Instant Tapeless Technology	**EVS Integration with Avid Transfer Engine**
Authors: Serge Comes & Olivier Fettweis	Object : Workflows, installation & User's Manual
Date: 30/01/2009 / Version: 2.13	

1 HISTORY

Version	Date	Author	Description
1.00	18/09/2006	Serge Comes	Creation
1.01	3/10/2006	Serge Comes	XBrowse/XStore limitation
2.00	10/04/2007	Serge Comes	DNxHD & Interplay integration
2.01	10/05/2007	Serge Comes	Update & corrections with XT package v8.04
2.02	4/06/2007	Serge Comes	Corrections
2.03	20/06/2007	Serge Comes	Release 1.2.2 (WG4) & 2.1.1 (Interplay Transfer v1.1.0)
2.04	05/07/2007	Serge Comes	Release 2.2.0 (Interplay Transfer v1.1.2) & load balancing with multi Transfer Manager
2.05	03/08/2007	Serge Comes	Update with Release Package Multicam 8.04.27
2.06	09/11/2007	Serge Comes	New EVS Avid Tools v1.3.3 & v2.3.3 for Package Multicam 8.04.33
2.07	28/01/2008	Olivier Fettweis	Beta 2.4.3 (interplay v1.1.6) & Multicam 9
2.08	01/03/2008	Serge Comes	Avid Interplay v1.2.1, Avid FTP DHM, EVS-Avid Quick setup
2.09	09/04/2008	Serge Comes	Multicam 9 package release, Avid PB server nicknames
2.10	24/07/2008	Olivier Fettweis	Multicam 10 package release and IPD5 referencing, Avid PB server
2.11	25/08/2008	Olivier Fettweis	Package Multicam 9.00.70
2.12	21/11/2008	Olivier Fettweis	Locator and catalog (for IPD5) Video Mixdown (2 video Tracks) Log description + Testing part New Avid Play Back Server Avid MXF OPATOM workflow Avid Tape Metadata for Ingest
2.13	30/01/09	Olivier Fettweis	Creation of folder into interplay Access – Interplay 1.5

2 TABLE OF CONTENT

3 OBJECTIVE OF THE DOCUMENT

This document describes the installation, configuration and procedure to interface EVS XT server and Avid Transfer Manager.

Avid has developed several API to interface Third parties devices with Avid Transfer Manager and Avid Media Manager servers.

- Avid Transfer Manager Playback (DHM) SDK
- Transfer Manager Automation SDK

EVS has developed applications (EVS Avid Tools) communicating with those API in order to:

- Import IMX D10 & Avid DNxHD® Codec content from an XT[2] server to Unity and Media Composer Adrenaline NLE. This can be performed through XFile or a standalone application EVS Avid Browser
- Export and generate IMX D10 & Avid DNxHD® Codec content from a Media Composer Adrenaline NLE belonging to a Unity system. This can be performed through the standalone EVS Avid Playback application.
- Interface with WG 4 and Interplay (WG5) environments. Each system implements different APIs, resulting in separate installer for EVS Avid Tools.

4 MAIN FEATURES

- **2-way process** : import and export with Avid Transfer Manager Server
- **SD & HD** with XT[2] only, not XT[1]!
- **EVS native format IMX D10** :
    - IMX 30/40/50 supported.
    - No decoding/encoding process. Native XT[2] quality is preserved.
- **EVS native format Avid DNxHD® Codec** :
    - Low level 8-bit : 120 Mbps (1080i50, 720p50) & 145 Mbps (1080i59.94 & 720p59.94)
    - High level 8-bit : 185 Mbps (1080i50, 720p50) & 220 Mbps (1080i59.94 & 720p59.94)
    - No decoding/encoding process. Native XT[2] quality is preserved.
- **Avid DHM :**
    - EVS DHM : EVS Avid Browser, EVS PlayBack Server, Streaming Transfer with XT[2], direct access to EVS XT[2] Gigabit interface.
    - Avid FTP DHM : Only for IMX-D10 backup files in MXF OP1a format.
- **EVS Access Content Formats** :
    - EVS MXF (IMX-D10 & Avid DNxHD® Codec)
    - MXF OP1a (IMX-D10 only)
    - Native XT[2] rough file format via FTP XT[2] GigaBit
- **Avid File formats**: OMF & AAF (MXF) are supported. Note : Interplay only supports AAF/MXF, not OMF !
- **Audio:** 4 or 8 channels, 16-bit & 24-bit supported. Audio Filler
- **Metadata** : EVS Metadata see list below
- **Formats** : 625i25 (PAL), 525i29.97 (NTSC), 1080i50, 1080i59.94, 720p50 & 720p59.94
- **SuperSlow Motion:** By default SuperSlow Motion clips are transferred to Avid Transfer Manager frame by frame : the actual speed on Avid MC is then a SuperSlow Motion. Audio is withdrawn and TC is not consistent. For other SuperSlow Motion modes, please contact EVS. EVS MXF format only. MXF OP1a not supported.

5 VERSIONS COMPLIANCE MATRIX

5.1 Avid APIs

Avid supplies several versions of APIs, either compliant with WG 4 (non Interplay) or with Interplay versions.

- WG 4 (non Interplay) :
  - DHM : Avid TM-DHM v2.9.1
  - TMAuto : Transfer Manager Automation API v2.9.1
- Interplay v1.1.2:
  - DHM : SDK_DHM_Interplay_1.0.7.20070629
  - TMAuto : SDK_TMAutoAPI_Interplay-20061130
- Interplay v1.1.6:
  - DHM : SDK_DHM_Interplay_1.1.5.20071004
  - TMAuto : SDK_TMAutoAPI_Interplay-20061130
- Interplay v1.2.1:
  - DHM : SDK_DHM_Interplay_1.2.0.20071218
  - TMAuto : SDK_TMAutoAPI_Interplay-20061130
- Interplay v1.2.3
- Interplay v1.4 (TM v1.2.4):
- Interplay 1.4.2
- Interplay 1.5.0

5.2 Avid Software

Please contact Avid support for specific architecture and HW specifications.

- **WG 4 (non Interplay) : IMX D10 only**
    - Avid Transfer Manager Server & Client : v2.9.10, 2.9.12, 2.9.14, 2.9.16, 2.9.19, 2.9.21.
    - Avid Unity MediaManager Server : v4.5+
    - Avid Media Composer Adrenaline : v2.2.6+ (v2.9 or 2.9.10 recommended).
    - Avid NewsCutter Adrenaline HD : v6.2.6+
- **Interplay : IMX D10 & Avid DNxHD® Codec**
    - Avid Interplay v1.1.2; 1.1.6; 1.2.1; 1.2.3; 1.2.4, 1.4.2,1.5.0 This includes Avid Interplay Engine & Transfer Engine Server & Client.
    - Avid Media Composer (Adrenaline) : v2.7.2, v2.8.0 and 3.0.5
    - Avid NewsCutter : v6.7.2 & v6.8.0 (?)

5.3 EVS Software

- ***EVS Avid Tools*** : EVS Avid tools dlls must be compiled with the specific Avid APIs.
  - **Avid WG 4 (non Interplay)** : EVSAvid_WG4_Setup_1.6.36.0.exe
  - **Interplay v1.1.2 (TM v1.1.2)**: EVSAvid_Interplay_1.1.2_Setup_2.6.36.0.exe
  - **Interplay v1.1.6 (TM v1.1.5) :** EVSAvid_Interplay_1.1.5_Setup_2.6.36.0.exe
  - **Interplay v1.2.1 (TM v1.2.0) :** EVSAvid_Interplay_1.2.0_Setup_2.6.36.0.exe

- ***XT Suite for XT[2] servers :***
  - **Release Package 8.04.33 (November 2007)**
    - Multicam v8.04.33
    - XFile v1.13.01
    - XFile Lite v1.01.01
    - IP Director v4.31.80
    - MediaXchange v1.10.06
  - **Release Package M9.00.70**
    - Please refer to the specific document "Software Compatibility for Package Multicam 09.00.70".
  - **Release Package M9.00.74**
    - Please refer to the specific document "Software Compatibility for Package Multicam 09.00.74".
  - **Package M10.00.45 (Beta Version)**

6 WORKFLOWS

Preliminary Remarks :

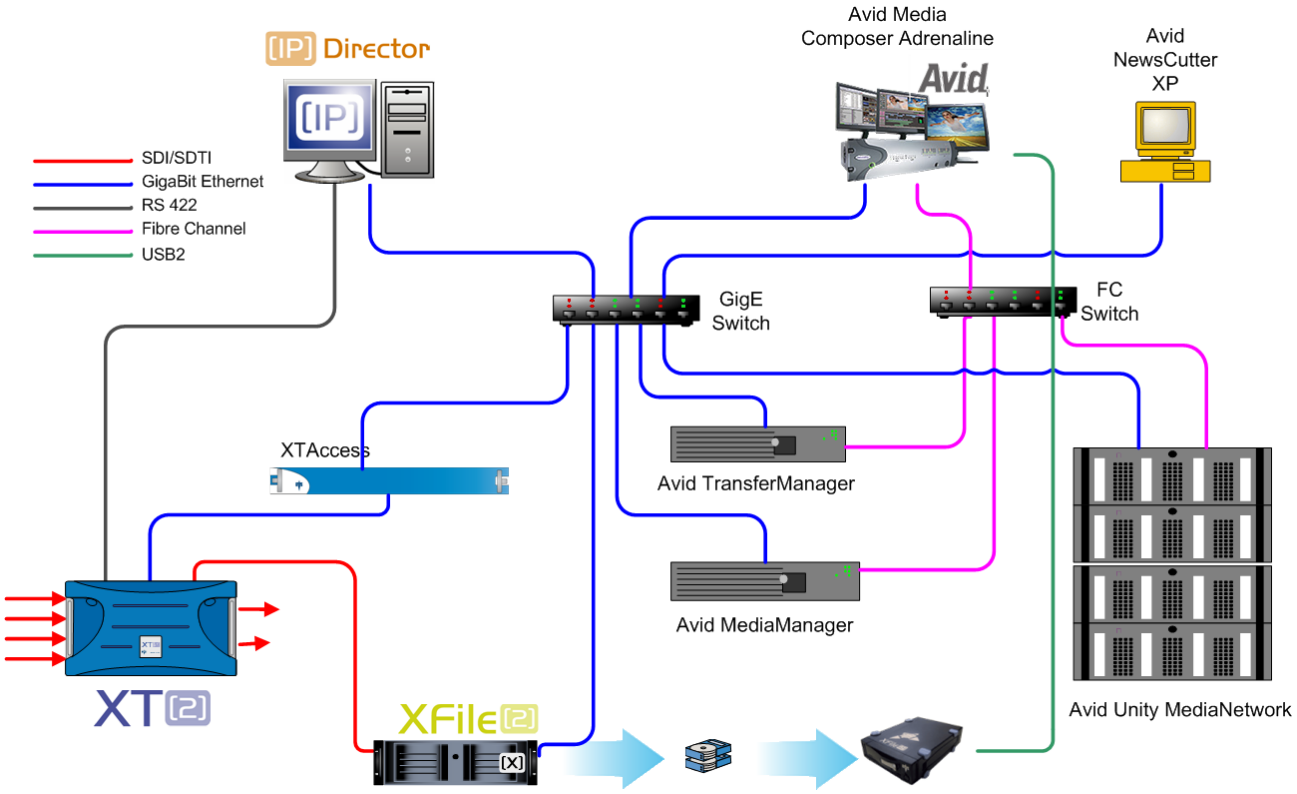
- Workflows are identical for both IMX D10 and Avid DNxHD® Codec, as well as for any bitrate flavours (IMX 30/40/50 or Avid DNxHD® Codec 120/145/220). Only performances are affected by the bitrate.
- Each workflows support up to 8 audios channels, either 16- or 24-bit audio, both ways.
- WG 4 and Interplay has no influence on the workflows.

6.1 Avid Architectures

Typically, there are 2 types of Avid architectures.

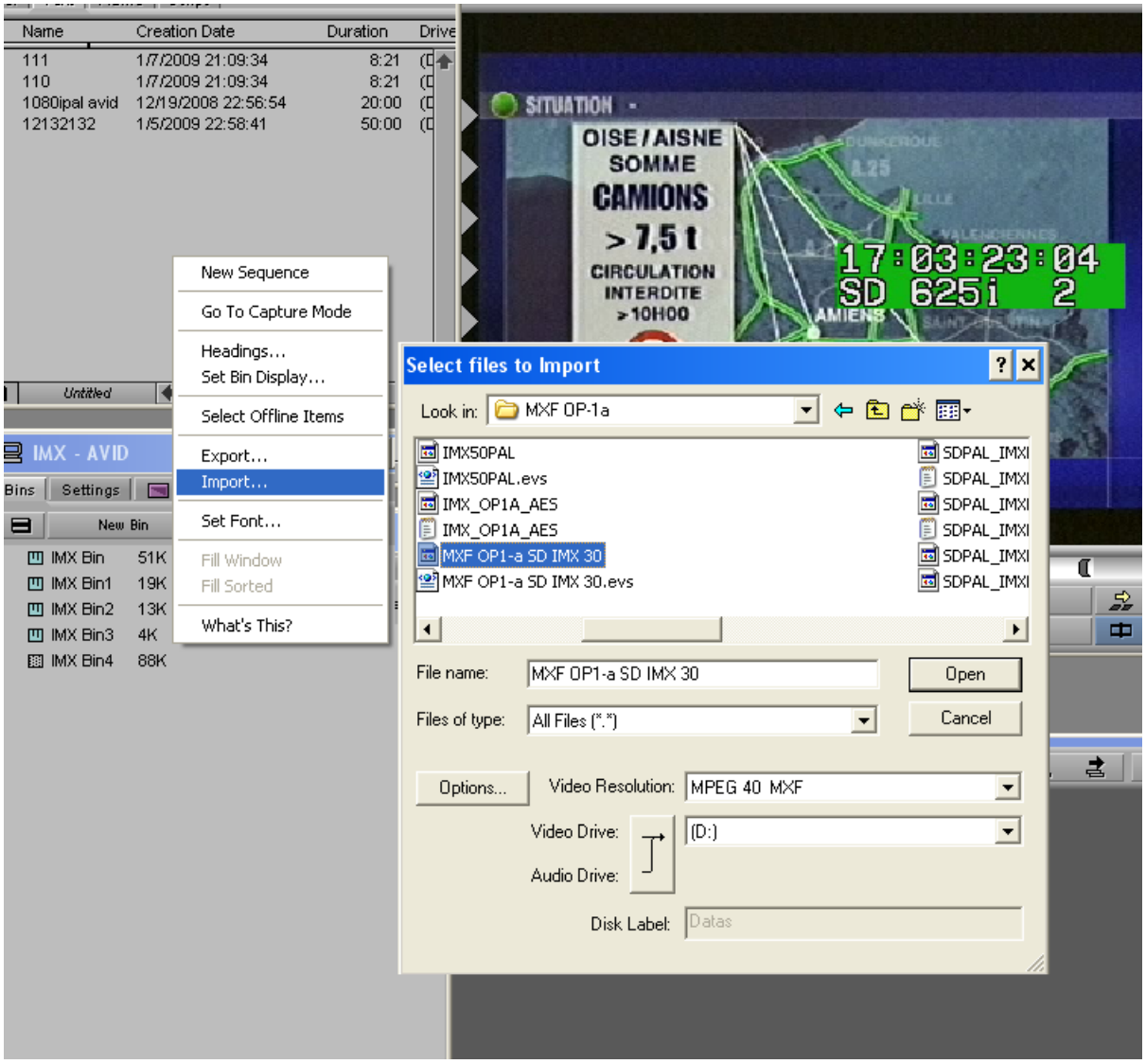
- **Media Composer Stations with Transfer Manager in standalone**. Content will be stored locally, on the local drives (System drive or SCSI packs) of the stations. In this case, the EVS browser is recommended instead of transfer via XFile. In the latter, media will be available through Avid Media Tool, where the media are more difficult to find out especially in case of a large amount of content – no search tool is available.
    - **Note** : AAF/MXF mode generates a TC error with WG4. It is recommended to use OMF mode ! (except if editing must be done during streaming: OMF don't allow you for editing during transfer)
- **Avid Unity system** including a shared storage and specific devices for WG4 Media Manager & Transfer Manager or Interplay Engine Suite. Both EVS browser and EVS XFile/XTAccess can be used with this configuration. Avid Unity configurations :
    - **Avid Unity MediaNetwork :** FC storage for high throughput
    - **Avid ISIS :** Internet storage for large amount of simultaneous accesses to drives.
    - **Avid LanShare :** 3 RU all-in-one server and storage chassis with limited access (max 6 clients) and storage (4 or 8 TB).

