically after a countdown of 10 seconds
- Note 3: If XTAccess is stopped during transfer. Adds the next start up of XTAccess:
 - o The XML job files that were in \Jobs_In_Progress\ or \Jobs_Scheduled\ folder will move into \Jobs_Done\ folder with Job_status 7.

7.4.3 PROCESSING OF A XML JOB

During the whole XML jobs processing, XTAccess updates the status of the XML file, especially to provide third-party applications with information about the transfer process. IPDirector can use the information included in the XML file to get the status of the transfer in progress (only available for non proxy FTP modes – Backup of clips and trains, Restore/Copy, XT Copy, File Rewrap).

At the end, the XML file with the final job status is moved to \Jobs_Done\ to be checked and removed by IPDirector. The mechanism of the XML processing is described in details in the "XML Jobs" document.

7.5 LOAD BALANCING BETWEEN MULTIPLE XTACCESS DEVICES

Multiple XTAccess devices can scan the same XML scan folder.

In order to efficiently distribute the XML jobs over all the XTAccess devices, load balancing rules must be defined.

7.5.1 Management of XML Jobs

Once a new XML job is sent to XTAccess, several criteria are taken into account in order to decide whether the job must be processed:

- Maximum amount of jobs simultaneously processed.
- Maximum amount of jobs simultaneously processed per IP address
- Presence of a job waiting for a connection to EVS server with the same IP address.

Besides, the maximum amount of XML jobs that can be simultaneously processed per XML scan module is also limited. The XML scan per folder is processed every 5 seconds.

Once a job is processed by XTAccess, the first action is an attempt to connect the XT FTP server. In case the connection failed, 2 cases are considered:

- The connection is refused by the EVS server because the maximum amount of connections is reached (max. 6 FTP connections for HiRes EVS servers). The status will be "Server busy". Unlimited connection attempts are done every 2-4 seconds until getting an available connection.
- The connection cannot be established because the IP address is not reachable. The status is "Server IP failed". Several connection attempts are done within fixed time intervals (see 'IP Retry parameter' in section 7.5.2 'Control Parameters' on page 39). After some attempts (see 'IP Retry Timeout parameter' in section 7.5.2 'Control Parameters' on page 39) the job will be cancelled and an error status will be generated.

Any other failure during the connection to a EVS server will cancel the job and generate an error "GENERAL FAILURE".

In case a job that is processed is not able to connect, no other job with the same IP address will be taken into account. Once the connection will be resumed by this "blocked" job, the other waiting jobs will be processed again.

In case of XT Copy job, connection is first established to the destination EVS server prior to the source server. In case the connection failed, the connection to the source server is not used, in order to avoid unexpected XT FTP connections.

Every jobs are taken into account following a FIFO stack (oldest job first).

7.5.2 CONTROL PARAMETERS

Some parameters have been added to better control the load balancing job management. Those parameters can be changed in the registry. XTAccess must be re-started in order to take them into account.

- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Max Running Jobs (default value = 6): Maximum amount of jobs simultaneously processed by XTAccess. Once the limit is reached, any additional job will be "scheduled" (in Jobs_Scheduled" folder) until an "in-progress" job is over.

Besides, in case a job related to the IP address is in status "Server Busy", any next job using the same IP address will stay in "Scheduled" status until all jobs under "Server Busy" will be passed to "in-progress" status. At that time XTAccess scans the job list "scheduled" in order to move them to "in-progress" status. In case of XT Copy job, IP addresses of source and destination XT server are taken into account.

- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Max XML Jobs (default value = 6): Maximum amount of jobs simultaneously processed by XTAccess per XML scan folder. This amount defined the maximum amount of XML files that will be processed by an XML scan folder, possibly after several scan processes (depending on Max Scan Running Jobs parameter see below).
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Max Scan Running Jobs (default value = 6): Maximum amount of jobs simultaneously loaded by XTAccess per scan processes. This amount defined the maximum amount of files that will be loaded by a scan process of the given folder.
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\XML Scan Timeout (default value = 250): Time delay (in milliseconds) between two successive scan processes, provided that the "Max XML Jobs" parameter is not already reached.
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\XML Scan Jobs Timeout (default value = 5000): Time delay (in milliseconds) between the treatment of two successive XML jobs.
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\IP
 Retry (default value = 12): Maximum amount of attempts to connect to an IP
 address of a XT server which does not reply.
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\IP Retry Timeout (default value = 5000): Time delay (in milliseconds) between two successive attempts to connect to an IP address which does not reply.
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\IP Retry Timeout (default value = 5000): Time delay (in milliseconds) between two successive attempts to connect to an IP address which does not reply.
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Max Transcoding Jobs (default value = 1): Maximum amount of transcoding jobs

simultaneously processed by XTAccess (rendering of playlists included)

- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Max Meta Jobs (default value = 1): Maximum amount of Meta jobs (Backup of playlist) simultaneously processed by XTAccess
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\ Max
 Child Jobs (default value = 4): Maximum amount of child jobs simultaneously
 processed by XTAccess in backup of playlist

Those parameters can be optimized for a specific workflow.

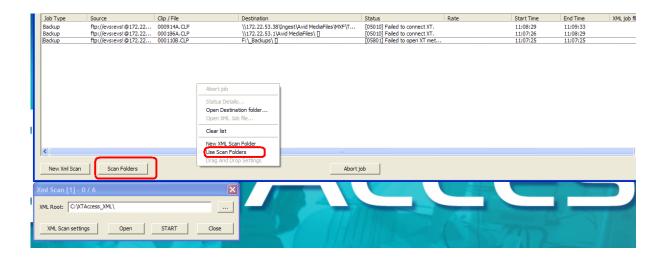
8. Scan Folder

The scan folder allows you to restore / copy / transcoded files from a folder.

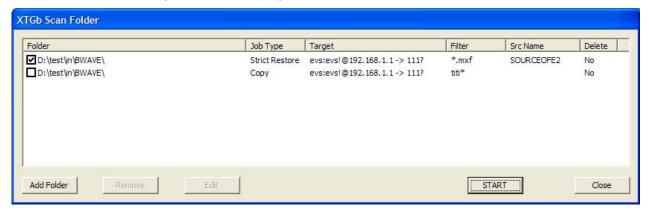
XTAccess waits to have write access on the scanned files before processing them.

8.1 SCAN FOLDER WINDOW

On XTAccess GUI, select the Scan Folders button:



The following window is displayed:

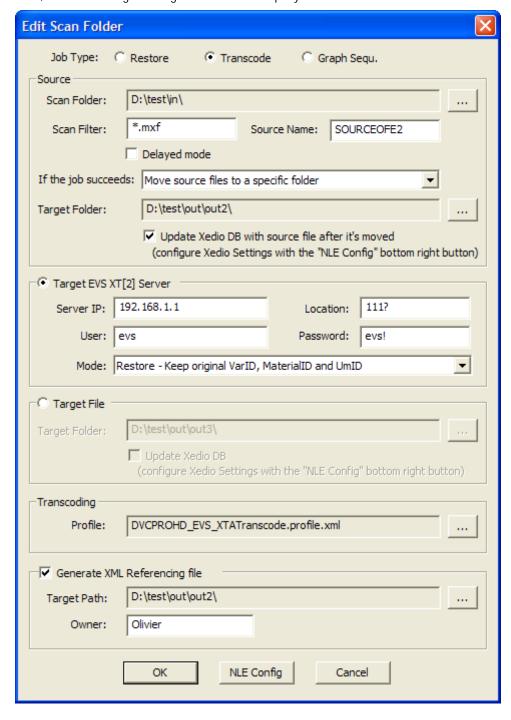


The main window lists all the scan folders defined by XTAccess:

Column heading	Description
Folder	• Path: path of the folder to scan.
	 Check Box: if selected, this scan folder is considered when XTAccess starts scanning.
Job Type	Type of Job (Copy, Restore, Graph Sequ., Transcode)
Target	Target Path (XT FTP or Windows path)
Filter	List of file extensions to filter
Src Name	Source Name to be added with the restored clip
Delete	Option to delete source file
Button / Field	Description
Add Folder	Adds a new folder to scan (see below for details).
Remove	Removes a selected scan folder item.
Edit	Edits a selected scan folder item (see below for details).
START/STOP	Starts/Stops the scanning process. Only the selected folders (checkbox) will be scanned by XTAccess.
CLOSE	Closes the Scan Folder window

8.2 ADD AND EDIT A SCAN FOLDER ITEM

When adding a new scan folder item or editing a selected and existing scan folder item, the following settings window is displayed.



Column heading	Description
Job Type	Restore : Select this option if you want to restore the scanned files
	Transcode : Select this option if you want to transcode the scanned files
	Graph Sequ .: Select this option if you want to create sequence with the graphic files which are in the folder that you are scanning
Scan Folder	Path of the folder to scan
Scan Filter	List of file extensions to scan.
Source Name	CLIP Source Name to be added with the restored clip.
	In case this field is left blank with EVS MXF files to restore, the Source Name included in the EVS MXF metadata will be restored.
Delayed mode	If this option is selected, XTAccess will check the modification time of the file and will wait until this modification time is older than the local time + 30 seconds on the XTAccess computer.
If the job Succeeds:	Target Folder: Move source files to a specific folder Delete source files Move source files to a specific folder Move source files to a specific folder Move source files to XTAScan Done subfolder (default)
	After the scan job: XTAccess can:
	• Delete the source files
	 Move the source files to a specific folder (useful to do Xedio referencing)
	 Move the source files to a folder XTAScan.done in the same folder than the scanned folder (default option)
Source Target Folder	If you have selected Move the source files to a specific folder (useful to do Xedio referencing): it is where you can specify the folder.
	Update CleanEditDB with the source file after it's moved: Select this option if you want to update the Xedio DB with the source file. The CE settings are available in the main menu of

Column heading

Description

Target Server



If you have selected 'Target EVS Server' Job Target, you can specify here the destination EVS server and location

Server IP: IP address of the target EVS server

User: FTP login of the target EVS server

Password: password of the target EVS server

Location: ClipID of the first location to check when restoring.

4 modes are considered:

- <u>123X</u>: X could be A, B, C, D, E or F. In that case XTAccess will check the availability of the clip, e.g. 123A clip.
 - o If not available, XTAccess will show an error message on the main window. You will need to try again with a different location.
 - o If available, the transfer will be done

In any case, after each transfer, XTAccess will increase by 1 the LSM ID with the same camera label, e.g. 124 A,125A,126A. Etc.

- <u>1237</u>: In this case, the "Question Mark" allows XTAccess to check all the camera labels. First check the availability of 123A, then 123B, 123C, 123D, 123E, 123F, 124A, 124B, etc.
- 123[XXXX]: X could be A, B, C, D, E or F. In that case, XTAccess will check the availability of the clip in this range of camera.

