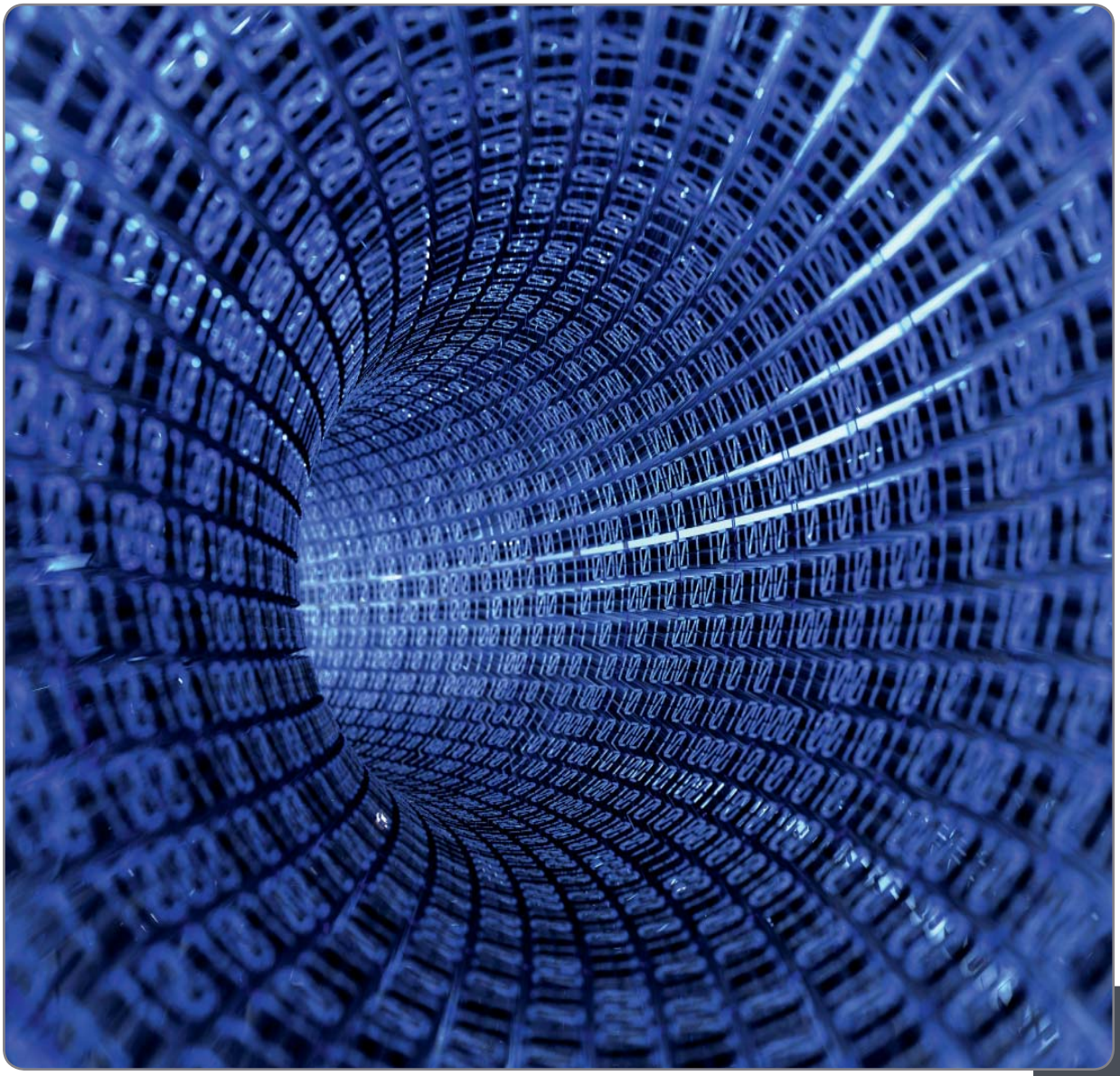
User's Manual

Version 1.10 - July 2009

[XT] Access



XT[2] Gigabit Ethernet Gateway

EVS

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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.

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1. Introduction

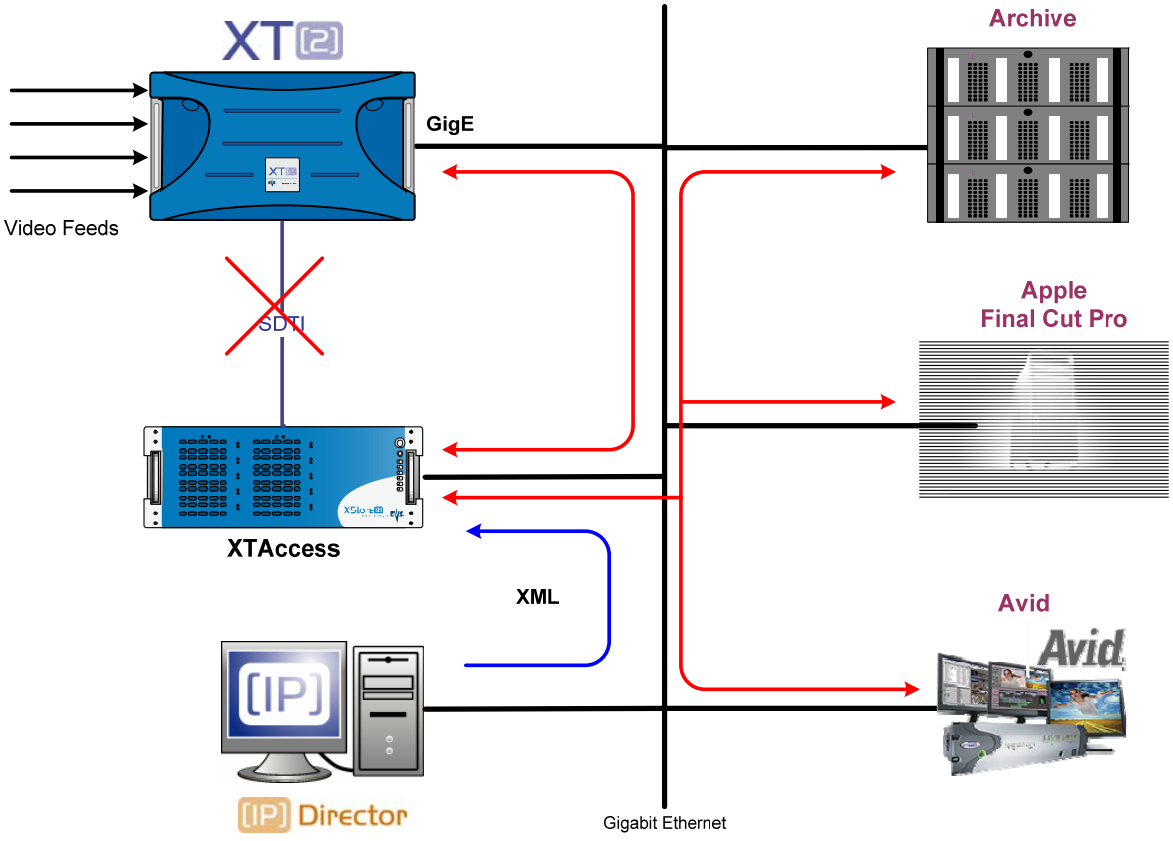
The Gigabit connection on XT[2] server makes it possible to transfer video and audio material from the XT[2] servers to external systems via the TCP/IP network.

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 XT[2] server

However, the external systems cannot read the raw files coming from the XT[2] servers. For this reason, XT Access is used as a "gateway" between the XT[2] 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.

XT Access is directly connected to the XT[2] 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 XT[2]

servers:

- Backup of clips or trains from an XT[2] server to an Archive
- (Partial) restore and copy of clips from an Archive to an XT[2] server
- Backup of clips or trains from an XT[2] server to EVS CleanEdit Suite
- Exchange of XT[2] content (clips or trains) with Avid systems via Avid Transfer Manager
- Exchange of XT[2] content (clips or trains) with Apple Final Cut Pro
- Exchange of XT[2] content (clips only) with another XT[2] server
- (Partial) rewrap of file from an Archive
- Grab frames of a clip on a XT2] server in order to create thumbnails (e.g. for IPDirector)

2. Hardware Recommendations

The XT Access 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
- GigE board with Jumbo Frame capabilities
- VGA 1024x768

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

Important

Jobs like backup of clips or trains, restore/copy of files to XT 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_1.10.xx_Setup.exe

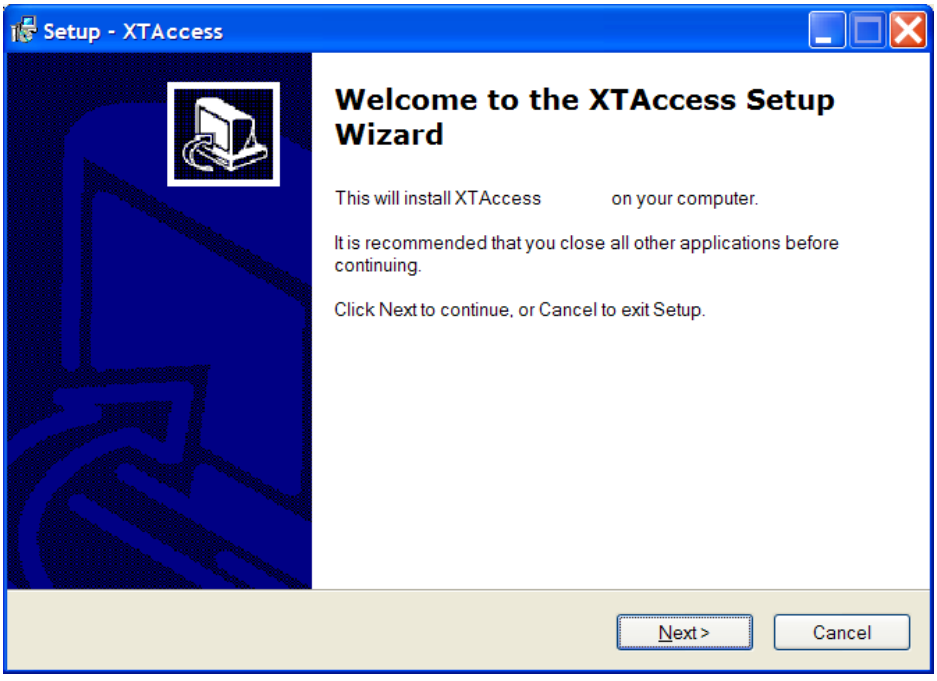
For the CleanEdit Integration Option, contact the CleanEdit support to install the compliant software.

Installshields are available for CleanEdit v2.06.01 and CleanEdit v2.07.xx.

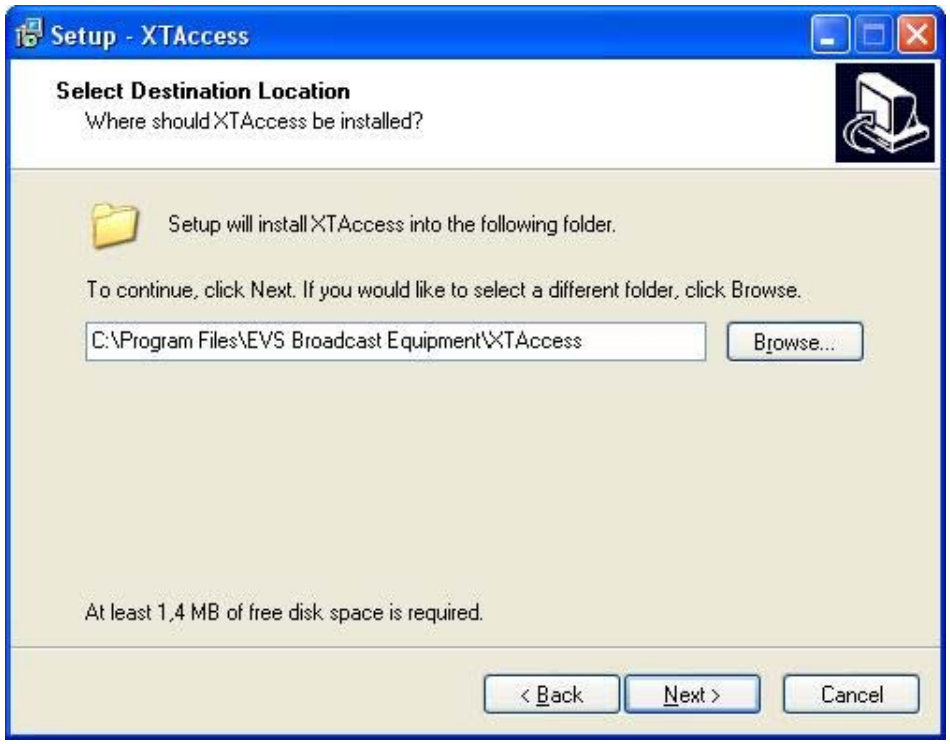
- CEXTAccessIntegration_v02.06.36.exe
- EvsEditFramework_3.06.15.exe
- CEXTAccessIntegration_v02.07.30.exe
- EvsEditFramework_3.07.04.exe

To install XT Access; proceed as follows:

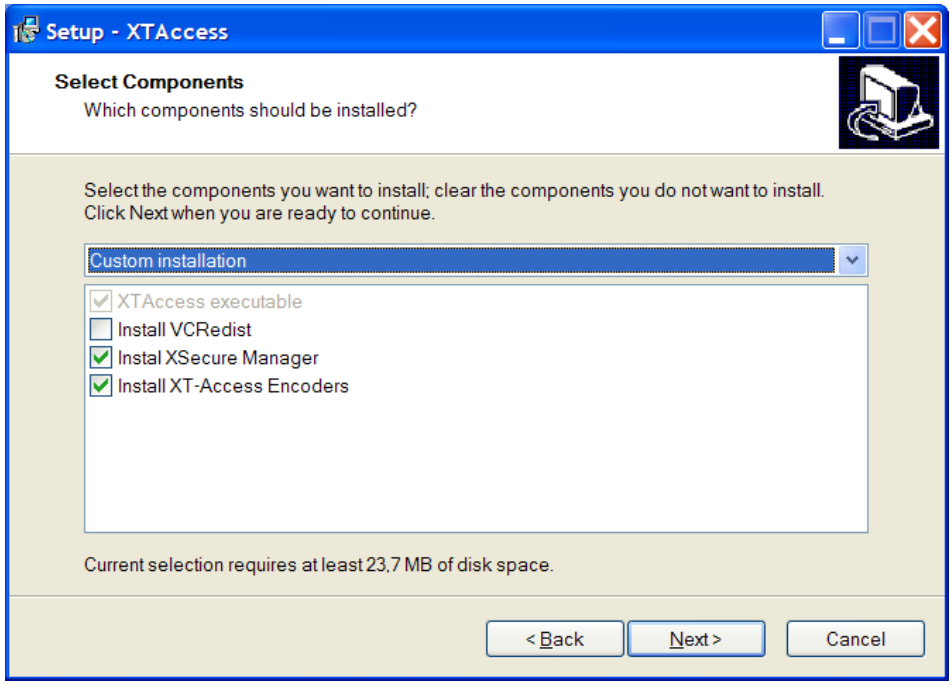
1. Copy the installshield XTAccess_1.10.xx_Setup.exe in a temp directory (e.g. C:\Install Software\XTAccess\).
2. Run XTAccess installshield XTAccess_1.10.xx_Setup.exe and then follow the steps of the Setup wizard.



3. Press NEXT.



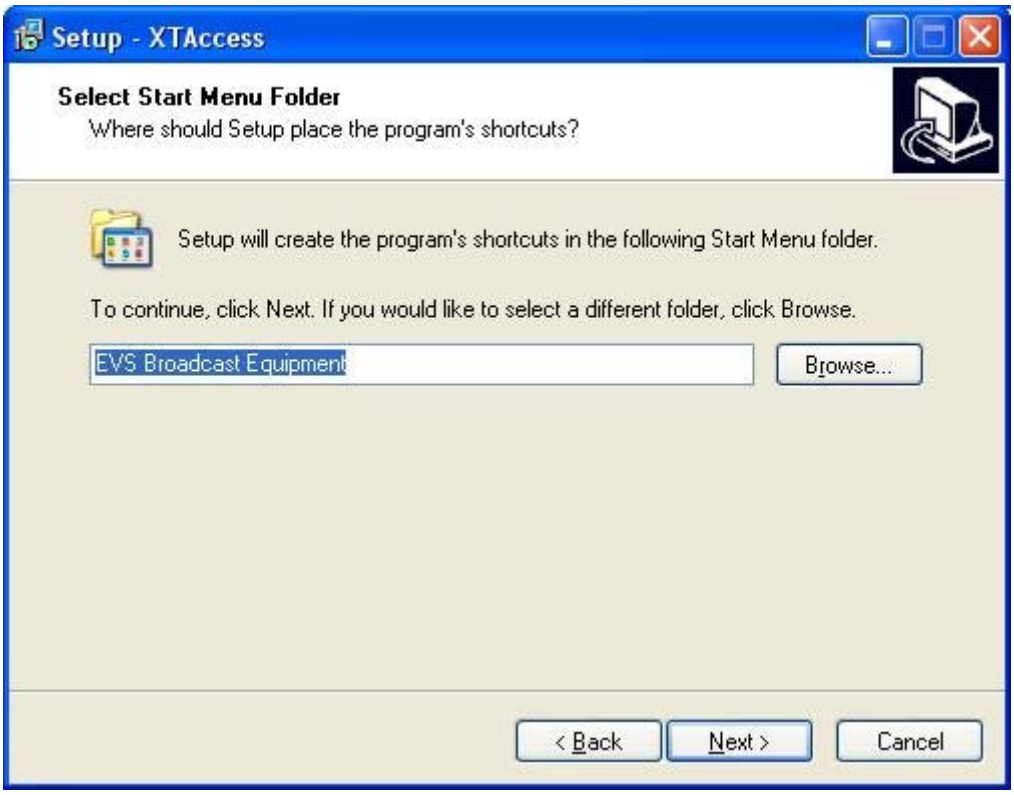
4. Select the destination directory to install the new software and then press NEXT.



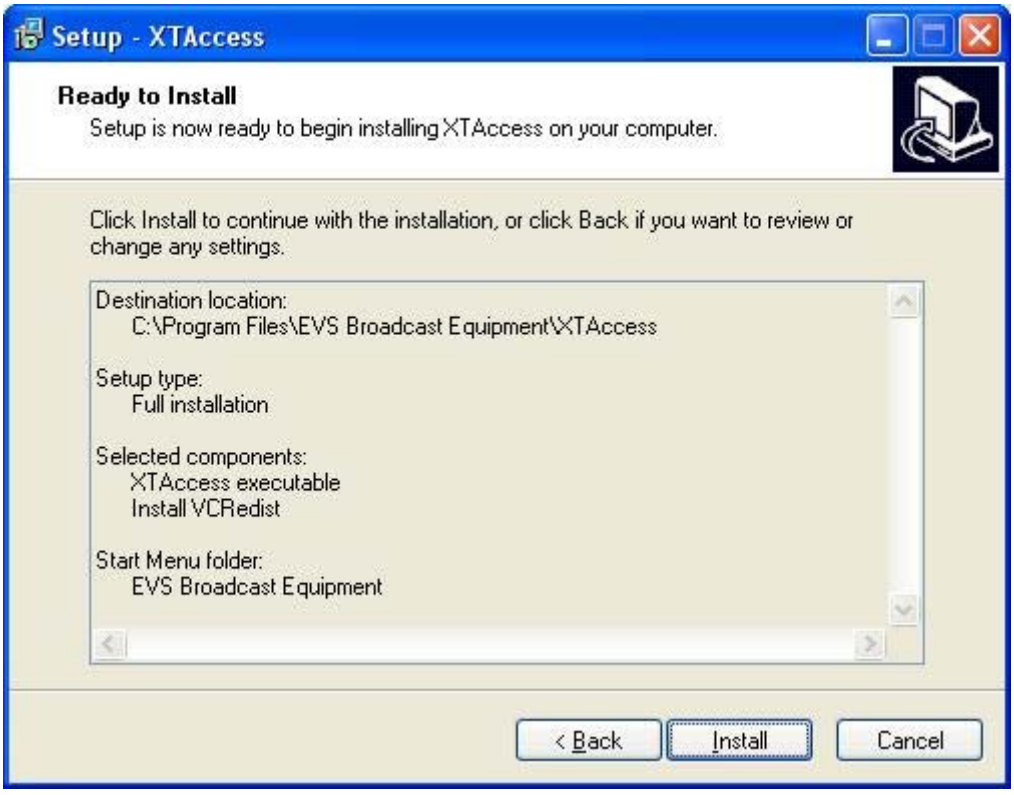
5. If you install XTAccess for the first time on this workstation, you need to install Microsoft Visual C++ 2005 Redistributable application by selecting "Install VCRedist". For future installations or upgrade, you may deselect this option to reduce installation time.

   You can also select "Install XSecure Manager" and "Install XT-Access Encoders" to install the EVS License software (necessary for the transcoding on the fly which needs XSecure code) and all the encoder dll.

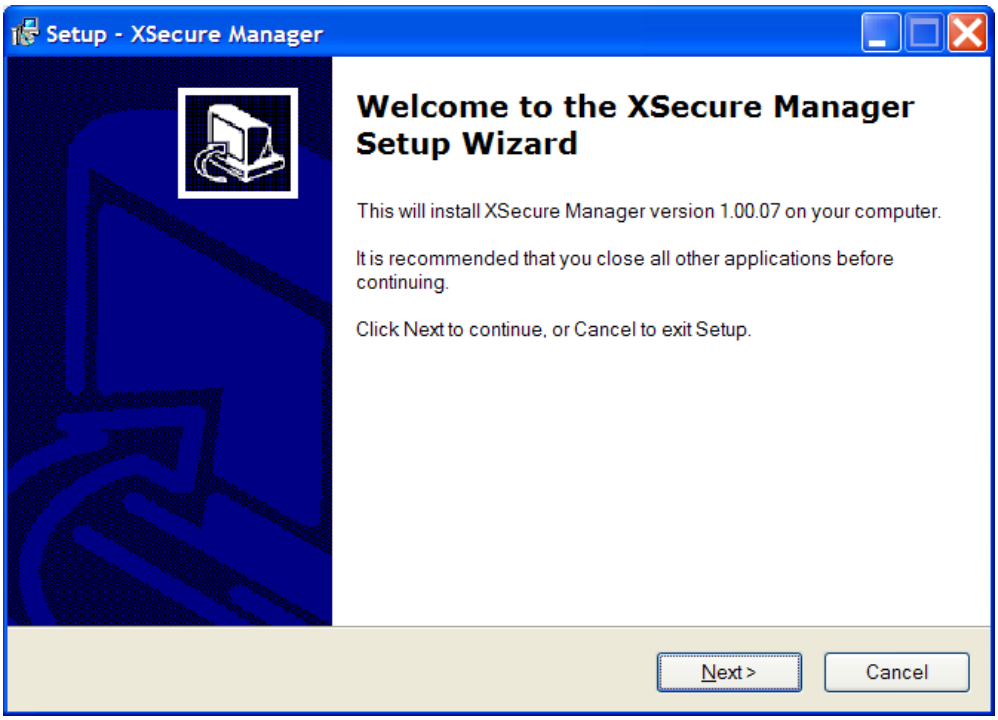
   Then press NEXT.



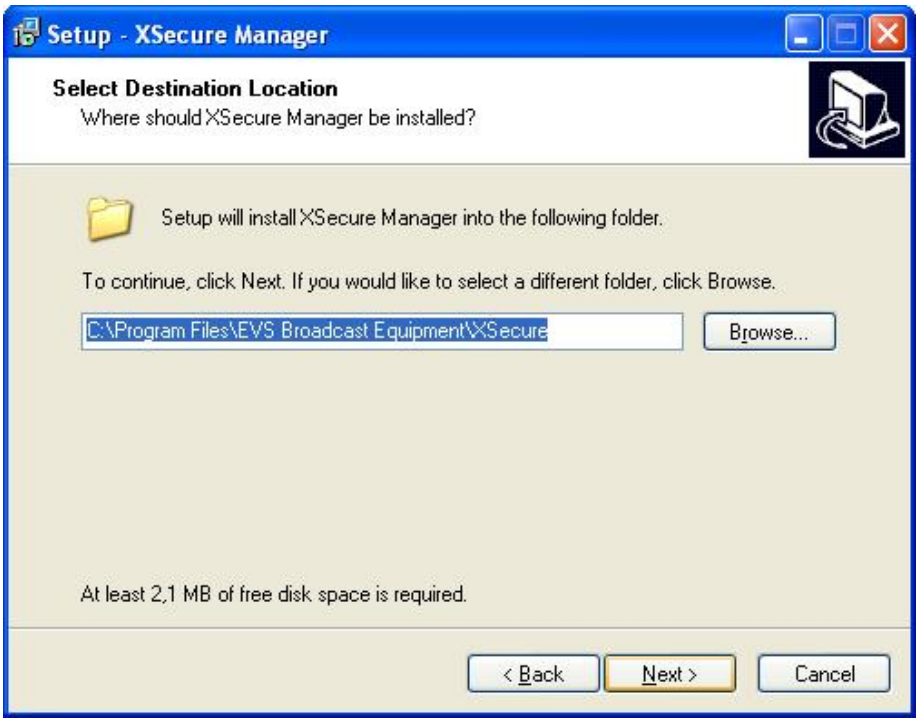
6. Specify the start folder directory and then press NEXT.