A diagram of the EVS/Avid interoperability is shown below.



6.2 Import IMX OP1a workflow

You can create with XFile or XTAccess an IMX OP1a files (SD only) and import it (manually) into the MediaComposer (Media Composer will transcode it in Avid MXF Opatom).
You can also Export your sequence from MediaComposer in IMX QT and restore it using XTAccess.

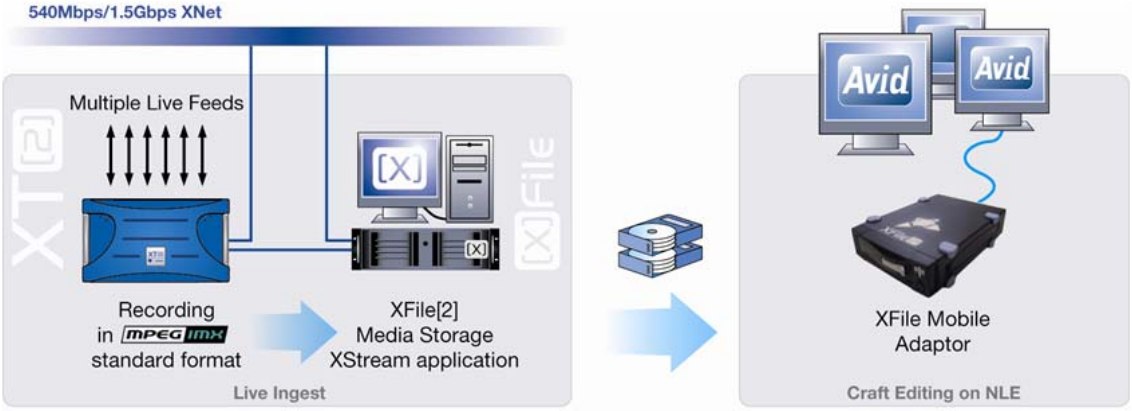


See the XTAccess documentation to have more information

6.3 Avid MXF OPATOM workflow

XTAccess and XFile are able to create Avid MXF OPATOM file which are directly compatible with the Media Composer without transcoding.

For the moment we can only create Avid MXF file without check in into Interplay. The workflow is more dedicated for OB van to Studio workflow:



The EVS operator creates backuped files in Avid MXF format on removable drives using XFile/XStream or XTAccess (+IPDirector) in the OB Van. (See the XTAccess/XFile documentation to have more information)

Those removable drives are sent to the studio manually. They can be plugged in the Avid editing station (stand alone) via the USB adaptor for Removable drives. The Avid operator can then read and edit the Avid MXF files using the Avid Media Composer Media Tool.

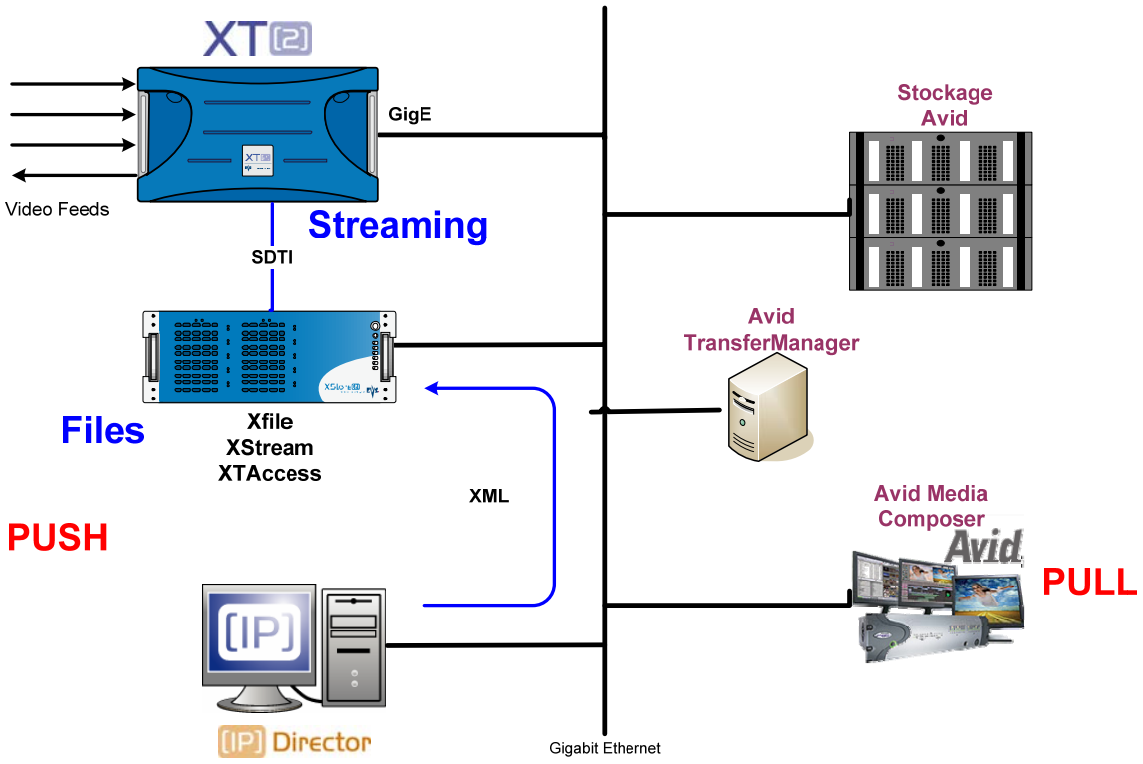
The Avid MXF files are detected by the MediaComposer Media Tool only if the MediaComposer is used in Stand Alone without Avid Media Indexer (interplay)

See the Integration_Avid_MXF_OPATOM documentation to have more information

6.4 Transfer Manager/Engine Workflow

The rest of the document will be about this Transfer manager workflow

- Way to control the transfer :
  - **Push** : Pushing content to Avid means initiate the transfer from a remote station (not locally from Avid Media Composer), e.g. IP Director, XFile, etc.
  - **Pull** : Pulling content into Avid means initiate the transfer locally from the Media Composer workstation, e.g; Avid Browser
- Type of Content access :
  - **XT Streaming** : direct access to the XT server via XT GigE or SDTI.
  - **File transfer** : access to XT content via a file, for example after backup



6.5 EVS to Avid (Ingest)

There are several ways to import an EVS clip into Avid system :

1. Clip “Push” streaming from IP Director to Avid via XFile/XTAccess : IP Director interface
2. Clip “Push” via backuped files to Avid : EVS Avid Browser or XFile interface
3. Clip “Pull” via backuped files to Avid on Avid Media Composer : EVS Avid Browser & Avid FTP Client
4. Clip “Pull” streaming from XT[2] server on Avid Media Composer : EVS Avid Browser (GigE XT[2] FTP access)
5. Live feed streaming to Avid : XStream interface

Workflow	XT content	Application	Transfer Initiator
1. Clip “Push” streaming	Clips on XT[2]	Studio network	IP Director Operator
2. Clip “Push” backup files	Clips as backuped files	- Studio network asynchronous - OB Van to Studio	Avid Content Manager on remote station
3. Clip “pull” backup files	Clips as backuped files	- Studio network asynchronous - OB Van to Studio	Avid Media Composer Editor
4. Clip “Pull” Streaming (XT[2] GigE)	Clips on XT[2]	Studio network	Avid Media Composer Editor
5. Live feed streaming	Train or live feed	Live Studio network	XStream Operator

Note: In the workflow 1, 4 and 5, there is no backup to a file on the XFile[2]/XStore[2] storage. The clip is directly streamed from XT[2] server via SDTI or GigaBit to the Avid System.

6.5.1 Clip “Push” Streaming : IP Director interface & EVSAvidBrowser in FTP Mode

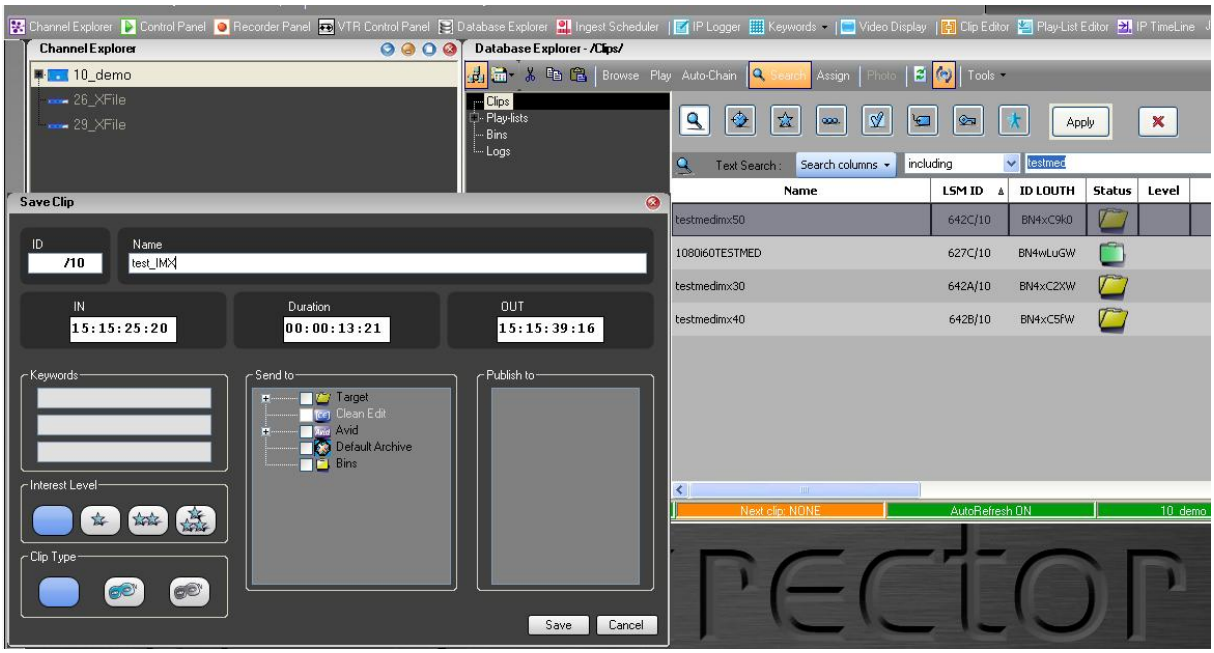
This workflow is based on Avid TMAuto API.

This is a one step process where the content from XT[2] server is directly streamed to Avid Transfer Manager Server. No temporary file is created on XFile or XTAccess : the process is thus highly efficient.

- **XFile** (SDTI) : The XT[2] XNet (XFile gateway) must be connected to the Avid system via high speed LAN. EVS XT[2] content is streamed to Avid Transfer Manager server through XFile (SDTI/LAN gateway)
- **XTAccess** (GigaBit) : The XT[2], XTAccess and the Transfer Manager must be connected via a Gigabit Switch on the same IP address range/mask. Jumbo Frame setup of each GigE component is recommended for high performances. XTAccess is only used to setup the transfer. EVS XT[2] content is directly streamed to Avid Transfer manager server in FTP proxy mode.

6.5.1.1 Workflow

- **Clip Creation with IP Director**
  - In & Out boundaries. Set a clip name and Save
  - This clip can be browsed using the Database Explorer and previewed in a XT[2] playout channel

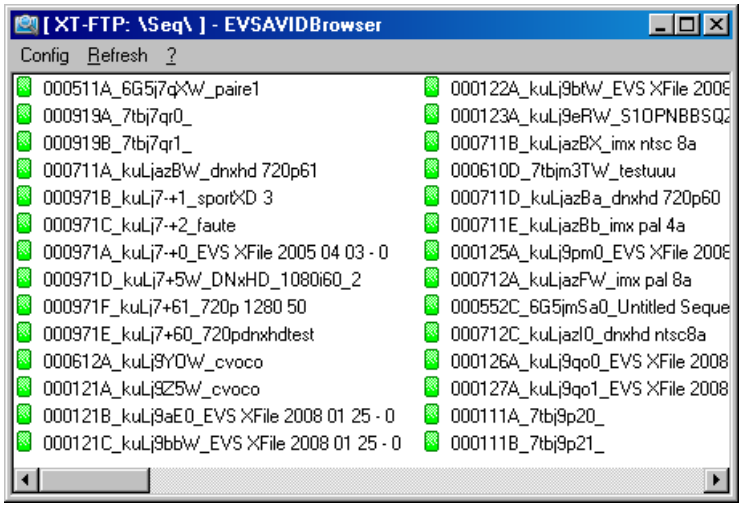


- **Clip export to Avid**
  - **Option (a) : With IP Director GUI**

- Select one clip or a list of clips to be “exported to Avid”
- Send those clips to an “Avid Export target”. Note : the target can also be pre-selected (sub-window “Send to”) when creating a clip: the transfer is then automatically started when saving the clip.
    - **XFile** : The content of the clip is streamed through XFile (SDTI) gateway to Avid Transfer Manager and then to the Avid storage in OMF or AAF/MXF format.
    - **XTAccess** : The content of the clip is directly streamed from XT[2] GigaBit interface to Avid Transfer Manager (proxy transfer mode) and then to the Avid storage in OMF or AAF/MXF format. XTAccess is only used to setup the transfer with Avid Transfer Manager server.

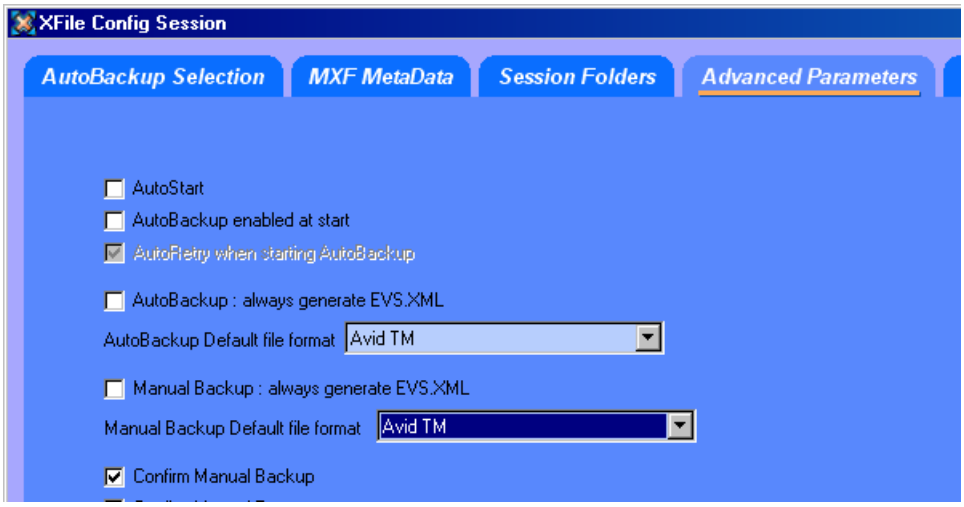
o **Option (b) : With the EVS Avid Browser in FTP mode**

- Open the EVSAVIDBrowser in FTP mode and select the XT[2] server FTP address.
- Browse the Clips on the XT[2]
- Select a clip and double click on it
- The content of the clip is directly streamed from XT[2] GigaBit interface to Avid Transfer Manager (proxy transfer mode) and then to the Avid storage in OMF or AAF/MXF format.