Example: 111[ACD] XTAccess will try: 111A 111C 111D 112A 112C 112D 211A 211C

• [XXX]?: X could be 123456789 and XXX is/are the page where you want to restore the files. In this case, the "Question Mark" allows XTAccess to check all the camera labels but after the XXX page.

Example: [157]? XTAccess will try : [110A 111A 112A ... 199A 510A 799A 110B 111B ... 199B 510B 799B 110C 799F].

These last two modes are only available with Multicam 10.01.07 or upper.

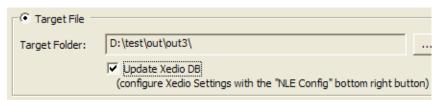
Restore Mode:

• Copy: Generates new IDs for VarID, MaterialID and UmID (LouthID) like a Copy Job

- Lax Rest.: Typically used for automation which needs to keep the VarID from the source file but can regenerate the MaterialID and UmID (LouthID).
- Restore: Keeps original IDs available in the source file like a Restore Job
- VarID option1: Uses the filename as VarID and generate a new MaterialID and UmID
- VarID opation2: Uses the filename as VarID but keeps the MaterialID as UmID

Destination Target Folder

If you have selected "Target File" Job Target: you can specify here the destination path



Update CleanEditDB: Select this option if you want to update the CleanEdit DB with the destination file. The CE settings are available in the main menu of XTAccess.

Transcoding profile

This is the XML profile used by XTAccess which defines the codec and parameter of the codec used by XTAccess to Transcode the file. You can find some encoder profiles into the "C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles" folder

Only used if you have selected Transcode as job Type

Generate XML Metadata file

or

Select this option to send XML Referencing file to IPDirector (in case of restore) or to create XML Metadata file next to the destination files (in case of transcoding to file).

These XML files allows XTAccess to add metadata (IPD Owner, referencing High/ Low)

Generate XML Referencing file

Target Path: Destination path where the XML referencing file/metadata file will be sent to IPD.

Example of XML referencing

Path:\\IPDirector180\JOBREF\EVS_TO_TODO\

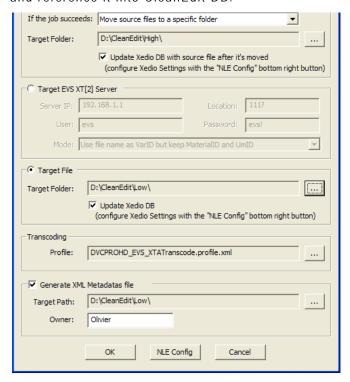
Example of XML Metadata Path: \\Xstore60170\Media\

IPD Owner: IPDirector owner (user) to be referenced to IPDirector Database. If left blank, the "XT Generic User" is pushed into IPDirector Database.

8.3 CLEANEDIT INTEGRATION WITH THE SCAN FOLDER

8.3.1 OVERVIEW

XTAccess is able with the scan folder to transcode one High Res file to Low Res and reference it into CleanEdit DB.



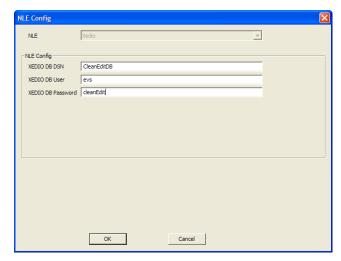
8.3.2 Workflow

- 1. A file is dropped in the ScanFolder (D:\myScanFolder\myFile.evs.mxf)
- 2. The transcoded file and its companion EVS_Metadata file is generated in D:\CleanEdit\Low\
- If the job succeeds, the source file (C:\myScanFolder\myFile.evs.mxf) is moved to D:\CleanEdit\High\
- 4. The two files are referenced into CleanEdit

8.3.3 REMARKS

 To use the Xedio referencing: you need to install the CEXTAccessIntegration_vxx.xx.xx.exe and configure the CleanEdit ODBC Through the NLE config button





• If the source file has no EVS Metadata file, XTAccess will create, during the source file move, a light EVS Metadata file for the referencing into the CleanEdit DB

8.4 REMARKS ON THE SCAN PROCESS

XTAccess processes only the files with a size bigger than OKB

XTAccess can scan an EVS XML file. In this case you need to define *.evs.xml as filter and XTAccess will check the <File_Path_HiRes> tag in the evs.xml file to find the video file.

XTAccess waits to have write access to the files before processing them. The modification date of the file must be also 30 sec older than the current time on the XTAccess computer. For the Graphic files:

- it is the folder containing all the graphic files that you have to scan
- XTAccess waits 10 seconds after new files in the graphic folder before starting the processing.

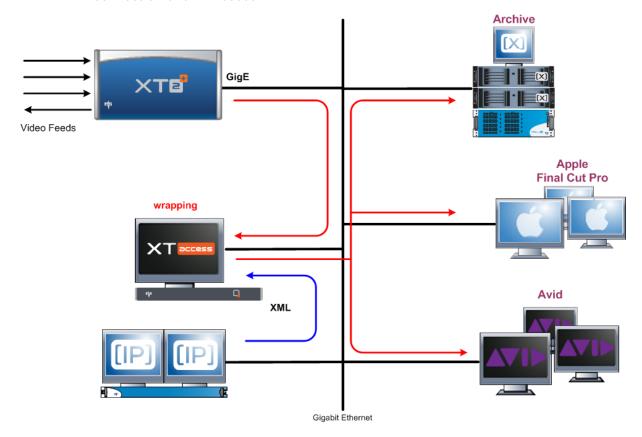
9. Backup of EVS Server Clips to Files

This section covers XML Jobs IDs:

- Job #0: Backup Clip from XT to file (IPDirector v4 onwards)
- Job #11: Short Backup Clip from XT to file (IPDirector v5 onwards)

9.1 WORKFLOW

The following schema shows how the backup of clips is performed with the Gigabit connection and XTAccess:



- 1. An external system, for example IPDirector, sends an XML file to XTAccess to request the backup of a given clip created on an EVS server.
- 2. XTAccess processes the XML file:
 - a. It gets the clip content that has to be backed up from EVS.
 - b. It generates a backup file of the clip in the format specified by the external system
 - c. It stores the backup file in the target folder specified by the external system. The metadata of the clip are either included in the file (in EVS MXF) or sent via an XML file.

Remark:

If the backup is not successful, the partial clip will be deleted from the disk.

9.2 EXAMPLE OF XML BACKUP FILE

To identify the clip you want to back up you can use the UmID, VarID or LsmID

```
<?xml version="1.0"?>
<EVS_XFile_Job_List>
 <EVS_XFile_Job>
  <Job_ld>2246373</Job_ld>
  <Job_Creation_Time>1206001502</Job_Creation_Time>
  <Job_Type>0</Job_Type>
  <Job_Src_User_Nb>4</Job_Src_User_Nb>
  <Job_Src_Clip_Nb>23</Job_Src_Clip_Nb>
  <Job_Src_Cam>D</Job_Src_Cam>
  <Job_Dest_File>\\Xstore60170\testGB\</Job_Dest_File>
  <Job Src Id Material>7tbq1KO0</Job Src Id Material>
  <Job_Src_Id>7tbq1KVW</Job_Src_Id>
  <Job_Src_XT_IP_Address1>1.1.250.250</Job_Src_XT_IP_Address1>
  <Job Src XT_Port1>21</Job Src XT_Port1>
  <Job_Src_XT_FTP_Login>evs</Job_Src_XT_FTP_Login>
  <Job_Src_XT_FTP_Password>evs!</Job_Src_XT_FTP_Password>
  <Job_Src_XT_IP_Address2>1.1.251.251//Job_Src_XT_IP_Address2>
  <Job_Src_XT_Port2>21</Job_Src_XT_Port2>
  <Job_Src_App_Data>
   <IPClipID>246373</IPClipID>
   <ClipLouthID>7tbq1KVW</ClipLouthID>
   <ClipMaterialID>7tbq1KO0</ClipMaterialID>
   <NumUser>4</NumUser>
   <BackupUnitID>92</BackupUnitID>
   <JobldHistory>2030</JobldHistory>
  </Job_Src_App_Data>
  <Job_Dest_File_Format>1</Job_Dest_File_Format>
  <Job_Dest_XML_Metadata_Path>\\Xstore60170\Data (G)\Scan
XML\metadata\</Job_Dest_XML_Metadata_Path>
  <Job_Dest_Generate_XML_Metadata>1/Job_Dest_Generate_XML_Metadata>
  <EVS_Metadatas>
   <Clips_Infos>
    <Clip>
     <IPDirector_Clip_Infos>
      <LsmSerialNumber>20140</LsmSerialNumber>
      <ThumbnailTCRefPath>\\1.1.59.66\Thumbnails\246373.jpg</ThumbnailTCRefPath>
      <Owner>XT Generic User</Owner>
```

```
<TCInDate>07-Mar-2008</TCInDate>
<TCOutDate>07-Mar-2008</TCOutDate>
</IPDirector_Clip_Infos>
</Clip>
</Clips_Infos>
</EVS_Metadatas>
</EVS_XFile_Job>
</EVS_XFile_Job_List>
```

The description of each XML tag is described in the "XML Jobs" document.

9.3 LOCAL XTACCESS SETTINGS (NON XML)

Some XTAccess settings are not supported by XML. They must therefore be specified in the local settings of the XML Jobs Scan (see section 7.3.3 'XML Scan Settings' on page 27).