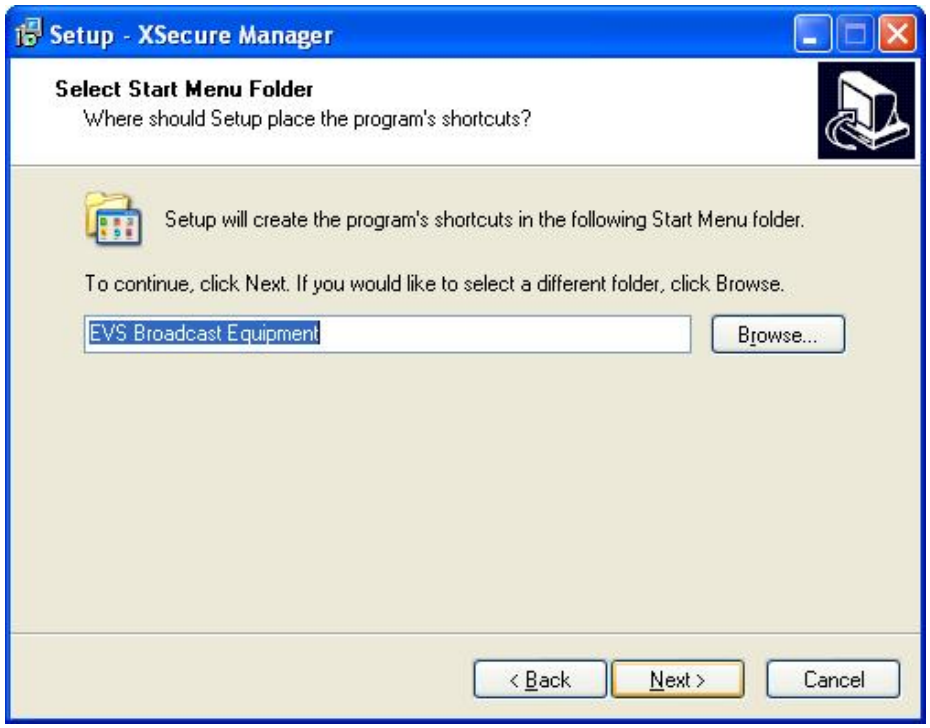
7. Press INSTALL to begin the installation of XTAccess.
8. If you have selected "Install XSecure Manager": the Xsecure Setup will appear after the installation of XTAccess. Press NEXT.



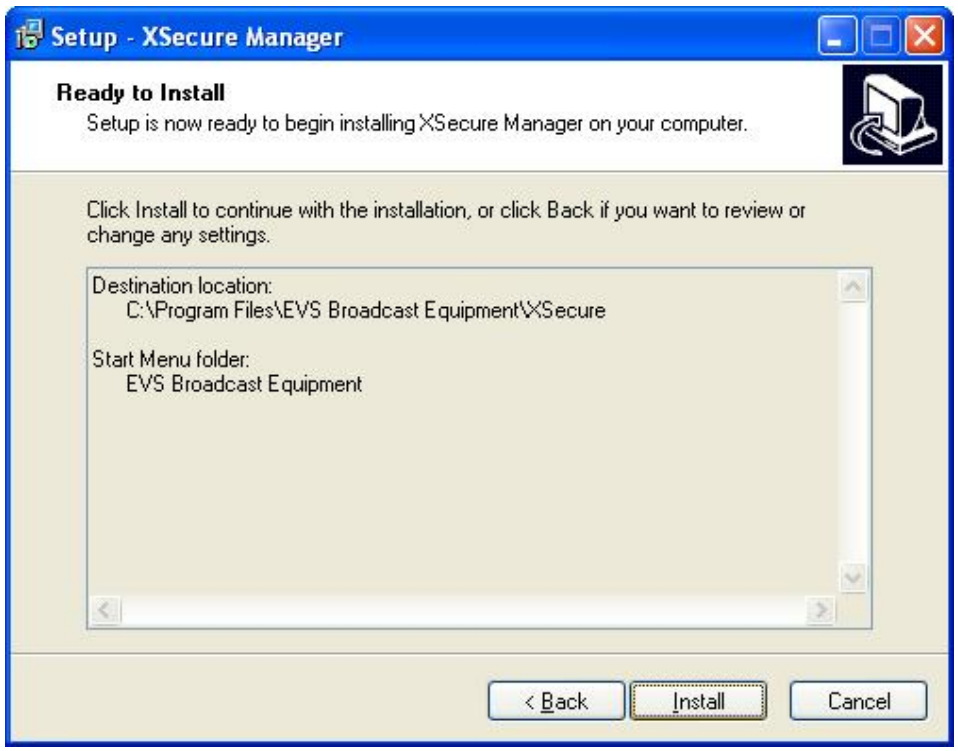
9. Press NEXT.



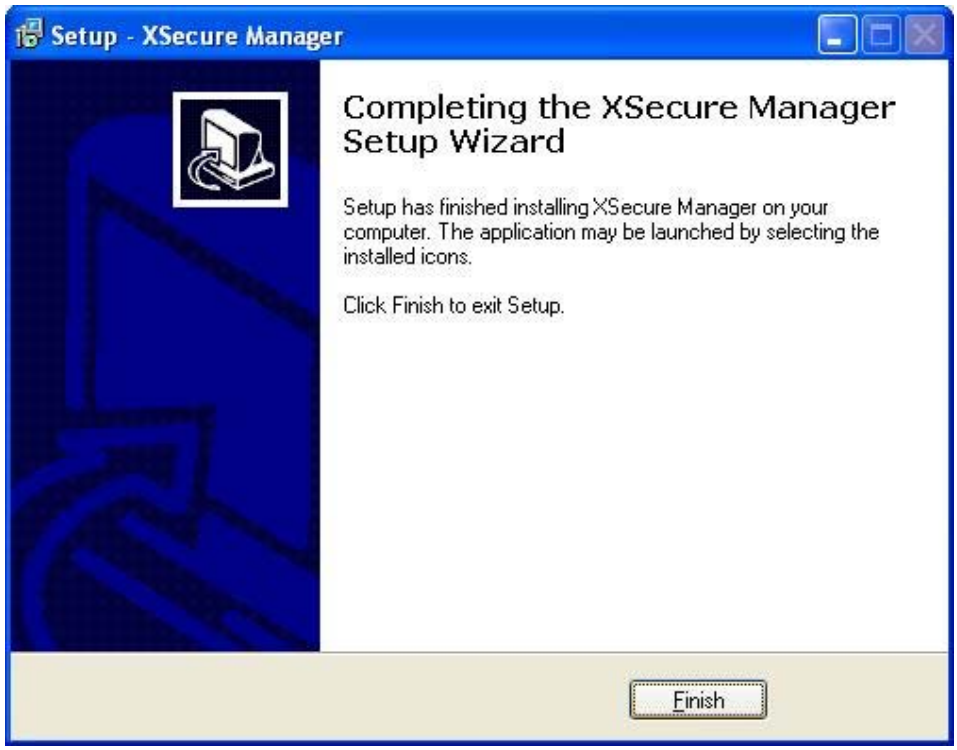
10. Select the destination directory to install XSecure and then press NEXT.



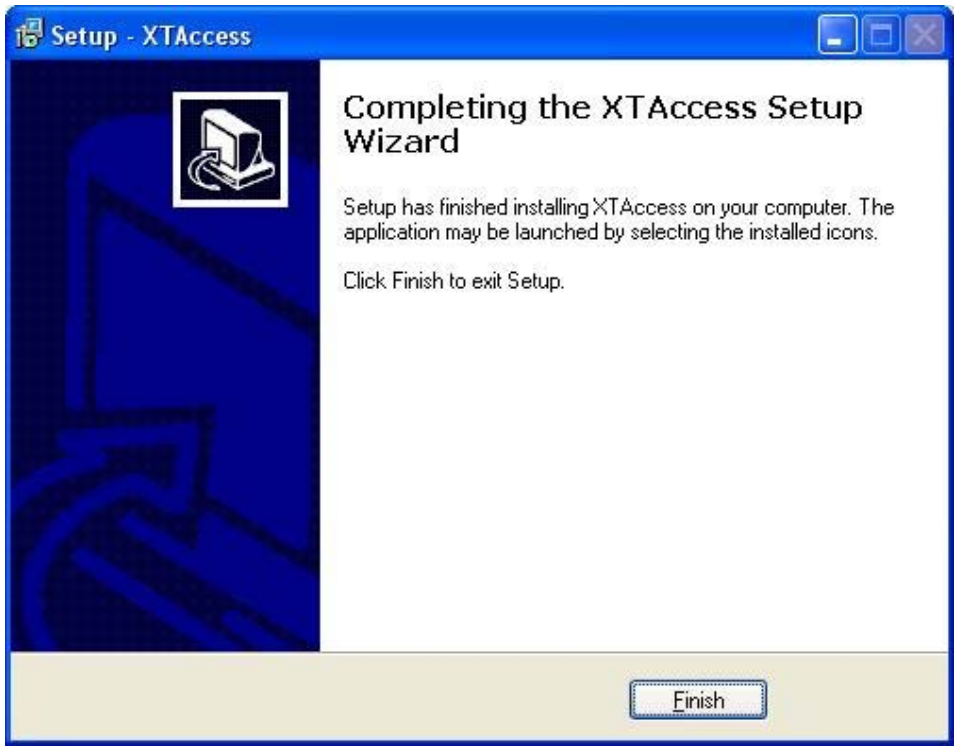
11. Select the Start Menu Folder for XSecure Manager. Press NEXT.



12. Press INSTALL to begin the installation.



The XSecure software installation is successfully completed. Press Finish.



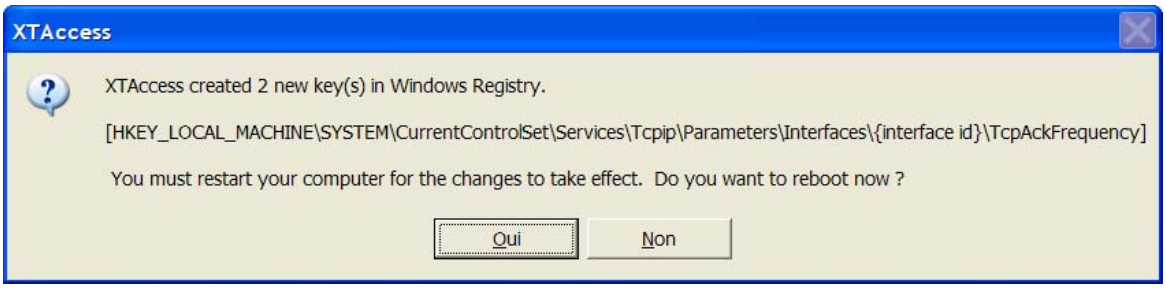
The XTAccess software installation is successfully completed.

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.

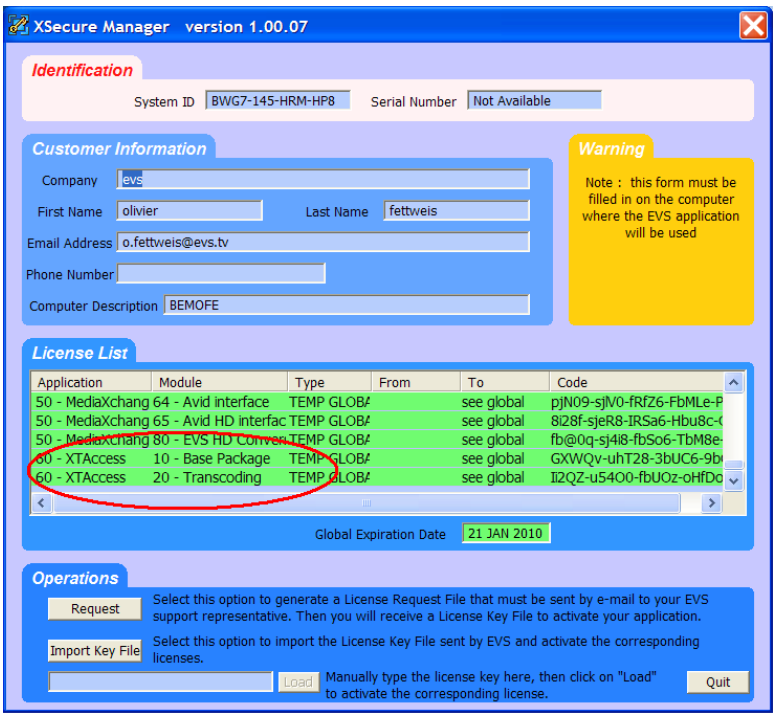
Please refer to the XSecure User's Manual to:

- 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

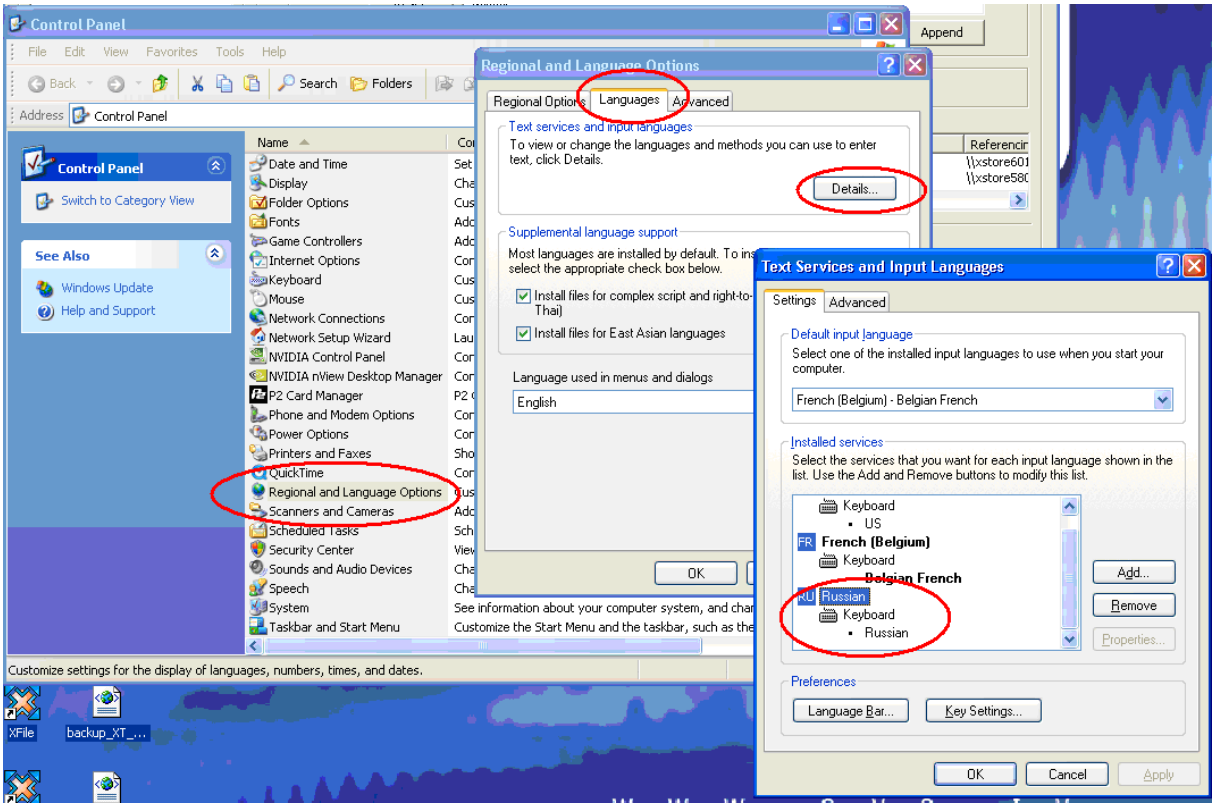


5. Unicode and XTAccess

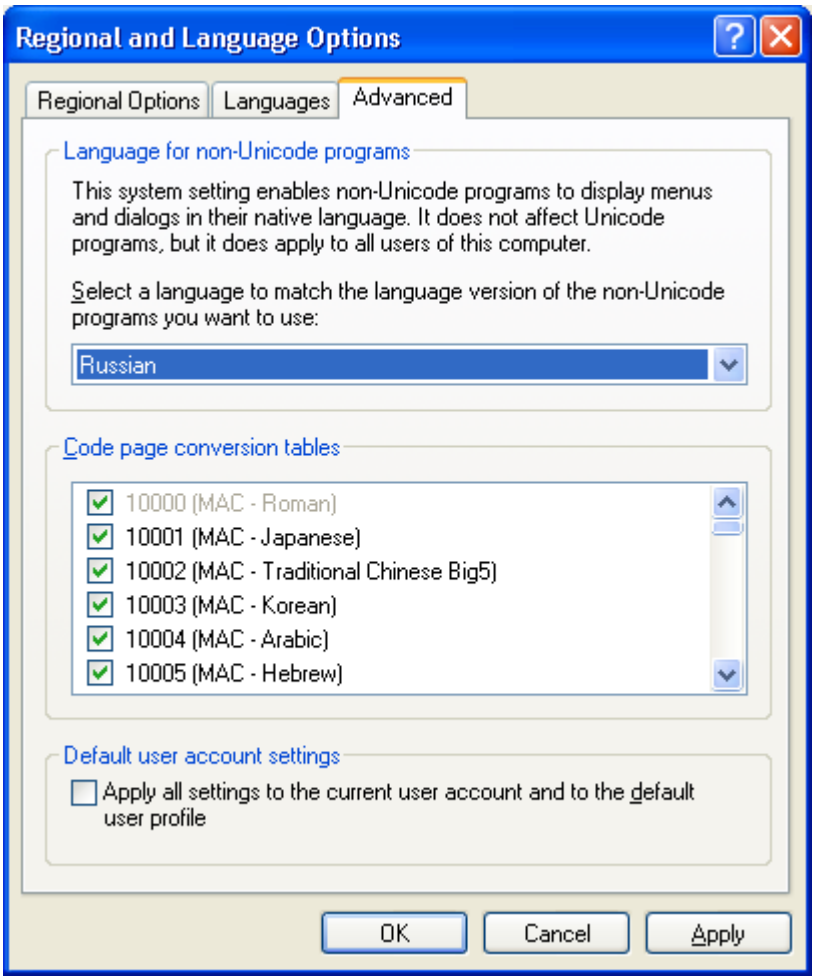
5.1 CONFIGURATION

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 setup 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 FILE NAME

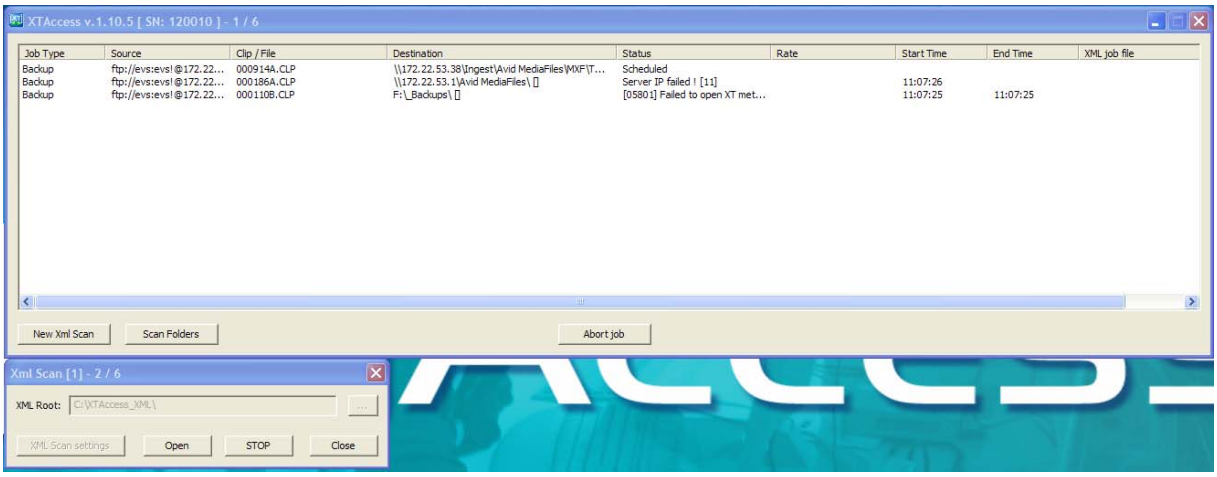
XTAccess never generates files with Unicode filenames. Files are named "UnicodeFilename.mxf" instead of the "real" Unicode clipname.

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

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.



6.1 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 XT[2] 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 XT[2] server • File name 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 XT[2] 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

6.2 ADDITIONAL BUTTONS/MENUS

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

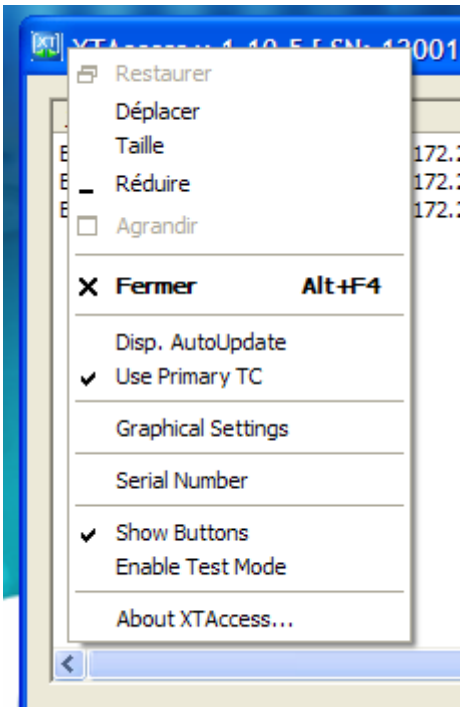
Button Name	Description
Drag'n'drop Settings	*For test and drag and drop debug only (only available in test mode)*
New XML Scan	Launch of XML scan window. (described in section 7 'XML Jobs Scan' on page 27)
Scan Folders	Launch of scan folder for restore/copy/transcode processes (described in section 10 'Restore/Copy of Files to XT Server' on page54)
AutoBackup	*For test and debug only (only available in test mode)*
Abort job	When pushed, the selected job is immediately aborted. You can also press on CTRL + Abort to abort all the jobs (needs reboot of XTAccess afterwards).

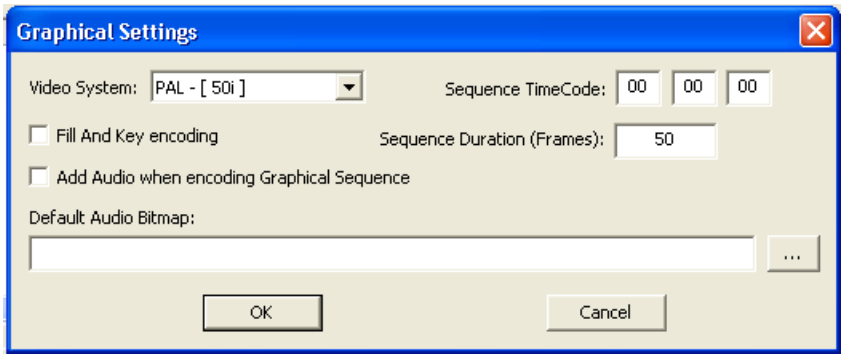
6.3 APPLICATION TITLE BAR

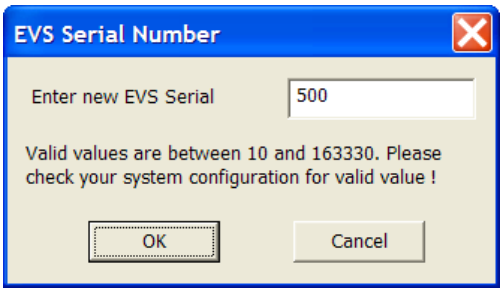
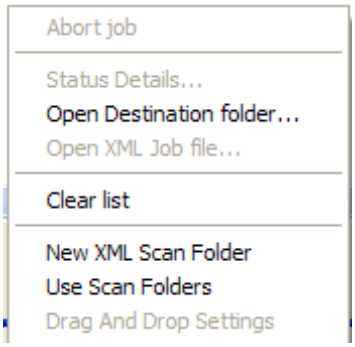
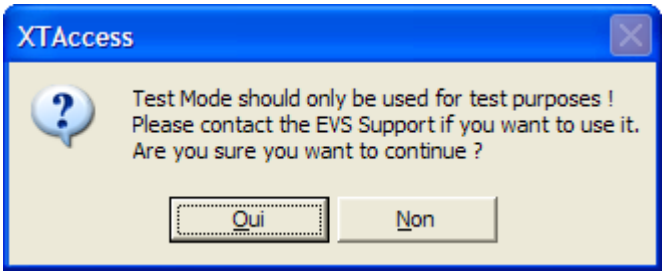
XTAccess Title bar displays some useful information:

- XTAccess 1.10.xx: Version of the running application
- [SN: 120010]: Serial Number associated with this XTAccess. In case XTAccess and MediaXchange are running on the same device, the Serial Number of both applications must be identical.
- 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.