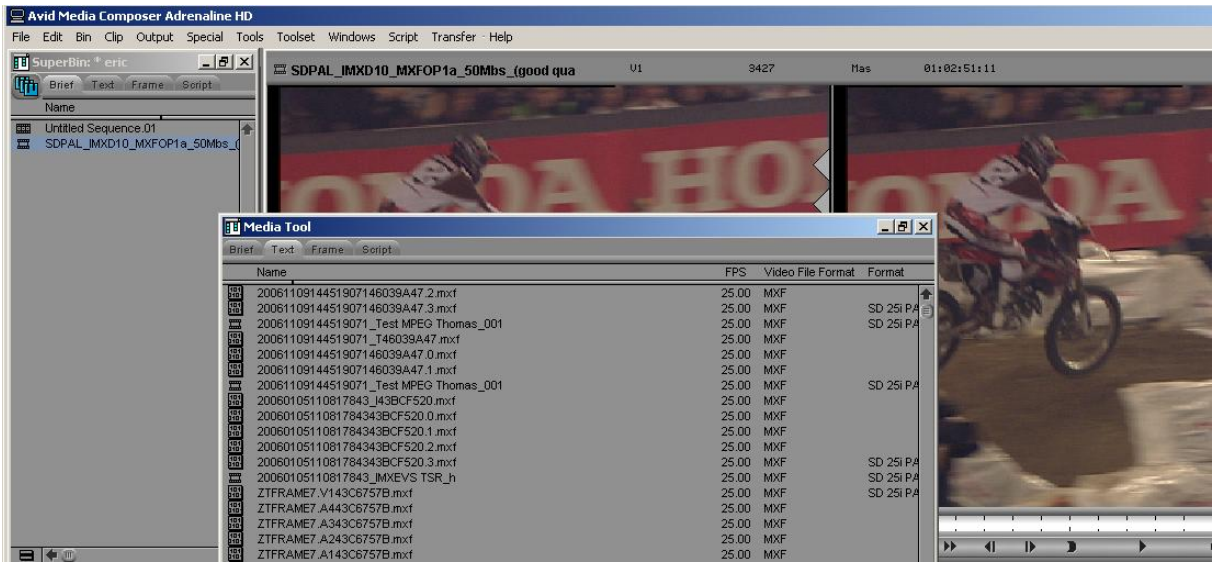


o **Option (c) : XFile AutoBackup or Manual backup (XFile v2.00.xx +)**

- Select Avid TM for the Default file format of the Autobackup and Manual Backup into the XFile Config Session
- All your manual backup or autobackup into the XFile will be transfer to AVID TM.

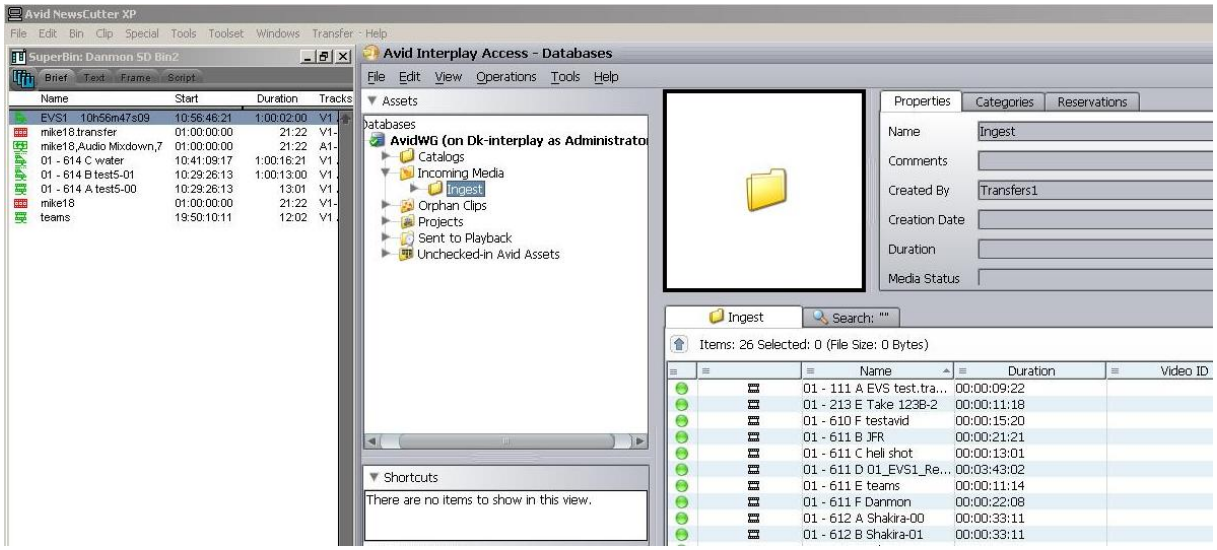


- **Clip Import in Media Composer bin**
  - **Option (a) : Standalone Avid Media Composer via Media Tool**
    - Search of the clip with Avid Media Composer Tools : Media Tool
    - Drag & drop of the clip into the Media Composer project bin
    - View and edit the clip in Media Composer



  - **Option (b) : Unity Avid Media Composer via Media Manager or Interplay Engine**
    - Search of the clip on Media Composer station with :
      - Media Manager browser (WG4)
      - Interplay Window (Interplay)
      - Interplay Access or Assist Client (Interplay)

- Drag & drop of the clip into the Media Composer project bin
- View and edit the clip in Media Composer



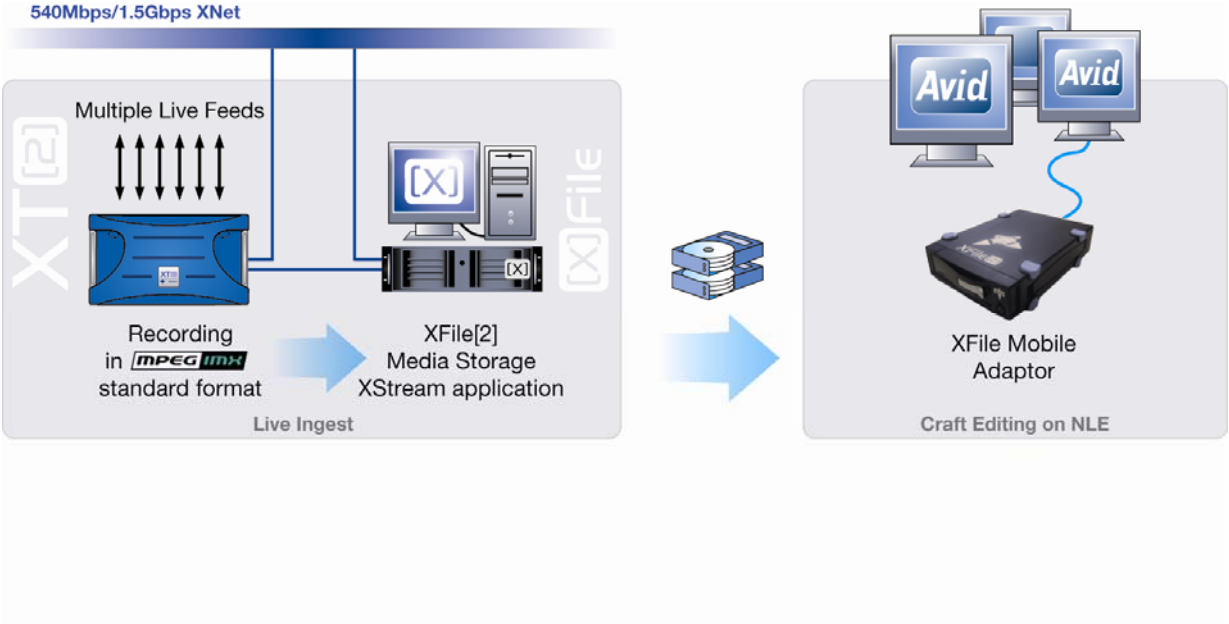
6.5.2 Clip "Push" via backuped files : EVS Avid Browser or XFile interface

This workflow is based on Avid TMAuto API.

This is a 2 steps process : First an EVS MXF file is backuped on XFile storage with the XFile or XTAccess applications. Secondly, this file is transferred to Avid storage.

This workflow is less efficient than the streaming but is dedicated to two typical applications :

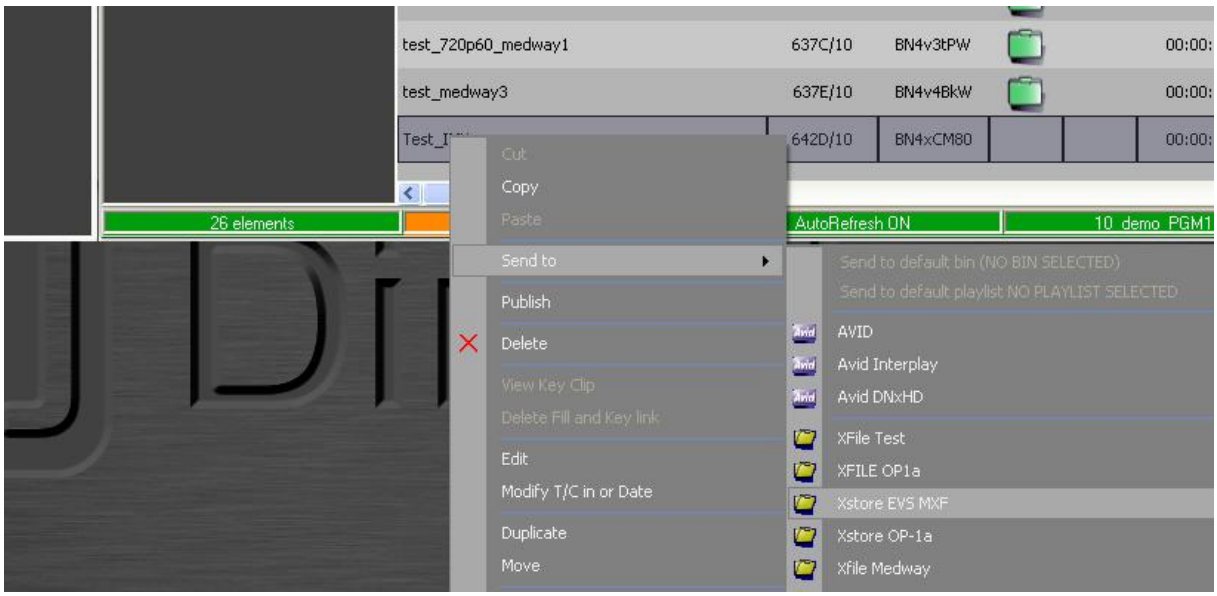
- The process of file backup and avid transfer is **asynchronous**. The operator first backup a list of clips. Later this operator or another one chooses which clips must be sent to Avid storage.
- **OB Van to Studio workflows** : The EVS operator creates backuped files on removable drives using XFile/XStream or XTAccess in the OB Van. Those removable drives are sent to the studio manually. They can either be plugged in a studio XFile or XStore or merely attached to the Avid editing station via the USB adaptor for Removable drives. The Avid operator can then push the files to the Avid storage.



6.5.2.1 Workflow

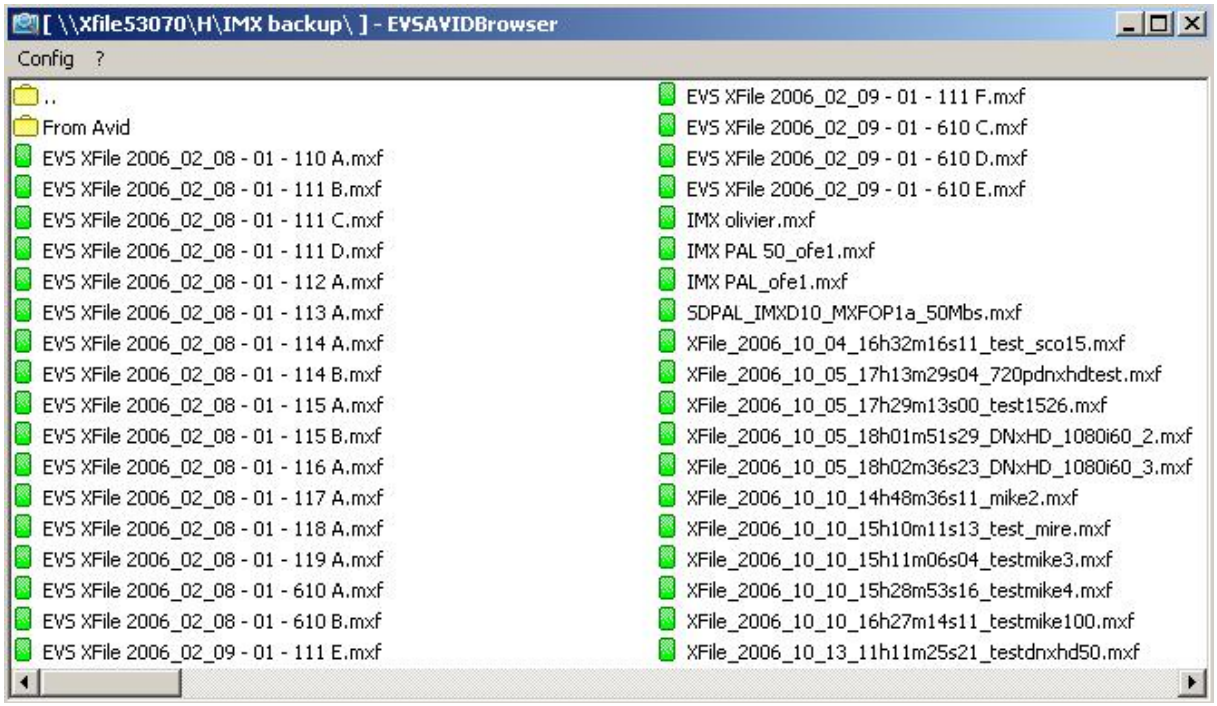
- **Clip Creation with IP Director or EVS remote**
    - In & Out boundaries. Set a clip name and Save
    - This clip can be browsed using the Database Explorer and previewed in a XT[2] playout channel

- **Clip backup on XFile[2] or XStore[2] storage**
  - Selected one clip or a list of clips
  - Send those clips to an XFile backup “target” or XTAccess backup “target”. Note : the target can also be pre-selected (sub-window “Send to”) when creating a clip: the backup is then automatically initiated when the clip is saved.
  - The clip is backuped in EVS MXF or MXF OP-1a (IMX D10 only) on XFile [2] or XStore[2] storage.

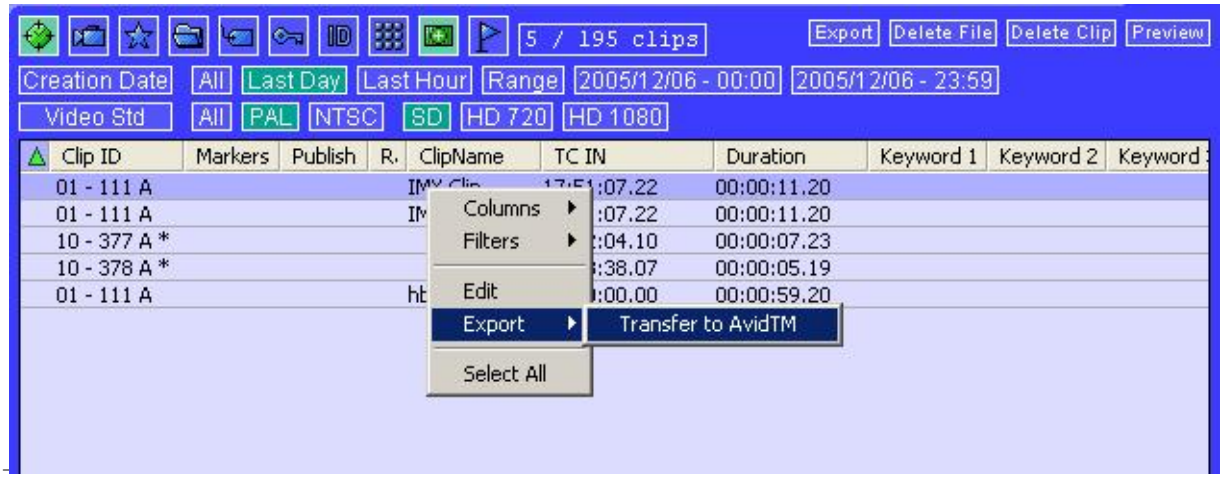


- **Transfer to Avid**
  - **Option (a) : EVS Avid Browser**

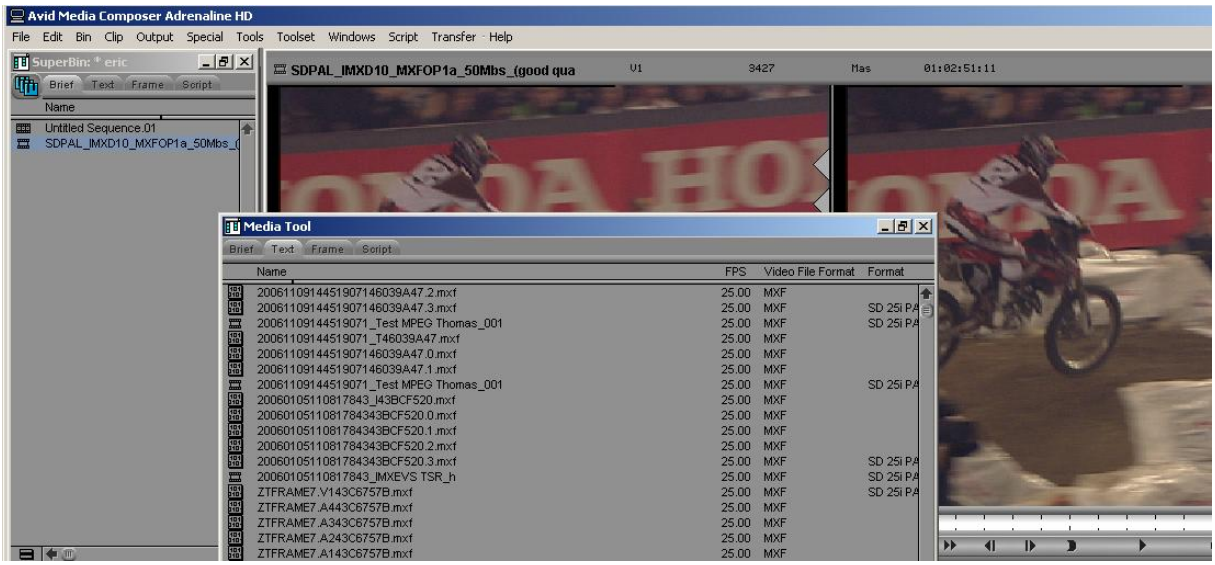
- Select a file to be transferred to Avid using the EVS Avid browser
- Double click on the selected file
- The transfer to Avid storage (OMF or AFF/MXF format) starts via Avid Transfer Manager server. A progress and completion status is displayed.