9.3.1 REGISTRY SETTINGS

- HKEY_LOCAL_MACHINE\SOFTWARE\EVS Broadcast Equipment\Common \FileWriter NoBuffering: Specific setting to transfer a file without any buffering. Recommended for writing on a MacOS workstation via network (SMB). (default value = 0)
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Max Transfer Rate: Maximum transfer rate (Bytes/second) for the total amount of backup jobs (all together).
- HKEY_CURRENT_USER\Software\EVS Broadcast
 Equipment\XTAccess\UpdateStatusXFileIfBackupSuccessful: Update
 STATUSXFILE in MCCLIPTABLE when backup is successful
 - o 0: Active
 - o 1: Not Active

9.4 MISCELLANEOUS

- Remark 1: EVS, GigE and XTAccess activate time-outs when no data are transferred within a specific time interval (typically 8 seconds). Typically, backing up a file on a remote drive via UNC path with throughput lower than 5 Mbits/s per transfer job could trigger a time-out and then cancel the job. Network and storage must be designed accordingly.
- Remark 2: Audio Resolution
 - o In OP1A and Avid MXF format you can select 16 or 24 bits
 - o In QT and QT Ref format the audio is saved in 16 bits
 - In EVS MXF format the audio is saved in 24 bits

10. Restore/Copy of Files to EVS Server

This section covers XML Jobs IDs:

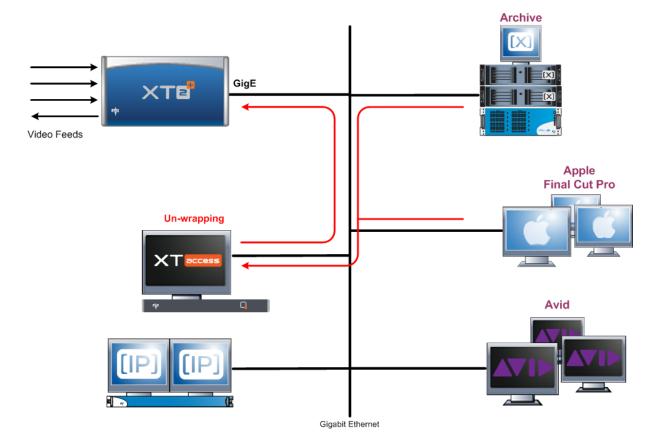
- Job #1: Restore Clip from file to EVS Server (IPDirector v5 onwards)
- Job #2: Copy Clip from file to EVS Server (IPDirector v5 onwards)
- Job #12: Short Copy Clip (IPDirector v5 onwards)

10.1 WORKFLOW

The restore process can be set up in two different ways:

- via XML jobs sent by an external application.
- via folder scan.

The following schema shows how the restore of clips is performed with the Gigabit connection and XTAccess:



10.1.1 Workflow (Restore via XML Jobs) Explanation

- An external system (which can generate XML files to restore clips, for example MediaXChange or IPDirector) sends an XML job to XTAccess to request the restore (copy) of clips from an archiving or backup system to a given EVS server.
- 2. XTAccess processes the XML job:
 - a. It gets the file to restore from the external system.
 - b. It restores (copy) the clip on the EVS server specified in the XML file.

10.1.2 Workflow (Folder File Scan) Explanation

- 1. An external system places a file in a folder to be scanned by XTAccess.
- 2. XTAccess gets this file to be restored to EVS server
- 3. It restores (copy) the clip on the EVS server specified in the Scan Folder settings.

10.2 EXAMPLE OF XML COPY FILE

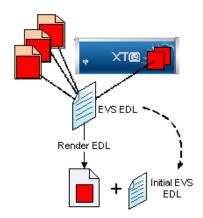
```
<?xml version="1.0"?>
<EVS_XFile_Job_List>
 <EVS_XFile_Job>
  <Job_ld>12384</Job_ld>
  <Job_Creation_Time>0</Job_Creation_Time>
  <Job_Src_File>G:\000610A_imx pal 4a.evs.mxf</Job_Src_File>
  <Job Type>2</Job Type>
  <Job_Dest_XT_IP_Address1>1.1.243.243</Job_Dest_XT_IP_Address1>
  <Job_Dest_XT_Port1>21</Job_Dest_XT_Port1>
  <Job_Dest_XT_IP_Address2>1.1.241.241</Job_Dest_XT_IP_Address2>
  <Job_Dest_XT_Port2>21</Job_Dest_XT_Port2>
  <Job_Dest_XT_FTP_Login>evs</Job_Dest_XT_FTP_Login>
  <Job_Dest_XT_FTP_Password>evs!</Job_Dest_XT_FTP_Password>
  <Job_Dest_Page>3</Job_Dest_Page>
  <Job Dest ClipName>toto</Job Dest ClipName>
 </EVS_XFile_Job>
</EVS_XFile_Job_List>
```

The description of each XML tag is described in the "XML Jobs" document.

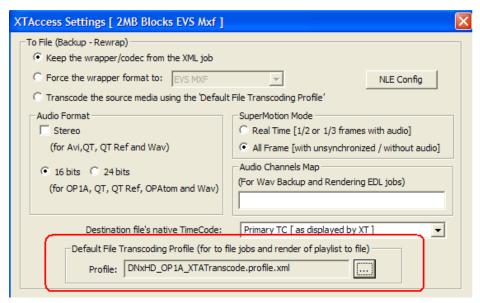
11. Rendering of EDL to one file

This section covers XML Jobs IDs:

 Job #10: Renders a Playlist/TimeLine from an EVS Server (XT clips only) or from EVS EDL (XT clips and/or Media files) to a solid file.



11.1 LOCAL XTACCESS SETTINGS (NON XML)



In the XTAccess XML configuration, you have to define an XML profile that will specify the codec and the wrapper for the destination file.

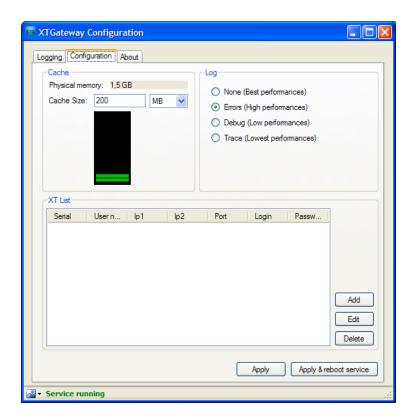
11.1.1 REGISTRY SETTINGS

HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\ Max
 Transcoding Jobs (default value = 1): Maximum amount of transcoding jobs simultaneously processed by XTAccess (rendering of playlist included)

11.2 XTGATEWAY

The rendering process will be in fact done by XTGateway. You can find XTGateway in the Windows systray





Nothing has to be configured in this window, except the cache size. The cache size depends on the number of rendering jobs that you want to execute at the same time (see the HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\ Max Transcoding Jobs registry key). We recommend that you set up at least 200 MB of memory by rendering job.

11.3 SMART RENDERING

XTAccess will only transcode the effects if the source clip or file and the destination file have the same codec: XTAccess will only render needed content

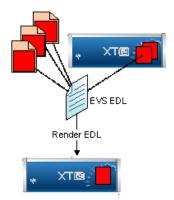
11.4 EFFECTS

See the effect document for all the effects supported by XTAccess

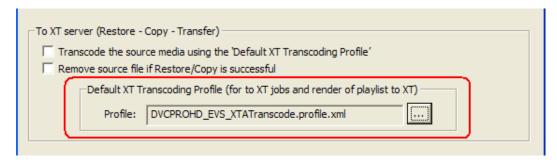
12. Rendering of EDL to one EVS Server clip

This section covers XML Jobs IDs:

• Job #24: Render a Playlist/TimeLine from a EVS Server (XT clips only) or from EVS EDL (XT clips and/or media files) to a solid clip on an XT.



12.1 LOCAL XTACCESS SETTINGS (NON XML)



You have to define in the XTAccess XML configuration one XML profile that will define the codec of the destination clip.

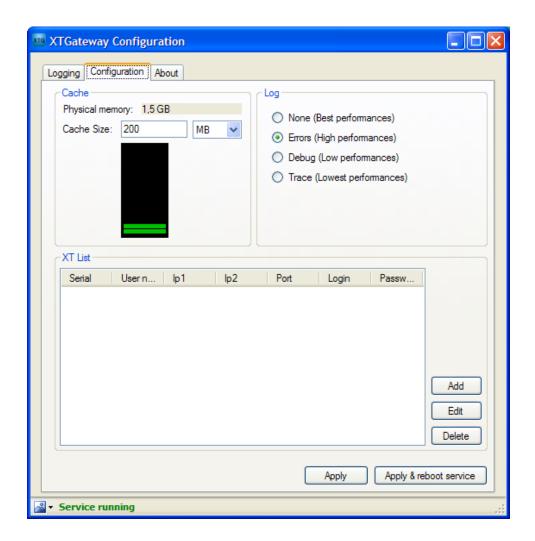
12.1.1 REGISTRY SETTINGS

 HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\ Max Transcoding Jobs (default value = 1): Maximum amount of transcoding jobs simultaneously processed by XTAccess (rendering of playlist included)

12.2 XTGATEWAY

XTGateway will handle the rendering process. You can find XTGateway in the Windows systray





Nothing has to be configured in this window, except the cache size. The cache size depends on the number of rendering jobs that you want to execute at the same time (see the HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\ Max Transcoding Jobs registry key). We recommend that you set up at least 200 MB of memory by rendering job.

12.3 SMART RENDERING

XTAccess will only transcode the effects if the source clip or file and the destination file have the same codec: XTAccess will only render needed content

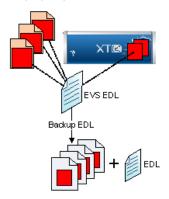
12.4 EFFECTS

See the EVS EDL – Structure and Effects Description v1.0.pdf document for all the effects supported by XTAccess

13. Backup of EDL to files

This section covers XML Jobs IDs:

 Job #9: Backup Playlist from EVS Server to files with EDL creation for EVS, AVID and FCP.



Remark:

Since the Backup Playlist job generates several files, it is forbidden to have a "Job_Dest_File" with a full path (folder + filename). In that case, an error will be returned. Only folders are accepted.

This Job is used to create sequence on Avid or FCP NLE.

13.1 LOCAL XTACCESS SETTINGS (NON XML)

Some XTAccess settings are not supported by XML. They must therefore be specified in the local settings of the XML Jobs Scan (see section 7.3.3 'XML Scan Settings' on page 27). See also the NLE configuration.

If you do not define a transcoding profile, all the EDLs must be in the same codec.

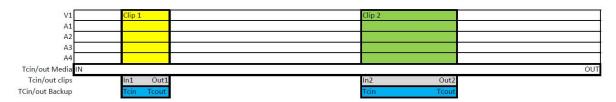
13.1.1 REGISTRY SETTINGS

HKEY_LOCAL_MACHINE\SOFTWARE\EVS Broadcast Equipment\Common \
 EDL Backup Default Guardbands: Specific the guardbands of the clip backup in EDL backup (default value: 50 frames)

13.2 SMART BACKUP MODE

If the target file is already present in the EDL asset, XTAccess will not back up again the elements.

Short Backup:



In this case represented in the schema above, XTAccess will back up the two elements



In this case represented in the schema above, XTAccess will back up the clip1 and the Clip3 but not the clip2.

13.3 EFFECTS

See the EVS EDL – Structure and Effects Description v1.0.pdf document for all the effects supported by XTAccess

14. File Rewrap

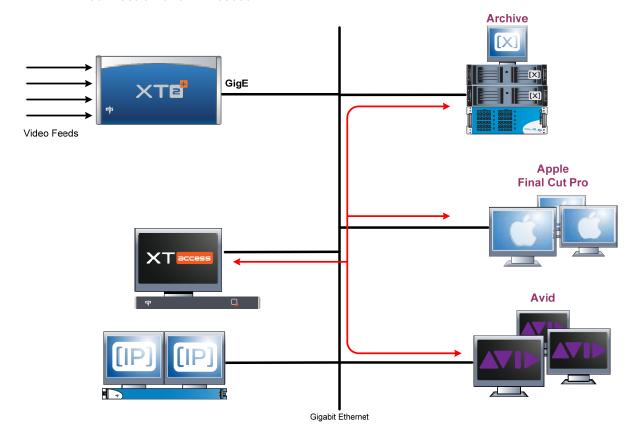
This section covers XML Jobs IDs:

- Job #40: Transfer file to file (IPDirector v5 onwards)
- Job #41: Partial transfer file to file (IPDirector v5 onwards)

14.1 WORKFLOW

Only clips having one of the following formats can be rewrapped: EVS MXF, MXF OP-1A or Quick Time (depending on the video codec).