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

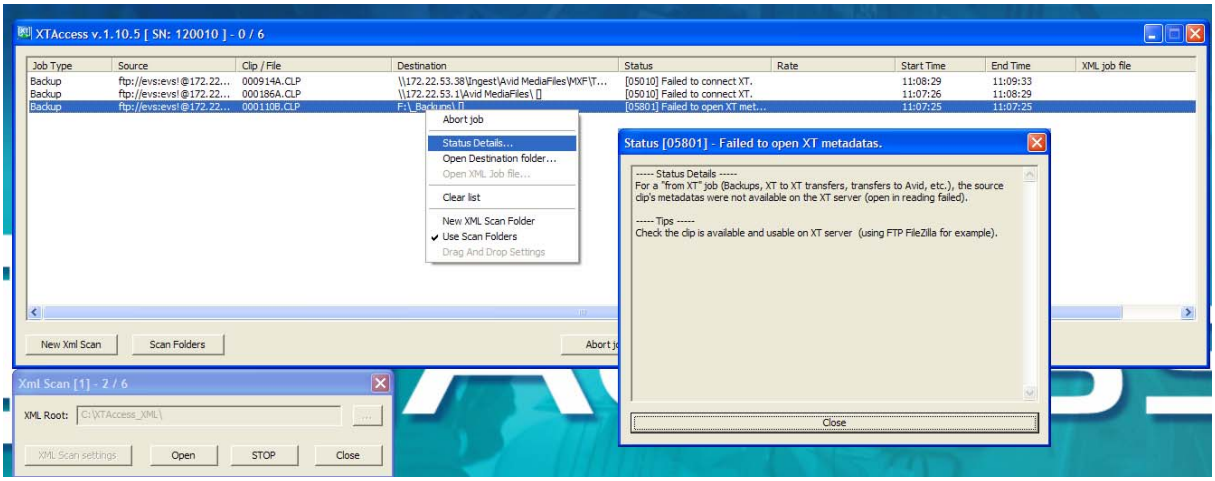


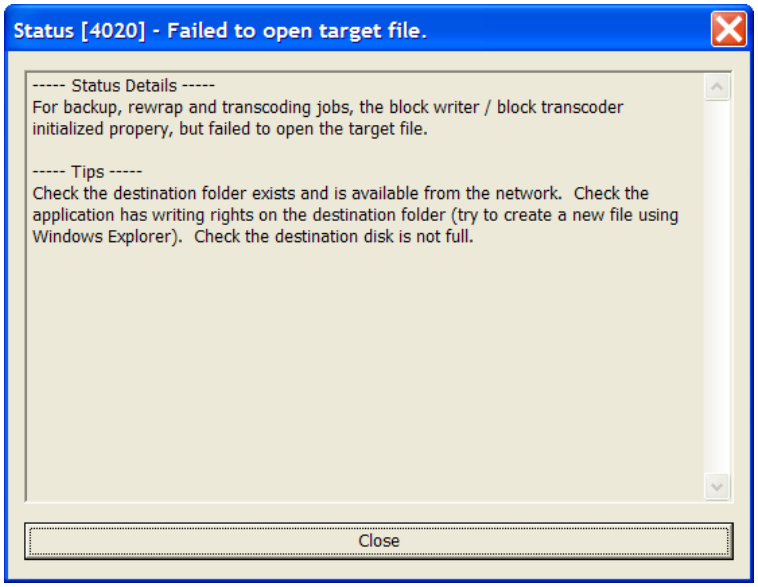
Command Name	Description
Disp. AutoUpdate	Select it to update the interface each time there is a new transfer.
Use Primary TC	If you select this option the time code used in the file formats other than EVS MXF (QT, QT ref, MXF OP1A, OPAtom, AVI, ..) and in the transfers to Avid (using the Transfer Manager) will be the Primary TC configured on your XT[2]. Otherwise, XTAccess uses the LTC. For the EVS MXF file format: XTAccess saves both the LTC and the Primary TC in the file and in the Medata XML File.
CleanEdit DB	It is only available if the CleanEdit Tools have been installed. See the section 23 'Integration with CleanEdit Suite' on page 103 for more details.
Graphical Settings	 Those settings are related to the generation of files/clips from a picture (BMP, TIFF & TGA formats). Video: Select either Pal or NTSC, in progressive or not. Sequence: Enter the value of the first TC included in the destination file/clip. Sequence Duration: Select the duration (only valid for pictures, not for animated sequences). Fill & Key encoding: Check this option if you want to generate 2 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 Sequence: This option allows you to add audio to the sequence created with your graphic files. The audio files must be 16 Bits audio file of 48 kHz (1 to 8 channels). The file format must be Broadcast Wave Uncompressed (BWAVE) (.wav). Default Audio Bitmap: Select the default picture you want to add to your audio encoding. The XT[2] does not support audio only so you have to add a graphic picture.
Serial Number	It allows you to specify a serial number to XTAccess that will be used to generate VarID, Material ID and UmID (LouthID) for restoring clips. If you use several XTAccess applications on the Same XNet network you need to specify a different serial number for

Command Name	Description
	each XTAccess application.  Serial number must be a value between 10 and 163330.
Show Buttons	Select it if you want to see the buttons in the XTAccess Interface. If this 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. 
About XTAccess	It shows the version of XTAccess. Additional information: • Compatible version of Multicam. • FileWriter No Buffering: Activated or Not Activated (see Section 9.3.5 'Registry Settings' on page 53) • Transcoding Allowed by X-Secure: Show you if you have the XSecure code for transcoding.

Command Name	Description
	

6.4 RIGHT 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

Command Name	Description
Use Scan Folder	Select it to open the Scan folder Windows
Drag And Drop Settings	*For test and debug only*

7. XML Jobs Scan

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.

7.1 JOB TYPES

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

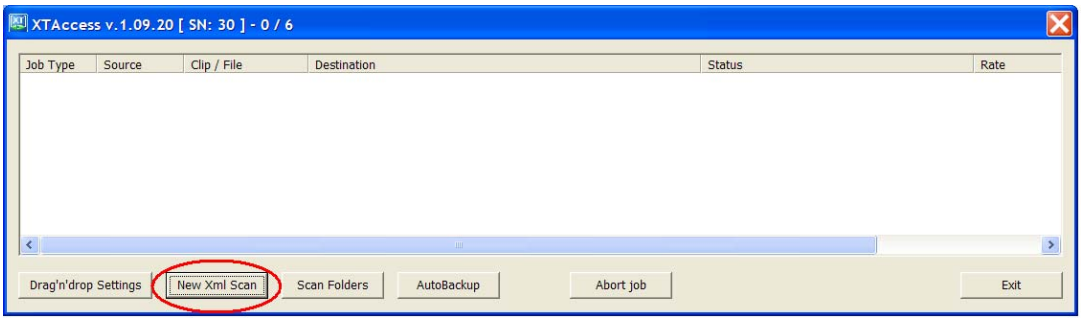
Abbreviations used:

- XFI : XFile
- XTA : XTAccess
- MXC: MediaXchange
- XST: XStream

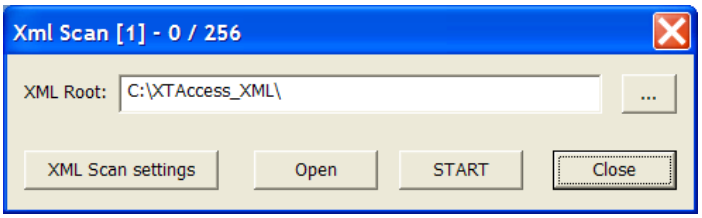
Job_Type					Supported from XTAccess version	Supported from IPDirector version
0		Backup Clip	from XT	to file	1.05	4.3
11	Short	Backup Clip	from XT	to file	1.05	5
20		Backup Train	from XT	to file	1.05	5
21		Update Backup Train			1.05	5
9		Backup Playlist /cut	from XT	to files	1.09	
10		Render Playlist /concat	from XT	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
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

7.2 CREATION OF A XML JOBS SCAN

On the XTAccess GUI, select New XML Scan button:



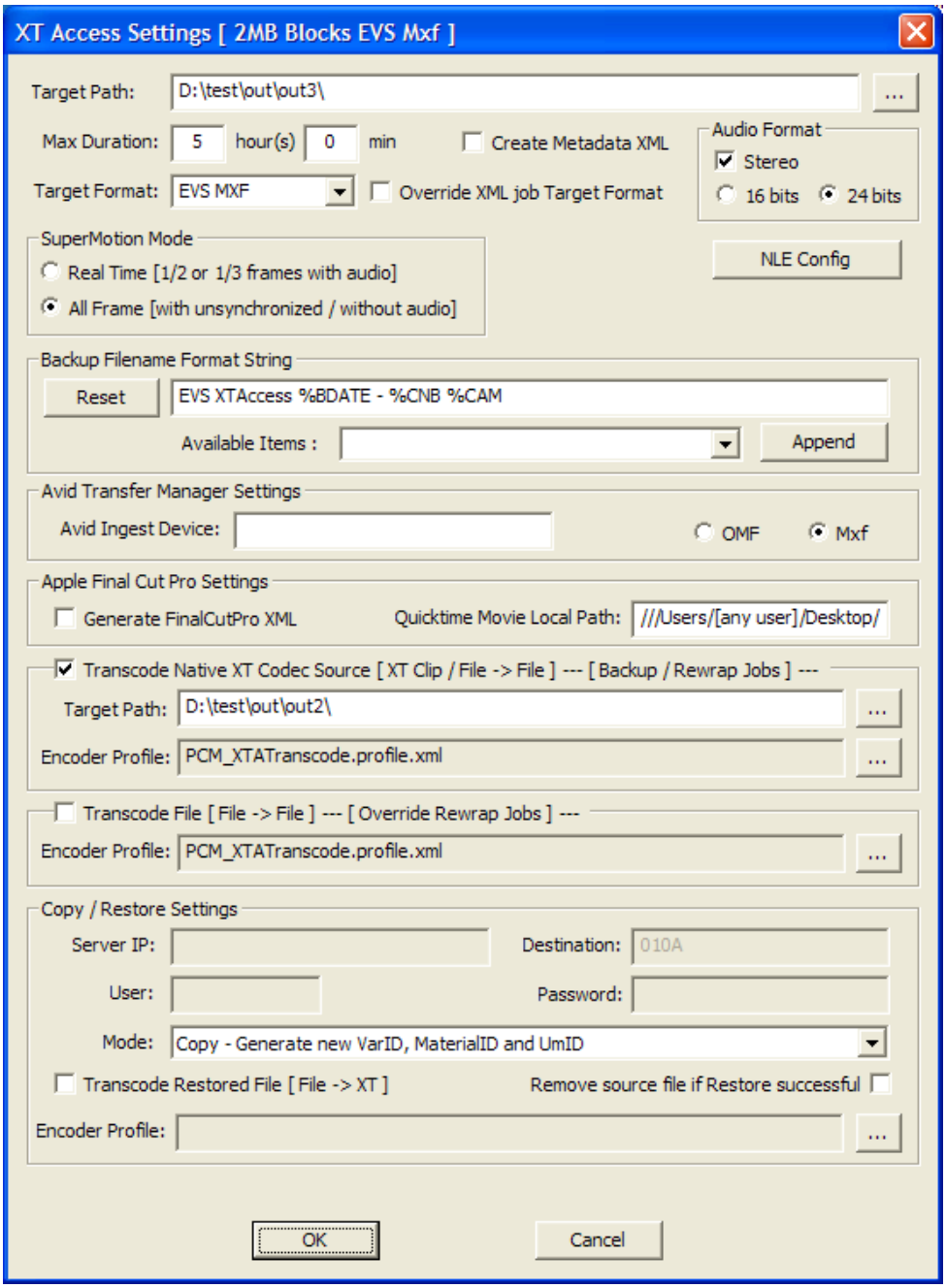
The following window is displayed:



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)49) 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.

7.2.1 SCAN XML SETTINGS

The Scan XML settings are identical to the General settings of XTAccess, except for the restore settings which are unavailable.



- **Title Bar:** The Title Bar displays:
  - *[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.

- Target Path: This is the destination target path used for backup jobs. This path can be entered manually or by browsing Windows Explorer with the associated button.
- Target Format: The Target Format field lists the type of jobs (for backup jobs this is the format of the destination file). Select a value from the drop-down list.
  - *MXF OP-1a (IMX only):* Backup of file in MXF OP-1a format. Only valid for IMX-D10 codec.
  - *Quick Time:* Backup of file in Quick Time Movies format (Quick Time Movies self contained – only one .mov file is generated). Valid for MJPEG, IMX-D10 and Apple ProRes 422 & Apple ProRes 422 HQ codecs.
  - *Quick Time Ref:* Backup of file in Quick Time Reference format (one Quick Time Movies file + a file for each video and audio tracks). Valid for IMX-D10 and Apple ProRes 422 & Apple ProRes 422 HQ codecs.
  - *EVS MXF:* Backup of file in EVS MXF format. Valid for MJPEG, IMX-D10, Avid DNxHD® codec and Apple ProRes 422 & Apple ProRes 422 HQ codecs.
  - *AVI [MPEG-2 IFrame]:* Backup of file in AVI format. Only valid for MPEG-2 IFrame codec.
  - *DV-DIF [Raw]:* Backup of file in dif format. Only valid for DVCPRO codec.
  - *Avid MXF OPAtom:* Backup of file in Avid MXF OPATOM format. Only valid for IMX and DNxHD codec.
  - *Avid Ingest:* Transfer to Avid Transfer manager server. Valid for IMX-D10 and Avid DNxHD® codec.
  - *XT Transfer:* Copy of a XT clip to another XT server. Valid for all XT[2] codecs.
  - *Grab Field:* Grab of a specific field (IN point by default) of a XT clip. Valid for MJPEG, IMX-D10 and Avid DNxHD® codec.
  - *Transcode Only (No Write):* Allows you to do transcoding on the fly only. (must be used with Override XML job setting.
- Override XML job Target Format: If selected, XTAccess will use the Target Format selected in the setting GUI and not the Target format from the Job XML file
- Create XML Metadata: If selected, XTAccess generates a XML file containing the EVS metadata associated with the clip. This file is located in the same folder as the backup file (defined in Target path).
- Trim Clip: If selected, only data between (Short) IN and (Short) OUT points will be transferred to the target. Otherwise, data between Protect IN and Protect OUT points will be transferred.

- Audio Format: Audio format configuration
  - *Stereo*: if selected, audio essences are considered as a stereo tracks, otherwise mono tracks. *Only used for Quick Time Movies and Quick Time Reference backup jobs.*
  - *16-Bit/24-Bit*: stereo button to select the audio resolution. *Only used for transfer to Avid and OP-1a format*
- Duration: Default duration for a backup of trains. In case a backup of trains is endless, the backup will end after this duration. Default value: 5 hours.
- 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.
- NLE config: Used to configure transfer to NLE.
- Avid Ingest Device: Avid Ingest Device name defined in Avid Transfer Manager server configuration (Ingest part). *Only used for Avid Ingest jobs*.
- OMF/MXF: Stereo button to select Avid file format for Avid ingest.: OMF or MXF/AAF. *Only used for Avid Ingest jobs.*
- Backup File Name Format String: It is possible to customize the format string of a file name in case of backup of clips and trains. This setting is also used for the clipname in Avid when XTAccess is creating OPAtom files. Default value if string empty or tag empty or RESET: EVS XTAccess %BDATE - %CNB %CAM. Custom tags are:
  - %NAME -> Clipname
  - %XTNAME -> XT Name
  - %XTIP -> XT GigE IP Address
  - %CNB: -> Clip Number
  - %CAM -> Camera ID
  - %K1–> Keyword 1
  - %K2 –> Keyword 2
  - %K3 –> Keyword 3
  - %K4 –> Keyword 4 (only available with IPDirector 5.xx)
  - %K5 –> Keyword 5 (only available with IPDirector 5.xx)
  - %RATING -> Rating 0,1,2 or 3
  - %VARID -> Var ID
  - %CDATE -> Creation Date
  - %CMONTH -> Creation Month
  - %CDAY -> Creation Day
  - %CYEAR -> Creation Year
  - %CAMLBL -> Camera Label
  - %UMID -> UmID of the clip

- %IDMAT -> ID Material of the clip
- %TCIN -> TimeCode (Short) IN
- %TCOUT -> TimeCode (Short) OUT
- %BDATE -> Backup Date
- %BYEAR -> Backup Year
- %BMONTH -> Backup Month
- %BDAY -> Backup Day
- %VCODEC -> Video Codec

- Quick Time Settings:
  - *Generate FinalCutPro XML*: Generates an XML file to be imported into Apple Final Cut Pro. This allows importing EVS custom metadata. Only 6 EVS custom metadata can be imported in Final Cut Pro Project fields:
    - EVS Keyword 1 -> Master Comment 1
    - EVS Keyword 2 -> Master Comment 2
    - EVS Keyword 3 -> Master Comment 3
    - EVS Rating -> Master Comment 4
    - Clip Number -> Comment A
    - Camera ID -> Comment B
  - *Quick Time Movies Local Path:* Local path referenced into the XML FCP to point to the Quick Time Movies File. Final Cut Pro only supports local path. *Example :* \\\users\EVS\Movies
- Transcode Native XT Codec Source: Select this option if you want to do transcoding on the fly (only available for the Native XT codec : IMX, MJPEG, DNxHD). The transcoding can be from clip to file (Backup job) or file to file (rewrap job).
  - 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.
  - Encoder 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
- Transcode File: Select this option if you want to do transcoding from file to file with non native XT codec (rewrap job). The target Path will be the general target Path (it not a transcoding on the fly but transcoding only)
  - Encoder 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
- Copy/Restore Clips:
  - Target XT IP: not available as local settings, must be included in the XML job
  - Destination: not available as local settings, must be included in the XML job
  - XT User: not available as local settings, must be included in the XML job
  - XT Password: not available as local settings, must be included in the XML

job

- IDs Generation Rules: Radio Button:
  - Generates New VarID, MaterialID, UmID: Generates new IDs for VarID, MaterialID and UmID (LouthID) like a Copy Job
  - Keeps Original VarID but generates new MaterialID and UmID: Typically used for automation which needs to keep the VarID from the source file but MaterialID and UmID (LouthID) can be re-generated.
  - Keeps Original VarID, MaterialID and UmID (LouthID): Keeps original IDs available in the source file like a Restore Job
- 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.
- Transcode Restored File: Select this option if you want to do transcoding during the restore.

- Encoder 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

7.3 XML JOBS PROCESSING

7.3.1 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.

7.3.2 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:
  - \Jobs_Done\
  - \Jobs_In_Progress\
  - \Jobs_Incoming\
  - \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 (by default – can be modified in the Registry).
- Note 3: If XTAccess is stopped during transfer. Adds the next start up of XTAccess:
  - The XML job files that were in \Jobs_In_Progress\ or \Jobs_Scheduled\ folder will move into \Jobs_Done\ folder with Job_status 7.

7.3.3 PROCESSING OF A XML JOB

During the whole XML jobs processing, XT Access 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 Live Bit 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.

7.4 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.

7.4.1 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 XT[2] 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 XT[2] server because the maximum amount of connections is reached (max. 6 FTP connections for HiRes XT[2] 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 7.4.2 'Control Parameters' on page 37). After some attempts (see 'IP Retry Timeout parameter' in section 7.4.2 'Control Parameters' on page 37) the job will be cancelled and an error status will be generated.

Any other failure during the connection to a XT[2] 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 XT[2] 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).

7.4.2 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.
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Max IP Jobs (default value = 6): Maximum amount of jobs simultaneously processed by XTAccess to or from a given IP address (as destination or source XT server). Once the limit is reached, any new job involving the same IP address will be "scheduled" (in Jobs_Scheduled" folder) until a "in-progress" job related to this IP address 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.

Those parameters can be optimized for a specific workflow.

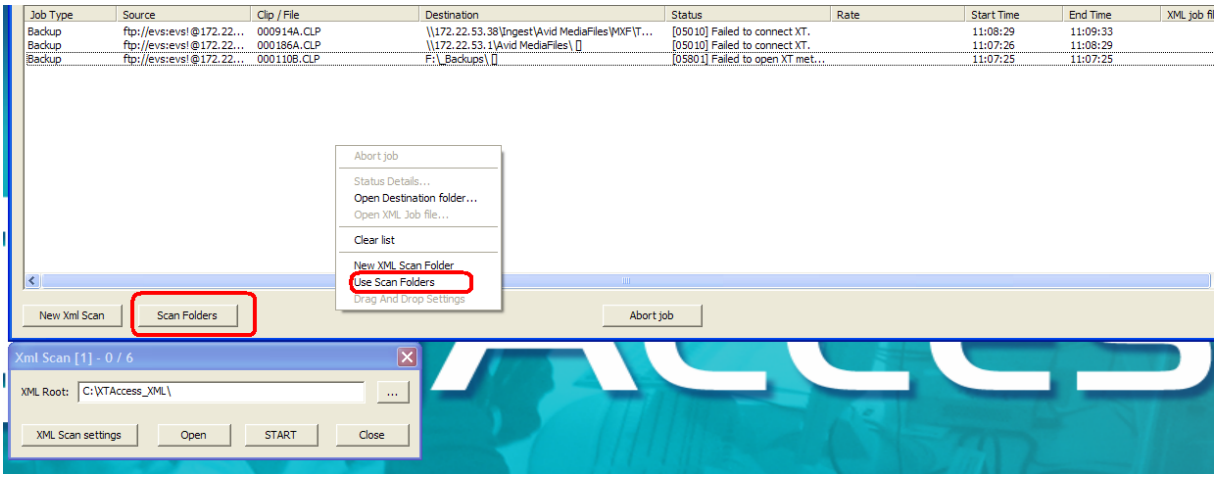
8. Scan Folder

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

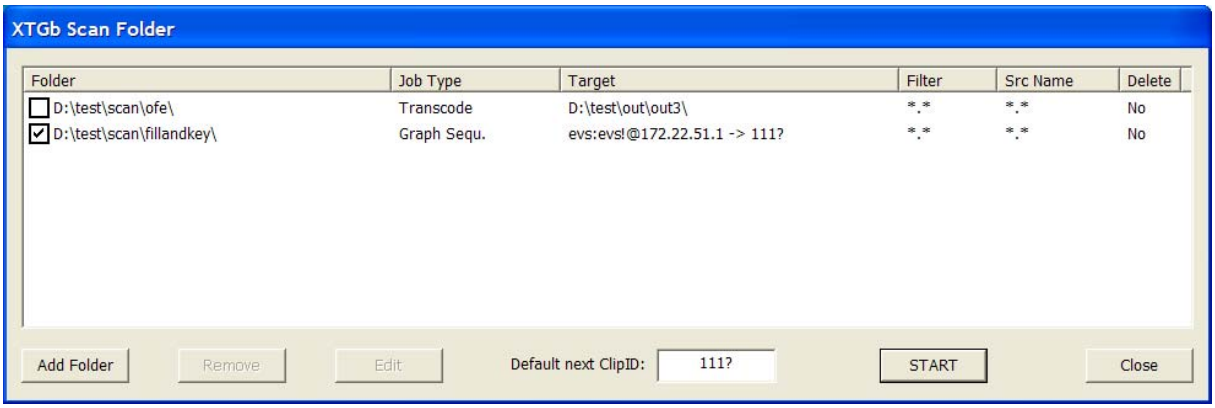
XTAccess waits to have write access on the scanned files before processing them.

8.1 SCAN FOLDER WINDOW

On XTAccess GUI, select the **Scan Folders** button:



The following window is displayed:



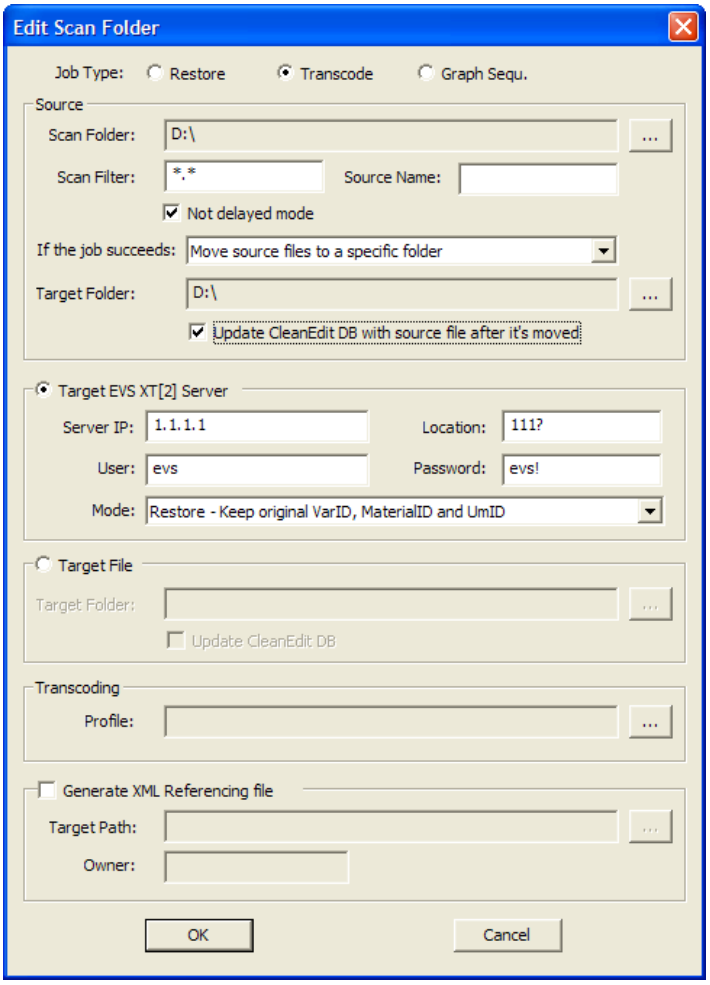
The main window lists all the scan folders defined by XTAccess:

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

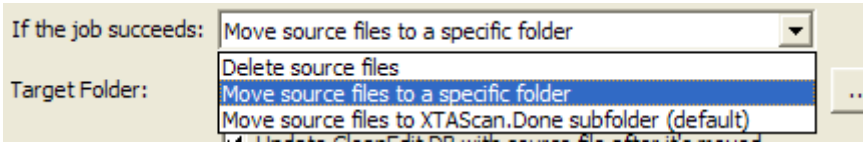
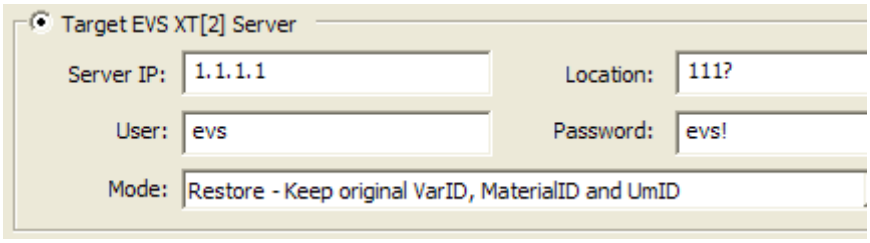
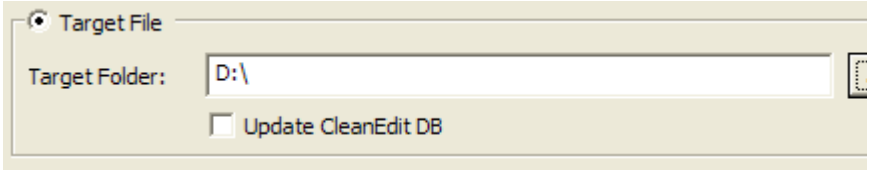
Button / Field	Description
Add Folder	Adds a new folder to scan (see below for details).
Remove	Removes a selected scan folder item.
Edit	Edits a selected scan folder item (see below for details).
Default next clipID	Default value of the clipID to be checked (in case it is not defined in the Scan Folder settings)
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. In this case, only *.mov files will be scanned.