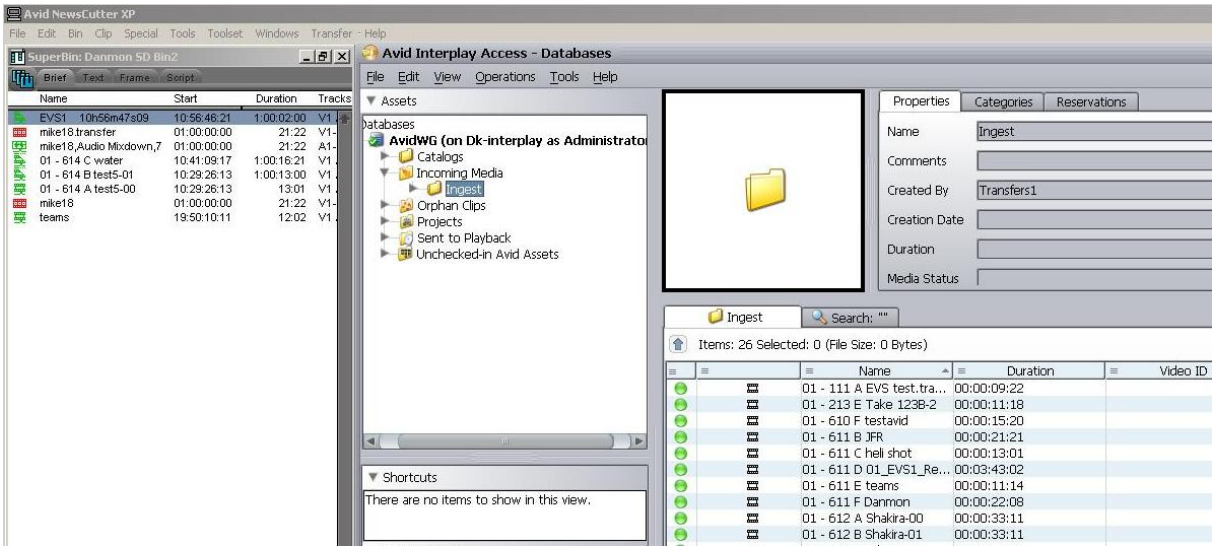
- **Option (b) : XFile GUI**
  - Select a file to be transferred to Avid using the XFile Maintenance GUI
  - Right click and choose “Export to Avid”
  - Transfer to Avid storage (OMF or AFF/MXF format) starts via Avid Transfer Manager server. A progress and completion status is displayed in XFile GUI.



- **Clip Import in Media Composer bin**
  - **Option (a) : Standalone Avid Media Composer via Media Tool**
    - Search of the clip with Avid Media Composer Tools : Media Tool
    - Drag & drop of the clip into the Media Composer project bin
    - View and edit the clip in Media Composer



- **Option (b) : Unity Avid Media Composer via Media Manager or Interplay Engine**
  - Search of the clip on Media Composer station with :
    - Media Manager browser (WG4)
    - Interplay Window (Interplay)
    - Interplay Access or Assist Client (Interplay)
  - Drag & drop of the clip into the Media Composer project bin
  - View and edit the clip in Media Composer


Avid NewsCutter XP
File Edit Bin Clip Special Tools Toolset Windows Transfer Help
SuperBin: Danmon SD Bin2
Brief Text Frame Script
Name Start Duration Tracks
EVS1 10h56m47s09 10:56:46:21 1:00:02:00 V1
mike18.transfer 01:00:00:00 21:22 V1
mike18,Audio Mixdown,7 01:00:00:00 21:22 A1
01 - 614 C water 10:41:09:17 1:00:16:21 V1
01 - 614 B test5-01 10:29:26:13 1:00:13:00 V1
01 - 614 A test5-00 10:29:26:13 13:01 V1
mike18 01:00:00:00 21:22 V1
teams 19:50:10:11 12:02 V1
Avid Interplay Access - Databases
File Edit View Operations Tools Help
Assets
Databases
AvidWG (on Dk-interplay as Administrator
Catalogs
Incoming Media
Ingest
Orphan Clips
Projects
Sent to Playback
Unchecked-in Avid Assets
Shortcuts
There are no items to show in this view.
Properties Categories Reservations
Name Ingest
Comments
Created By Transfers1
Creation Date
Duration
Media Status
Ingest Search: ""
Items: 26 Selected: 0 (File Size: 0 Bytes)
Name Duration Video ID
01 - 111 A EVS test.tra... 00:00:09:22
01 - 213 E Take 123B-2 00:00:11:18
01 - 610 F testavid 00:00:15:20
01 - 611 B JFR 00:00:21:21
01 - 611 C heli shot 00:00:13:01
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01 - 611 E teams 00:00:11:14
01 - 611 F Danmon 00:00:22:08
01 - 612 A Shakira-00 00:00:33:11
01 - 612 B Shakira-01 00:00:33:11

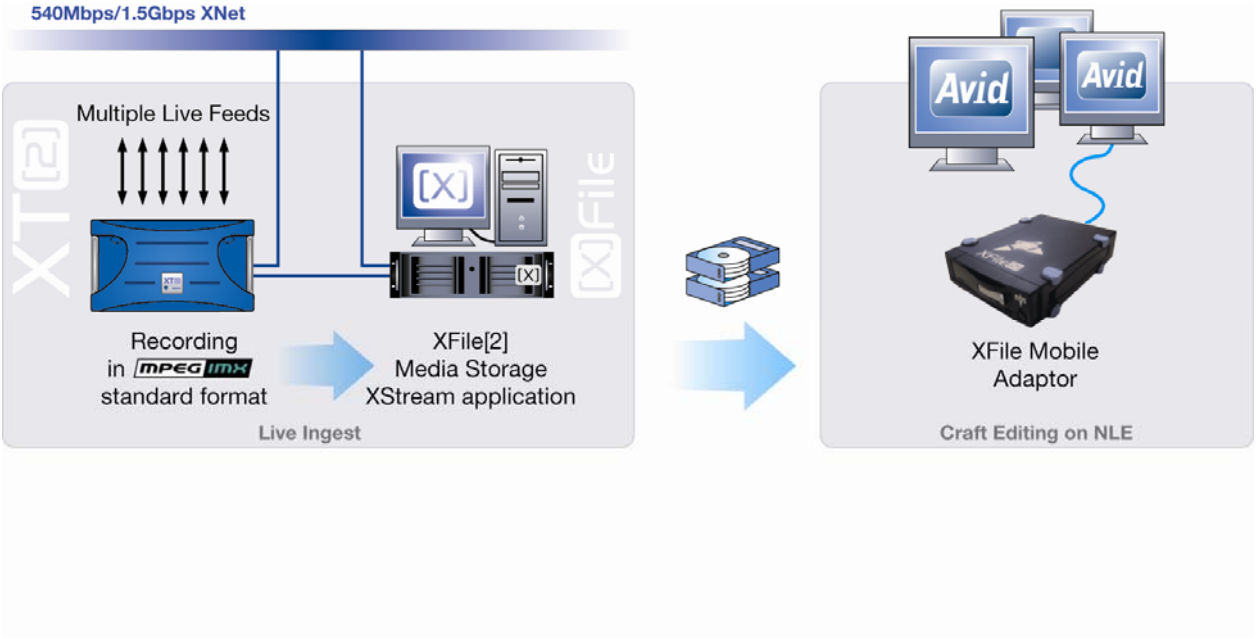
6.5.3 Clip “Pull” via Backuped files on Media Composer : EVS Avid Browser & Avid FTP Client

This workflow is based on EVS DHM (EVS Avid Browser) or Avid FTP DHM (Avid FTP Client).

This is a 2 steps process : First an EVS MXF file is backuped on a XFile storage. Secondly, this file is pulled out from the XFile[2] or XStore[2] storage to Avid storage.

This workflow is less efficient than the streaming but is dedicated to two typical applications :

- The process of file backup and avid transfer is **asynchronous**. The operator first backup a list of clips. Later this operator or another one chooses which clips must be sent to Avid storage.
- OB Van to Studio workflows : The EVS operator creates backuped files on removable drives using XFile/XStream or XTAccess in the OB Van. Those removable drives are sent to the studio manually. They can either be plugged in a studio XFile or XStore or merely attached to the Avid editing station via the USB adaptor for Removable drives. The Avid operator can then push the files to the Avid storage.

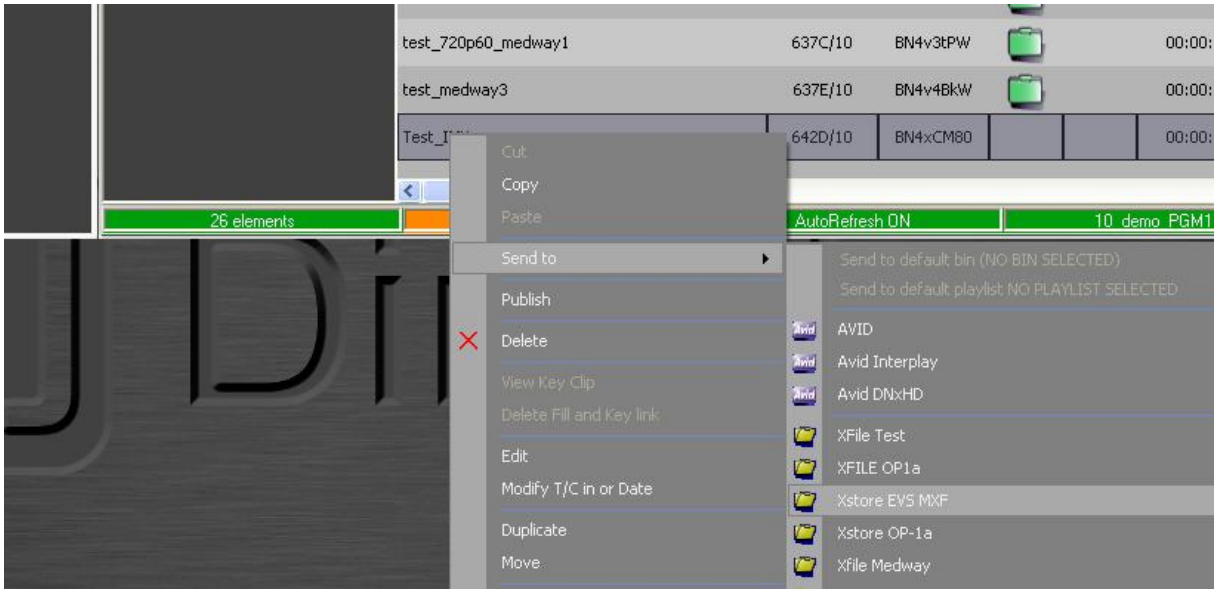


The main difference with the clip “push” via backuped file is that the transfer is initiated from the Avid editing station (i.e. Media Composer).

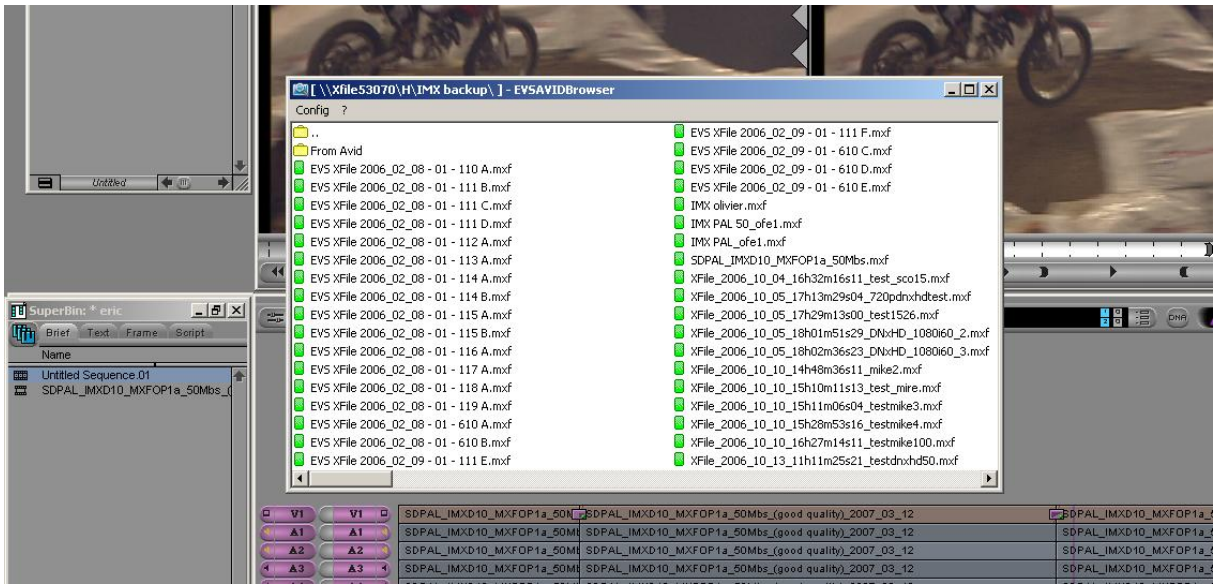
6.5.3.1 Workflow

- **Clip Creation with IP Director or EVS remote**
    - In & Out boundaries. Choose a clip name and Save
    - This clip can be browsed using the Database Explorer and previewed in a XT[2] playout channel

- **Clip backup on XFile[2] or XStore[2] storage**
  - Select one clip or a list of clips
  - Send those clips to an XFile backup “target” or XTAccess backup “target”. Note : the target can also be pre-selected (sub-window “Send to”) when creating a clip: the backup is then automatically started when saving the clip.
  - The clip is backuped in EVS MXF or MXF OP-1a (IMX D10 only) on XFile[2] or XStore[2] storage.



- **Import into Media Composer Project bin**
    - **Option (a) : With the EVS Avid Browser (EVS DHM)**
        - Select a file on a XFile[2] or XStore[2] storage (shared drive) to be transferred to Avid using the EVS Avid browser running on the Media Composer Editing station
        - Drag & drop the file into the Media Composer bin
        - Transfer to Avid storage (OMF or AFF/MXF format) starts via Avid Transfer Manager server. A progress and completion status is available using the Transfer Status in Media Composer “Transfer” menu.
        - View and edit the clip in Media Composer. Note : the Media can not be edited before the end of the transfer.



- **Option (b) : With the Avid FTP Client (Avid FTP DHM)**

Note 1 *: Transfer Manager Server must be installed with the FTP option and the Transfer Manager server dongle must have a valid FTP Transfer option*

Note 2 *: This transfer mode is only valid with IMX-D10 MXF OP1a backup files*

- Launch the Avid FTP Client application on the Media Composer. Select the FTP server where are stored the backup IMX-D10 MXF OP1a files.
- Select a file to be transferred to Avid and drag & drop this file into the Media Composer bin
- Transfer to Avid storage (OMF or AFF/MXF format) starts via Avid Transfer Manager server. A progress and completion status is available using the Transfer Status in Media Composer "Transfer" menu.
- View and edit the clip in Media Composer. Note : the Media can not be edited before the end of the transfer.

6.5.4 Clip “Pull” Streaming from XT[2] server on Media Composer : EVS Avid Browser (GigaBit FTP mode)

This workflow is based on EVS DHM API.