The following schema shows how the restore of clips is performed with the Gigabit connection and XTAccess:



- 1. An external system (which can generate XML files for restoring clips, for example IPDirector v5) sends an XML job to XTAccess to request the rewrap of a file from an archiving or backup system to a new file format and archive storage.
- 2. XTAccess processes the XML job:
 - a. It gets the file to rewrap from the external system.
 - b. It generates a new file on the destination storage.

14.2 EXAMPLE OF XML FILE REWRAP

The description of each XML tag is described in the "XML Jobs" document.

15. Additional Codec file on the fly

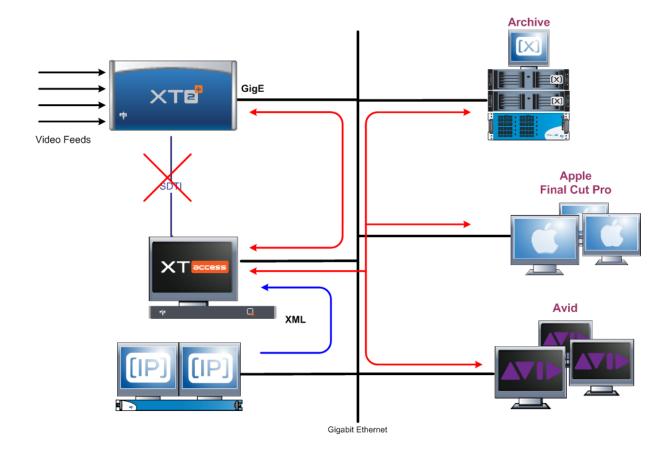
XTAccess can transcode on the fly a clip from EVS Server or a file to another format (codec & wrapper).

To use the transcoding, you need to have the XTAccess Transcoding XSecure Code (see chapter 4 'XSecure Management' on page 14).

15.1 WORKFLOW

This section does not cover XML Jobs from IPDirector yet:

The following schema shows how the clip backup / file rewrap and file transcoding are performed with the Gigabit connection and XTAccess:



- 1. As transcoding is not yet available with XML job file, you have to configure XTAccess in transcoding mode.
- 2. An external system, for example IPDirector, sends an XML file to XTAccess to request the backup of a given clip or rewrap of a given file in native EVS codec format
- 3. XTAccess processes the XML file:
 - a. It gets the clip content from EVS or the file that has to be backed or rewrapped up.
 - b. It generates a backup file of the clip or a rewrap file
 At the same time, XTAccess transcodes the clip in the selected codec format. See configuration below.
 - c. It stores the backup file/rewrap file in the target folder specified by the external system. The metadata of the clip are either included in the file (in EVS MXF) or sent via an XML file.

Remark:

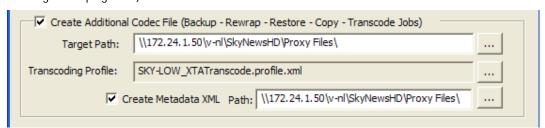
There is only one status for the transcoding on the fly. So if the backup or the transcoding fails: The whole job will fail.

15.2 CODECS SUPPORTED

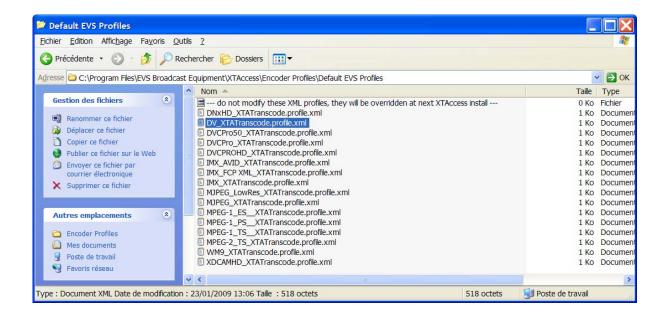
See XTAccess_codecs document

15.3 LOCAL XTACCESS SETTINGS (NON XML)

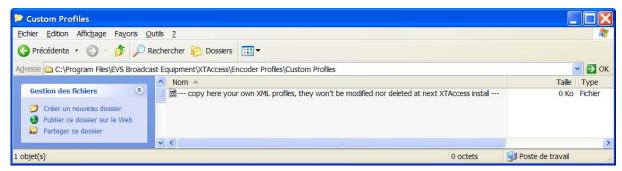
Transcoding XTAccess settings are not supported by XML. They must therefore be specified in the local settings of the XML Jobs Scan (see section 7.3.3 'XML Scan Settings' on page 27).



- Create Additional Codec File: Select this option if you want to transcode on the fly.
 - o **Target Path**: This is the destination target path used for the transcoding file. This path can be entered manually or by browsing Windows Explorer with the associated button.
 - Transcoding profile: This is the XML profile used by XTAccess which defines the codec and parameter of the codec used by XTAccess to Transcode the file. You can find some encoder profiles into the "C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Default EVS Profiles" folder.

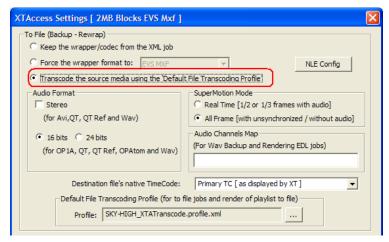


Be careful this folder is updated at each new installation of XTAccess. If you want to create your own profile, please use the "C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Custom Profiles" folder that is not removed or updated.



See chapter 17 'Example of Encoder profiles' on page 72 for more details.

If you want to transcode only your clip or file to another format without the backed up file, you have to select "Transcode the source ..."



15.3.1 SMART RENDERING

XTAccess automatically analyze the source and destination codec and bitrates and will only perform a rewrapping if they are identical.

Special cases: DNxHD 100 vs DNxHD 120/145 : as XTAccess must be compliant to Avid standards, those codecs are considered as identical with regards to the smart transcoding criteria.

This feature is supported for all XML jobs.

15.3.2 REGISTRY SETTINGS

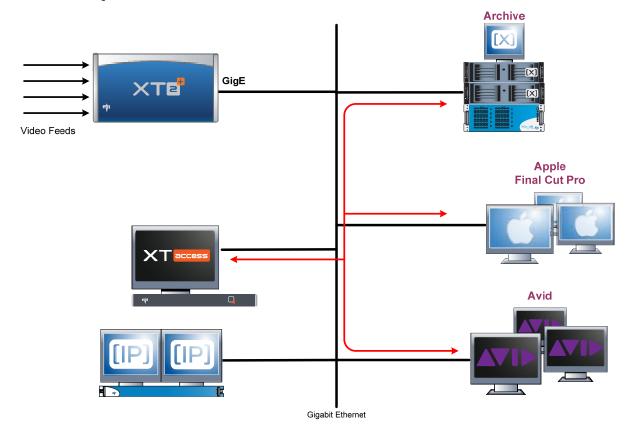
 HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Max Transcoding Jobs (default value = 1): Maximum amount of jobs simultaneously transcoded by XTAccess. Once the limit is reached, any additional job will be "scheduled" (in Jobs_Scheduled" folder) until an "inprogress" job is over.

16. Transcoding files

XTAccess can also transcode files to another file format.

16.1 WORKFLOW

The following schema shows how the transcoding process is performed with the Gigabit connection and XTAccess:



- 1. As transcoding is not yet available with XML job file, you have to configure XTAccess in transcoding mode.
- 2. An external system (which can generate XML files for restoring clips, for example IPDirector v5) sends an XML job to XTAccess to request the rewrap of a file from an archiving or backup system to a new file format and archive storage.
- 3. XTAccess processes the XML job:
 - a. It gets the file to transcode from the external system.
 - b. It generates a new file on the destination storage.

16.2 EXAMPLE OF XML FILE REWRAP

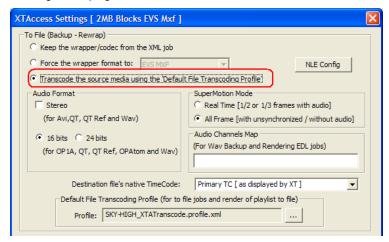
The description of each XML tag is described in the "XML Jobs" document.

16.3 CODECS SUPPORTED

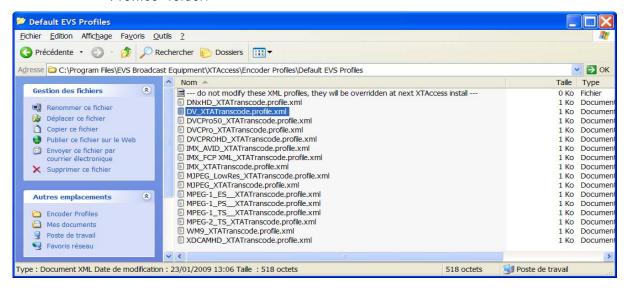
• See XTAccess_codecs document

16.4 LOCAL XTACCESS SETTINGS (NON XML)

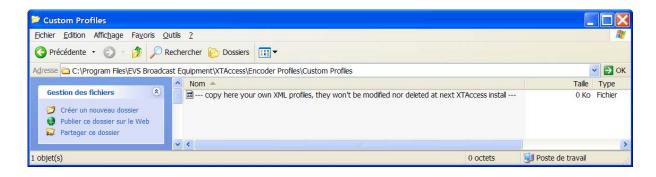
Transcoding XTAccess settings are not supported by XML. They must therefore be specified in the local settings of the XML Jobs Scan (see section 7.3.3 'XML Scan Settings' on page 27).



Default File Transcoding profile: this is the XML profile used by XTAccess which defines the codec and parameter of the codec used by XTAccess to Transcode the file. You can find some encoder profiles into the "C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Default EVS Profiles" folder.



Be careful this folder is updated at each new installation of XTAccess. If you want to create your own profile, please use the "C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Custom Profiles" folder that is not removed or updated.



See chapter 17 'Example of Encoder profiles' on page 72 for more details.

16.4.1 SMART RENDERING

XTAccess automatically analyze the source and destination codec and bitrates and will only perform a rewrapping if they are identical.

Special cases: DNxHD 100 vs DNxHD 120/145: As XTAccess must be compliant to Avid standards, those codecs are considered as identical with regards to the smart transcoding criteria.