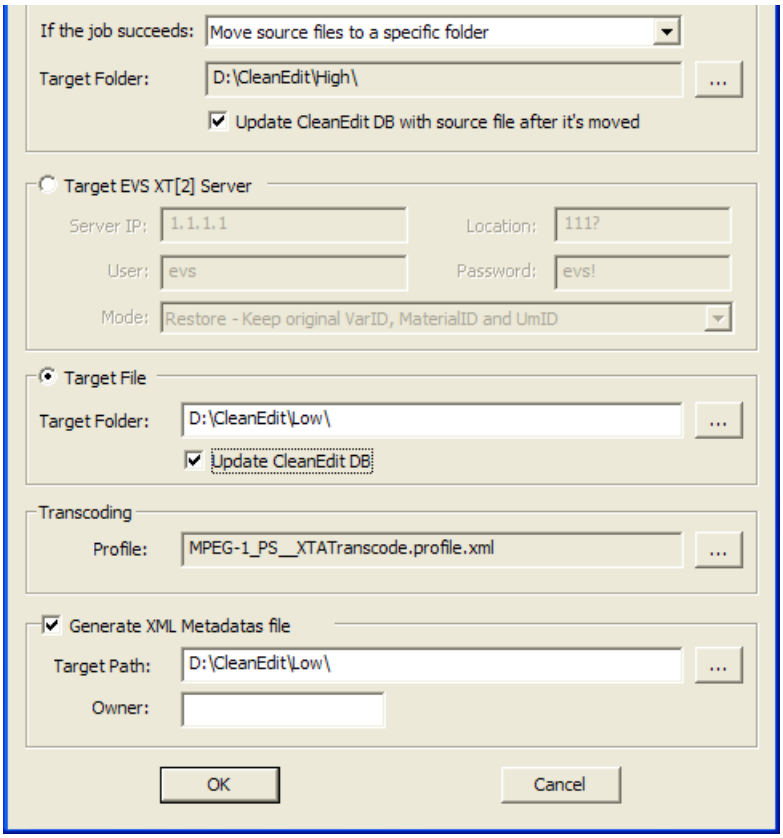
Column heading	Description
Source Name	CLIP Source Name to be added with the restored clip. In case this field is left blank with EVS MXF files to restore, the Source Name included in the EVS MXF metadata will be restored.
Delayed mode	If this option is selected: XTAccess will check the modification 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:	 After the scan job: XTAccess can: • Delete the source files • Move the source files to a specific folder (useful to do Clean Edit referencement) • Move the source files to a folder XTAScan.done in the same folder than the scanned folder (default option)
Target Folder	If you have selected Move the source files to a specific folder (useful to do Clean Edit referencement): 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 CleanEdit DB with the source file. The CE settings are available in the main menu of XTAccess.
Job Target	Target EVS XT[2] Server: Select this option if you want to restore the scanned files on the XT  Target File: Select this option if you want to create new files with the scanned files 

Column heading	Description
Target Server	If you have selected 'Target EVS XT[2] Server' Job Target: you can specify here the destination XT server and location Server IP: IP address of the target XT server User : FTP login of the target XT server Password : password of the target XT server Location: ClipID of the first location to check when restoring. 4 modes are considered: • *123X*: X could be A, B, C, D, E or F. In that case XT Access 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. • *123?*: 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, XT Access 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

Column heading	Description
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 Generate XML Referencing file	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) 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_DO\` Example of XML Metadata Path: `\\Xstore60170\Media\` IPD Owner: IP Director owner (user) to be referenced to IP Director Database. If left blank, the "XT Generic User" is pushed into IP Director Database.

8.3 CLEANEDIT INTEGRATION WITH THE SCAN FOLDER

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

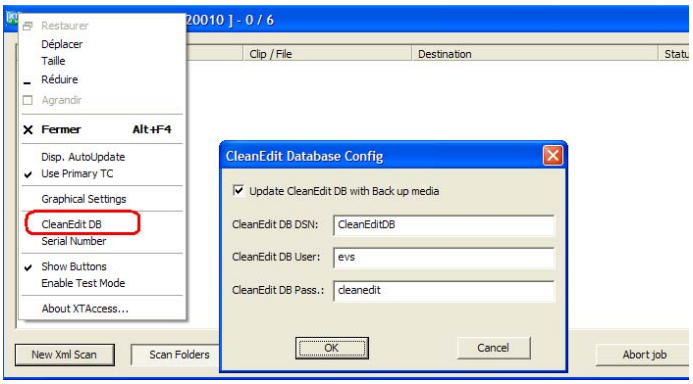


Workflow:

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\LowRes\
3. If the job succeeds, the source file (C:\myScanFolder\myFile.evs.mxf) is moved to D:\CleanEdit\HighRes\
4. The two files are referenced into CleanEdit

Remarks:

- To use the CleanEdit referencement : you need to install the CEXTAccessIntegration_vxx.xx.xx.exe and configure the CLeanEdit ODBC in general settings



- 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

- XTAccess processes only the files with a size bigger than 0KB
- 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.

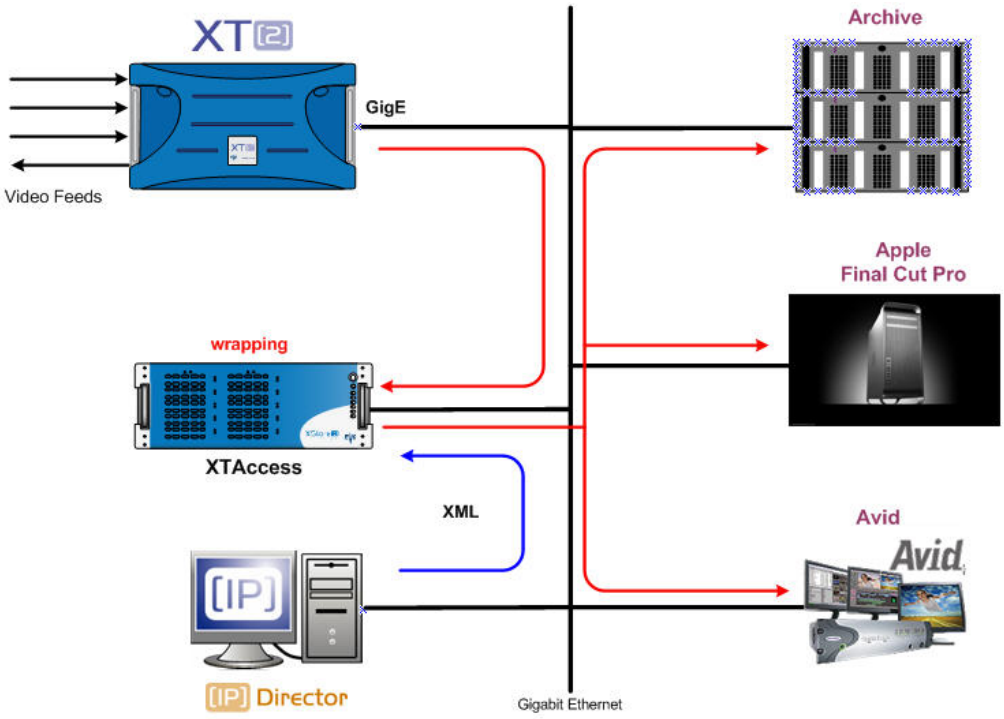
9. Backup of XT Clips to Files

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 XT[2] server.
2. XTAccess processes the XML file:
   a. It gets the clip content that has to be backed up from XT[2].
   b. It generates a backup file of the clip in the format specified by the external system (no transcoding feature, only native codec). The following formats are supported: EVS MXF, AVI, Avid MXF OPAtom, MXF OP-1A, Quick Time, Quick Time Ref (depending on the video codec).
   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

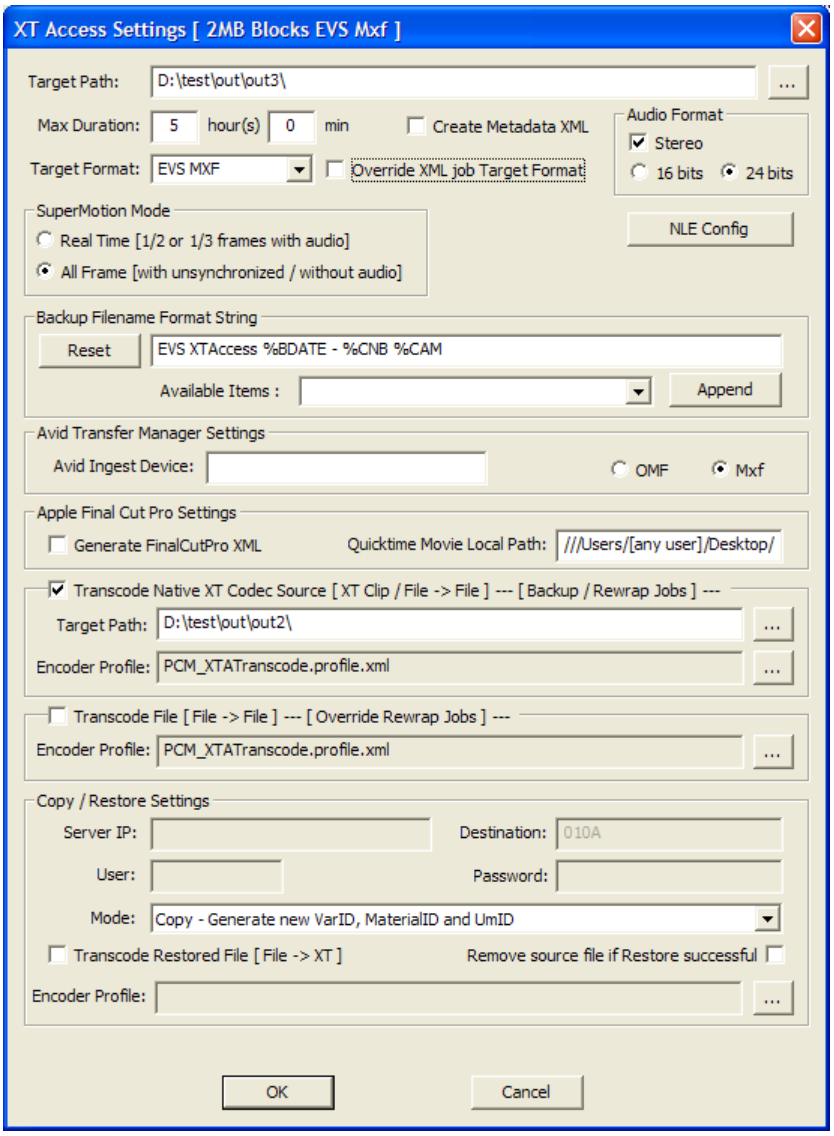
To identify the clip you want to back up you can use the UmId, VarId or LsmID

```
<?xml version="1.0"?>
<EVS_XFile_Job_List>
 <EVS_XFile_Job>
  <Job_Id>2246373</Job_Id>
  <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>
   <JobIdHistory>2030</JobIdHistory>
  </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 7.2.1 'SCAN XML Settings' on page 30).



9.3.1 MXF OP-1A

Only available in IMX video codec.

- Audio Format: Audio format configuration
  - *16-Bit/24-Bit*: stereo button to select the audio resolution.

9.3.2 AVID MXF OPATOM

Avid MXF wrapper is only available in IMX and Avid DNxHD® video codec.

- Backup File Name Format String is used to define the clipname of the clip into Avid

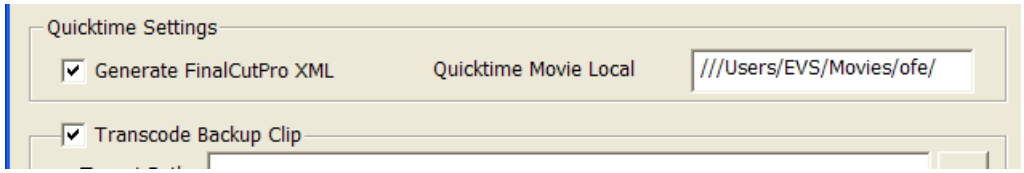
Limitations

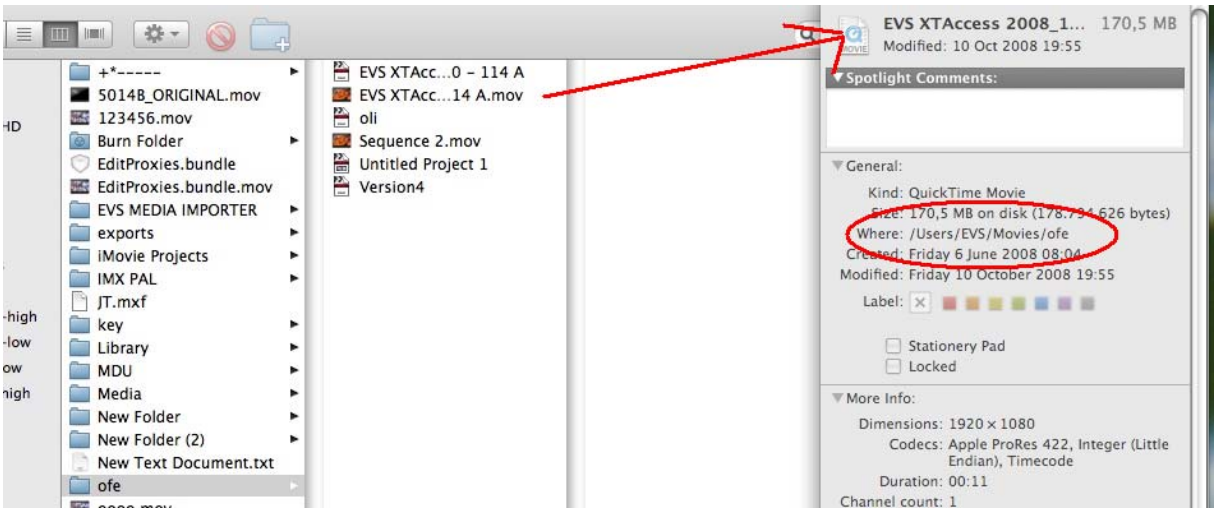
- The Avid MXF files can be detected by the MediaComposer Media Tool only if the MediaComposer is used in stand-alone without Interplay
- Avid MXF files created by XTAccess can not be editing while transfer
- To be available by the MediaComposer, Avid MXF files have to be created into Drive:\Avid MediaFiles\MXF\1\ folder

To have more information about Avid MXF integration, see the AVID MXF files: read Integration_Avid_MXF_OPATOM.doc

9.3.3 QUICK TIME & QUICK TIME REF

- Audio Format: Audio format configuration
  - *Stereo*: if selected, audio essences are considered as a stereo tracks, otherwise mono tracks. *Only used for Quick Time Movies and Quick Time Reference backup jobs.*
- Generate FinalCutPro XML: Generates an XML file to be imported into Apple Final Cut Pro. This allows to import EVS custom metadata. Only 6 EVS custom metadata can be imported in Final Cut Pro Project fields:
  - EVS Keyword 1 -> Master Comment 1
  - EVS Keyword 2 -> Master Comment 2
  - EVS Keyword 3 -> Master Comment 3
  - EVS Rating -> Master Comment 4
  - Clip Number -> Comment A
  - Camera ID -> Comment B
- Quick Time Movies Local Path: Local path (the place where your backuped 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 path.





9.3.4 BACKUP FILE NAME FORMAT STRING

It is possible to customize the format string of a file name in case of backup of clips and trains. Default value if string empty or tag empty or RESET: EVS XTAccess %BDATE - %CNB %CAM. Custom tags are:

- %NAME -> Clipname
- %XTNAME -> XT Name
- %XTIP -> XT GigE IP Address
- %CNB: -> Clip Number
- %CAM -> Camera ID
- %K1–> Keyword 1
- %K2 –> Keyword 2
- %K3 –> Keyword 3
- %K4 –> Keyword 4 (only available with IPDirector 5.xx)
- %K5 –> Keyword 5 (only available with IPDirector 5.xx)
- %RATING -> Rating 0,1,2 or 3
- %VARID -> Var ID
- %CDATE -> Creation Date
- %CMONTH -> Creation Month
- %CDAY -> Creation Day
- %CYEAR -> Creation Year
- %CAMLBL -> Camera Label
- %UMID -> UmID of the clip
- %IDMAT -> ID Material of the clip
- %TCIN -> TimeCode (Short) IN
- %TCOUT -> TimeCode (Short) OUT
- %BDATE -> Backup Date
- %BYEAR -> Backup Year
- %BMONTH -> Backup Month
- %BDAY -> Backup Day
- %VCODEC -> Video Codec

9.3.5 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\UpdateStatusXFileIfBackupSuccessful: Update STATUSXFILE in MCCLIPTABLE when backup is successful
  - 0: Active
  - 1: Not Active

9.4 MISCELLANEOUS

- Remark 1: XT[2], GigE and XTAccess activate time-outs when no data are transferred within a specific time interval (typically 8 seconds). Typically, backuping 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: Super Slow Motion files will be saved and restored in Super Slow Motion with all the Frame.
- Remark 3: Audio Resolution
  - In OP1A and Avid MXF format you can select 16 or 24 bits
  - 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 XT Server

This section covers XML Jobs IDs:

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

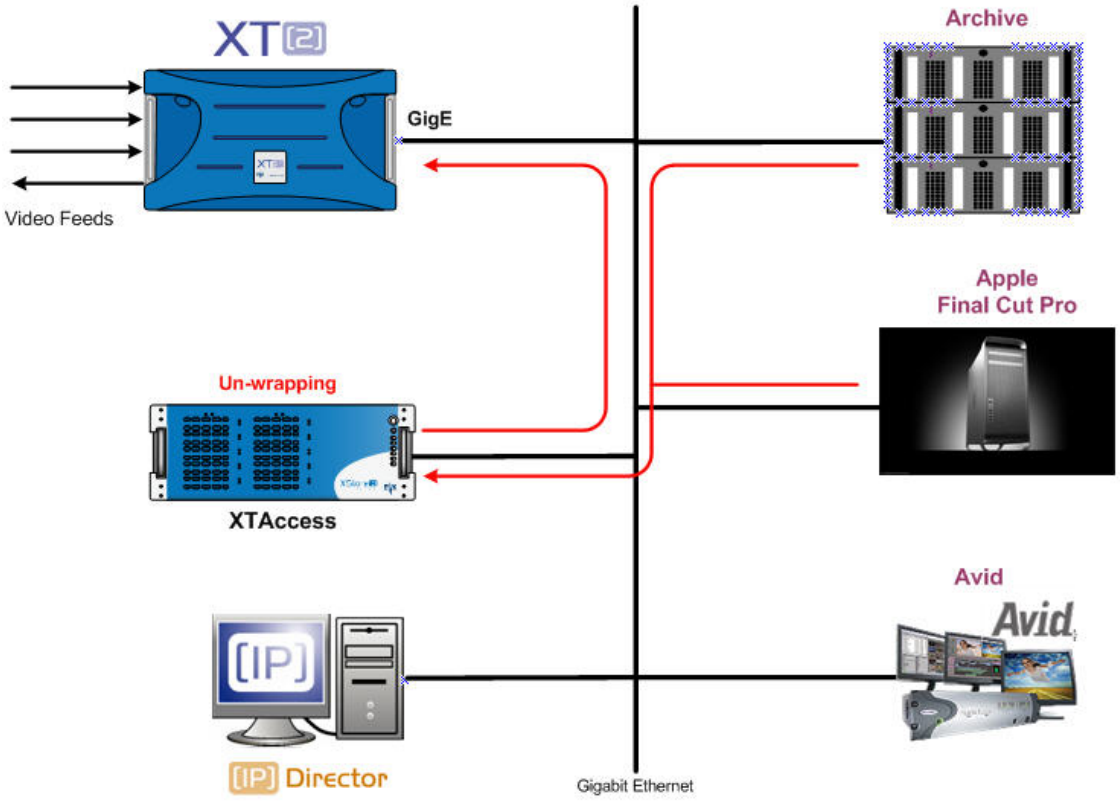
10.1 WORKFLOW

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

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 XT Access:



10.1.1 WORKFLOW (RESTORE VIA XML JOBS) EXPLANATION

1. An external system (which can generate XML files to restore clips, for example MediaXChange or IPDirector) sends an XML job to XT Access to request the restore (copy) of clips from an archiving or backup system to a given XT server.
2. XT Access processes the XML job:
   a. It gets the file to restore from the external system.
   b. It restores (copy) the clip on the XT 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 XT server
3. It restores (copy) the clip on the XT 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_Id>12384</Job_Id>
  <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.

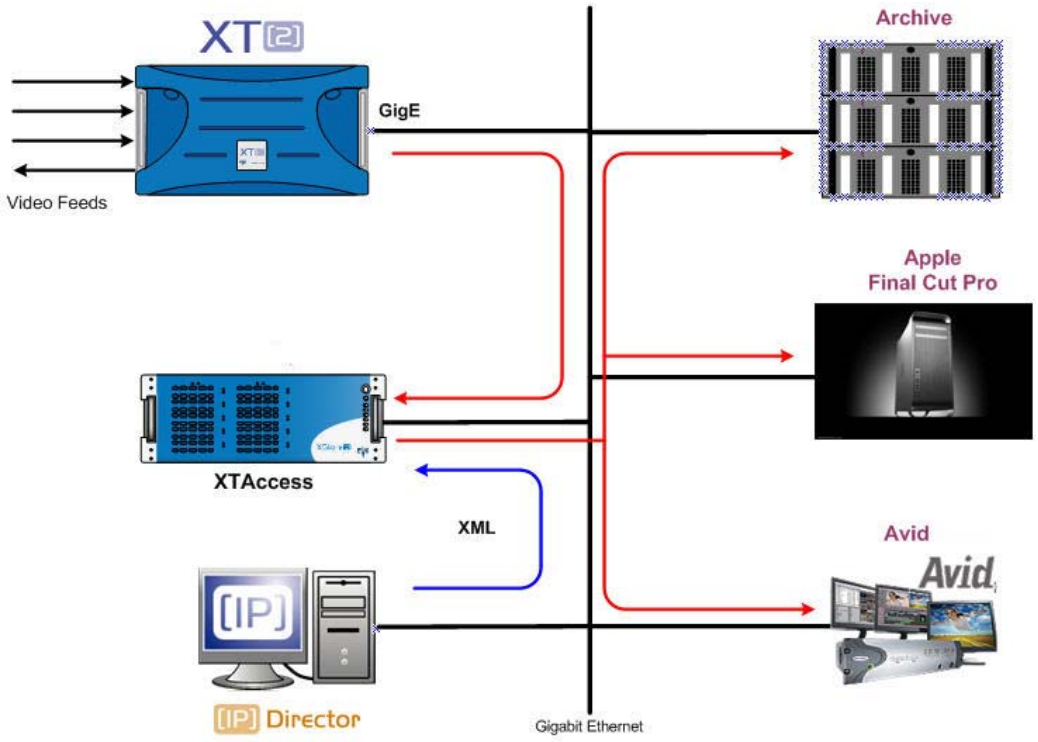
11. Rendering of PlayList to one file

This section covers XML Jobs IDs:

- Job #1O: Render Playlist from XT to single file (concat)

11.1 WORKFLOW

The following schema shows how the backup of playlist 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 playlist created on an XT[2] server.
2. XTAccess processes the XML file:
   a. It gets the playlist content that has to be backed up from XT[2].
   b. It generates a backup file of the playlist in the format specified by the external system (no transcoding feature, only native codec). The following formats are supported: EVS MXF, MXF OP-1A, AVI, Avid MXF OPAtom, Quick Time, QT Ref (depending on the video codec).
   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:

XTAccess does not perform Video transition effects.

11.2 EXAMPLE OF XML BACKUP FILE

To identify the clip you want to back up you can use the UmId, VarId or LsmID

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

<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<EVS_XFile_Job_List>
<EVS_XFile_Job>
<Job_Id>123</Job_Id>
<Job_Type>10</Job_Type>
<EVSEDL Version="1.1" Provider="ipdirector">
<Playlist Name="bdetag" UmID="@PLS020!" VarID="8NctG0W1" VideoFormat="3" Description=""
CreationDate="17-Apr-2009 16:04:45" AuxTrackUmID="" Duration="2000" Duration_Str="00:00:40:00"
NbrOfElements="2">
<ElemPls Position="1" UmID="9Scqnq-0" VarID="9Scqnq-0" Name="3" TCTrack="--:--:--:--"
VideoTcIn="1801000" VideoTcIn_Str="10:00:20:00" VideoTcDuration="500"
VideoTcDuration_Str="00:00:10:00" VideoEffectType="1" VideoEffectType_Str="Cut"
VideoEffectDuration="0" VideoEffectDuration_Str="00s00" AudioType="3" AudioType_Str="2 stereos"
AudioTcIn="1801000" AudioTcIn_Str="10:00:20:00" AudioTcDuration="500"
AudioTcDuration_Str="00:00:10:00" AudioEffectType="1" AudioEffectType_Str="Cut"
AudioEffectDuration="0" AudioEffectDuration_Str="00s00" StillMode="NoStillMode"
StillModeDuration="" StartMode="Automatic" SpeedN="300" SpeedD="300">
<Job_Src_XT_IP_Address1>172.16.40.9</Job_Src_XT_IP_Address1>
<Job_Src_XT_Port1>21</Job_Src_XT_Port1>
<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_XT_FTP_Login>evs</Job_Src_XT_FTP_Login>
<Job_Src_XT_FTP_Password>evs!</Job_Src_XT_FTP_Password>
</ElemPls>
- <ElemPls Position="2" UmID="9Scqnq-0" VarID="9Scqnq-0" Name="3" TCTrack="00:00:10:00"
VideoTcIn="1801000" VideoTcIn_Str="10:00:20:00" VideoTcDuration="500"
VideoTcDuration_Str="00:00:10:00" VideoEffectType="1" VideoEffectType_Str="Cut"
VideoEffectDuration="0" VideoEffectDuration_Str="00s00" AudioType="3" AudioType_Str="2 stereos"
AudioTcIn="1801000" AudioTcIn_Str="10:00:20:00" AudioTcDuration="500"
AudioTcDuration_Str="00:00:10:00" AudioEffectType="1" AudioEffectType_Str="Cut"
AudioEffectDuration="0" AudioEffectDuration_Str="00s00" StillMode="NoStillMode"
StillModeDuration="" StartMode="Automatic" SpeedN="300" SpeedD="300">