This is a one step process where the content from XT[2] server is directly streamed to Avid Transfer Manager Server. No temporary file is created : the process is thus highly efficient.

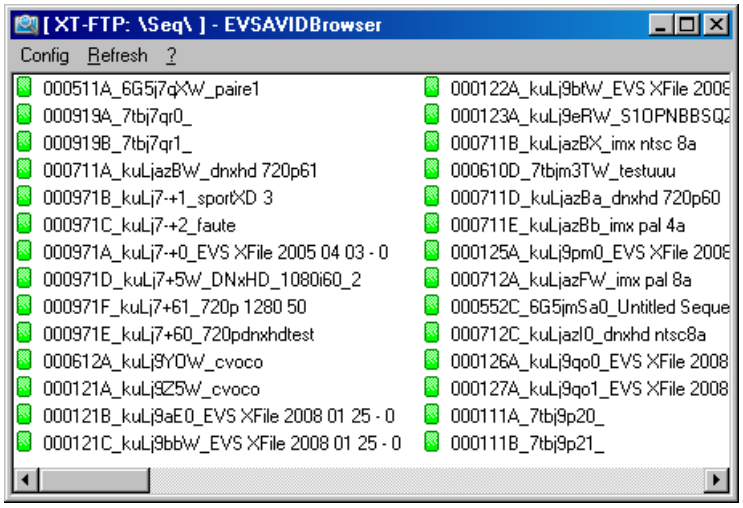
- **EVS Avid Browser** (GigaBit) : The XT[2], EVS Avid Browser and the Transfer Manager must be connected via a Gigabit Switch on the same IP address range/mask. Jumbo Frame setup of each GigE component is recommended for high performances. EVS Avid Browser is only used to setup the transfer. EVS XT[2] content is directly streamed to Avid Transfer manager server in FTP proxy mode.

6.5.4.1 Workflow

- **Clip Creation with IP Director**
  - In & Out boundaries. Set a clip name and Save
  - This clip can be browsed using the Database Explorer and previewed in a XT[2] playout channel

- **Clip export to Avid with the EVS Avid Browser in FTP mode**
  - Open the EVSAVIDBrowser in FTP mode and select the XT[2] server FTP address.
  - Browse the Clips on the XT[2].
  - Select a clip and drag & drop it into the Media Composer bin

- The content of the clip is directly streamed from XT[2] GigaBit interface to Avid Transfer Manager (proxy transfer mode) and then to the Avid storage in OMF or AAF/MXF format. EVS Avid Browser is only used to setup the transfer with Avid Transfer Manager server.
- View and edit the clip in Media Composer. Note : the Media can not be edited before the end of the transfer.



6.5.5 Live feed “Streaming” to Avid : XStream interface

This workflow is based on Avid TMAuto API.

This is a one step process where the input feeds from XT[2] server are directly streamed to the Avid storage via XStream (SDTI) and Avid Transfer Manager Server. No temporary file is created on XFile : the process is thus highly efficient.

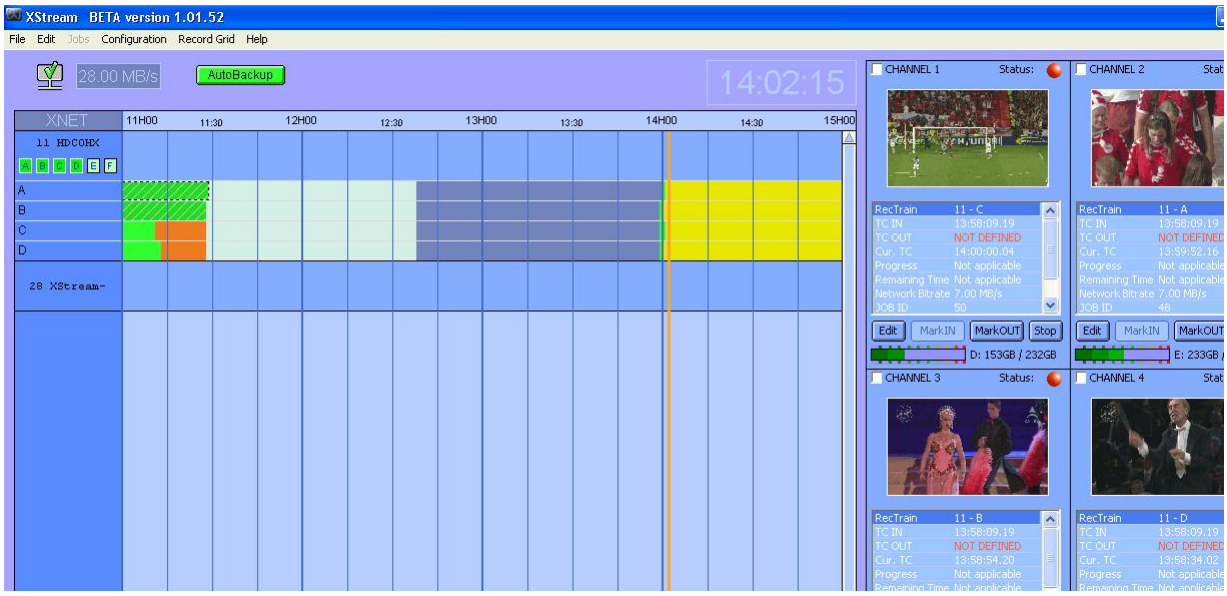
The XT[2] XNet via XStream must be connected to the Avid system via high speed LAN (GigE connection).

Avid Transfer must be setup in AAF/MXF format in order to edit the stream during record on Avid storage.

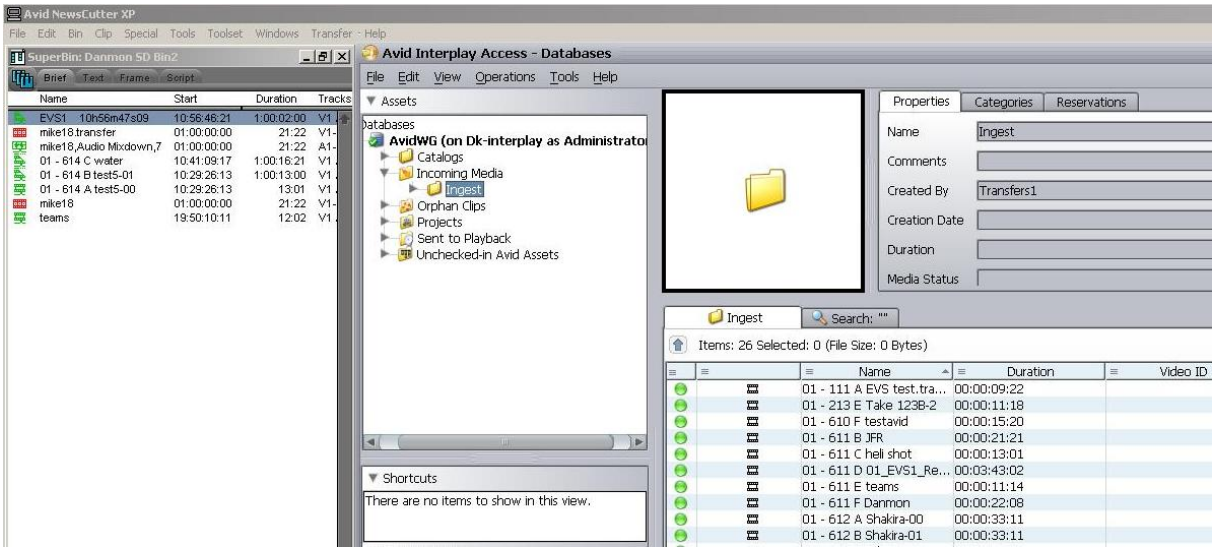
Media Manager or Interplay Engine must be implemented with Avid shared storage Unity (no standalone Media Composer) in order to edit live stream into Media Composer bin.

6.5.5.1 Workflow

- **XStream of XT[2] input feeds**
  - Start XStream application
  - Selection of the input feed to stream
  - Start streaming : the content of the clip is streamed between XStream and Avid Transfer Manager into the Avid storage in AAF/MXF format.



- **Clip Import in Media Composer bin via Media Manager or Interplay Engine**
    - Search of the clip on Media Composer station with :
        - Media Manager browser (WG4)
        - Interplay Window (Interplay)
        - Interplay Access or Assist Client (Interplay)
    - Drag & drop the clip into Media Composer project bin
    - View and edit the clip in Media Composer
    - The delay between XT[2] input source and Avid edition is less than 1 minute.

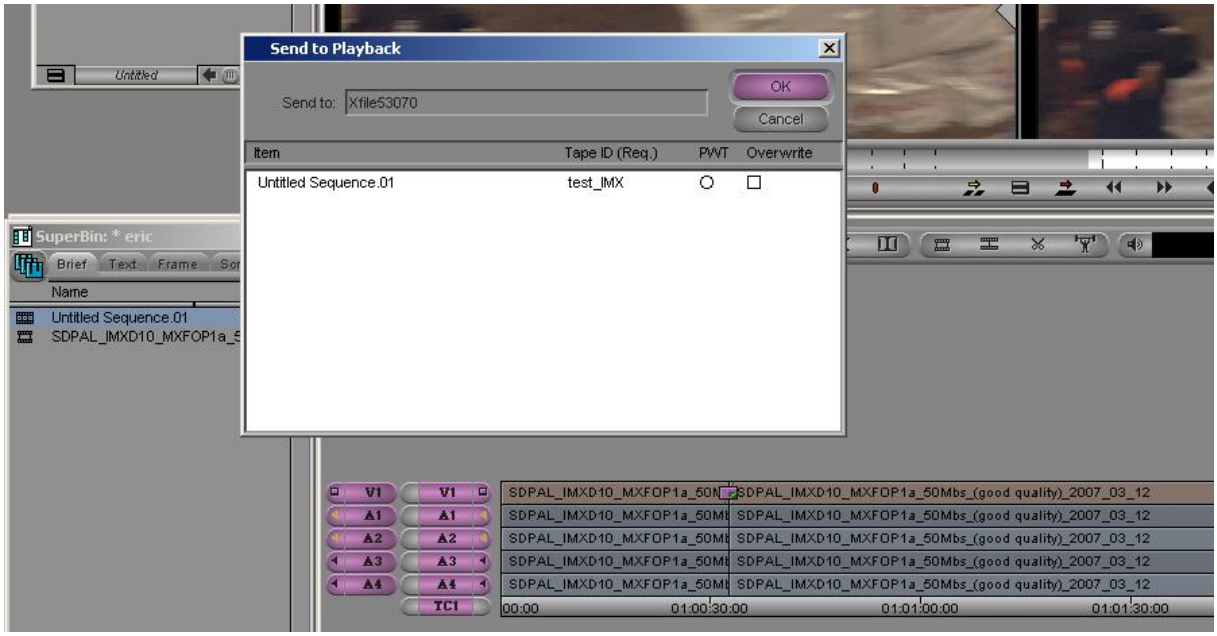


6.6 Avid to EVS (Send to Playback)

The Export workflow is controlled from the Media Composer editing station.

6.6.1.1 Workflow

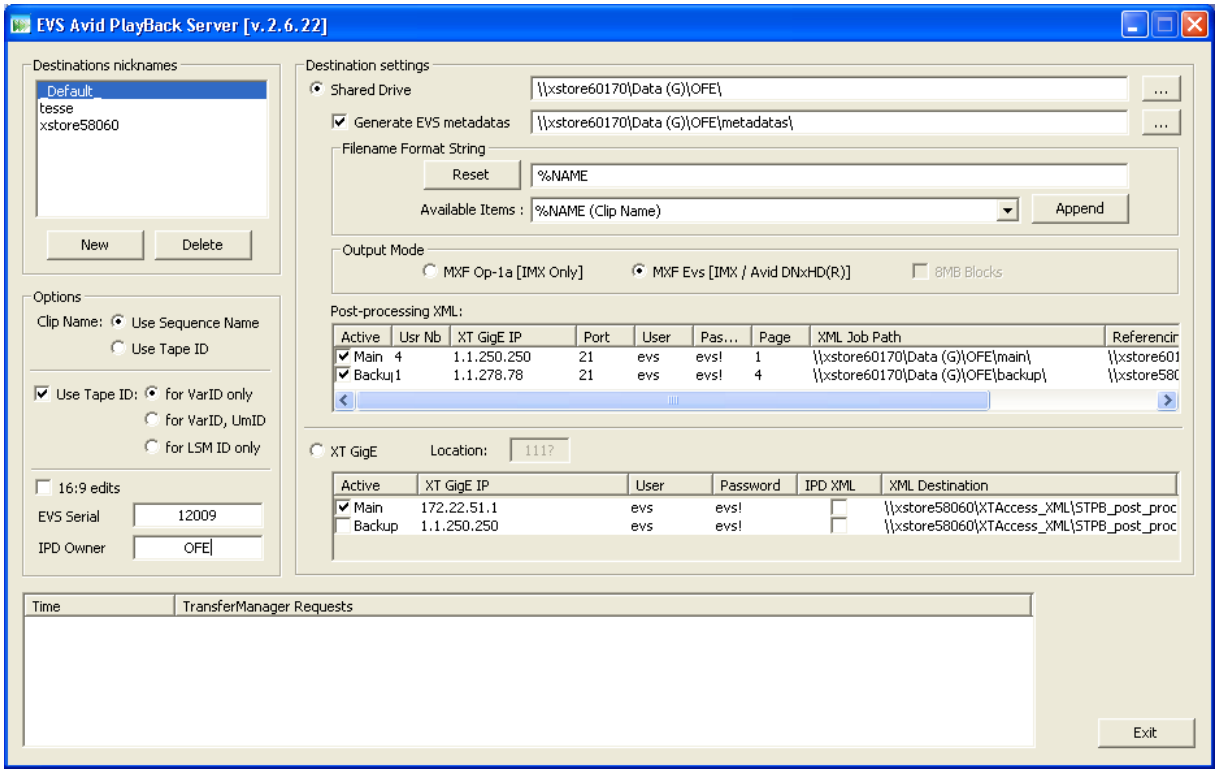
- **Send to Playback Preparation**
  - Select a sequence on Media Composer editing station
  - Select a Playback device in the “Send to Playback” menu. This could be a “nickname” of a PlayBack device (see “EVS Playback Server” section)
  - Specify a TAPE ID



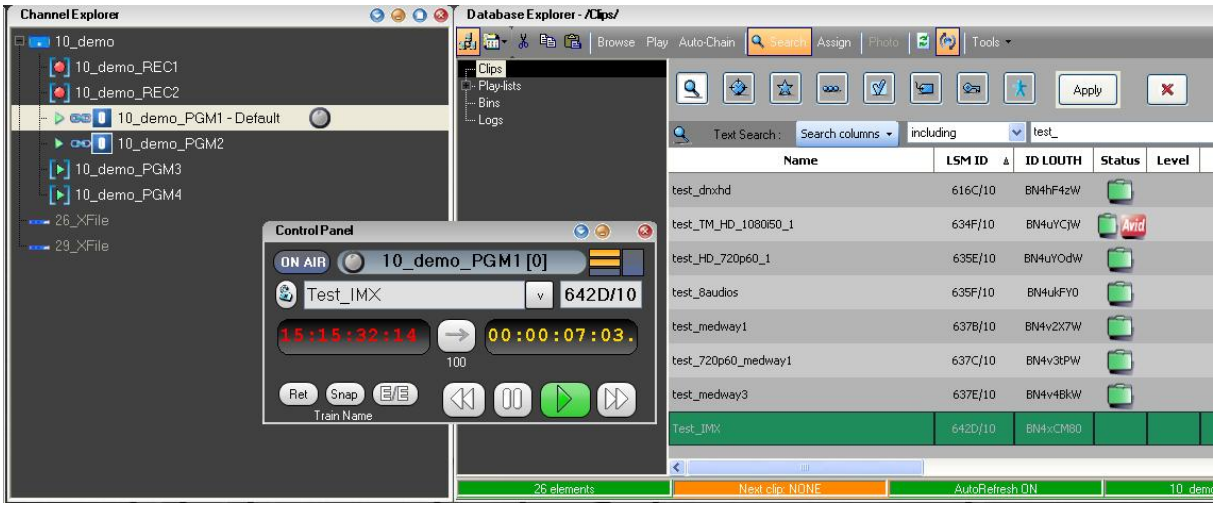
- **Send to Playback Process**
  - Audio and Video Mixdown.
  - Transfer : 2 Modes available
    - ***Temporary file + XML metadata files generation before restore to XT[2] (SDTI)***
      - Selection of the “Shared Drive” option on EVS AvidPlayback Server. Setup of the Transfer with Avid Transfer Manager server via EVS Avid Playback Server. Once the setup is over, the EVS Avid Playback server is disconnected.
      - The sequence from Avid is transferred via the LAN and wrapped to an EVS MXF (for IMX-D10 or Avid DNxHD® Codec) or MXF OP-1a (for IMX D10 only) files with a XML file for the Owner and TapeId information on XFile[2] or XStore [2] storage.