This feature is supported for all XML jobs.

16.4.2 REGISTRY SETTINGS

 HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Max Transcoding Jobs (default value = 1): Maximum amount of jobs simultaneously transcoded by XTAccess. Once the limit is reached, any additional job will be "scheduled" (in Jobs_Scheduled" folder) until an "inprogress" job is over.

17. Example of Encoder profiles

Encoding profiles are XML files that define the codec and codec parameters used by XTAccess to transcode the file.

You can find bellow some examples. For more information about the transcoding profile you can use the "Encoder Profiles.pdf" document which explains all the tags present in the encoder profile.

17.1 MPEG-1

MPEG-1 and MPEG-2 codec use the EVSMPEG2Encoder dll encoder (C:\Program Files\EVS Broadcast Equipment\XTAccess\EVSEncoders\EVSMPEG2Encoder.dll) which is installed with XTAccess

You can find here an example of MPEG-2 encoder profile. This profile can be found into C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Default EVS Profiles\ folder after the installation of XTAccess.

MPEG-1_TS_XTATranscode.profile.xml:

```
<?xml version="1.0"?>
<EVSEncoder version="1.0">
<DIIName>EVSMPEG2Encoder.dll</DIIName>
<DisplayName>MPEG-1 TS</DisplayName>
<Extension>mpg</Extension>
<ResolutionMode>1</ResolutionMode>
<EVSEncoderCfg>
   <FType>TS</FType>
   <!-- TS / PS / ES -->
   <VType>MPEG-1</VType>
   <!-- MPEG-2 / MPEG-1 -->
   <VRate>1500000</VRate>
   <GopN>18</GopN>
   <GopM>3</GopM>
   <AspectRatio>Auto</AspectRatio>
   <ARate>64000</ARate>
   <Stereo>1</Stereo>
   <Half>1</Half>
</EVSEncoderCfg>
</EVSEncoder>
```

All the Tags are explained into the XML Encoders Schema document into the EVSMPEG2Encoder.dll chapter.

EVSIMXEncoder.dll chapter.

17.2 AVID DNXHD®

DNxHD® codec uses the EVSDNxHDEncoder dII encoder (C:\Program Files\EVS Broadcast Equipment\XTAccess\EVSEncoders\EVSDNxHDEncoder.dII) which is installed with XTAccess.

You can find here an example of DNxHD® encoder profile. This profile can be found into C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Default EVS Profiles\ folder after the installation of XTAccess.

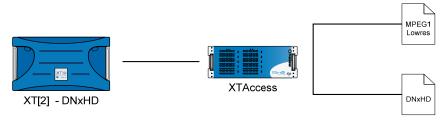
DNxHD_XTATranscode.profile.xml:

All the tags are explained into the XML Encoders Schema document into the ${\ensuremath{\sf EVSDNxHDEncoder.dll}}$ chapter.

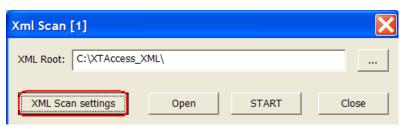
18. Examples of Configuration

You can find here some examples of workflows, which use the transcoding feature of XTAccess.

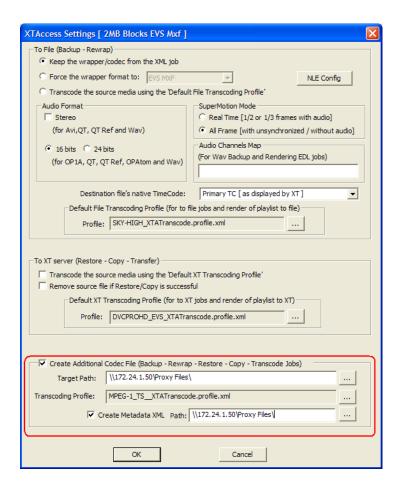
18.1 BACKUP EVS SERVER NATIVE CODEC + CREATION OF LOW RES



- 1. Create a "standard" target destination into IPD
- 2. Create a Scan XML



- 3. Click on the XML Scan Settings button and configure the XTAccess settings.
 - a. Select "Create Additional Codec ..."
 - b. Select the target Path for the Mpeg1 TS Low Res transcoded file
 - c. Select the Mpeg1 TS profile in the C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Default EVS Profiles folder

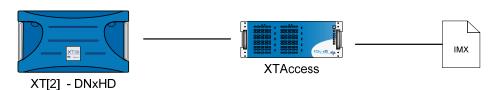


Result

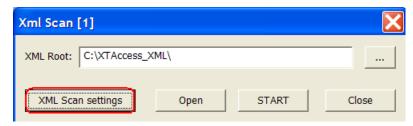
Each new Backup job from IPD will create:

- one transcoded file in MPEG1 in target folder defined in XTAccess (\\172.24.1.50\Proxy Files\)
- one backed up file in the folder defined in the IPD Remote installer

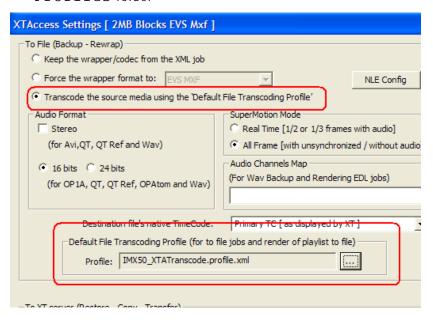
18.2 TRANSCODE NATIVE EVS SERVER CLIP



- 1. Create a "standard" target destination into IPD
- 2. Create a Scan XML



- 3. Click on the XML Scan Settings button and configure the XTAccess settings
 - a. Select "Transcode the source .."
 - b. Select the IMX profile in the C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Default EVS Profiles folder



Result

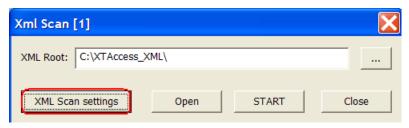
Each new Backup job from IPD will create:

• one file transcoded in IMX in the target path folder defined in the XML job

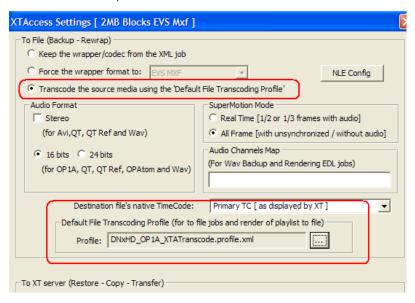
18.3 TRANSOCODE ONE FILE TO FILE



- 1. Create a "standard" target destination into IPD
- 2. Create a Scan XML



- 3. Click on the XML Scan Settings button and configure the XTAccess settings
 - a. Select "Transcode the source ..."
 - b. Select the DNXHD profile in the C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Default EVS Profiles folder

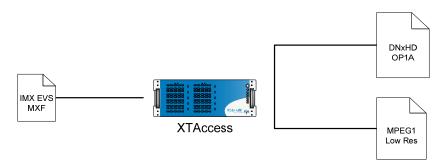


Result

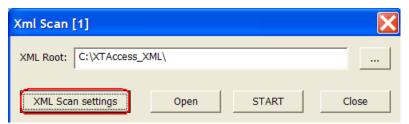
Each new rewrap job from IPD will create:

one DNxHD transcoded file in the target folder configured into IPD

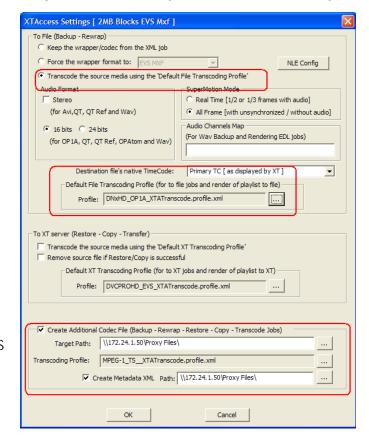
18.4 DOUBLE TRANSCODING



- 1. Create a "standard" target destination into IPD
- 2. Create a Scan XML



- 3. Click on the XML Scan Settings button and configure the XTAccess settings
 - a. Select "Transcode the source ..."
 - b. Select the DNxHD profile in the C:\Program Files\EVS Broadcast Equipment\XTA ccess\Encoder Profiles\Defa ult EVS Profiles folder
 - c. Select "Create Additional codec ..."
 - d. Select the target
 Path for the Mpeg1
 TS Low Res
 transcoded file
 - e. Select the Mpeg1 TS
 profile in the
 C:\Program
 Files\EVS
 Broadcast
 Equipment\XTA
 ccess\Encoder
 Profiles\Defa
 ult EVS
 Profiles folder

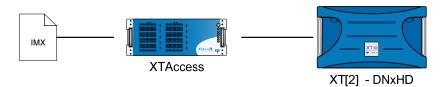


Result

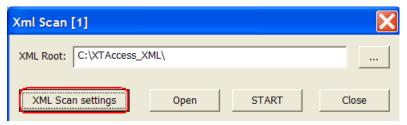
Each new rewrap job from IPD will create:

- one MPEG 1 transcoded file in the Target Path folder configured into XTAccess (\\172.24.1.50\Proxy Files\
- one DNxHD OP1A file as asked by IPD in the folder defined into IPD

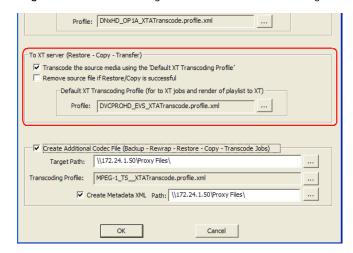
18.5 TRANSOCODE ONE FILE TO EVS SERVER USING XML JOB



- 1. Create a "standard" target destination into IPD
- 2. Create a Scan XML



- 3. Click on the XML Scan Settings button and configure the XTAccess settings
- f. Select "Transcode the source ..."
- g. Select the DNXHD profile in the C:\Program Files\EVS Broadcast Equipment\XTAccess\En coder Profiles\Default EVS Profiles folder



Result

Each new job of restore or Copy from IPD will create one DNxHD transcoded file on the EVS. If needed you can also create additional codec at the same time

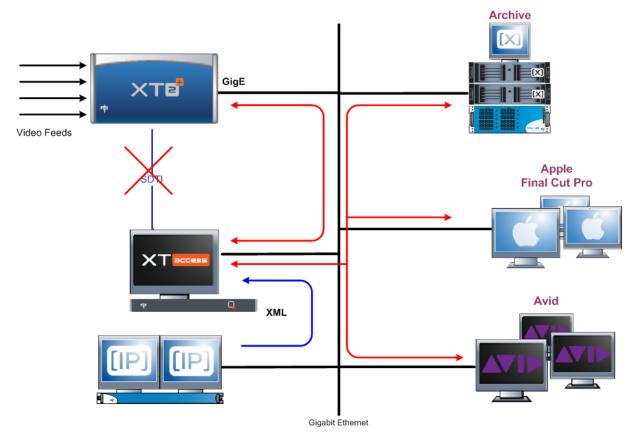
19. Backup of EVS Server Trains to Files

This section covers XML Jobs IDs:

- Job #20: Backup Train (IPDirector v5 onwards)
- Job #21: Update Backup Train Job (IPDirector v5 onwards)

19.1 WORKFLOW

The following schema shows how the backup of trains is performed with the Gigabit connection and XTAccess:



- 1. An external system, for example IPDirector, sends an XML file to XTAccess to request the backup of a given train available on an EVS server.
- 2. XTAccess processes the XML file:
 - a. It gets the data stream (train) from EVS that has to be backed up.
 - b. It generates a backup file of the train
 - c. It stores the backup file in the target folder specified by the external system. The metadata of the train are either included in the file (in EVS MXF) or sent via an XML file.