```
<Job_Src_XT_IP_Address1>172.16.40.9</Job_Src_XT_IP_Address1>
<Job_Src_XT_Port1>21</Job_Src_XT_Port1>
<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_XT_FTP_Login>evs</Job_Src_XT_FTP_Login>
<Job_Src_XT_FTP_Password>evs!</Job_Src_XT_FTP_Password>
<Tag Command="1" Command_Str="GPI OUT" TcOffset="4917138" TagTC_Str="10:00:20:00"
Param="1" />
</ElemPls>
</Playlist>
</EVSEDL>
<Job_Dest_File>F:\_Backups\</Job_Dest_File>
<Job_Dest_File_Format>9</Job_Dest_File_Format>
<Job_Dest_Generate_XML_Metadata>1</Job_Dest_Generate_XML_Metadata>
<Job_Dest_XML_Metadata_Path>F:\Metadatas\</Job_Dest_XML_Metadata_Path>
</EVS_XFile_Job>
</EVS_XFile_Job_List>
```

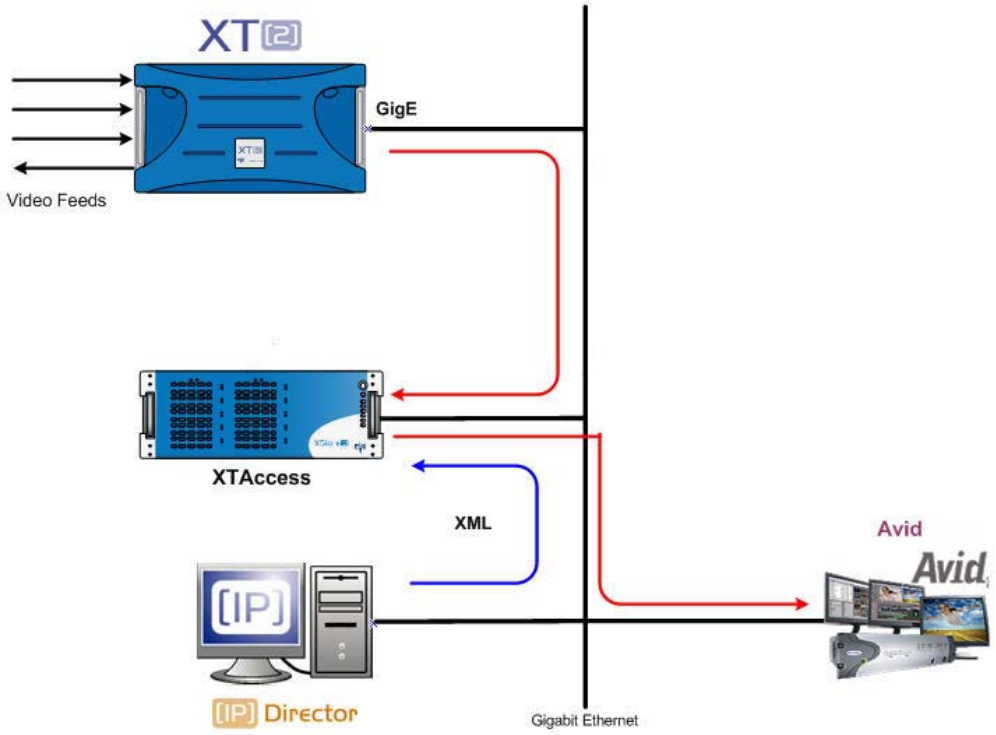
12. Backup of PlayList to files for NLE usage

This section covers XML Jobs IDs:

- Job #9: Backup Playlist from XT to files (cut)
- This job is only available in AVID MXF OPAtom format (IMX – DNxHD)

12.1 WORKFLOW

The following schema shows how the backup of playlist 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 playlist created on an XT[2] server.
2. XTAccess processes the XML file:
   a. It gets the playlist content that has to be backed up from XT[2].
   b. It generates backup files of each clip which are into the playlist in the format specified by the external system (no transcoding feature, only native codec). The following formats are supported: EVS MXF, MXF OP-1A, Quick Time (depending on the video codec).
   c. It stores the backup files in the target folder specified by the external system.

Remark:

This job is only available in AVID MXF OPAtom format (IMX – DNxHD)

Each element of the XT Playlist will be backed-up as a separate file. The Playlist metadata (element orders, duration, transitions…) will be backed-up in an "EDL" file.

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. See EVS AVID integration document to have more information.

12.2 EXAMPLE OF XML BACKUP FILE

To identify the clip you want to back up you can use the UmId, VarId or LsmID

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

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
- <EVS_XFile_Job_List>
- <EVS_XFile_Job>
<Job_Id>123</Job_Id>
<Job_Type>9</Job_Type>
- <EVSEDL Version="1.1" Provider="ipdirector">
- <Playlist Name="bdetag" UmID="@PLS020!" VarID="8NctG0W1" VideoFormat="3" Description=""
CreationDate="17-Apr-2009 16:04:45" AuxTrackUmID="" Duration="2000" Duration_Str="00:00:40:00"
NbrOfElements="2">
- <ElemPls Position="1" UmID="9Scqnq-0" VarID="9Scqnq-0" Name="3" TCTrack="--:--:--:--"
VideoTcIn="1801000" VideoTcIn_Str="10:00:20:00" VideoTcDuration="500"
VideoTcDuration_Str="00:00:10:00" VideoEffectType="1" VideoEffectType_Str="Cut"
VideoEffectDuration="0" VideoEffectDuration_Str="00s00" AudioType="3" AudioType_Str="2 stereos"
AudioTcIn="1801000" AudioTcIn_Str="10:00:20:00" AudioTcDuration="500"
AudioTcDuration_Str="00:00:10:00" AudioEffectType="1" AudioEffectType_Str="Cut"
AudioEffectDuration="0" AudioEffectDuration_Str="00s00" StillMode="NoStillMode"
StillModeDuration="" StartMode="Automatic" SpeedN="300" SpeedD="300">
<Job_Src_XT_IP_Address1>172.16.40.9</Job_Src_XT_IP_Address1>
<Job_Src_XT_Port1>21</Job_Src_XT_Port1>
<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_XT_FTP_Login>evs</Job_Src_XT_FTP_Login>
<Job_Src_XT_FTP_Password>evs!</Job_Src_XT_FTP_Password>
```

```
 </ElemPls>
- <ElemPls Position="2" UmID="9Scqnq-0" VarID="9Scqnq-0" Name="3" TCTrack="00:00:10:00"
VideoTcIn="1801000" VideoTcIn_Str="10:00:20:00" VideoTcDuration="500"
VideoTcDuration_Str="00:00:10:00" VideoEffectType="1" VideoEffectType_Str="Cut"
VideoEffectDuration="0" VideoEffectDuration_Str="00s00" AudioType="3" AudioType_Str="2 stereos"
AudioTcIn="1801000" AudioTcIn_Str="10:00:20:00" AudioTcDuration="500"
AudioTcDuration_Str="00:00:10:00" AudioEffectType="1" AudioEffectType_Str="Cut"
AudioEffectDuration="0" AudioEffectDuration_Str="00s00" StillMode="NoStillMode"
StillModeDuration="" StartMode="Automatic" SpeedN="300" SpeedD="300">
 <Job_Src_XT_IP_Address1>172.16.40.9</Job_Src_XT_IP_Address1>
 <Job_Src_XT_Port1>21</Job_Src_XT_Port1>
 <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_XT_FTP_Login>evs</Job_Src_XT_FTP_Login>
 <Job_Src_XT_FTP_Password>evs!</Job_Src_XT_FTP_Password>
 <Tag Command="1" Command_Str="GPI OUT" TcOffset="4917138" TagTC_Str="10:00:20:00"
Param="1" />
 </ElemPls>
 </Playlist>
 </EVSEDL>
 <Job_Dest_File>F:\_Backups\</Job_Dest_File>
 <Job_Dest_File_Format>9</Job_Dest_File_Format>
 <Job_Dest_Generate_XML_Metadata>1</Job_Dest_Generate_XML_Metadata>
 <Job_Dest_XML_Metadata_Path>F:\Metadatas\</Job_Dest_XML_Metadata_Path>
 </EVS_XFile_Job>
 </EVS_XFile_Job_List>
```

13. File Rewrap

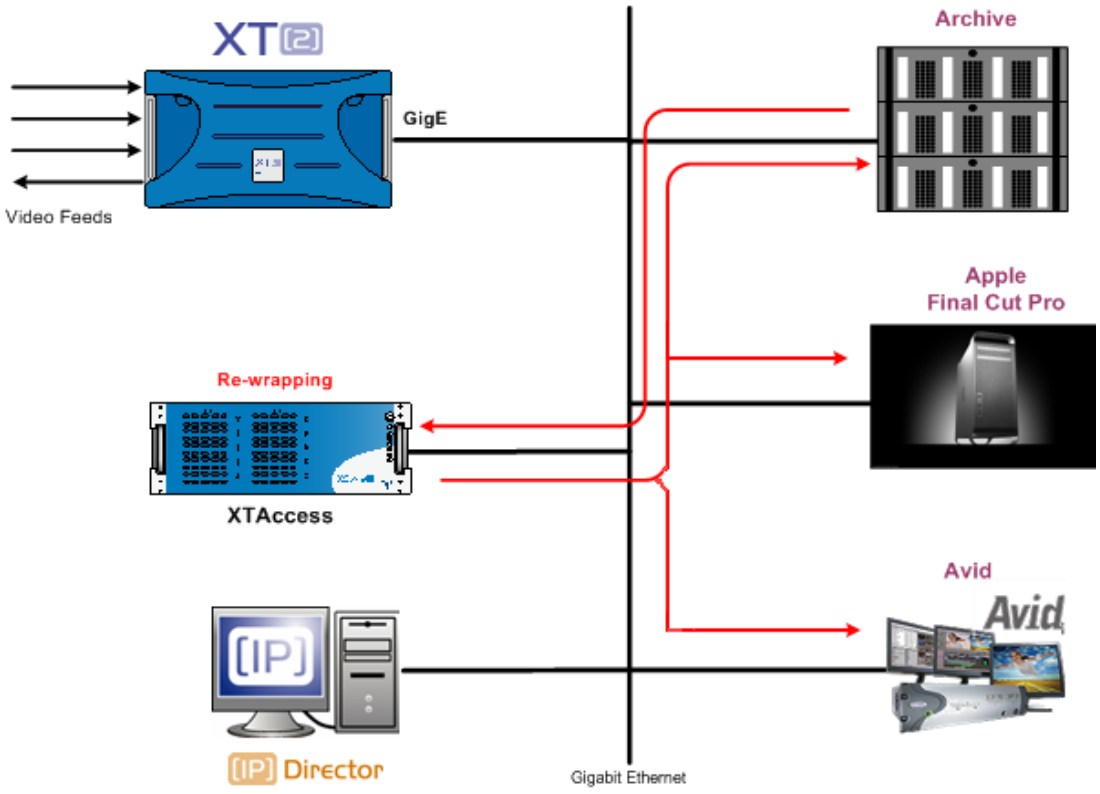
This section covers XML Jobs IDs:

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

13.1 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 XT Access:



1. An external system (which can generate XML files for restoring clips, for example IPDirector v5) sends an XML job to XT Access to request the rewrap of a file from an archiving or backup system to a new file format and archive storage.
2. XT Access 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.

13.2 EXAMPLE OF XML FILE REWRAP

```
<?xml version = "1.0" encoding="UTF-8" ?>
<EVS_XFile_Job_List>
    <EVS_XFile_Job>
            <Job_Id>4942648367704751</Job_Id>
            <Job_Creation_Time>1132235747</Job_Creation_Time>
            <Job_Type>41</Job_Type>
            <Job_Src_File>G:\770A_SDPAL_IMXD10_MXFEVS_30Mb.evs.mxf </Job_Src_File>
            <Job_Dest_File>F:\</Job_Dest_File>
            <Job_Dest_File_Format>2</Job_Dest_File_Format>
    </EVS_XFile_Job>
</EVS_XFile_Job_List>
```

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

14. Transcoding Native XT codec on the fly

XTAccess can tanscode on the fly a clip from XT or a file (in native XT codec) to another format (codec & wrapper).

If you want to use no native codec file: see chapter 15 'Transcoding files' on page 68.

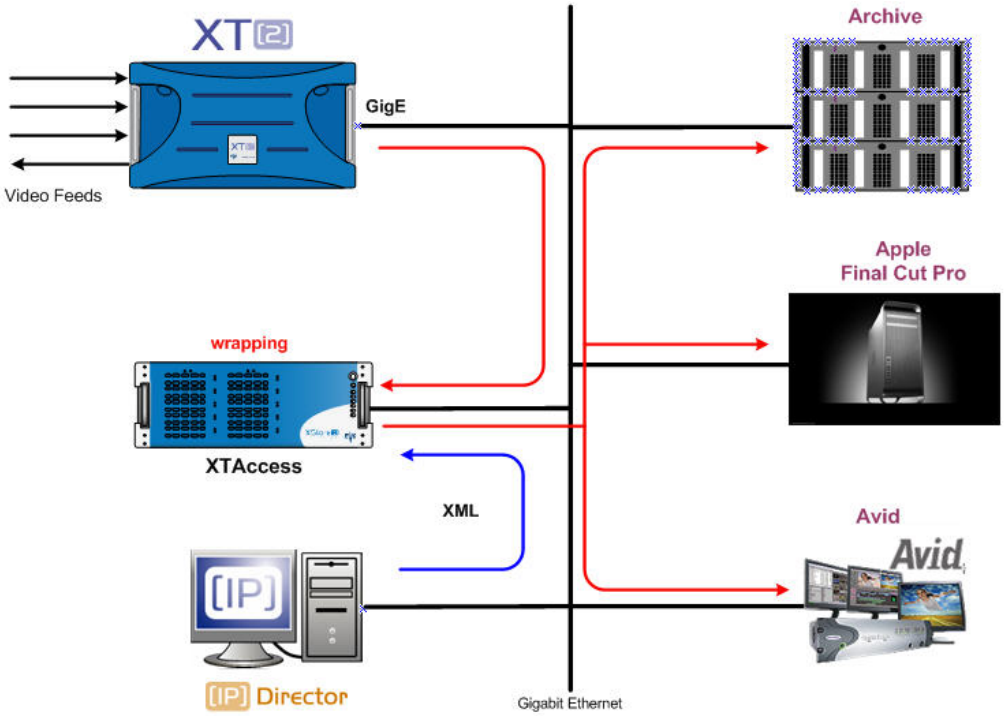
To use the Transcoding on the fly: you need to have the XTAccess Transcoding XSecure Code (see chapter 4 'XSecure Management' on page 16).

The source clip (XT) or file must be a codec natively supported by XT servers (MJPEG, IMX, Avid DNxHD® codecs, DVCPRO 50, DVCPRO HD). Apple ProRes is not supported.

14.1 WORKFLOW

This section does not cover yet XML Jobs from IPDirector:

The following schema shows how the backup of clips/Rewrap of file and transcoding of file 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 XT[2] codec format
3. XTAccess processes the XML file:
   a. It gets the clip content from XT[2] or the file that has to be backed or rewrapped up.
   b. It generates a backup file of the clip or a rewrap file of the file in the format specified by the external system (no transcoding feature, only native codec). The following formats are supported: EVS MXF, MXF OP-1A, Quick Time (depending on the video codec).

      At the same time, XTAccess transcodes the clip in the selected codec format. See configuration bellow.
   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.

      It stores also the transcoded file into the target folder specified into the "Target Path" Setting (see below).

Remark:

There is only one status for the transcoding on the fly. So if the backup or the transcoding fails: all the job will be failed.

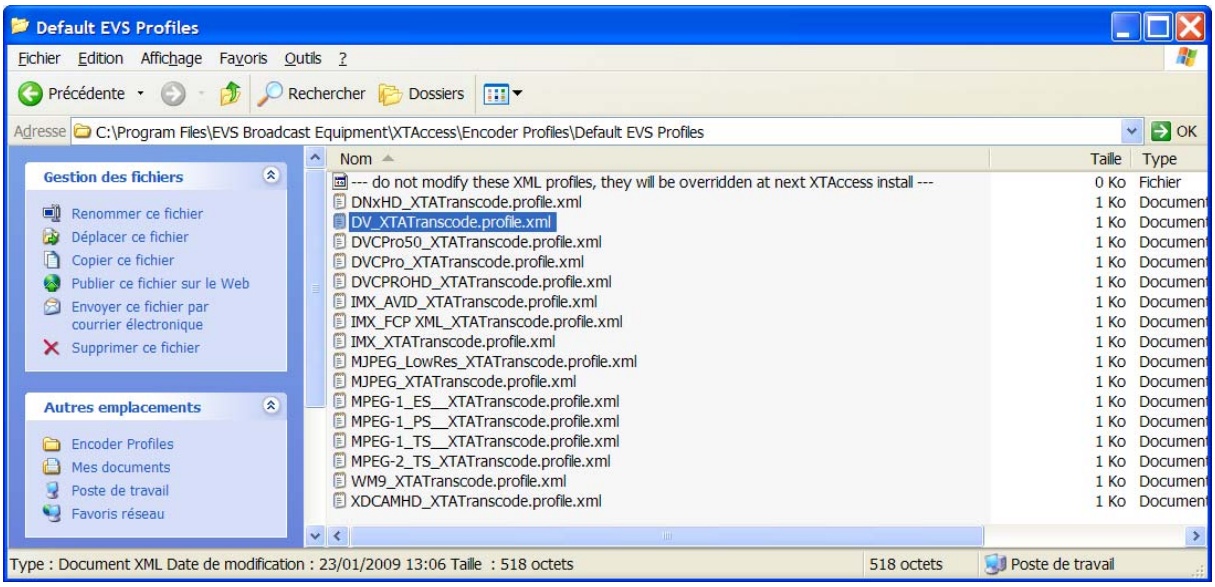
14.2 CODECS SUPPORTED:

- List of output codecs : DV, DV25, DVCPRO 25, DVCPRO 50, MPEG-1, MPEG-2, IMX 30, IMX 40, IMX 50, MJPEG (EVS Proxy, SD & HD), Avid DNxHD® (lo- and hi-level), DVCPRO HD, XDCAM HD 420, XDCAM HD 422, WM9, H264.
- Important Notice : The source clip (backup) or file (rewrap) must be a codec natively supported by XT servers (MJPEG, IMX, Avid DNxHD®, DVCPRO 50, DVCPRO HD codecs). Apple ProRes is not supported.
- Transcoding with playlist is not supported.

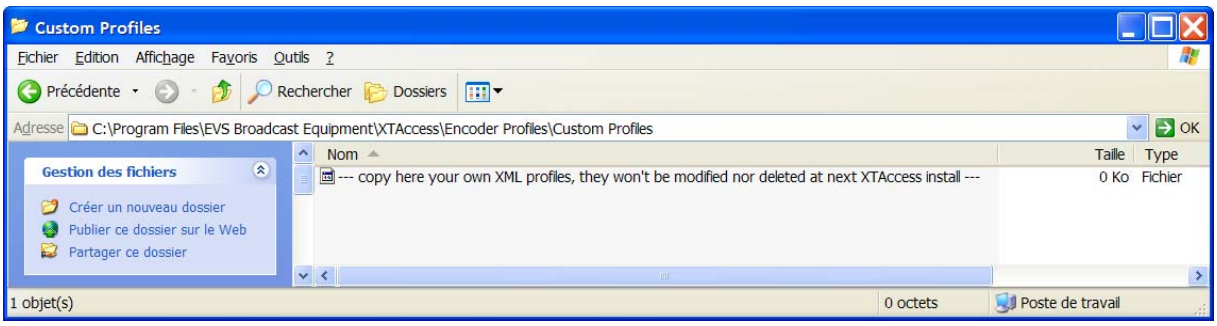
14.3 LOCAL XTACCESS SETTINGS (NON XML)

Transcoding XTAccess settings are not supported by XML. They must therefore be specified in the local settings of the XML Jobs Scan (see section 7.2.1 'SCAN XML Settings' on page 30).

- Transcode Native XT Codec Source: Select this option if you want to do transcoding on the fly.
  - 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.
  - Encoder 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.

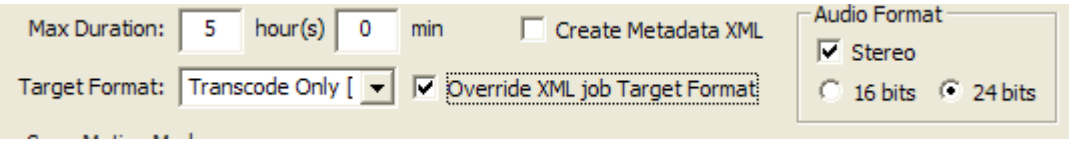


Be careful this folder is updated at each new installation of XTAccess. If you want to create your own profile, please use the "C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles**Custom Profiles**" folder that is not removed or updated.



See chapter 16 '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 backuped file, you have to select "transcode only" as target format and the override XML job Target Format option.



14.3.1 REGISTRY SETTINGS

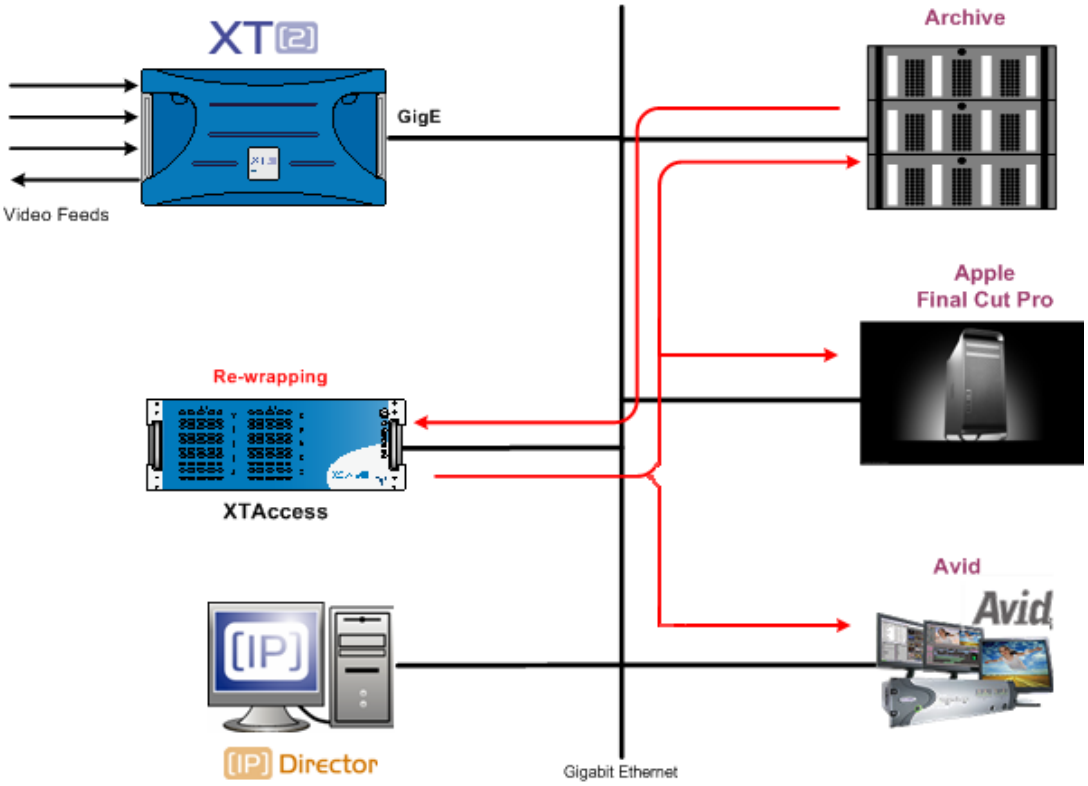
- HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\Max Transcoding Jobs (default value = 1): Maximum amount of jobs simultaneously transcoded by XTAccess. Once the limit is reached, any additional job will be "scheduled" (in Jobs_Scheduled" folder) until an "in-progress" job is over.

15. Transcoding files

XTAccess can also tanscode files to another file format. Transcoding file also supports no native XT codec. But XTAccess cannot do transcoding on the fly and, at the same time, the generation of a backuped clip or rewrapped file.

15.1 WORKFLOW

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



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 XT Access to request the rewrap of a file from an archiving or backup system to a new file format and archive storage.
3. XT Access 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.

15.2 EXAMPLE OF XML FILE REWRAP

```
<?xml version = "1.0" encoding="UTF-8" ?>
<EVS_XFile_Job_List>
    <EVS_XFile_Job>
            <Job_Id>4942648367704751</Job_Id>
            <Job_Creation_Time>1132235747</Job_Creation_Time>
            <Job_Type>41</Job_Type>
            <Job_Src_File>G:\770A_SDPAL_IMXD10_MXFEVS_30Mb.evs.mxf </Job_Src_File>
            <Job_Dest_File>F:\</Job_Dest_File>
            <Job_Dest_File_Format>2</Job_Dest_File_Format>
    </EVS_XFile_Job>
</EVS_XFile_Job_List>
```

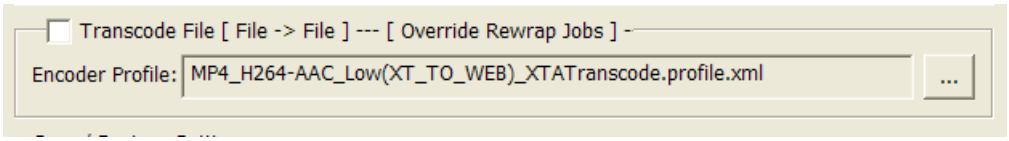
The description of each XML tag is described in the "XML Jobs" document.