- The MXF file can be automatically restored on XT[2] server if connected. Otherwise the file can be manually restored on XT[2] via XFile GUI.

- ***Direct streaming via GigaBit connection to XT[2] (Multicam 9 onwards)***
  - Selection of the "XT GigE" option on EVS AvidPlayback Server.
  - In this setup, the clip will be streamed from Avid to the XT (Multicam 9 onwards) using Gigabit connection in FTP proxy mode.



- Browsing and Playout on XT[2] server via IP Director
  - Browse to the clip in the Database Explorer
  - Select a clip and drag & drop it to a given XT[2] playout channel .
  - The clip can only be played at the end of the restore process from XFile (shared drive mode) or at the end of the transfer via GigaBit (XT FTP mode) – Multicam 9 onwards with GigaBit XT interface.



- Browsing and Playout on XT[2] server via the Remote control
    - Select a clip and play it on XT[2] playout channel.
        - *Multicam 8* : The clip can only be played at the end of the restore process from XFile.
        - *Multicam 9 onwards without GigaBit connection (Shared drive mode and XFile Restore)* : From the start of the restore, the growing clips can be browsed and played using the EVS Remote– “creating” clip is displayed on the XT monitoring.
        - *Multicam 9 onwards with GigaBit connection (XT GigE mode)* : From the start of the transfer, the growing clips can be browsed and played using the EVS Remote – “creating” clip is displayed on the XT monitoring.

7 INSTALLSHIELDS

The interface with Avid involves 2 installshields:

- **EVS Avid Tools** is an EVS installshield for EVS & Avid dlls, as well as some EVS applications : EVS Avid Brower and EVS Avid Playback Server
- **Transfer Manager Client** is an Avid installshield mandatory to communicate with Transfer Manager Server.

This **section 8** explains how to install both installshields.

Section 9 is a simplified check list for a quick install of the EVS Avid tools and their configuration.

Section 10 explains in details which installshield and options to install on each device considered by the workflow. Configuration of applications and .ini files are also mentioned.

Note : the following sections only explain the installation and configuration of EVS DHM tools. Avid FTP DHM is a DHM developed by Avid, please contact Avid for more information about its installation and configuration.

7.1 EVS Avid Tools

During an import or an export with Avid Transfer Manager Server, EVS applications like EVS Avid Browser, EVS Avid Playback Server, XFile or XTAccess will tell Avid TM Server to communicate with EVS dlls to perform IMX or Avid DNxHD® Codec file demultiplexing and data (audio/video tracks) transfer (import) or generation of an IMX file from data received from TM Server (export). This means specific dlls and application must be installed. EVS Avid Tools setup is devoted to this task.

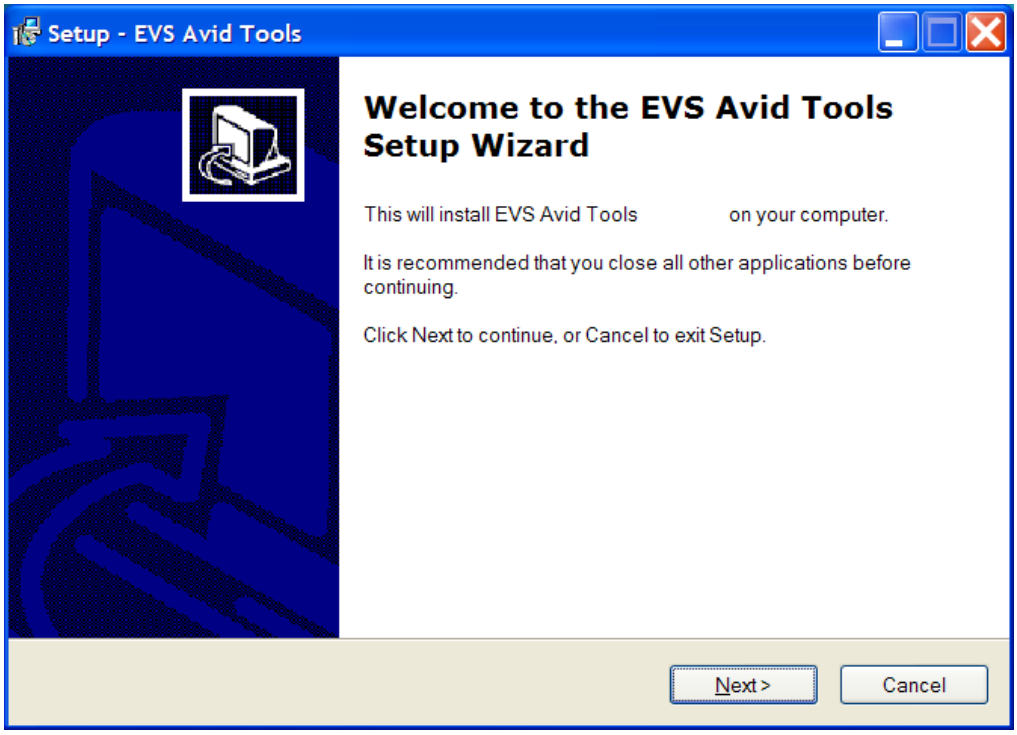
Reminder: EVS Avid tools dlls must be compiled with the specific Avid APIs.

- **Avid WG 4 (non Interplay)** : EVSAvid_Setup_1.6.36.exe
- **Interplay v1.1.2 (TM v1.1.2):** EVSAvid_Interplay_Setup_2.6.36.exe
- **Interplay v1.1.6 (TM v1.1.5) :** EVSAvid_Interplay_1.1.5_Setup_2.6.36.exe
- **Interplay v1.2.1 (TM v1.2.0) :** EVSAvid_Interplay_1.2.0_Setup_2.6.36.exe

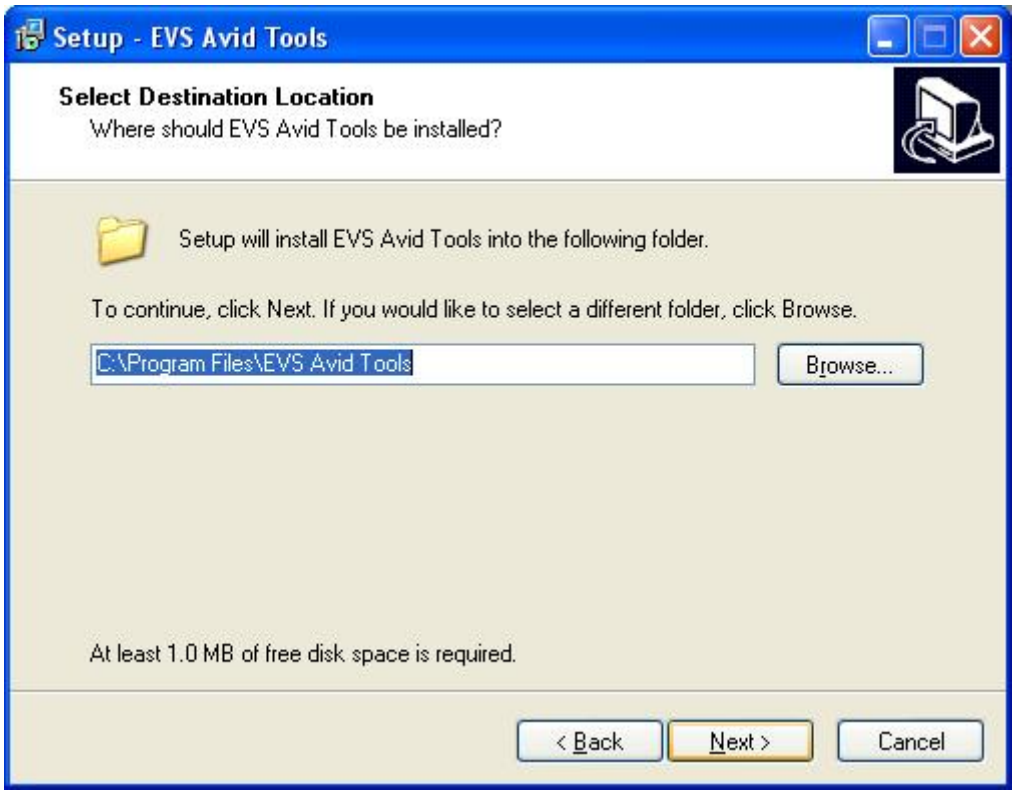
List of items installed by each option:

File Name	From	EVS TM Server DLLs	Browser	PlayBack Server	TM Client DLLs	
EVSSetupVC7.dll	EVS	x	x		x	Dll to create Avid Proxy MOB from XML data
EVSReceiverVC7.dll	EVS	x				Dll to ingest Audio/video data in Transfer Manager
EVS_DHMVC7.dll	EVS	x				Dll to write Audio/video data generated by Transfer Manager (Playback)
EVSTMAuto.dll	EVS		x		x	Dll to control Transfer Manager in Auto mode
EVSAvidBrowser2.exe	EVS		x			EVS application to browse files
EVSAPBSrv.exe	EVS			X		EVS Playback server application (setting & monitoring)
AvidTMAutoAPIVC7.dll	Avid		x	X	x	Avid dll to communicate with Transfer Manager in Auto mode
TMClient.ini	Avid/EVS		x		x	ini file to specify the Transfer Manager device
IMX_System.mxf	EVS	x				MXF template file
IMX_Header.mxf	EVS	x				MXF template file
IMX_Footer.mxf	EVS	x				MXF template file
Adding EVS Avid Tools to path	EVS	x	x	X		Definition of the installation path
Adding Port configuration in etc	EVS			X		Addition of ports configurations used by Playback Server (Services files)

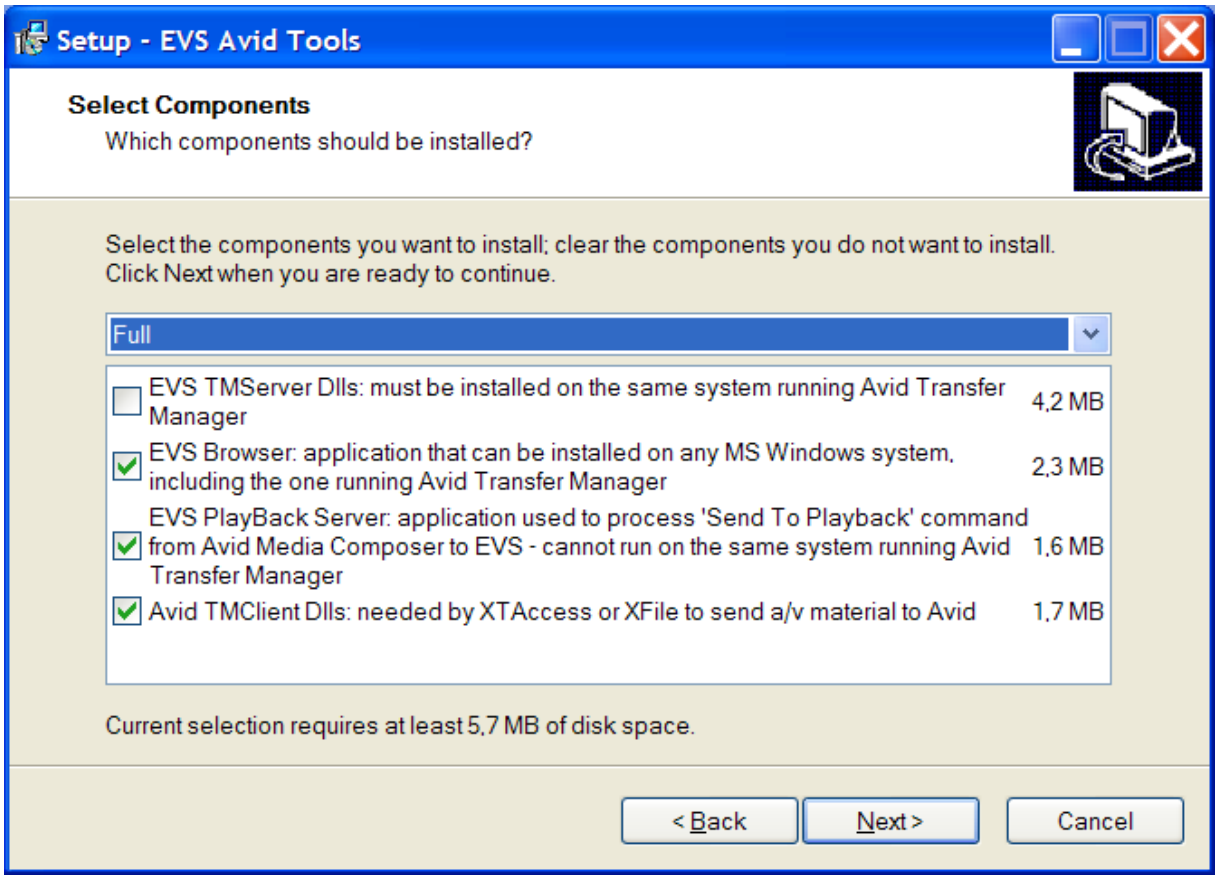
Launch EVSAvid_Setup_XX.exe



Click NEXT



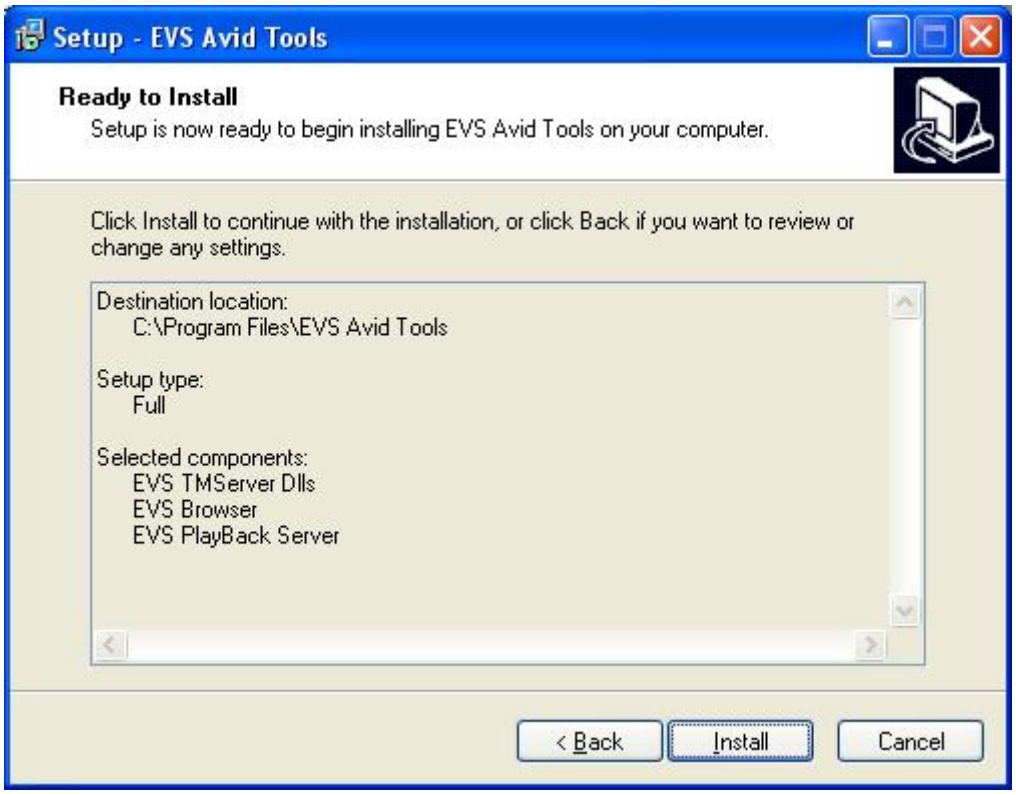
Select a directory and click NEXT



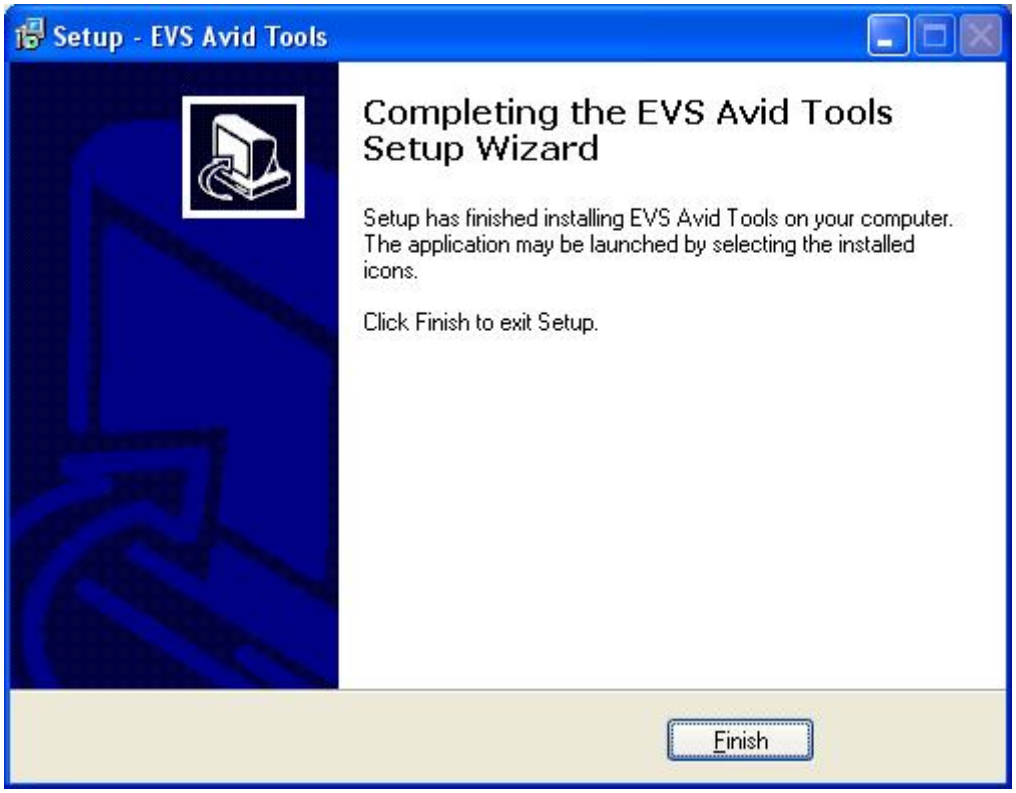
You must now select the dlls and applications to install following the project.