Remarks:

If the backup of the train is not successful, the partial backup file will be saved.

19.2 EXAMPLE OF XML BACKUP TRAIN TO FILE

```
<?xml version="1.0" encoding="utf-8"?>
<EVS_XFile_Job_List>
   <EVS_XFile_Job>
           <Job_ld>15</Job_ld>
           <Job_Creation_Time>1212733995</Job_Creation_Time>
           <Job_Type>20</Job_Type>
           <Job_Src_User_Nb>6</Job_Src_User_Nb>
           <Job_Src_Cam>A</Job_Src_Cam>
           <Job_Train_In_TC>2700000</Job_Train_In_TC>
           <Job_Train_Out_TC>2730000</Job_Train_Out_TC>
           <Job_Src_TC_System>3</Job_Src_TC_System>
           <Job_Dest_File_Format>1</Job_Dest_File_Format>
           <Job_Dest_File>G:\</Job_Dest_File>
           <Job_Dest_ClipName>benja</Job_Dest_ClipName>
           <Job_Train_Priority>1</Job_Train_Priority>
           <Job_Dest_Generate_XML_Metadata>1/Job_Dest_Generate_XML_Metadata>
           <Job_Src_XT_IP_Address1>1.1.230.230</Job_Src_XT_IP_Address1>
           <Job Src XT_Port1>21</Job Src XT_Port1>
           <Job_Src_XT_FTP_Login>evs</Job_Src_XT_FTP_Login>
           <Job Src XT FTP Password>evs!</Job Src XT FTP Password>
           <Job_Src_XT_IP_Address2>128.1.2.22</Job_Src_XT_IP_Address2>
           <Job_Src_XT_Port2>21</Job_Src_XT_Port2>
           <Job_Src_App_Data>
                   <AssetGuid>af97b972-d7bb-4ea4-aa9a-9127274dac19</AssetGuid>
                   <AssetItemGuid>386881e5-8594-438d-a7d8-bd49a0dfe9da</AssetItemGuid>
           </Job_Src_App_Data>
   </EVS_XFile_Job>
</EVS_XFile_Job_List>
```

The description of each XML tag is described in the "XML Jobs" document.

19.3 EXAMPLE OF XML UPDATE TRAIN

The description of each XML tag is described in the "XML Jobs" document.

19.4 LOCAL XTACCESS SETTINGS (NON XML)

Some XTAccess settings are not supported by XML. They must therefore be specified in the local settings of the XML Jobs Scan (see section 7.3.3 'XML Scan Settings' on page 27).

19.5 REGISTRY SETTINGS

- HKEY_LOCAL_MACHINE\SOFTWARE\EVS Broadcast Equipment\Common \FileWriter NoBuffering: Specific setting to transfer a file without any buffering. Recommended for writing on a MacOS workstation via network (SMB). (default value = 0)
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Max Transfer Rate: Maximum transfer rate (Bytes/second) for the total amount of backup jobs (all together).
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Safe
 Train Backup: protection to avoid reaching the head of a train during backup
 of train:
 - o 0: Active
 - o 1: Not Active

19.6 MISCELLANEOUS

19.6.1 BACKUP/UPDATE OF TRAINS AND LOAD BALANCING

- It is not recommended to perform load balancing between several XML Scan folders when requesting backup of trains.
- We recommend dedicating specific XTAccess for your Backup of train. For example one XTAccess for two backups of train. Like this, you are sure that your backups of train are done directly and quickly.

19.6.2 MAX XML JOBS PER SCAN SETTING

- It is recommended to set the Max XML Job per Scan registry setting with a very high value (e.g. 100) when performing backup of trains jobs.
- In that way, all incoming jobs will be loaded by XTAccess (in the "Scheduled" folder). In case of an update XML job, this request will be automatically loaded by XTAccess and parsed to check which job is concerned. The backup of trains will be loaded even if it is still in a scheduled or processing mode.

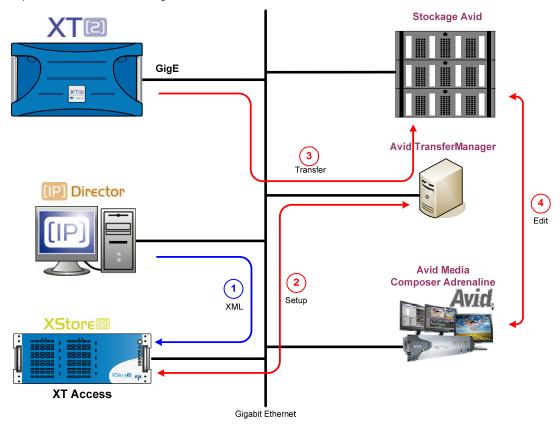
20. Transfer to Avid Transfer Manager

This section covers XML Jobs IDs:

- Job #7: Transfer Clip to Avid TM® (IPDirector v4 onwards)
- Job #8: Transfer File to Avid TM® (IPDirector v5 onwards)
- Job #22: Stream Record train to Avid TM® (IPDirector v5 onwards)
- Job #42: Partial transfer file to Avid TM® (IPDirector v5 onwards)
- Job #43: Partial transfer clip to Avid TM® (IPDirector v5 onwards)

20.1 WORKFLOW

The following schema shows how the transfer of clips to Avid Transfer Manager is performed with the Gigabit connection and XTAccess:



 An external system, for example IPDirector, sends an XML file to XTAccess to request the transfer of a given clip, created on an EVS server, to Avid Transfer Manager.

XTAccess processes the XML file.

- 2. XTAccess sets up a connection with Avid Transfer Manager server.
- 3. XTAccess gets the clip content, which has to be transferred, from EVS and sets up a FTP proxy connection between the EVS and the Avid Transfer Manager server.
- 4. The Avid Transfer Manager server stores the transferred file in the specified Avid storage.

20.2 EXAMPLE OF XML AVID TRANSFER OF CLIP

To identify the clip you want to send to Avid you can use the UmID, VarID or LsmID

```
<?xml version="1.0"?>
<EVS_XFile_Job_List>
 <EVS_XFile_Job>
  <Job_Id>2246373</Job_Id>
  <Job_Creation_Time>1206001497</Job_Creation_Time>
  <Job_Type>7</Job_Type>
  <Job_Src_User_Nb>4</Job_Src_User_Nb>
  <Job_Src_Clip_Nb>23</Job_Src_Clip_Nb>
  <Job_Src_Cam>D</Job_Src_Cam>
  <Job_Dest_File>
  </Job_Dest_File>
  <Job_Src_Id_Material>7tbq1KO0</Job_Src_Id_Material>
  <Job_Src_Id>7tbq1KVW</Job_Src_Id>
  <Job_Src_XT_IP_Address1>1.1.250.250</Job_Src_XT_IP_Address1>
  <Job_Src_XT_Port1>21</Job_Src_XT_Port1>
  <Job_Src_XT_FTP_Login>evs</Job_Src_XT_FTP_Login>
  <Job_Src_XT_FTP_Password>evs!</Job_Src_XT_FTP_Password>
  <Job_Src_XT_IP_Address2>1.1.251.251//Job_Src_XT_IP_Address2>
  <Job_Src_XT_Port2>21</Job_Src_XT_Port2>
  <Job_Src_App_Data>
   <IPClipID>246373</IPClipID>
   <ClipLouthID>7tbq1KVW</ClipLouthID>
   <ClipMaterialID>7tbq1KO0</ClipMaterialID>
   <NumUser>4</NumUser>
   <BackupUnitID>100</BackupUnitID>
   <JobldHistory>2029</JobldHistory>
  </Job_Src_App_Data>
  <Job_AvidTM_HostName>EVSDEMO</Job_AvidTM_HostName>
 </EVS_XFile_Job>
</EVS_XFile_Job_List>
```

The description of each XML tag is described in the "XML Jobs" document

20.3 EXAMPLE OF XML AVID TRANSFER OF STREAM RECORD TRAIN

```
<?xml version="1.0" encoding="utf-8"?>
<EVS_XFile_Job_List>
   <EVS_XFile_Job>
           <Job_ld>15</Job_ld>
           <Job_Creation_Time>1212733995</Job_Creation_Time>
           <Job_Type>20</Job_Type>
           <Job_Src_User_Nb>6</Job_Src_User_Nb>
           <Job_Src_Cam>A</Job_Src_Cam>
           <Job_Train_In_TC>2700000</Job_Train_In_TC>
           <Job_Train_Out_TC>2730000</Job_Train_Out_TC>
           <Job_Src_TC_System>3</Job_Src_TC_System>
           <Job_Dest_File_Format>1</Job_Dest_File_Format>
           <Job Dest_File>G:\</Job Dest_File>
           <Job Dest ClipName>benja</Job Dest ClipName>
           <Job_Train_Priority>1</Job_Train_Priority>
<Job_AvidTM_HostName>EVSDEMO</Job_AvidTM_HostName>
</EVS_XFile_Job_List>
```

The description of each XML tag is described in the "XML Jobs" document

20.4 EXAMPLE OF XML AVID TRANSFER OF FILE

The description of each XML tag is described in the "XML Jobs" document

20.5 LOCAL XTACCESS SETTINGS (NON XML)

Some XTAccess settings are not supported by XML. They must therefore be specified in the local settings of the XML Jobs Scan (see section 7.3.3 'XML Scan Settings' on page 27).