15.3 CODECS SUPPORTED:

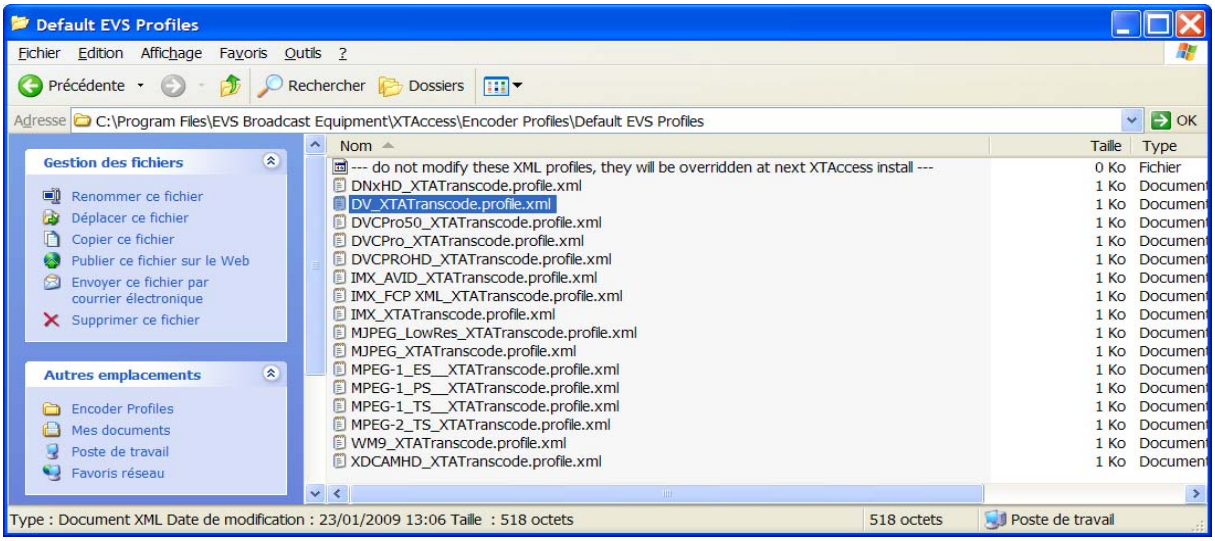
- List of output file codecs : DV, DV25, DVCPRO 25, DVCPRO 50, MPEG-1, MPEG-2, IMX 30, IMX 40, IMX 50, MJPEG (EVS Proxy, SD & HD), Avid DNxHD® (lo- and hi-level), DVCPRO HD, XDCAM HD 420, XDCAM HD 422, WM9, H264.
- List of input file codecs : DV, DV25, DVCPRO 25, DVCPRO 50, MPEG-1, MPEG-2, IMX 30, IMX 40, IMX 50, MJPEG (EVS Proxy, SD & HD), Avid DNxHD® (lo- and hi-level), DVCPRO HD, XDCAM HD 420, XDCAM HD 422, WM9, H264.
- Transcoding with playlist is not supported

15.4 LOCAL XTACCESS SETTINGS (NON XML)

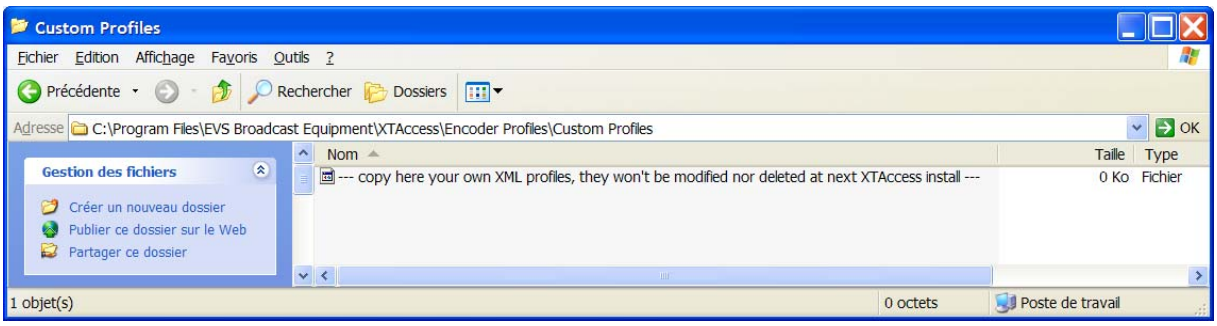
Transcoding XTAccess settings are not supported by XML. They must therefore be specified in the local settings of the XML Jobs Scan (see section 7.2.1 'SCAN XML Settings' on page 30).



- **Encoder 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 16 'Example of Encoder profiles' on page 72 for more details.

15.4.1 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 "in-progress" job is over.

16. Example of Encoder profiles

The source clip (backup) or file (rewrap) must be in codec natively supported by XT[2] servers (MJPEG, IMX, Avid DNxHD® codecs). Apple ProRes is not supported. These native XT[2] codec can be transcoded in

- DV, DV25, DVCPRO 25, DVCPRO 50
- MPEG-1, MPEG-2
- IMX 30, IMX 40, IMX 50
- MJPEG (EVS Proxy, SD & HD)
- Avid DNxHD® (lo- and hi-level)
- DVCPRO HD
- XDCAM HD 420, XDCAM HD 422
- WM9

Encoding profiles are XML files that define the codec and codec parameter 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.

16.1 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">
<DllName>EVSMPEG2Encoder.dll</DllName>
<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.

16.2 IMX 30

IMX codec uses the EVSIMXEncoder dll encoder (C:\Program Files\EVS Broadcast Equipment\XTAccess\EVSEncoders\EVSIMXEncoder.dll) which is installed with XTAccess.

You can find here an example of IMX 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.

IMX_XTATranscode.profile.xml :

```
<?xml version="1.0"?>
<EVSEncoder version="1.0">
<DllName>EVSIMXEncoder.dll</DllName>
<DisplayName>IMX</DisplayName>
<Extension>mxf</Extension>
<ResolutionMode>0</ResolutionMode>

<EVSEncoderCfg>
    <FType>EVS</FType>
    <!-- MXF / MOV / AVI / EVS -->
    <VRate>30000000</VRate>
    <AspectRatio>Auto</AspectRatio>
    <Stereo>0</Stereo>
    <MXFSamplesPath>C:\Program Files\EVS Broadcast Equipment\XTAccess\MXF
Templates\</MXFSamplesPath>
</EVSEncoderCfg>
</EVSEncoder>
```

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

16.3 MJPEG EVS PROXY

MJPEG codec uses the EVSMjpegEncoder dll encoder (C:\Program Files\EVS Broadcast Equipment\XTAccess\EVSEncoders\EVSIMXEncoder.dll) which is installed with XTAccess.

You can find here an example of MJPEG 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.

MJPEG_LowRes_XTATranscode.profile.xml :

```
<?xml version="1.0"?>
<EVSEncoder version="1.0">
<DllName>EVSMJPEGEncoder.dll</DllName>
<DisplayName>M-JPEG LowRes</DisplayName>
<Extension>mxf</Extension>
<ResolutionMode>1</ResolutionMode>

<EVSEncoderCfg>
    <FType>EVS</FType>
    <!-- EVS / MOV -->
    <VRate>3000000</VRate>
    <TargetRes>LOW</TargetRes>
</EVSEncoderCfg>
</EVSEncoder>
```

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

16.4 AVID DNXHD®

DNxHD® codec uses the EVSDNxHDEncoder dll encoder (C:\Program Files\EVS Broadcast Equipment\XTAccess\EVSEncoders\EVSDNxHDEncoder.dll) 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 :

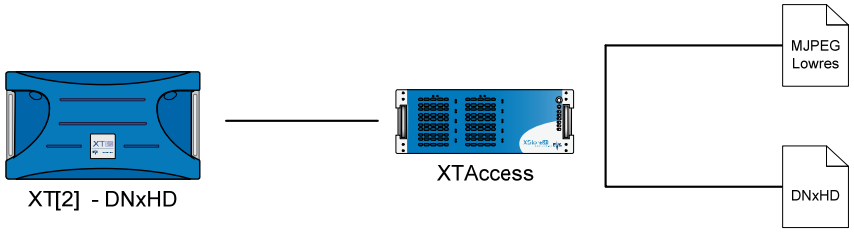
```
<?xml version="1.0"?>
<EVSEncoder version="1.0">
<DllName>EVSDNxHDEncoder.dll</DllName>
<DisplayName>Avid DNxHD</DisplayName>
<Extension>mxf</Extension>

<EVSEncoderCfg>
    <VRATE>120</VRATE>
    <FType>EVS</FType>
    <!-- EVS / QTRef / MOV / OPAtom -->
    <VType>8bitLow</VType>
    <Stereo>1</Stereo>
    <ResolutionMode>0</ResolutionMode>
</EVSEncoderCfg>
</EVSEncoder>
```

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

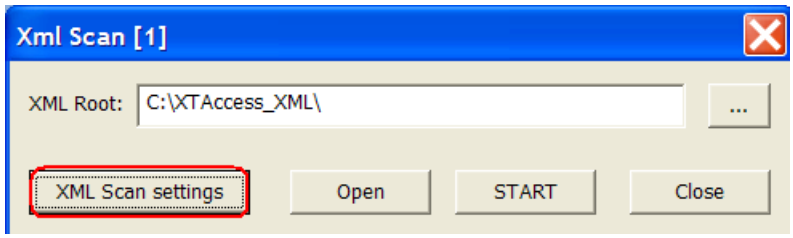
17. Examples of Configuration

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

17.1 BACKUP XT NATIVE CODEC + CREATION OF LOW RES

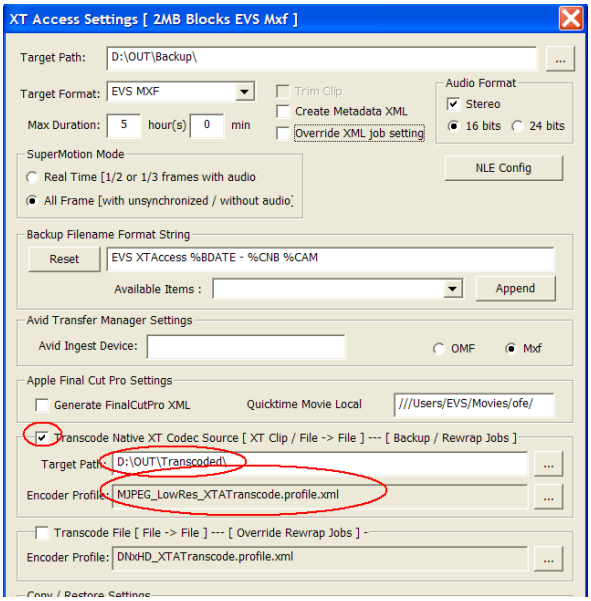


1. Create a "standard" target destination into IPD
2. Create a Scan XML



3. Click on the **XML Scan Settings** button and configure the XTAccess settings.

1. Select "Transcode Native XT Codec source ..."
2. Select the target Path for the MJPEG Low Res transcoded file
3. Select the MJPEG LowRes profile in the C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Default EVS Profiles folder

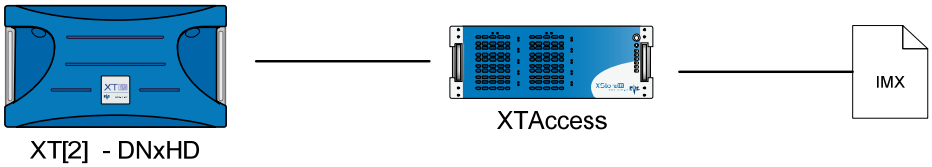


Result

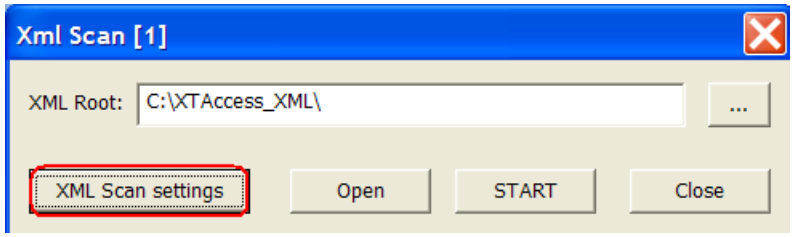
Each new Backup job from IPD will create:

- one transcoded file in MJPEG in target folder defined in XTAccess (D:\OUT\Transcoded folder)
- one backuped file in the folder defined in the IPD Remote installer

17.2 TRANSCODE NATIVE XT CLIP

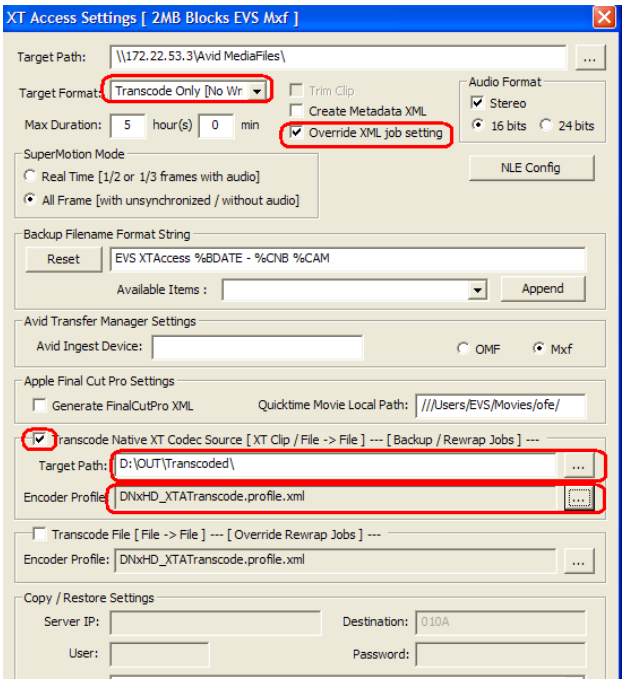


1. Create a "standard" target destination into IPD
2. Create a Scan XML



3. Click on the **XML Scan Settings** button and configure the XTAccess settings

   1. Select "Transcode only" as Target Format
   2. Select the option "Override XML job Setting"
   3. Select "Transcode Native XT Codec source ..."
   4. Select the target Path for the IMX transcoded file
   5. Select the IMX profile in the C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Default EVS Profiles folder

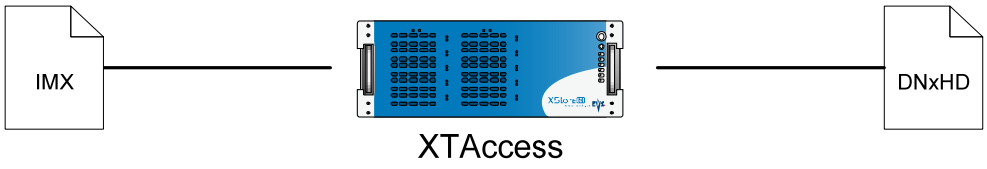


Result

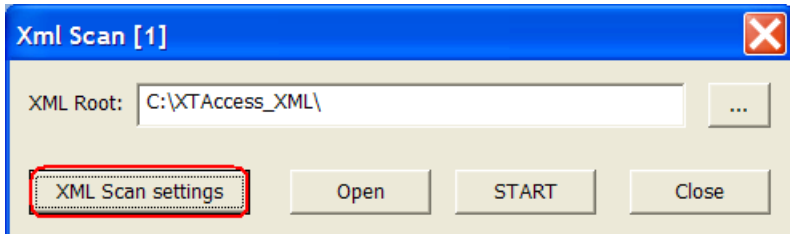
Each new Backup job from IPD will create:

- one file transcoded in IMX in the target path folder defined in XTAccess (D:\OUT\Transcoded folder)

17.3 TRANSOCODE ONE FILE TO FILE

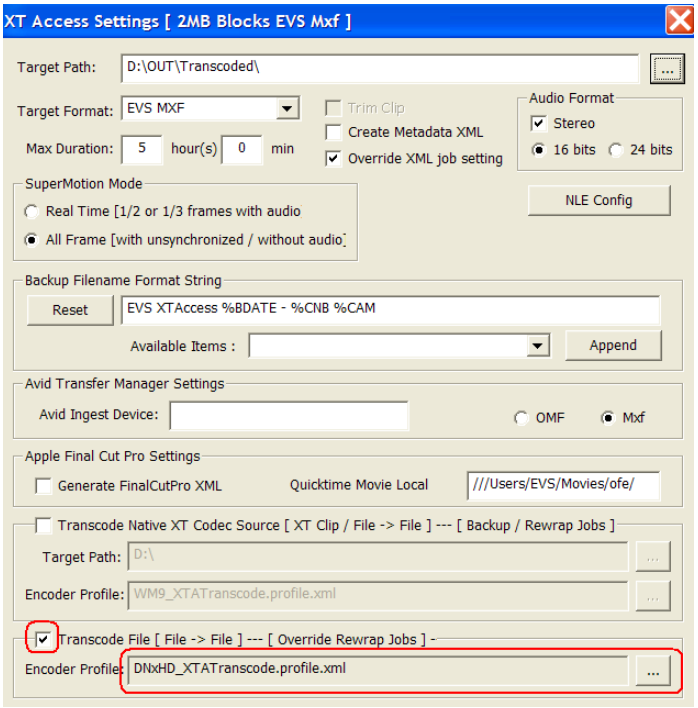


1. Create a "standard" target destination into IPD
2. Create a Scan XML



3. Click on the **XML Scan Settings** button and configure the XTAccess settings

   1. Select "Transcode File ..."
   2. Select the DNXHD profile in the C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Default EVS Profiles folder

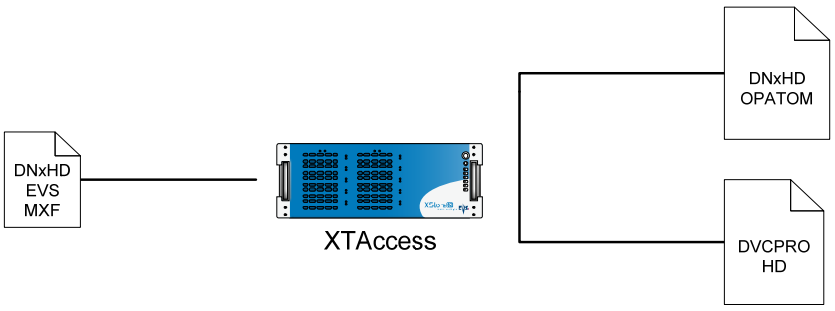


Result

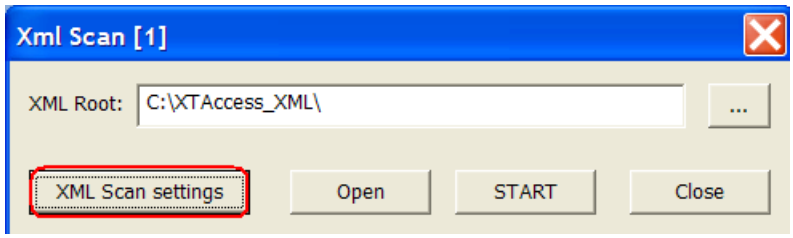
Each new rewrap job from IPD will create:

- one DNxHD transcoded file in the target folder configured into IPD

17.4 REWRAP + TRANSCODING

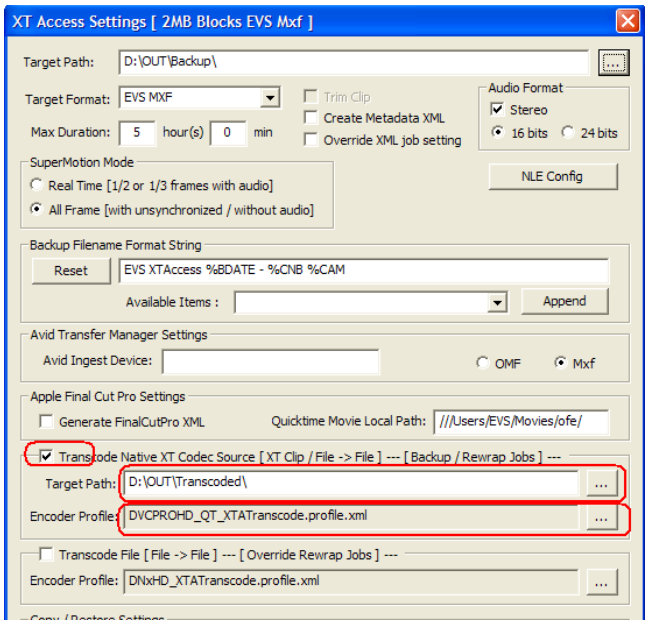


1. Create a "standard" target destination into IPD
2. Create a Scan XML



3. Click on the **XML Scan Settings** button and configure the XTAccess settings

   1. Select "Transcode Native XT Codec source ..."
   2. Select the target Path for the DVCPRO HD transcoded file
   3. Select the DNxHD profile in the C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Default EVS Profiles folder

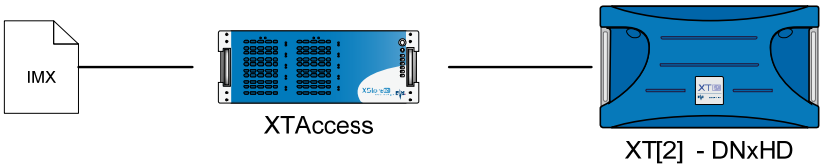


Result

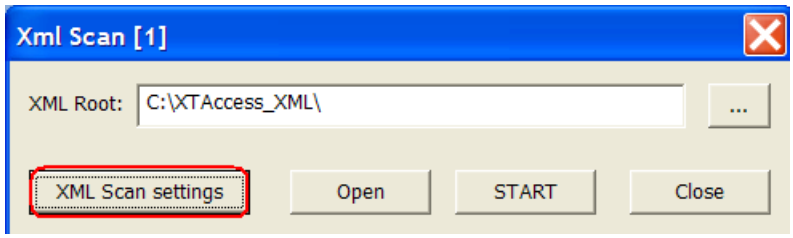
Each new rewrap job from IPD will create:

- one DVCPRO transcoded file in the Target Path folder configured into XTAccess (D:\OUT\Transcoded\)
- one DNxHD OPAtom file as asked by IPD in the folder defined into IPD

17.5 TRANSOCODE ONE FILE TO XT USING XML JOB

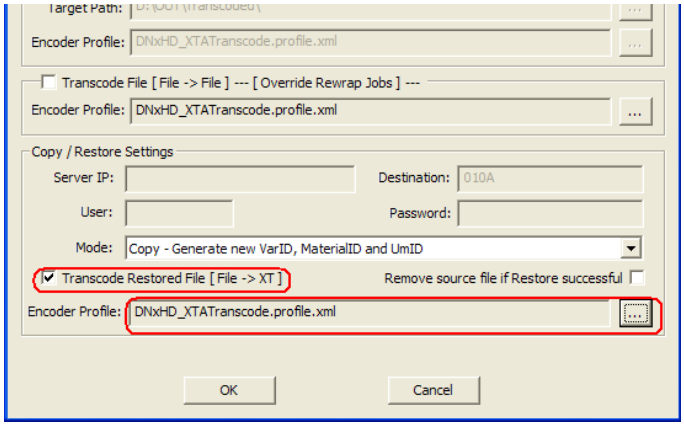


1. Create a "standard" target destination into IPD
2. Create a Scan XML



3. Click on the **XML Scan Settings** button and configure the XTAccess settings

   1. Select "Transcode Restored File ..."
   2. Select the DNXHD profile in the C:\Program Files\EVS Broadcast Equipment\XTAccess\Encoder Profiles\Default EVS Profiles folder



Result

Each new job of restore or Copy from IPD will create one DNxHD transcoded file on the XT[2]

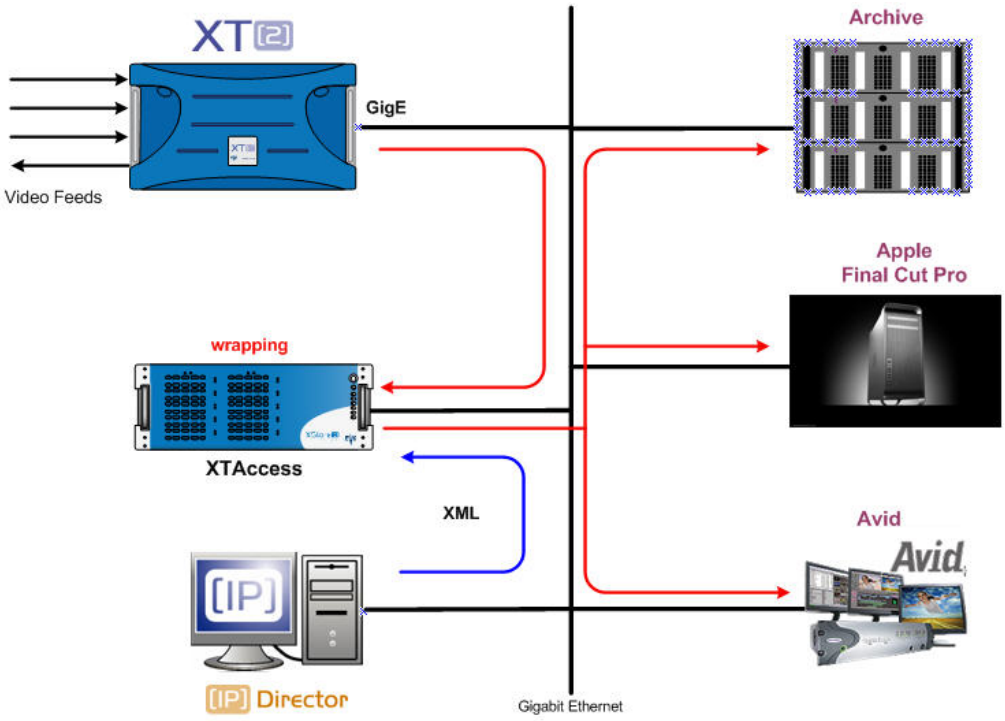
18. Backup of XT Trains to Files

This section covers XML Jobs IDs:

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

18.1 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 XT[2] server.
2. XTAccess processes the XML file:
    a. It gets the data stream (train) from XT[2] that has to be backed up.
    b. It generates a backup file of the train in the format specified by the external system (no transcoding feature, only native codec). The following formats are supported: EVS MXF, MXF OP-1A, AVI, AVIS MXF OPAtom, Quick Time, Quick Time Ref (depending of the video codec).
    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.