Each selected item will install the items defined above. See section 8 for typical installations.

Click NEXT



Click INSTALL



The setup is finished.

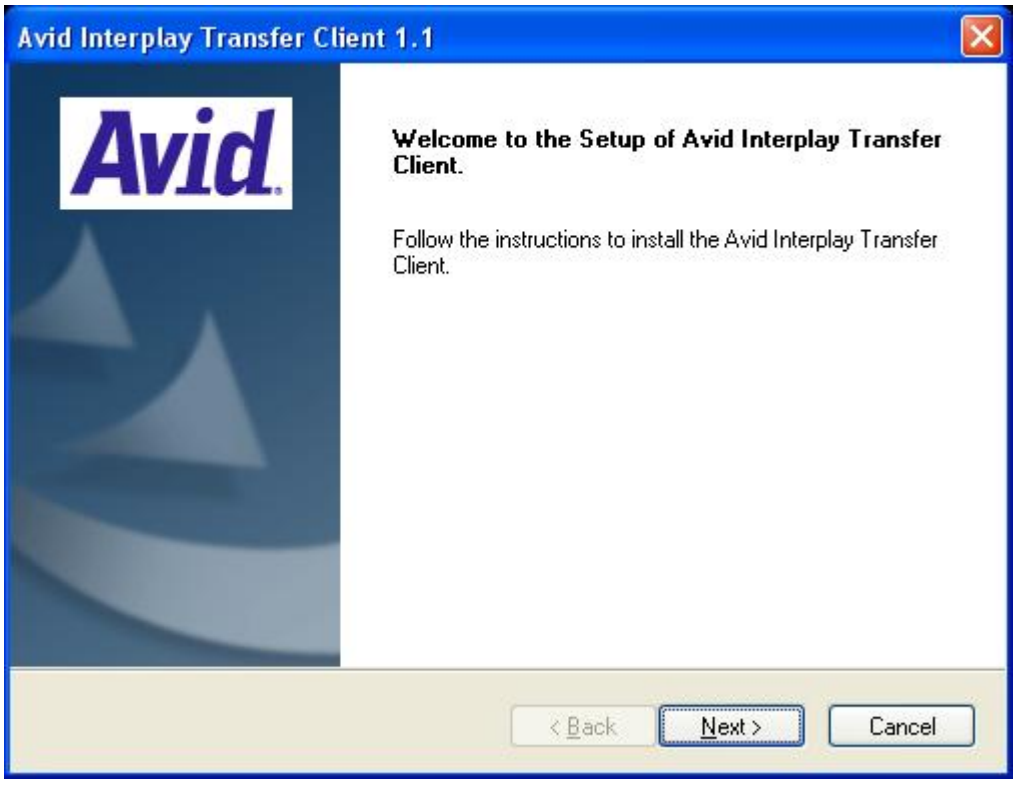
7.2 Avid Transfer Manager or Engine Client

Once any application will communicate with Avid Transfer Manager Server, the Transfer Manager Client must be installed on this workstations running the application. Applications like Avid Media Composer or News Cutter, EVS Avid Browser or XFile are concerned.

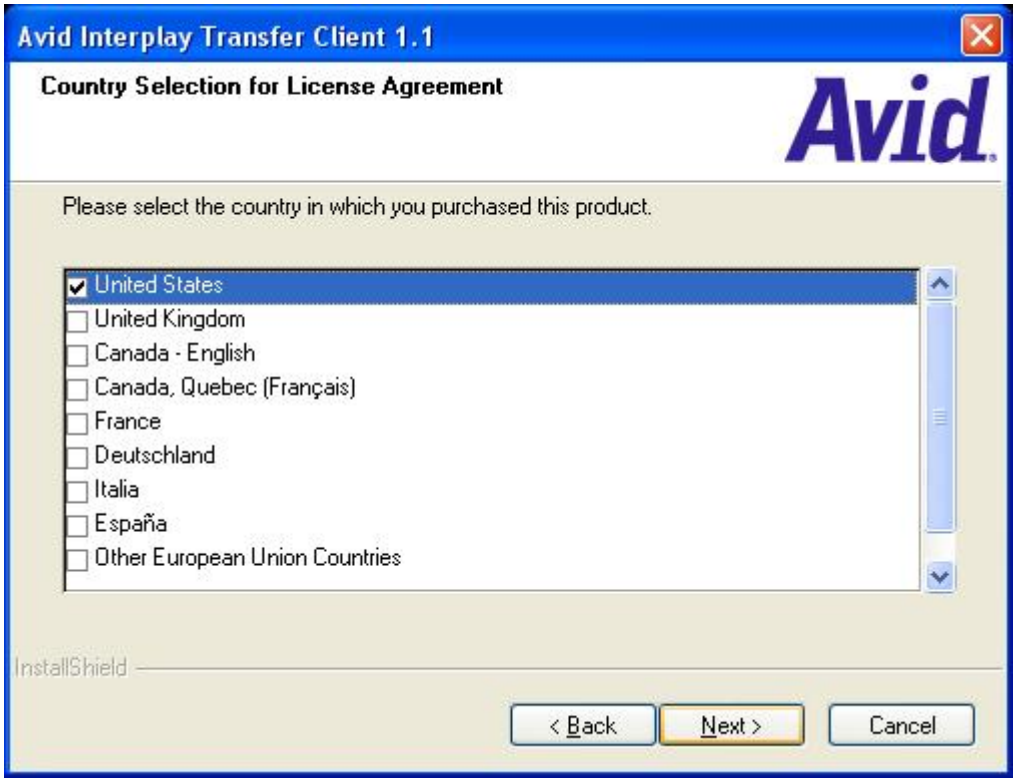
The version of the Avid Transfer Manager Client must be compliant to the relative version of transfer Manager Server.

So the Transfer Manager client will be installed separately from the EVS Avid tools.

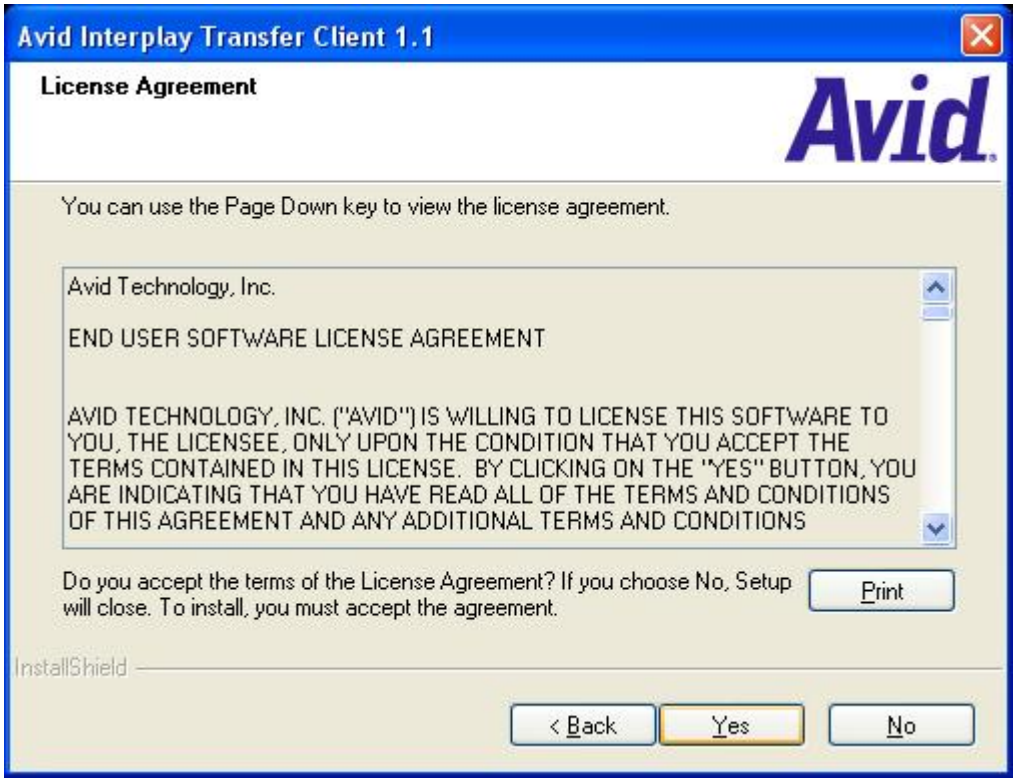
Launch Transfer Manager Client setup from Avid install disks.



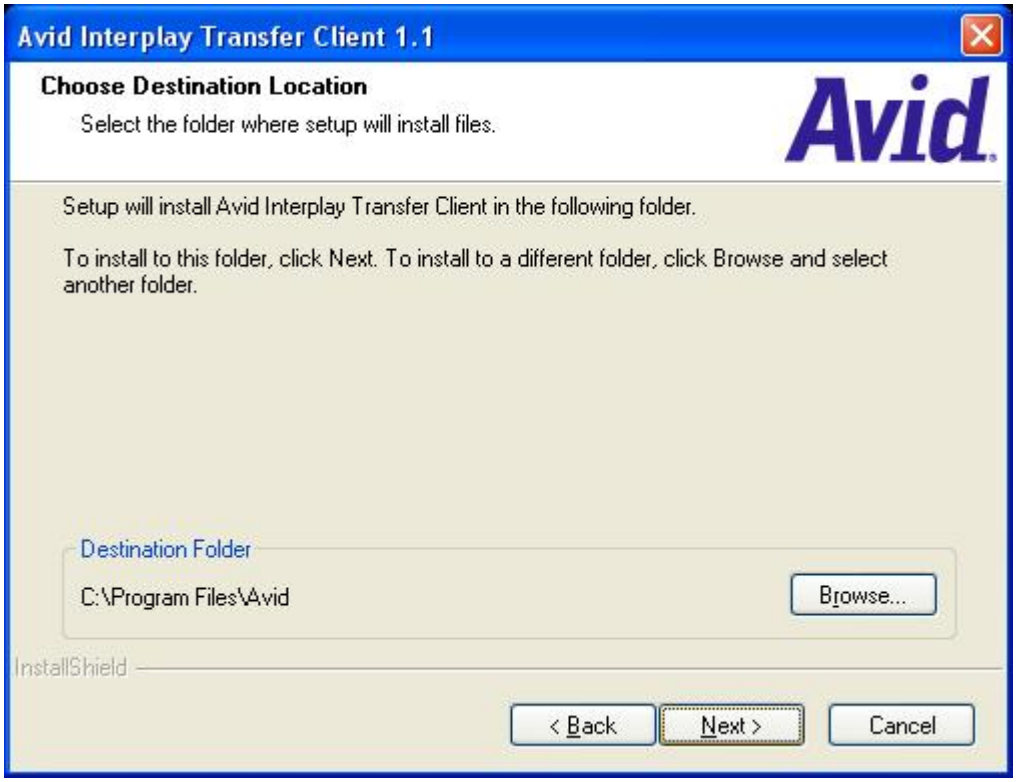
Click NEXT



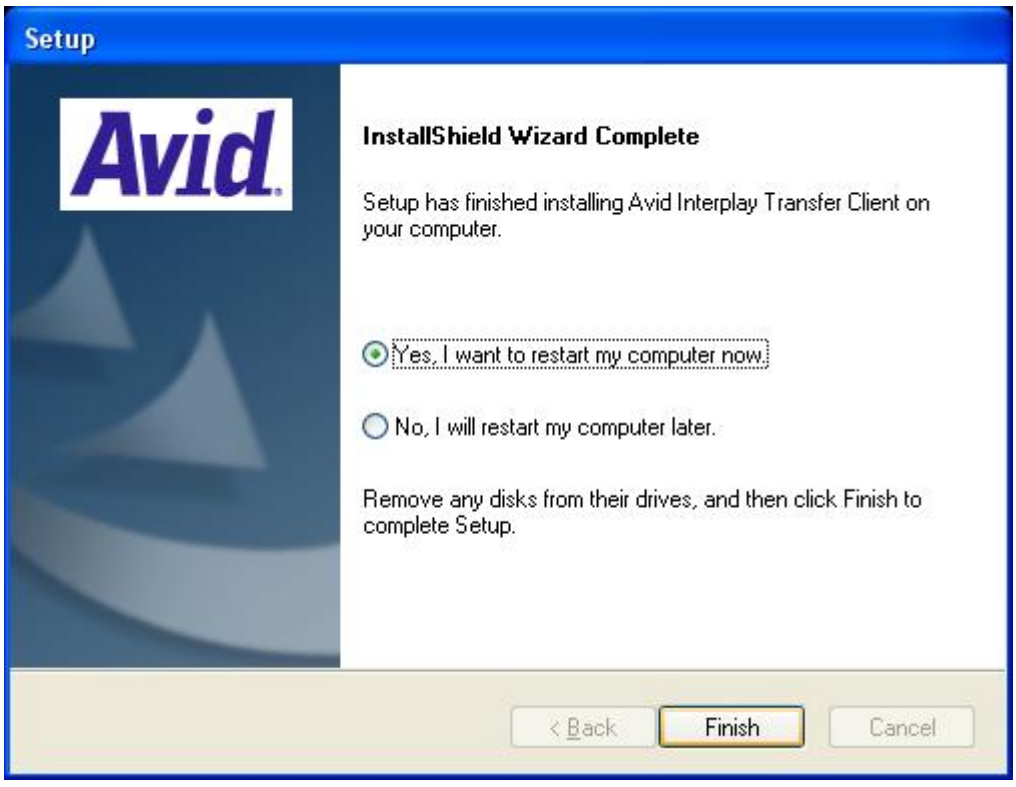
Click NEXT



Click YES



Select the directory and click NEXT. .NET framework 1.1 will be installed. Click NEXT in case it is not yet installed.



TM client is completely installed. You must restart the computer.

Notes :

- In case TM Client is already installed on your computer, Avid Installer will ask you to first remove the older version.
- If you install the WG4 Avid Transfer Manager Client you have to select the “Transfer Client for Editing System”

8 EVS-AVID QUICK CHECKUP

This section proposes a simplified procedure to install the EVS Avid tools. This is rather a check list than an exhaustive procedure.

Specific installation and configurations are explained in detail in section 9.