20.6 REGISTRY SETTINGS

- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Max Transfer Rate: Maximum transfer rate (Bytes/second) for the total amount of backup jobs (all together).
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Safe
 Train Backup: protection to avoid reaching the head of a train during backup
 of train:
 - o 0: Active
 - o 1: Not Active
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess \ScanXX\Super Motion: Super Motion mode for XML scan. (default Value =0)
 - 0: 1 frame over 2 or 3 (following the Super Motion mode) is backed up;
 Audio & TC are consistent
 - o 1: Each frame is backed up. Audio is cancelled and TC is not consistent

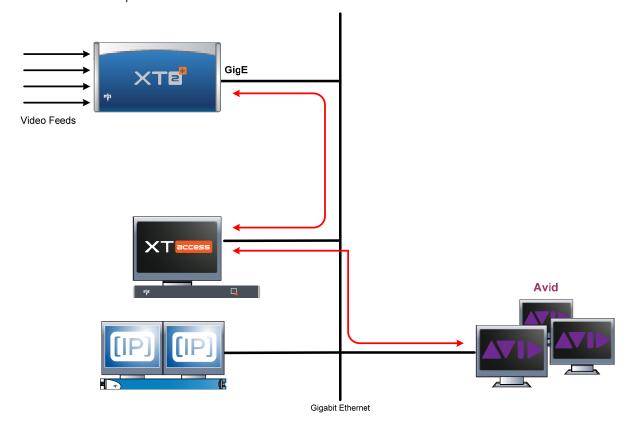
21. Transfer to Avid WebService

This section covers XML Jobs IDs:

- Job #0: Backup Clip from XT to file (IPDirector v4 onwards)
- Job #11: Short Backup Clip from XT to file (IPDirector v5 onwards)
- Job #9: Backup Playlist from XT to files (cut)

21.1 WORKFLOW

The workflow is the same as a backup file in OPAtom but XTAccess will "check in" the clip into Avid



- 1. An external system, for example IPDirector, sends an XML file to XTAccess to request the backup of a given clip created on an EVS server.
- 2. XTAccess processes the XML file:
 - a. It gets the clip content that has to be backed up from EVS.
 - b. It generates a backup file of the clip in the format specified by the external system (no transcoding feature, only native codec). In OPATOM
 - c. It connects to the Interplay Database to check the clip into Interplay.

Remark:

Only available in IMX, DVCPRO 50, DVCPRO HD and DNxHD.

See Avid Webservice integration document for more information.

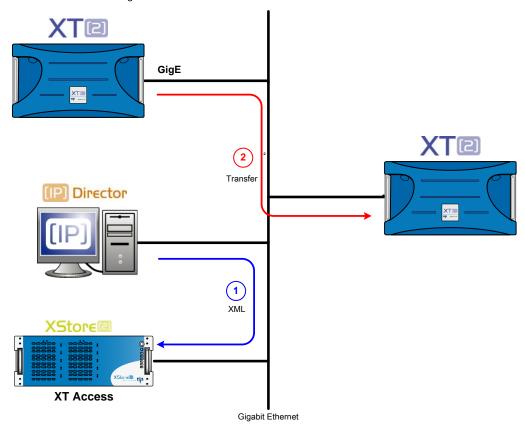
22. EVS Server Copy

This section covers XML Jobs IDs:

- Job #13: EVS Server Copy (IPDirector v4 onwards)
- Job #44: Short EVS Server Copy (IPDirector v5 onwards)

22.1 WORKFLOW

The following schema shows how the transfer of clips between XT servers is performed with the Gigabit connection and XTAccess:



 An external system, for example IPDirector, sends an XML file to XTAccess to request the transfer of a given clip created on an EVS server to another EVS server.

XTAccess processes the XML file:

- 2. XTAccess gets the clip content from EVS that has to be transferred and sets up an FTP proxy connection between both EVS servers.
- The clip is copied to the destination EVS server through XTAccess. The metadata of the source clip is updated on the destination server (CCLIP & IPDirector metatada).

22.2 EXAMPLE OF XML EVS SERVER COPY FILE

To identify the clip you want to copy you can use the UmID, VarID or LsmID

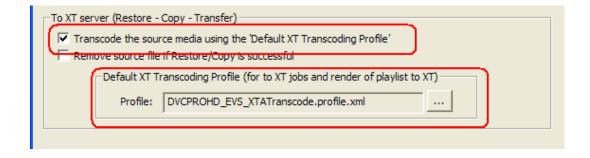
```
<?xml version="1.0"?>
<EVS_XFile_Job_List>
 <EVS_XFile_Job>
  <Job_ld>2261335</Job_ld>
  <Job_Creation_Time>1206001763</Job_Creation_Time>
  <Job_Type>13</Job_Type>
  <Job_Src_User_Nb>6</Job_Src_User_Nb>
  <Job_Src_Clip_Nb>236</Job_Src_Clip_Nb>
  <Job_Src_Cam>D</Job_Src_Cam>
  <Job_Src_Id_Material>5ZLsDZ0W</Job_Src_Id_Material>
  <Job_Src_Id>kuLs9cIY</Job_Src_Id>
  <Job_Src_XT_IP_Address1>1.1.240.240</Job_Src_XT_IP_Address1>
  <Job Src XT Port1>21</Job Src XT Port1>
  <Job_Src_XT_FTP_Login>evs</Job_Src_XT_FTP_Login>
  <Job_Src_XT_FTP_Password>evs!</Job_Src_XT_FTP_Password>
  <Job Src XT_IP_Address2>1.2.241.241//Job Src XT_IP_Address2>
  <Job_Src_XT_Port2>21</Job_Src_XT_Port2>
  <Job_Dest_XT_IP_Address1>1.1.240.240</Job_Dest_XT_IP_Address1>
  <Job_Dest_XT_Port1>21</Job_Dest_XT_Port1>
  <Job_Dest_XT_IP_Address2>1.1.241.241</Job_Dest_XT_IP_Address2>
  <Job Dest XT_Port2>21</Job Dest XT_Port2>
  <Job_Dest_XT_FTP_Login>evs</Job_Dest_XT_FTP_Login>
  <Job_Dest_XT_FTP_Password>evs!</Job_Dest_XT_FTP_Password>
  <Job_Dest_Page>3</Job_Dest_Page>
  <Job_Src_App_Data>
   <IPClipID>261335</IPClipID>
   <ClipLouthID>kuLs9cIY</ClipLouthID>
   <ClipMaterialID>5ZLsDZ0W</ClipMaterialID>
   <NumUser>6</NumUser>
   <BackupUnitID>87</BackupUnitID>
   <JobldHistory>2031</JobldHistory>
  </Job Src App Data>
  <Job_Dest_XML_Metadata_Path>\\Xstore58060\data
(g)\Jobs_Done</Job_Dest_XML_Metadata_Path>
  <Job_Dest_Generate_XML_Metadata>1/Job_Dest_Generate_XML_Metadata>
  <EVS_Metadatas>
```

```
<Clips_Infos>
    <Clip>
     <IPDirector_Clip_Infos>
      <LsmSerialNumber>14210</LsmSerialNumber>
      <Owner>XT Generic User</Owner>
      <TCInDate>20-Mar-2008</TCInDate>
      <TCOutDate>20-Mar-2008</TCOutDate>
      <Keywords>
       <Keyword Type="Keyword">KEY1_222</Keyword>
       <Keyword Type="Keyword">KEY2_22</Keyword>
       <Keyword Type="Keyword">KEY3_222</Keyword>
      </Keywords>
     IPDirector_Clip_Infos>
    </Clip>
   </Clips_Infos>
  </EVS_Metadatas>
 </EVS_XFile_Job>
</EVS_XFile_Job_List>
```

The description of each XML tag is described in the "XML Jobs" document

22.3 FORCE TRANSCODING EVS SERVER TO EVS SERVER

If you want to transcode the clip during the transfer, you need to configure XTAccess as shown below:



23. Integration with XEDIO

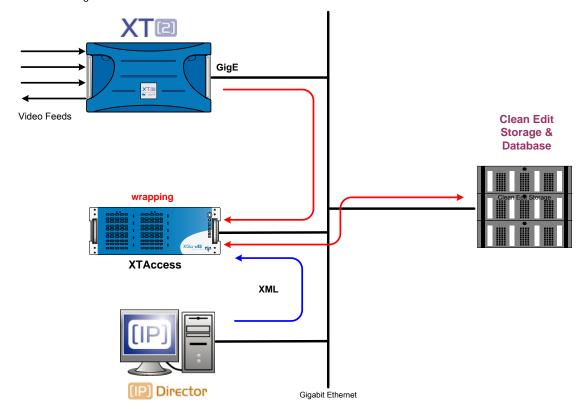
This section covers XML Jobs IDs:

- Job #0: Backup Clip from EVS Server to file (IPDirector v4 onwards)
- Job #11: Short Backup Clip from XT to file (IPDirector v5 onwards)
- Job #20: Backup Train (IPDirector v5 onwards)
- Job #21: Update Backup Train Job (IPDirector v5 onwards)

You need to install the XedioXTAccessIntegration_x.xx.xx.exe on the XTAccess computer to be able to use the integration with Xedio.

23.1 WORKFLOW

The following schema shows how the backup of clips or trains is performed with the Gigabit connection and XTAccess:



- 1. An external system, for example IPDirector, sends an XML file to XTAccess to request the backup and reference of a given clip created on an EVS server to Xedio database.
 - XTAccess processes the XML file:
- 2. It gets the clip content, which has to be backed up, from EVS.
- 3. It generates a backup file
- 4. It stores the backup file in the target folder specified by the external system. The clip and its metadata are referred to the Xedio database.

Remark:

If the backup is not successful, the clip will be deleted from the disk and Xedio database except if the file is already used.

The referencing in the Xedio DB is done at the beginning of the backup and an update is done at the end.