18.2 EXAMPLE OF XML BACKUP TRAIN TO FILE

```
<?xml version="1.0" encoding="utf-8"?>
<EVS_XFile_Job_List>
    <EVS_XFile_Job>
            <Job_Id>15</Job_Id>
            <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.

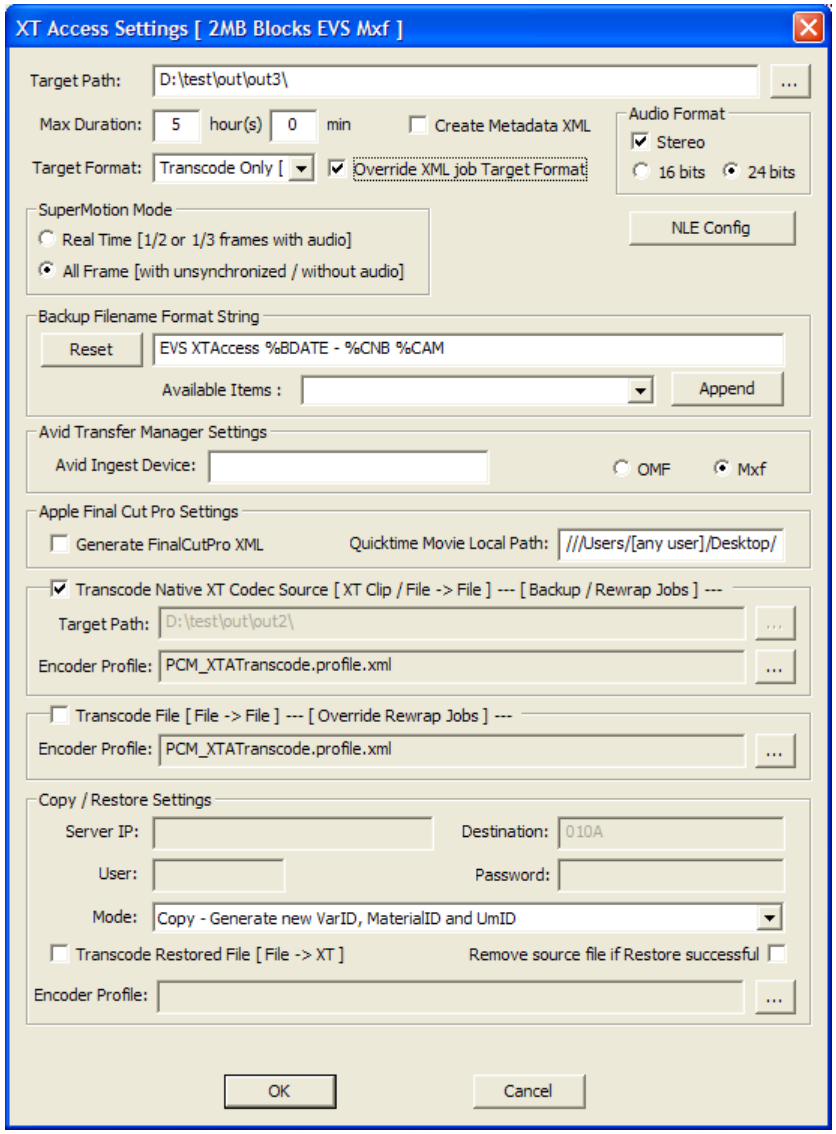
18.3 EXAMPLE OF XML UPDATE TRAIN

```
<?xml version="1.0" encoding="utf-8"?>
<EVS_XFile_Job_List>
    <EVS_XFile_Job>
            <Job_Id>633</Job_Id>
            <Job_Id_To_Update>15</Job_Id_To_Update>
            <Job_Type>21</Job_Type>
            <Job_Train_Out_TC>3362636</Job_Train_Out_TC>
    </EVS_XFile_Job>
</EVS_XFile_Job_List>
```

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

18.4 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 7.2.1 'SCAN XML Settings' on page 30).



18.4.1 MXF OP-1A

- **Audio Format**: Audio format configuration
  - o *16-Bit/24-Bit*: stereo button to select the audio resolution.

18.4.2 AVID MXF OPATOM

Avid MXF wrapper is only available in IMX and DNxHD video codec.

Limitations

- The Avid MXF files can be detected by the MediaComposer Media Tool only if the MediaComposer is used in stand-alone without Interplay
- Avid MXF files created by XTAccess can not be editing while transfer
- To be available by the MediaComposer Avid MXF files have to be created into Drive:\Avid MediaFiles\MXF\1\ folder

To have more information about Avid MXF integration, see the AVID MXF files: read Integration_Avid_MXF_OPATOM.doc

18.4.3 QUICK TIME & QUICK TIME REF

- Audio Format: Audio format configuration
  - *Stereo*: if selected, audio essences are considered as a stereo tracks, otherwise mono tracks. *Only used for Quick Time Movies and Quick Time Reference backup jobs.*
- Generate FinalCutPro XML: Generates an XML file to be imported into Apple Final Cut Pro. This allows to import EVS custom metadata. Only 6 EVS custom metadata can be imported in Final Cut Pro Project fields:
  - EVS Keyword 1 -> Master Comment 1
  - EVS Keyword 2 -> Master Comment 2
  - EVS Keyword 3 -> Master Comment 3
  - EVS Rating -> Master Comment 4
  - Clip Number -> Comment A
  - Camera ID -> Comment B
- Quick Time Movies Local Path: Local path referenced into the XML FCP to point to the Quick Time Movies File. Final Cut Pro only supports local path.

18.4.4 BACKUP FILE NAME FORMAT STRING:

It is possible to customize the format string of a file name in case of backup of clips and trains. Default value if string empty or tag empty or RESET: EVS XTAccess %BDATE - %CNB %CAM. Custom tags are:

- %NAME -> Clip name
- %XTNAME -> XT Name
- %XTIP -> XT GigE IP Address
- %CNB: -> Clip Number
- %CAM -> Camera ID
- %CAMLBL -> Camera Label
- %UMID -> UmID of the clip
- %IDMAT -> ID Material of the clip
- %TCIN -> TimeCode (Short) IN
- %TCOUT -> TimeCode (Short) OUT

- %BDATE -> Backup Date
- %BYEAR -> Backup Year
- %BMONTH -> Backup Month
- %BDAY -> Backup Day
- %VCODEC -> Video Codec

18.4.5 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:
  - 0: Active
  - 1: Not Active

18.5 MISCELLANEOUS

18.5.1 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.

18.5.2 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.

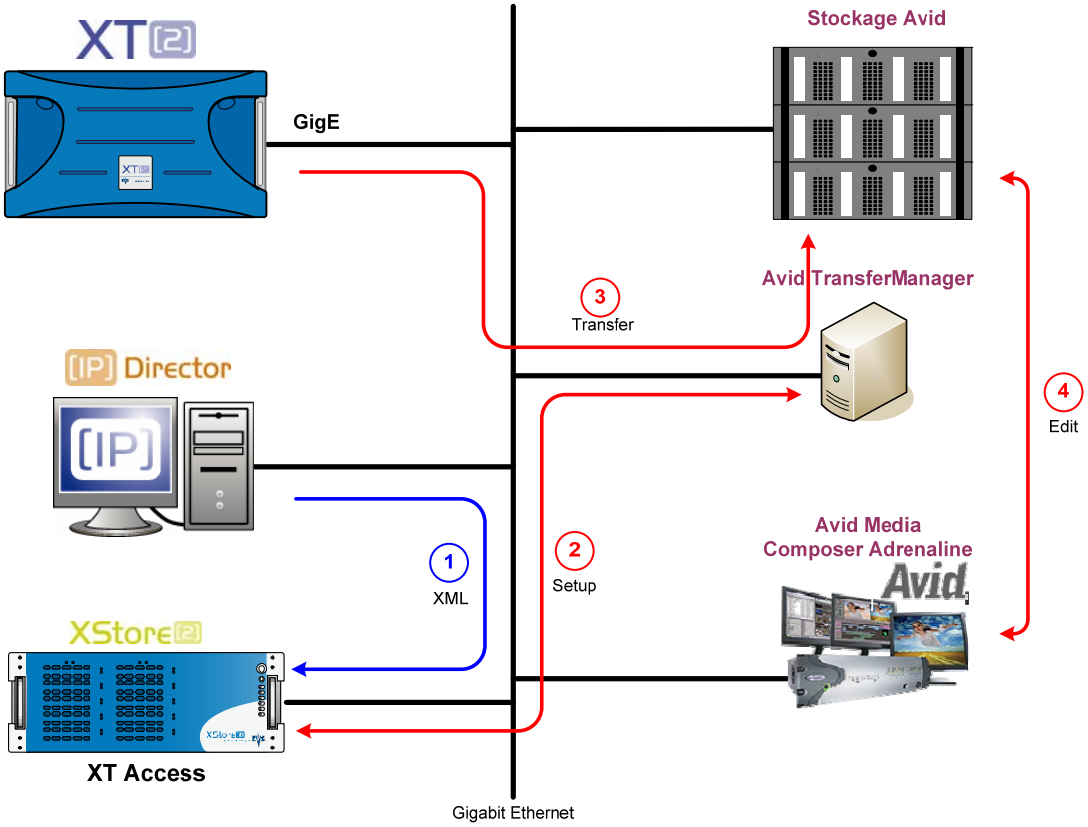
19. Transfer to Avid Transfer Manager

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)

19.1 WORKFLOW

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



1. An external system, for example IPDirector, sends an XML file to XT Access to request the transfer of a given clip, created on an XT[2] server, to Avid Transfer Manager.

   XT Access 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 XT[2] and sets up a FTP proxy connection between the XT[2] and the Avid Transfer Manager server.
4. The Avid Transfer Manager server stores the transferred file in the specified Avid storage.

19.2 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>
   <JobIdHistory>2029</JobIdHistory>
  </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

19.3 EXAMPLE OF XML AVID TRANSFER OF STREAM RECORD TRAIN

```
<?xml version="1.0" encoding="utf-8"?>
<EVS_XFile_Job_List>
    <EVS_XFile_Job>
            <Job_Id>15</Job_Id>
            <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

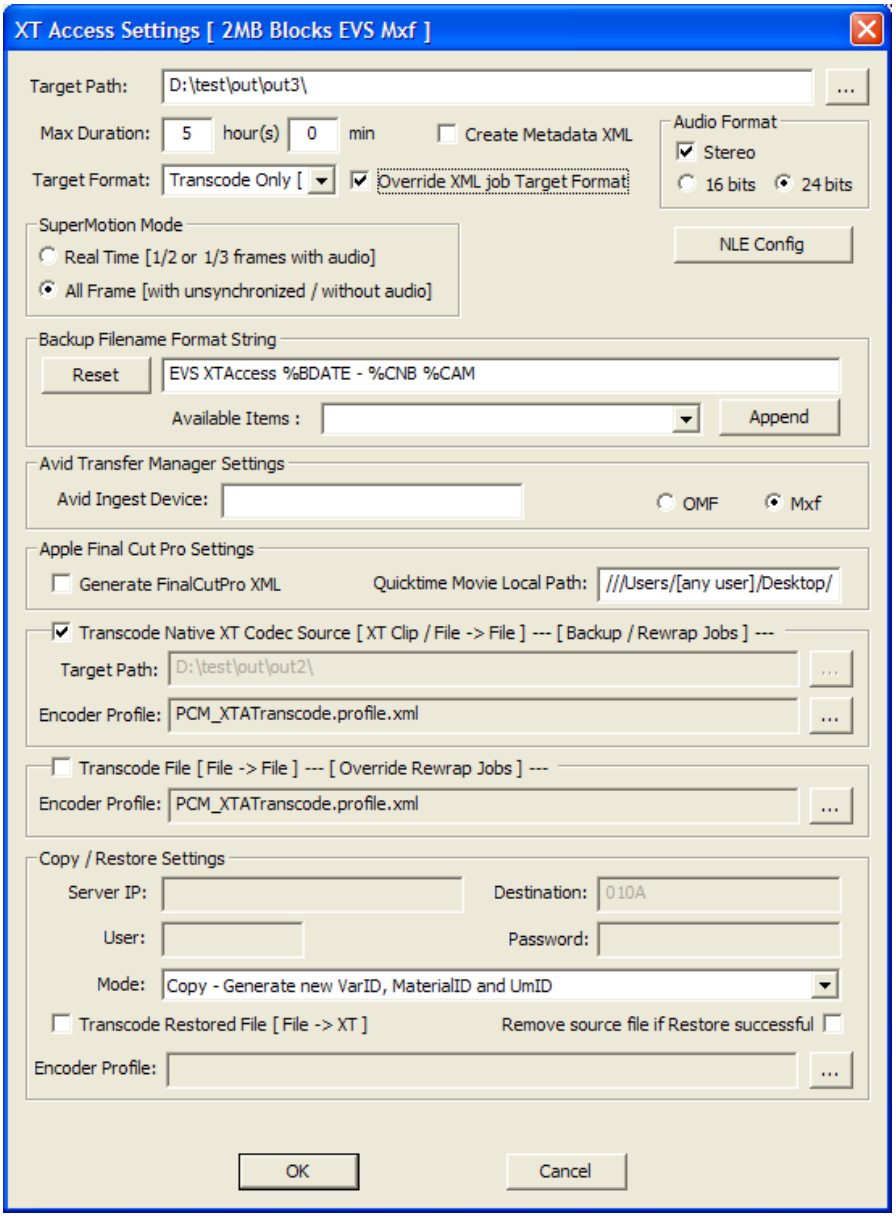
19.4 EXAMPLE OF XML AVID TRANSFER OF FILE

```
<?xml version="1.0" encoding="utf-8"?>
<EVS_XFile_Job_List>
    <EVS_XFile_Job>
            <Job_Id>60</Job_Id>
            <Job_Type>42</Job_Type>
            <Job_Src_File>X:\public\USA\_backups XTA\gloup.mxf</Job_Src_File>
            <Job_AvidTM_HostName>EVSDemo</Job_AvidTM_HostName>
            <Job_Dest_Short_In_TC>3006888</Job_Dest_Short_In_TC>
            <Job_Dest_Short_Out_TC>3007188</Job_Dest_Short_Out_TC>
            <Job_Dest_Guardband_TC>50</Job_Dest_Guardband_TC>
            <Job_Status>6</Job_Status>
    </EVS_XFile_Job>
</EVS_XFile_Job_List>
```

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

19.5 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 7.2.1 'SCAN XML Settings' on page 30).



19.5.1 AVID SPECIFIC SETTINGS

- Audio Format: Audio format configuration
  - *16-Bit/24-Bit*: stereo button to select the audio resolution.
- Avid Ingest Device: Avid Ingest Device name defined in Avid Transfer Manager server configuration (Ingest) if not defined into the XML file.
- OMF/MXF: Stereo button to select Avid file format after Avid ingest: OMF or MXF/AAF.

19.5.2 BACKUP FILE NAME FORMAT STRING:

It is possible to customize the format string of a file name in case of backup of clips and trains. Default value if string empty or tag empty or RESET: EVS XTAccess %BDATE - %CNB %CAM. Custom tags are:

- %NAME -> Clipname
- %XTNAME -> XT Name
- %XTIP -> XT GigE IP Address
- %CNB: -> Clip Number
- %CAM -> Camera ID
- %K1–> Keyword 1
- %K2 –> Keyword 2
- %K3 –> Keyword 3
- %K4 –> Keyword 4 (only available with IPDirector 5.xx)
- %K5 –> Keyword 5 (only available with IPDirector 5.xx)
- %RATING -> Rating 0,1,2 or 3
- %VARID -> Var ID
- %CDATE -> Creation Date
- %CMONTH -> Creation Month
- %CDAY -> Creation Day
- %CYEAR -> Creation Year
- %CAMLBL -> Camera Label
- %UMID -> UmID of the clip
- %IDMAT -> ID Material of the clip
- %TCIN -> TimeCode (Short) IN
- %TCOUT -> TimeCode (Short) OUT
- %BDATE -> Backup Date
- %BYEAR -> Backup Year
- %BMONTH -> Backup Month
- %BDAY -> Backup Day

- %VCODEC -> Video Codec

19.5.3 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:
  - 0: Active
  - 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
  - 1: Each frame is backed up. Audio is cancelled and TC is not consistent

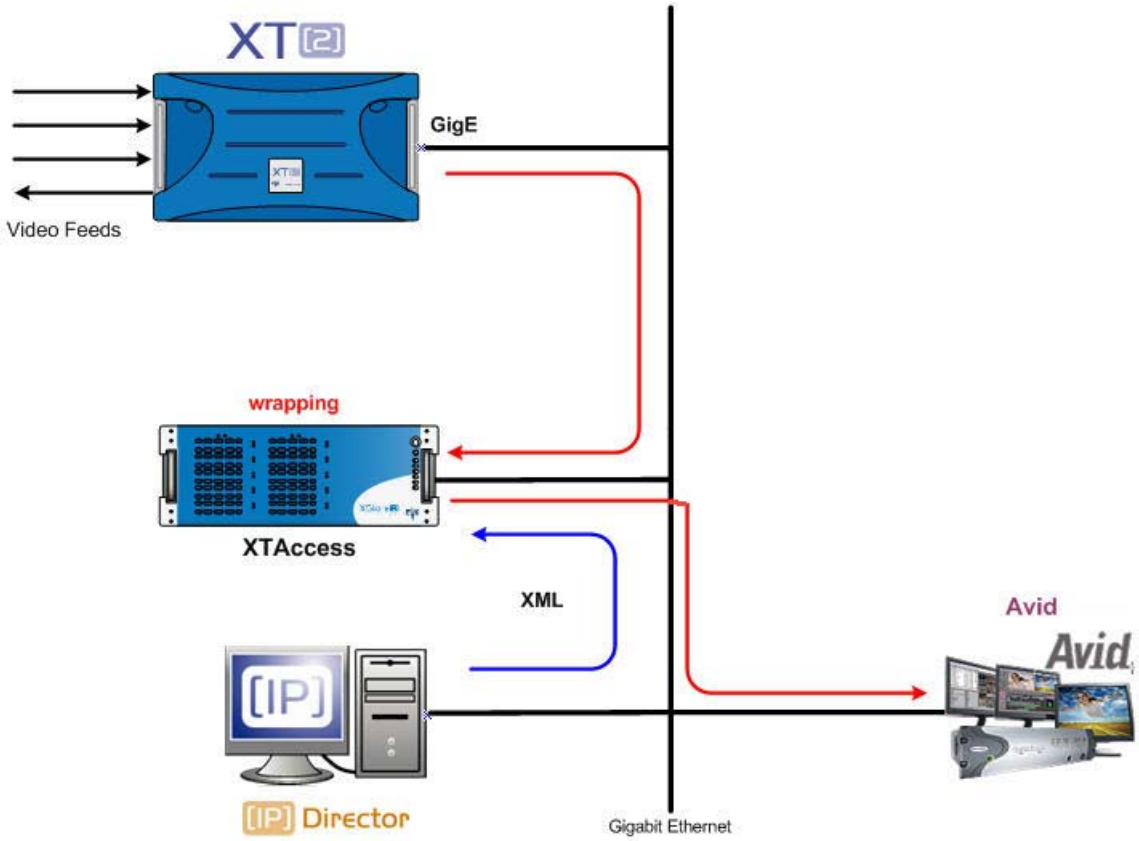
20. Transfer to Avid WebService

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)

20.1 WORKFLOW

The workflow is the same as a backup file in OPAtom but XTAccess will "chek 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 XT[2] server.
2. XTAccess processes the XML file:
   a. It gets the clip content that has to be backed up from XT[2].
   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 and DNxHD.

See EVS AVID integration document for more information.

20.2 EXAMPLE OF XML BACKUP FILE

To identify the clip you want to back up you can use the UmId, VarId or LsmID

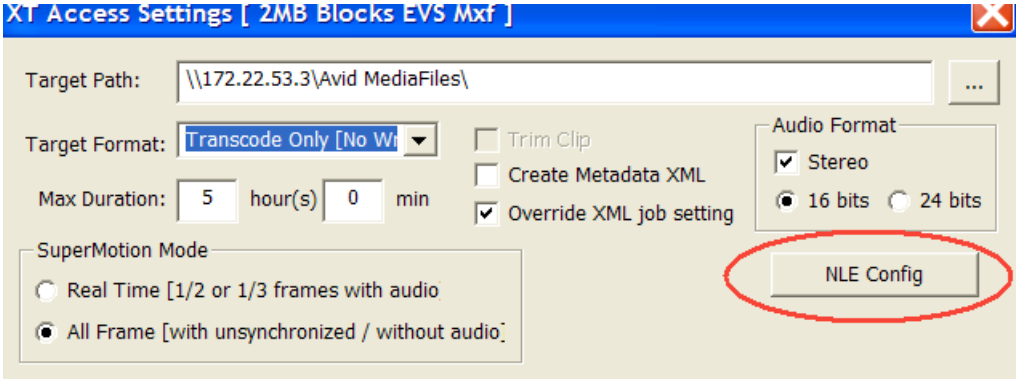
```
<?xml version="1.0"?>
<EVS_XFile_Job_List>
 <EVS_XFile_Job>
  <Job_Id>2246373</Job_Id>
  <Job_Creation_Time>1206001502</Job_Creation_Time>
  <Job_Type>0</Job_Type>
  <Job_Src_User_Nb>4</Job_Src_User_Nb>
  <Job_Src_Clip_Nb>23</Job_Src_Clip_Nb>
  <Job_Src_Cam>D</Job_Src_Cam>
  <Job_Dest_File>\\Xstore60170\testGB\</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>
   <JobIdHistory>2030</JobIdHistory>
  </Job_Src_App_Data>
  <Job_Dest_File_Format>9</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>
```

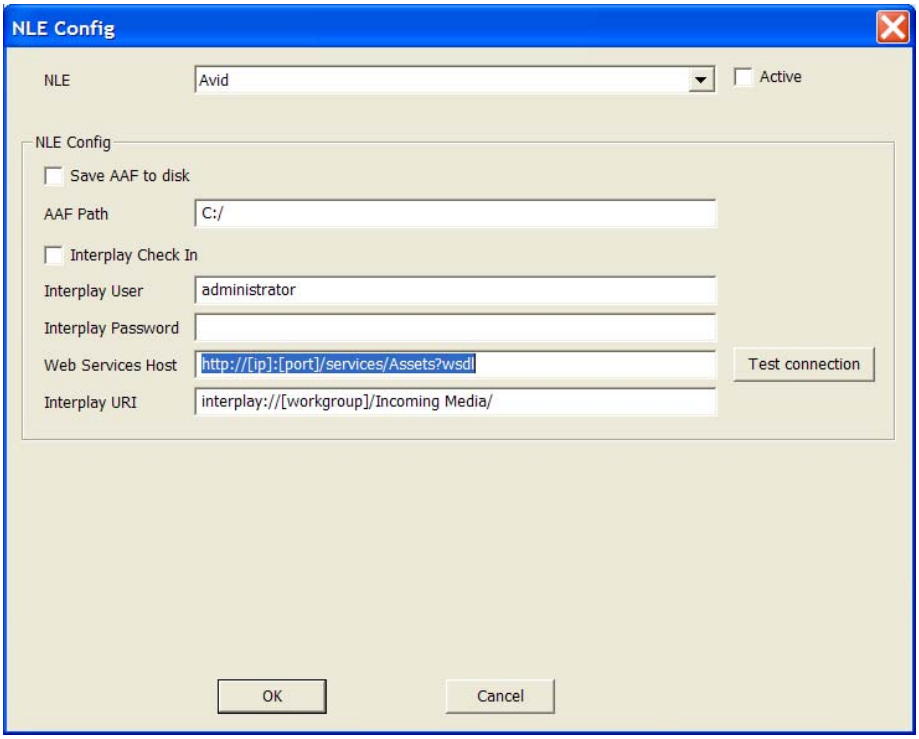
```
        <TCInDate>07-Mar-2008</TCInDate>
        <TCOutDate>07-Mar-2008</TCOutDate>
      </IPDirector_Clip_Infos>
    </Clip>
  </Clips_Infos>
 </EVS_Metadatas>
</EVS_XFile_Job>
</EVS_XFile_Job_List>
```

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

20.3 LOCAL XTACCESS SETTINGS (NON XML)

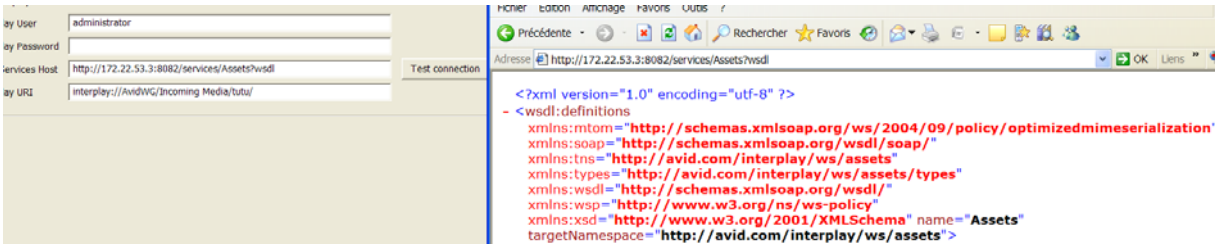
Some XTAccess settings are not supported by XML. They must therefore be specified in the local settings of the XML Jobs Scan (see section 7.2.1 'SCAN XML Settings').