If the referencing fails, the job will fail

23.2 EXAMPLE OF XML TRANSFER TO XEDIO FILE

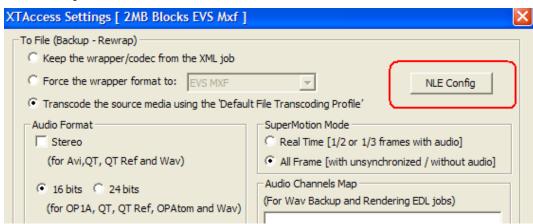
To identify the clip you want to transfer to CleanEdit you can use the UmID, VarID or LsmID

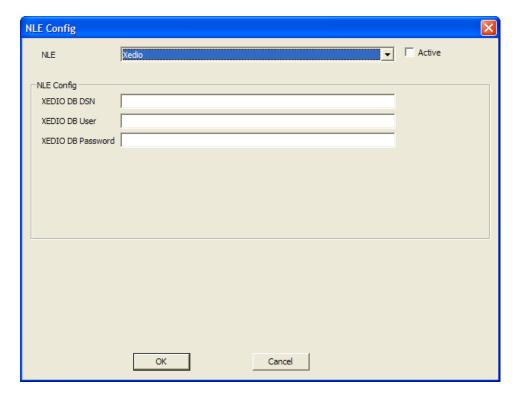
```
<?xml version="1.0"?>
<EVS_XFile_Job_List>
 <EVS_XFile_Job>
  <Job_ld>2240063</Job_ld>
  <Job_Creation_Time>1206541502</Job_Creation_Time>
  <Job Type>0</Job Type>
  <Job_Src_User_Nb>6</Job_Src_User_Nb>
  <Job_Src_Clip_Nb>265</Job_Src_Clip_Nb>
  <Job_Src_Cam>A</Job_Src_Cam>
  <Job_Dest_File>\\Xstore-amd\G\CE_MEDIAS\HiResFiles\</Job_Dest_File>
  <Job_Src_Id_Material>5ZLsDbd0</Job_Src_Id_Material>
  <Job_Src_Id>kuLs9ev3</Job_Src_Id>
  <Job Src XT_IP_Address1>1.1.240.240/Job Src XT_IP_Address1>
  <Job Src XT Port1>21</Job Src XT Port1>
  <Job_Src_XT_FTP_Login>evs</Job_Src_XT_FTP_Login>
  <Job Src XT_FTP_Password>evs!</Job Src XT_FTP_Password>
  <Job_Src_XT_IP_Address2>1.2.241.241</Job_Src_XT_IP_Address2>
  <Job_Src_XT_Port2>21</Job_Src_XT_Port2>
  <Job_Src_App_Data>
   <IPClipID>240063</IPClipID>
   <ClipLouthID>kuLs9ev3</ClipLouthID>
   <ClipMaterialID>5ZLsDbd0</ClipMaterialID>
   <NumUser>6</NumUser>
   <BackupUnitID>105</BackupUnitID>
   <JobIdHistory>1136</JobIdHistory>
  </Job Src App Data>
  <Job_Dest_File_Format>1</Job_Dest_File_Format>
  <Job_CleanEditDB_DSN_Name>CleanEditDB/Job_CleanEditDB_DSN_Name>
  <Job_CleanEditDB_DSN_User>EVSoli/Job_CleanEditDB_DSN_User>
  <Job_CleanEditDB_DSN_Password>cleanedit/Job_CleanEditDB_DSN_Password>
 </EVS_XFile_Job>
</EVS_XFile_Job_List>
```

The description of each XML tag is described in the "XML Jobs" document.

23.3 XTACCESS CONFIGURATION

The Xedio referencing can be configured in the XML job or directly in the XML scan settings.





Field/Button	Description
Active	Allows you to activate or not the settings.
XEDIO DB DNS	DNS Name of Xedio database target
XEDIO DB User	DNS User of Xedio database target
XEDIO DB Pass	DNS Password of Xedio database target

23.4 REGISTRY SETTINGS

- HKEY_LOCAL_MACHINE\SOFTWARE\EVS Broadcast Equipment\Common \
 MinFieldsToWriteBeforeRefInCEDB: Specific setting to wait a specific number of fields before referencing clips into Xedio
- HKEY_LOCAL_MACHINE\SOFTWARE\EVS Broadcast Equipment\Common \FileWriter NoBuffering: Specific setting to transfer a file without any buffering. Recommended for writing on a MacOS workstation via network (SMB). (default value = 0)
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Max Transfer Rate: Maximum transfer rate (Bytes/second) for the total amount of backup jobs (all together).
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Safe
 Train Backup: protection to avoid reaching the head of a train during backup
 of train:
 - o 0: Active
 - o 1: Not Active

23.5 WORKFLOW WITH THE CREATE ADDIONAL CODEC

You can use XTAccess to generate the low res for Xedio.

- 1. XTAccess will receive a request for backup file from IPD.
- 2. XTAccess will create the backup for example DNxHD and will transcode it on the fly for example in MPEG1
- 3. XTAccess will reference these two files as High/Low clip in Xedio



24. Grab Field from EVS Server

XTAccess is able to grab a field of any clip on a EVS server through an XML trigger. This process is mainly used by IPDirector to create thumbnails in the IPD Database Explorer.

This section covers XML Jobs IDs:

Job #6: Grab Field from EVS Server (IPDirector v4 onwards)

24.1 EXAMPLE OF XML GRAB FIELD TO A FILE

To identify the clip from which you want to grab a field you can use the UmID, VarID or LsmID

```
<?xml version="1.0"?>
<EVS_XFile_Job_List>
 <EVS_XFile_Job>
  <Job_ld>1260933</Job_ld>
  <Job_Creation_Time>1205787586</Job_Creation_Time>
  <Job_Type>6</Job_Type>
  <Job_Src_Id_Material>5ZLrMgkW</Job_Src_Id_Material>
  <Job_Src_Id>kuLrDR2W</Job_Src_Id>
  <Job_Src_User_Nb>6</Job_Src_User_Nb>
  <Job Src Clip Nb>199</Job Src Clip Nb>
  <Job Src Cam>F</Job Src Cam>
  <Job_Src_XT_IP_Address1>1.1.240.240</Job_Src_XT_IP_Address1>
  <Job_Src_XT_Port1>21</Job_Src_XT_Port1>
  <Job_Src_XT_FTP_Login>evs</Job_Src_XT_FTP_Login>
  <Job_Src_XT_FTP_Password>evs!</Job_Src_XT_FTP_Password>
  <Job_Src_XT_IP_Address2>1.2.241.241</Job_Src_XT_IP_Address2>
  <Job_Src_XT_Port2>21</Job_Src_XT_Port2>
  <Job_Src_XT_User_Nb>06</Job_Src_XT_User_Nb>
  <Job_Src_Field_TC>2901360</Job_Src_Field_TC>
  <Job Dest File>\\Xstore58060\ Jobs Done\Grab\IPDP 260933.jpg</Job Dest File>
  <Job Src_TC_System>4</Job_Src_TC_System>
  <Job Src App Data>
   <IPClipID>260933</IPClipID>
   <JobType>0</JobType>
  </Job_Src_App_Data>
 </EVS_XFile_Job>
</EVS_XFile_Job_List>
```

The description of each XML tag is described in the "XML Jobs" document

25. Grab Field from File

XTAccess is able to grab a field of any clip through an XML trigger. This process is mainly used by IPDirector to create thumbnails in the IPD Database Explorer.

This section covers XML Jobs IDs:

25.1 EXAMPLE OF XML GRAB FIELD TO A FILE

The description of each XML tag is described in the "XML Jobs" document

26. Delete File from Disk

XTAccess is able to delete a file from a disk.

This section covers XML Jobs IDs:

• Job #5: Delete File from disk (IPDirector v5.2 onwards)

26.1 EXAMPLE OF DELETE FILE XML JOB

The description of each XML tag is described in the "XML Jobs" document.

27. Delete Clip from EVS Server

XTAccess is able to delete a clip from a EVS Server.

This section covers XML Jobs IDs:

Job #3: Delete Clip from EVS Server (IPDirector v5.2 onwards)

27.1 EXAMPLE OF DELETE CLIP XML JOB

To identify the clip you want to delete you can use the UmID, VarID or LsmID

The description of each XML tag is described in the "XML Jobs" document

28. Cancel Job

XTAccess is able to cancel a job in progress.

This section covers XML Jobs IDs:

Job #4: Cancel job (IPDirector v5.2 onwards)

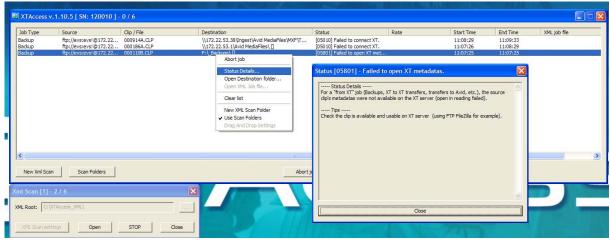
28.1 EXAMPLE OF CANCEL XML JOB

To identify the job you want to cancel: you have to use the Job_Id of the XML Job you wan to cancel.

The description of each XML tag is described in the "XML Jobs" document.

29. XTAccess Troubleshooting

29.1 XTACCESS ERROR MESSAGES



After each Job, XTAccess show a status of the job. If you right-click on it and then select **Status Details**: you can have more information on status and if needed some tips to help you to resolve the trouble. Those diagnostics are based on the possible cases defined in XTAccess code but mainly during testing and experience on the field.

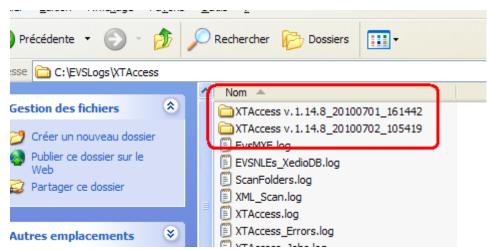
Anyway it is always advised to check the logs (see next section) and send them to EVS support for deeper analysis. It's easier if you compress the whole XTAccess folder.

You can find in "Error Code.pdf" document a list of all the error codes with details.

29.2 XTACCESS LOGS

XTAccess logs are located in C:\EVSLogs\XTAccess.

With XTAccess version 1.14, the XTAccess logs are saved after each reboot of XTAccess in a subfolder with the date and time of the reboot.



- XTAccess.log
- XTAccess_Jobs.log
- XTTransfer.log
- XML_Scan.log
- XTAccess_UI.csv
- All the codec Log (EVSDNxHDEncoder.log, EVSH264Encoder.log, ...)
- Webservice Log
- CEDBUpdater.log

29.2.1 XTACCESS.LOG

XTAccess.log lists all the transactions and actions performed by XTAccess. It provides detailed information for debugging.

Useful error messages are:

- Error 426: XT Transfer Cancelled due to a disconnection with XT server
- Read Slow: The data block to read has not been reached within a few seconds (typically 15 seconds).
- Write Slow: The data block to write has not been reached within a few seconds (typically 15 seconds).

29.2.2 XTACCESS_JOBS.LOG

This log can be used as an as-run log. Each job is listed with useful information:

- Type of job
- Source path or IP address
- Destination path or IP address
- Start and end time
- · Status of job
- Error message displayed on XTAccess Monitoring GUI (if any)

29.2.3 XTTRANSFER.LOG

Specific log for XTTransfer based on FTP Proxy (XT Copy, Avid Transfer). RPC commands are listed.

29.2.4 XML_SCAN.LOG

Specific log for the Scan XML. You can see log from the XML engine.

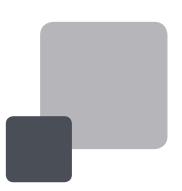
29.2.5 XTACCESS_UI.cvs

Specific log where you can find the entire job done by XTAccess



EVS Broadcast Equipment

Liège Science Park 16, rue Bois St Jean B-4102 Ougrée Belgium



Corporate
Headquarters
+32 4 361 7000

North & Latin America Headquarters +1 973 575 7811 Asia & Pacific Headquarters +852 2914 2501

Other regional offices available on