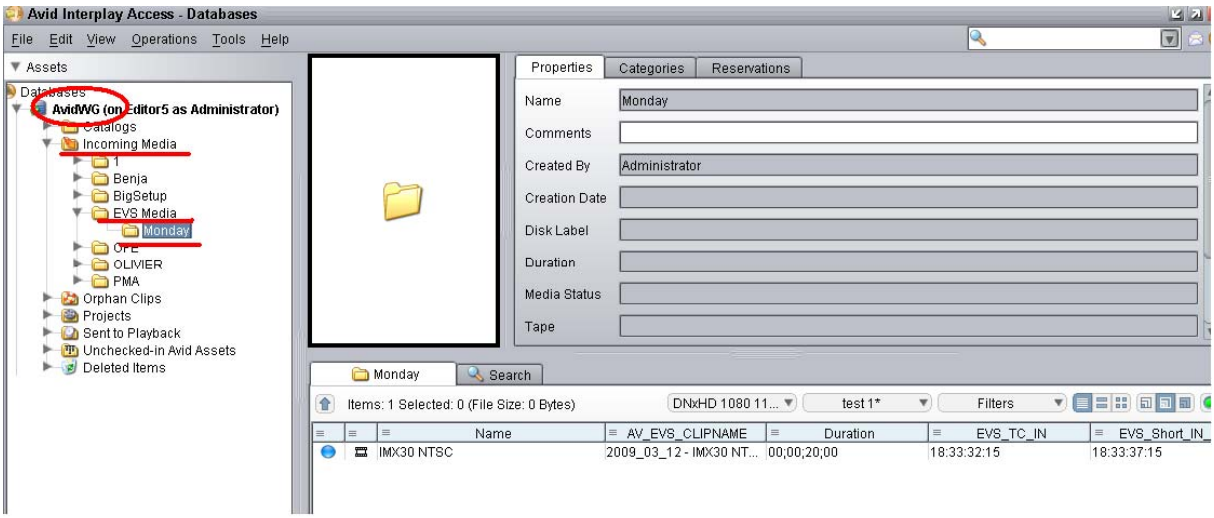
- Active: Allows you to activate or not the global XTAccess Web Service settings
- Save AFF to disk: Allows you to backup the AAF on disk before "check in" into Avid Interplay. This AFF can then be used for directly drag and drop your transferred clip or playlist into MediaComposer without using Avid Interplay Access.
- AAF path: Path where you want to store your AAF file.
- Interplay Check In: Allows you to activate or not the Interplay "check in".
- Interplay User: Interplay user which must have enough right to do check in into Interplay.
- Interplay Password: Password of the previous user
- Web Services Host: link to the Web Service on the Avid Interplay System, You have to replace:
  - o [IP] by the IP address of the computer where the Avid web Services are running
  - o [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:
  - o [Workgroup] by your Avid workgroup

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



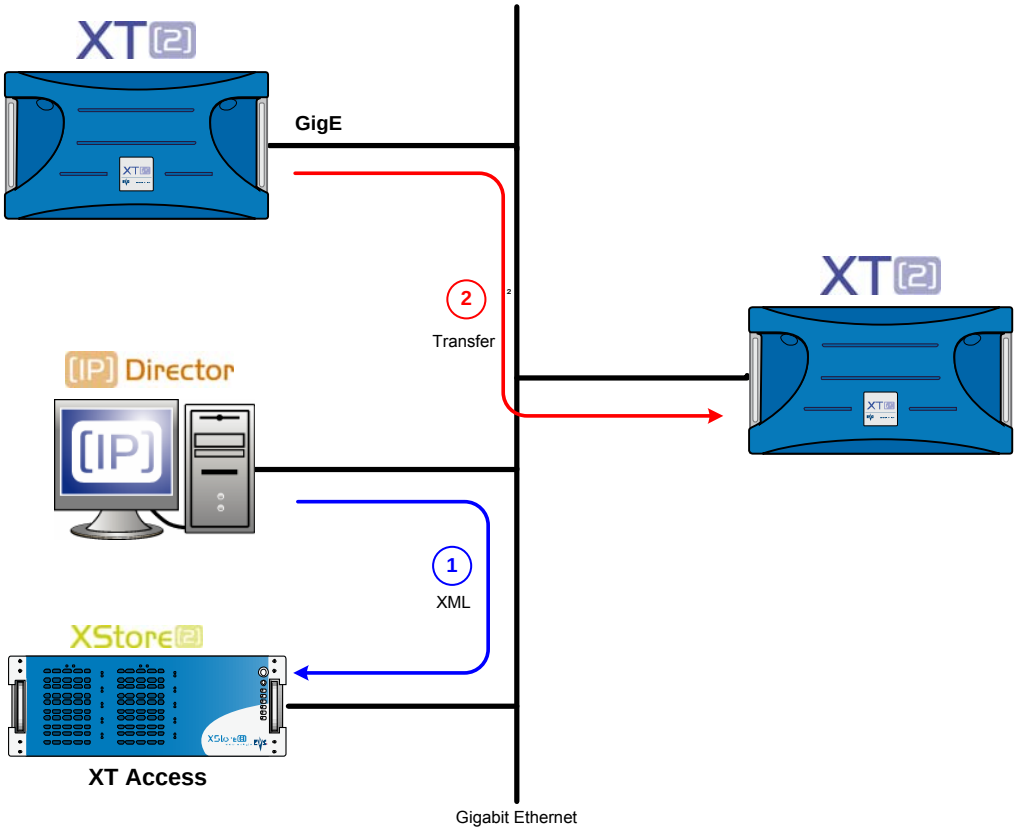
21. XT Copy

This section covers XML Jobs IDs:

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

21.1 WORKFLOW

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



1. An external system, for example IPDirector, sends an XML file to XT Access to request the transfer of a given clip created on an XT[2] server to another XT[2] server.

XT Access processes the XML file:

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

21.2 EXAMPLE OF XML XT 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_Id>2261335</Job_Id>
  <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>kuLs9clY</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>kuLs9clY</ClipLouthID>
   <ClipMaterialID>5ZLsDZ0W</ClipMaterialID>
   <NumUser>6</NumUser>
   <BackupUnitID>87</BackupUnitID>
   <JobIdHistory>2031</JobIdHistory>
  </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

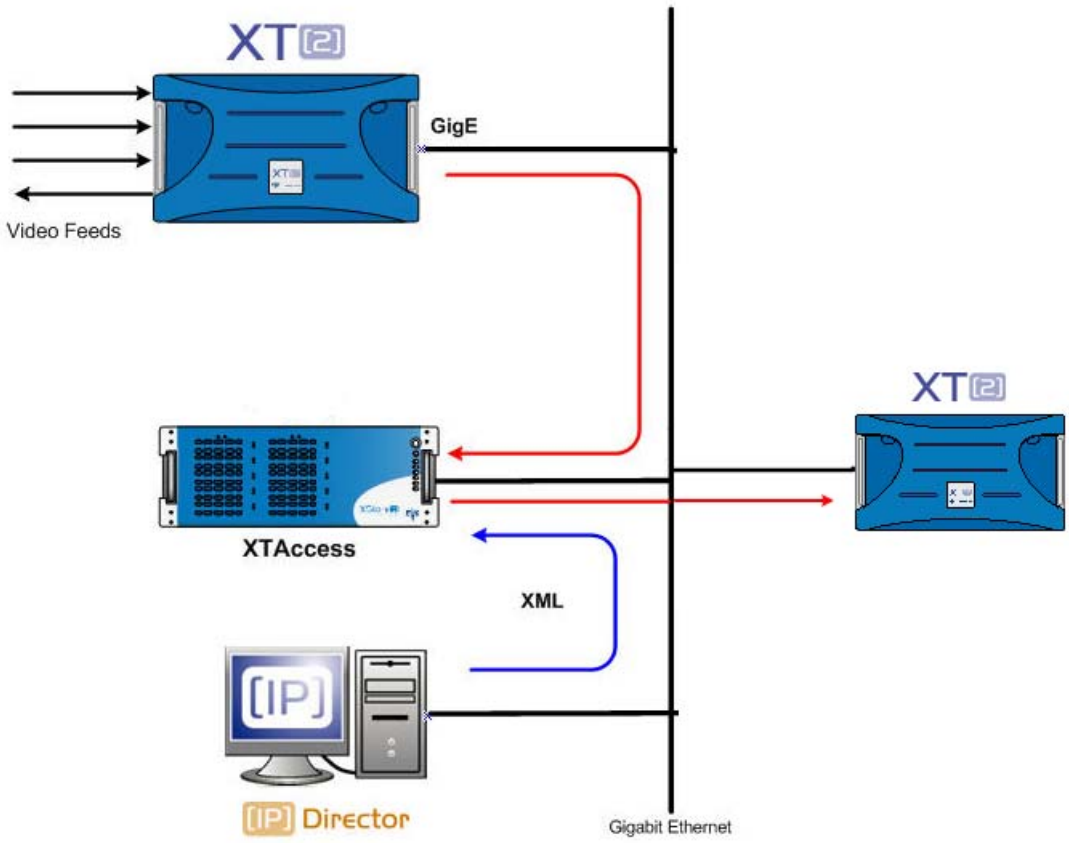
22. Render of PlayList from XT to XT

This section covers XML Jobs IDs:

- Job #24: Render a Playlist from an XT to a solid clip on an XT

22.1 WORKFLOW

The following schema shows how the copy of playlist from XT[2] to another XT[2] is performed with the Gigabit connection and XTAccess:



1. An external system, for example IPDirector, sends an XML file to XTAccess to request the copy of a playlist from XT[2] server to another XT[2] server.
2. XTAccess processes the XML file:
   a. It gets the playlist content that has to be copy.
   b. It generates one clip (concatenation without effects) of the playlist on the other XT

Remark:

If the backup is not successful, the clip will be deleted from the disk and CleanEdit database.

22.2 EXAMPLE OF XML BACKUP FILE

To identify the clip you want to back up you can use the UmId, VarId or LsmID

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

```
<?xml version="1.0" ?>
- <EVS_XFile_Job_List>
- <EVS_XFile_Job>
<Job_Id>2246915</Job_Id>
<Job_Type>24</Job_Type>
- <EVSEDL Version="1.1" Provider="ipdirector">
- <Playlist Name="ProRes_Plst" VideoFormat="1" Description="" CreationDate="11-Dec-2008 09:46:43"
AuxTrackUmID="" Duration="0" Duration_Str="--:--:--:--" NbrOfElements="2">
- <ElemPls Position="1" UmID="5ZMTo9fW" name="5ZMTo9fW" TCTrack="00:00:41:00"
VideoTcIn="3888328" VideoTcIn_Str="16:27:23:12" VideoTcDuration="500"
VideoTcDuration_Str="00:00:12:20" VideoEffectType="1" VideoEffectType_Str="Cut"
VideoEffectDuration="0" VideoEffectDuration_Str="00s00" AudioType="4" AudioType_Str="8 monos"
AudioTcIn="2962174" AudioTcIn_Str="16:27:23:12" AudioTcDuration="640"
AudioTcDuration_Str="00:00:12:20" AudioEffectType="1" AudioEffectType_Str="Cut"
AudioEffectDuration="0" AudioEffectDuration_Str="00s00" StillMode="NoStillMode"
StillModeDuration="" StartMode="Automatic" SpeedN="300" SpeedD="300">
<Job_Src_XT_IP_Address1>172.22.51.1</Job_Src_XT_IP_Address1>
<Job_Src_XT_Port1>21</Job_Src_XT_Port1>
<Job_Src_XT_IP_Address2>172.22.51.1</Job_Src_XT_IP_Address2>
<Job_Src_XT_Port2>21</Job_Src_XT_Port2>
<Job_Src_XT_FTP_Login>evs</Job_Src_XT_FTP_Login>
<Job_Src_XT_FTP_Password>evs!</Job_Src_XT_FTP_Password>
</ElemPls>
- <ElemPls Position="2" UmID="@blackclip !" name="blackclip" TCTrack="00:00:41:00"
VideoTcIn="1000" VideoTcIn_Str="16:27:23:12" VideoTcDuration="250"
VideoTcDuration_Str="00:00:12:20" VideoEffectType="1" VideoEffectType_Str="Cut"
VideoEffectDuration="0" VideoEffectDuration_Str="00s00" AudioType="4" AudioType_Str="8 monos"
AudioTcIn="2962174" AudioTcIn_Str="16:27:23:12" AudioTcDuration="640"
AudioTcDuration_Str="00:00:12:20" AudioEffectType="1" AudioEffectType_Str="Cut"
AudioEffectDuration="0" AudioEffectDuration_Str="00s00" StillMode="NoStillMode"
StillModeDuration="" StartMode="Automatic" SpeedN="300" SpeedD="300">
<Job_Src_XT_IP_Address1>172.22.51.1</Job_Src_XT_IP_Address1>
<Job_Src_XT_Port1>21</Job_Src_XT_Port1>
<Job_Src_XT_IP_Address2>172.22.51.1</Job_Src_XT_IP_Address2>
<Job_Src_XT_Port2>21</Job_Src_XT_Port2>
<Job_Src_XT_FTP_Login>evs</Job_Src_XT_FTP_Login>
<Job_Src_XT_FTP_Password>evs!</Job_Src_XT_FTP_Password>
</ElemPls>
```

```
</Playlist>
</EVSEDL>
<Job_Dest_XT_IP_Address1>172.22.51.3</Job_Dest_XT_IP_Address1>
<Job_Dest_XT_Port1>21</Job_Dest_XT_Port1>
<Job_Dest_XT_FTP_Login>evs</Job_Dest_XT_FTP_Login>
<Job_Dest_XT_FTP_Password>evs!</Job_Dest_XT_FTP_Password>
<Job_Dest_Clip_Nb>996</Job_Dest_Clip_Nb>
<Job_Dest_Cam>A</Job_Dest_Cam>
<Job_Dest_Page>9</Job_Dest_Page>
<Job_Dest_File_First_TC>700</Job_Dest_File_First_TC>
<Job_Dest_File_First_TC_System>3</Job_Dest_File_First_TC_System>
<Job_Render_Audio_Fade_Duration>50</Job_Render_Audio_Fade_Duration>
<Job_Dest_XML_Referencing_Path>F:\AnyFolder\</Job_Dest_XML_Referencing_Path>
</EVS_XFile_Job>
</EVS_XFile_Job_List>
```

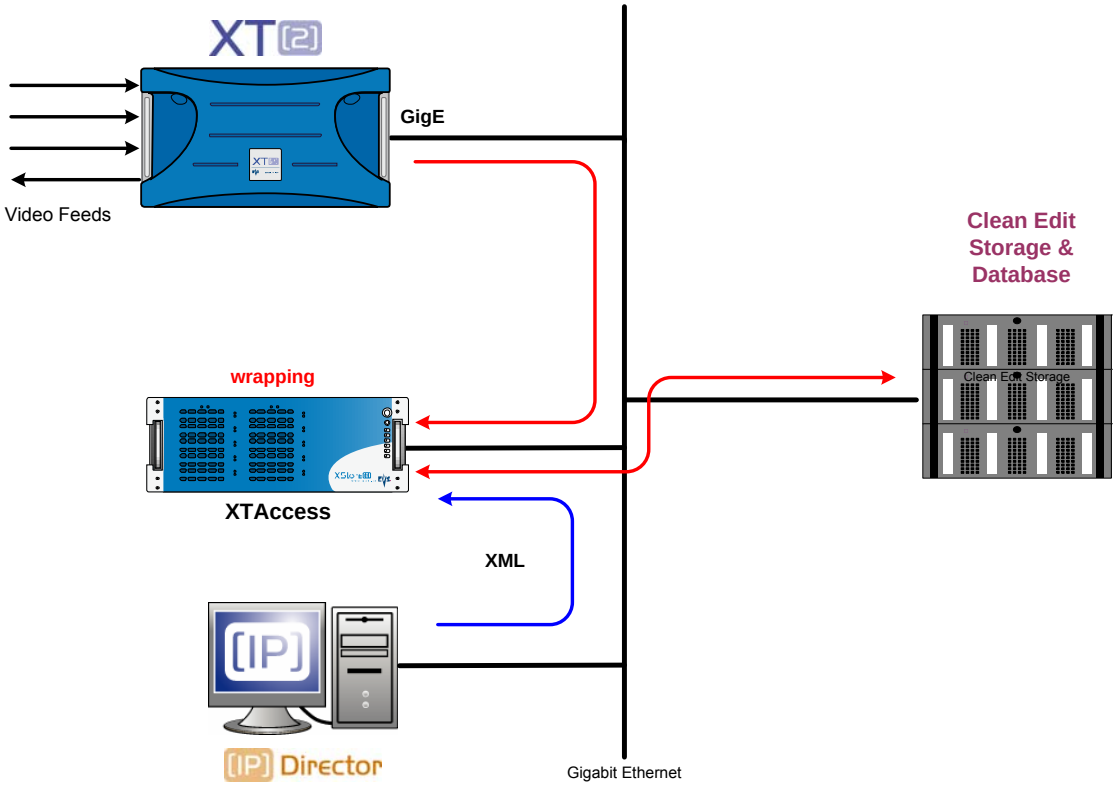
23. Integration with CleanEdit Suite

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

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 XT[2] server to CleanEdit database.

XTAccess processes the XML file:

2. It gets the clip content, which has to be backed up, from XT[2].
3. It generates a backup file of the clip in the format specified by the external system (no transcoding feature, only native codec). The following formats are supported: EVS MXF, MXF OP-1A, Quick Time (depending on the video codec).
4. It stores the backup file in the target folder specified by the external system. The clip and its metadata are referred to in the CleanEdit database.

Remark:

If the backup is not successful, the clip will be deleted from the disk and CleanEdit database.

The referencement in the CE DB is done at the beginning of the backup and an update is done at the end.

23.2 EXAMPLE OF XML TRANSFER TO CLEANEDIT FILE

To identify the clip you want to transfer to CleanEdit you can use the UmId, VarId or LsmID

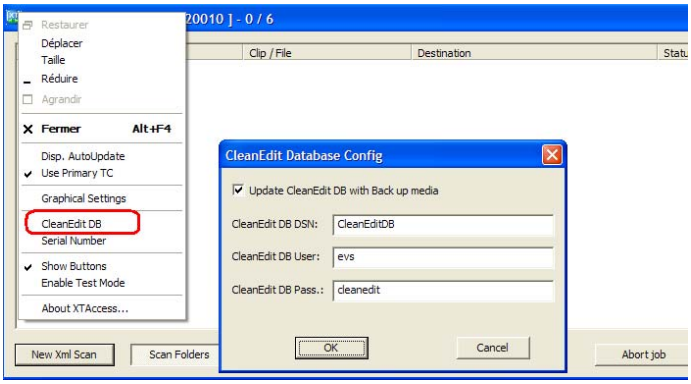
```
<?xml version="1.0"?>
<EVS_XFile_Job_List>
 <EVS_XFile_Job>
  <Job_Id>2240063</Job_Id>
  <Job_Creation_Time>1206541502</Job_Creation_Time>
  <Job_Type>0</Job_Type>
  <Job_Src_User_Nb>6</Job_Src_User_Nb>
  <Job_Src_Clip_Nb>265</Job_Src_Clip_Nb>
  <Job_Src_Cam>A</Job_Src_Cam>
  <Job_Dest_File>\\Xstore-amd\G\CE_MEDIAS\HiResFiles\</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.

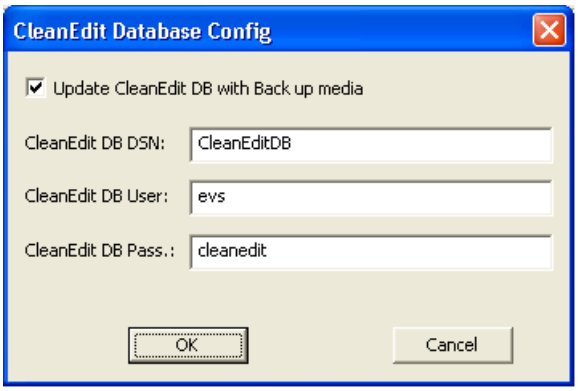
23.3 LOCAL XTACCESS SETTINGS (NON XML)

To use XTAccess with CleanEdit you need to add the CleanEditDB.dll into the folder of XTAccess. Then you will be able to see the CleanEdit Settings.

First right-click the Title bar of the main window to open the configuration menu.



Then select the CleanEdit DB configuration.



Field Name	Description
Update CleanEdit DB with Back up media	Select the checkbox to auto-update the CleanEdit DB
CleanEdit DB DSM	DNS Name of CleanEdit database target
CleanEdit DB User	DNS User of CleanEdit database target
CleanEdit DB Pass	DNS Password of CleanEdit database target

These values will be used if there are not present in the XML file.

Some XTAccess settings are not supported by XML. They must therefore be specified in the local settings of the XML Jobs Scan (see section 7.2.1 'SCAN XML Settings' on page 30).

23.3.1 MXF OP-1A

- Audio Format: Audio format configuration
  - *16-Bit/24-Bit*: stereo button to select the audio resolution.

23.3.2 QUICK TIME & QUICK TIME REF

- Audio Format: Audio format configuration
  - *Stereo*: if selected, audio essences are considered as a stereo track, otherwise mono tracks. *Only used for Quick Time Movies and Quick Time Reference backup jobs.*

23.3.3 BACKUP FILE NAME FORMAT STRING:

It is possible to customize the format string of a file name in case of backup of clips and trains. Default value if string empty or tag empty or RESET: EVS XTAccess %BDATE - %CNB %CAM. Custom tags are:

- %NAME -> Clipname
- %XTNAME -> XT Name
- %XTIP -> XT GigE IP Address
- %CNB: -> Clip Number
- %CAM -> Camera ID
- %K1–> Keyword 1
- %K2 –> Keyword 2
- %K3 –> Keyword 3
- %K4 –> Keyword 4 (only available with IPDirector 5.xx)
- %K5 –> Keyword 5 (only available with IPDirector 5.xx)
- %RATING -> Rating 0,1,2 or 3
- %VARID -> Var ID
- %CDATE -> Creation Date
- %CMONTH -> Creation Month
- %CDAY -> Creation Day
- %CYEAR -> Creation Year
- %CAMLBL -> Camera Label
- %UMID -> UmID of the clip
- %IDMAT -> ID Material of the clip
- %TCIN -> TimeCode (Short) IN
- %TCOUT -> TimeCode (Short) OUT
- %BDATE -> Backup Date
- %BYEAR -> Backup Year

- %BMONTH -> Backup Month
- %BDAY -> Backup Day
- %VCODEC -> Video Codec

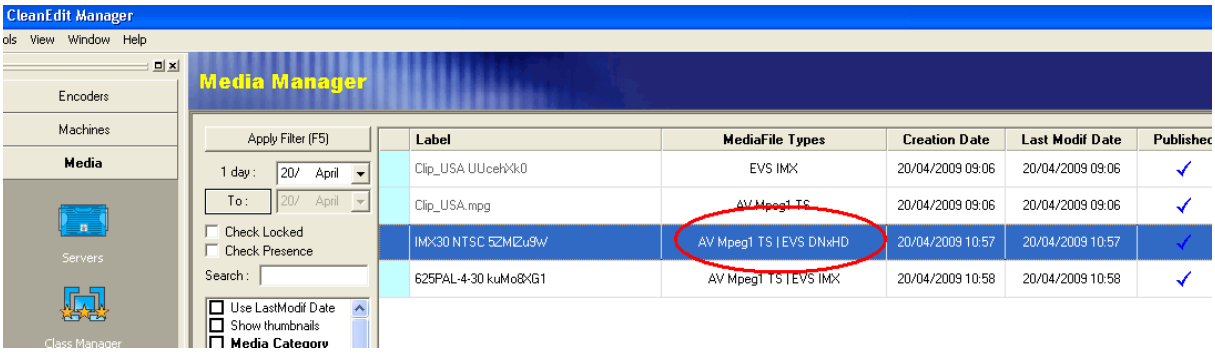
23.3.4 REGISTRY SETTINGS

- HKEY_LOCAL_MACHINE\SOFTWARE\EVS Broadcast Equipment\Common \ MinFieldsToWriteBeforeRefInCEDB: Specific setting to wait a specific number of fields before referencing clips into CleanEdit.
- 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:
  - 0: Active
  - 1: Not Active

23.3.5 WORKFLOW WITH TRANSCODING ON THE FLY

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

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 CleanEdit



24. Grab Field from XT

XTAccess is able to grab a field of any clip on a XT[2] 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 XT (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_Id>1260933</Job_Id>
  <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

```
<?xml version="1.0" encoding="utf-8" ?>
    <EVS_XFile_Job_List>
    <EVS_XFile_Job>
       <Job_Id>0</Job_Id>
       <Job_Creation_Time>1215587215</Job_Creation_Time>
       <Job_Type>16</Job_Type>
       <Job_Src_File>F:\_Backups\EVS XTAccess 2008_10_16 - 010
A.mxf</Job_Src_File>
       <Job_Src_Field_TC>4629050</Job_Src_Field_TC>
       <Job_Src_TC_System>4</Job_Src_TC_System>
       <Job_Dest_File>F:\_Backups\1.jpg</Job_Dest_File>
</EVS_XFile_Job>
</EVS_XFile_Job_List>
```

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

```
<?xml version = "1.0" ?>
<EVS_XFile_Job_List>
    <EVS_XFile_Job>
            <Job_Id>2267204237937067</Job_Id>
            <Job_Creation_Time>1131111037</Job_Creation_Time>
            <Job_Type>5</Job_Type>
            <Job_Src_File>
                    F:\XFile_Path_A\backup 2004_06_14 - 02 - 122 A.mxf
            </Job_Src_File>
            <Job_Src_Id>67IJcUL0</Job_Src_Id>
            <Job_Src_Id_Material>67IJcUL0</Job_Src_Id_Material>
    </EVS_XFile_Job>
</EVS_XFile_Job_List>
```

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

27. Delete Clip from XT

XTAccess is able to delete a clip from a XT.

This section covers XML Jobs IDs:

- Job #3: Delete Clip from XT (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

```
<?xml version="1.0" ?>
<EVS_XFile_Job_List>
   <EVS_XFile_Job>
   <Job_ID>4942648367704751</Job_ID>
   <Job_Type>3</Job_Type>
   <Job_Src_XT_IP_Address1>172.22.51.1</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_VarId>mD6RH6-W</Job_Src_VarId>
 </EVS_XFile_Job>
 </EVS_XFile_Job_List>
```

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

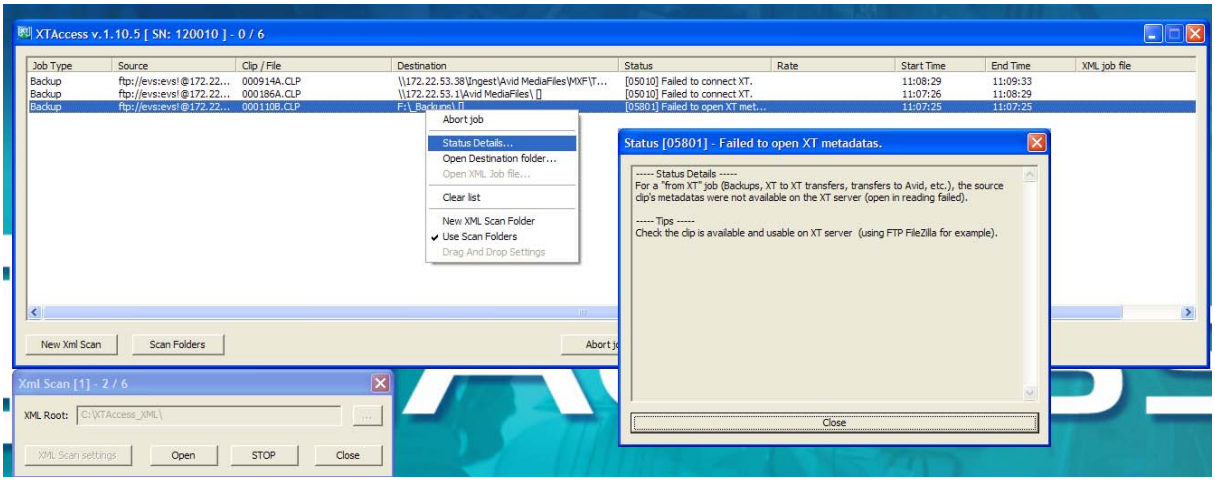
To identify the job you want to cancel: you have to use the Job_Id of the XML Job you wan to cancel.

```
<?xml version = "1.0" ?>

<EVS_XFile_Job_List>
    <EVS_XFile_Job>
            <Job_Id>1238419214432263</Job_Id>
            <Job_Creation_Time>1129799940</Job_Creation_Time>
            <Job_Type>4</Job_Type>
            <Job_Id_To_Cancel>1238789214432654</Job_Id_To_Cancel>
            <Job_Type_To_Cancel>3</Job_Type_To_Cancel>
    </EVS_XFile_Job>
</EVS_XFile_Job_List>
```

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.

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.

- 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

Regional Contacts

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