8.1 Simplified Procedure

8.1.1 Ingest

- **EVS device (XFile, XTAccess or EVS Avid Browser)**
  - Install Transfer Manager Client
  - Install EVS Avid tools with EVS Browser and EVS TMClient dlls options.
  - Edit TMClient.ini file with the name of the Transfer manager server device in :
    - C:\Program Files\EVSAvid Tools\ for EVS Avid Browser
    - C:\Program Files\EVS Broadcast Equipment\Xfile\ for XFile
    - C:\Program Files\EVS Broadcast Equipment\XTAccess\ for XTAccess
  - Shared a drive where the backup file will be stored (not needed for streaming)
  - Configure EVS Avid Browser, XFile or XTAccess following the workflow.
- **Avid Transfer Manager Server device**
  - Install EVS Avid tools with EVS TM server dlls option.
  - Configure The Transfer Manager configuration : Ingest devices
  - Check the connection with EVS device and Shared drive (in case of backup files)
- **Avid Media Composer device (“Pull” mode only)**
  - Install Transfer Manager Client
  - Install EVS Avid tools with EVS Browser option.
  - Edit TMClient.ini file with the name of the Transfer manager server device in :
    - C:\Program Files\EVSAvid Tools\ for EVS Avid Browser
  - Configure EVS Avid Browser.

8.1.2 Send to Playback

- **EVS device (any workstation except Avid Transfer Manager Server)**
  - Install Transfer Manager Client
  - Install EVS Avid tools with EVS Playback Server option.
  - Edit TMClient.ini file with the name of the Transfer manager server device in :
    - C:\Program Files\EVSAvid Tools\ for EVS Avid Browser
  - Shared a drive where the restore file will be created (only in shared drive mode – not XT FTP)

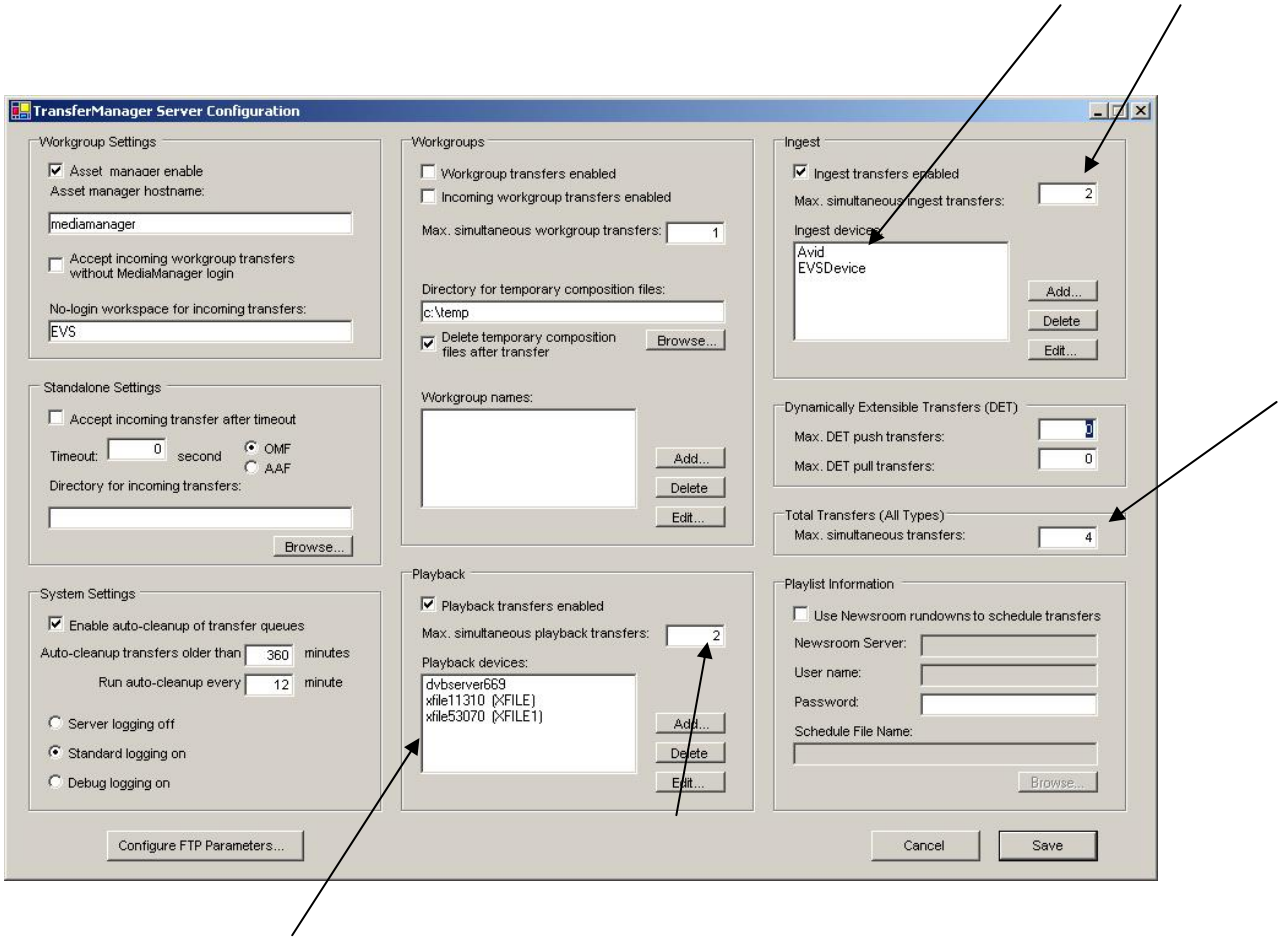
    - Configure EVS Avid Playback Server.
- **Avid Transfer Manager Server device**
    - Install EVS Avid tools with EVS TM server dlls option.
    - Configure The Transfer Manager configuration : Playback devices
    - Check the connection with EVS device and Shared drive (in case of shared drive mode – not XT FTP)
- **Avid Media Composer device**
    - Install Transfer Manager Client (if not yet installed)
    - Edit TMClient.ini file with the name of the Transfer manager server device in Avid Media Composer settings of the project (Transfer tag):

8.2 Windows Net Working

- Confirm visibility across Windows network of XFile <-> Avid TM <-> MCA
- Create common user/password admin accounts on both PC's (XFile and PC running TM)
- If using DNS, be sure to add the XFile into the DNS table
    - Otherwise enter the Avid TM and XFile into each others windows host table
- Use command line to confirm visibility of XFile <-> Avid TM Server, and log in as required
- On XFile[2] (or XStore[2]) create new folders
- Create folders "TO_AVID" and "FROM_AVID"
- Share both folders with full Read/Write privileges
- Create a Shared folder on TM PC
- On XFile, create mapped network drive to Avid TM to confirm and force log in
- On Avid TM, create mapped network drives on XFile

8.3 Avid Transfer Manager (WG4) / Transfer Engine (Interplay)

- Install EVS TMServer dlls (from the EVS Avid Tools setup)
- Setup TM Server Configuration



() Workgroup settings (normally defined by system administrator):

- Asset Manager HostName only in case the system is connected to a Avid Media Manager server
- Non-login Workspace for incoming transfer: please enter the workspace name where the files will be stored, in this example EVS.

() Standalone Settings: only in case of a TM in standalone on MCA station.

- Select OMF or AAF mode, depends on the costumers standard
- Directory for incoming transfer must be defined accordingly:
  - OMF : Drive:\OMFI MediaFiles
  - AAF : Drive:\Avid MediaFiles\MXF\1 for example

() Playback:

- Select “Playback transfers enabled”
- Choose the max. simultaneous playback transfers, e.g. 2

- Add the Hostname of the computer where the EVS Avid Playback Server is running

() Ingest:

- Select “Ingest transfers enabled”
- Choose the max. simultaneous ingest transfers, e.g. 2
- Add the EVS ingest device used for transfer (XFile or EVS Avid Browser). In this example, it is EVSDevice (TM Host name) like defined above.

() Total transfers:

- The value must >= 2 x # ingest transfers + # playback transfers
- Max Total transfer advised by Avid: 8

() Shared hard drive location accessible by Transfer Manager

() Storage Drive mapped on Transfer Manager

! Make sure Transfer Manager can reach the hard drive location through IP Address as well as Hostname!!

! When working in OMF, Avid does not support “play while transfer”

8.4 XFile / XStream setup

() Install EVS TMClient dlls (from the EVS Avid Tools setup)

() Install Avid Transfer Manager Client

() Edit C:\Program Files\EVS Broadcast Equipment\XFile\TMClient.ini

- [MyServer,MyWorkgroup]

  MyServer = TM-UNITY, WORKGROUP

! Check the TM hostname and Workgroup in the System Properties of the Transfer Manager

() Configure XFile Export settings

- “Default TM Hostname” is the ingest device in the Avid Transfer Manager configuration.

() Select “Transfer To Avid TM” in the XStream Job Configuration if you want to stream directly into Avid

8.5 EVS Playback Server Setup

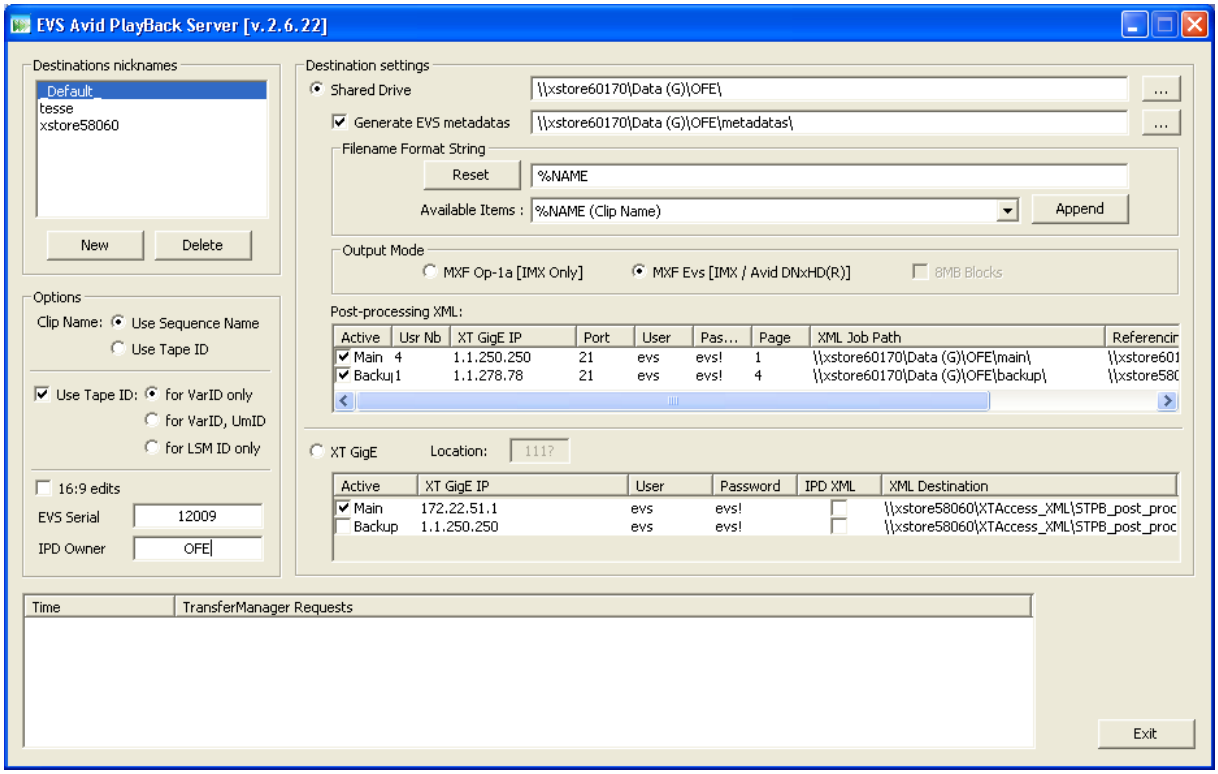
() Install EVS Playback Server (from the EVS Avid Tools setup)

() Install Avid Transfer Manager Client (If the Client is not installed, running the EVS Playback Server will generate an error)

() Check in C:\Windows\System32\Drivers\Etc\services if the following lines are (automatically) inserted:

- com.avid.xmgr is added by the Transfer Manager Client installshield
- com.avid.mct is added by the EVS Avid Tools setup (EVS Playback server option)
- com.avid.pbp is added by the EVS Avid Tools setup (EVS Playback server option)

() Configure EVS Playback Server settings



! Always use UNC paths!!

! XML always in the “Jobs_Incoming” folder

8.6 EVS Avid Browser setup

() Install EVS Browser (from the EVS Avid Tools setup)

() Install Avid Transfer Manager Client (If the Client is not installed, running the EVS Avid Browser will generate an error)

() Edit C:\Program Files\EVS Avid Tools\TMClient.ini

- [MyServer,MyWorkgroup]

  MyServer = TM-UNITY, WORKGROUP

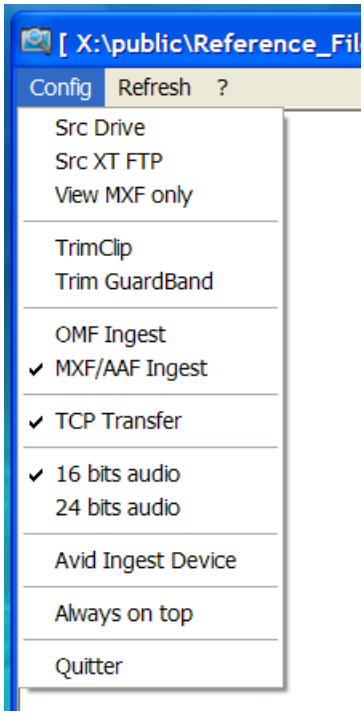
! Check the TM hostname and Workgroup in the System Properties of the Transfer Manager

() Select Src Drive (always an UNC path)

() Select AAF or OMF, depending on the settings in Avid TM Configuration

() Set the Avid Ingest Device (the defined ingest device in the Avid Transfer Manager configuration)

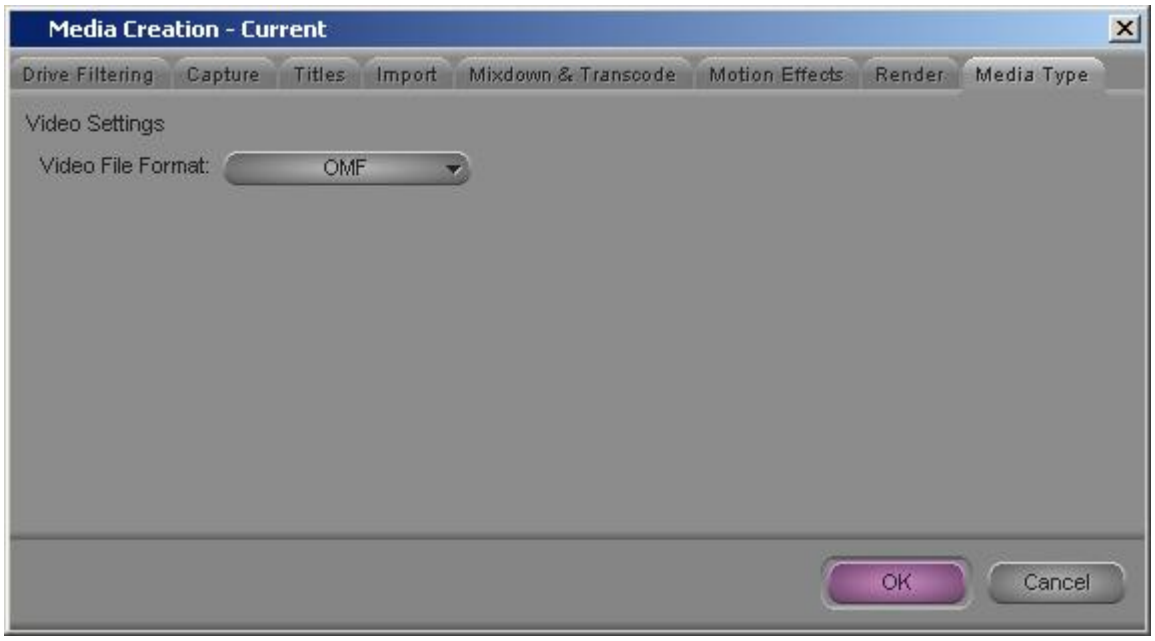
() Restart EVS Avid Browser after changes made (not mandatory)



8.7 Media Composer / News Cutter setup

() Make sure Avid Transfer Manager Client is installed

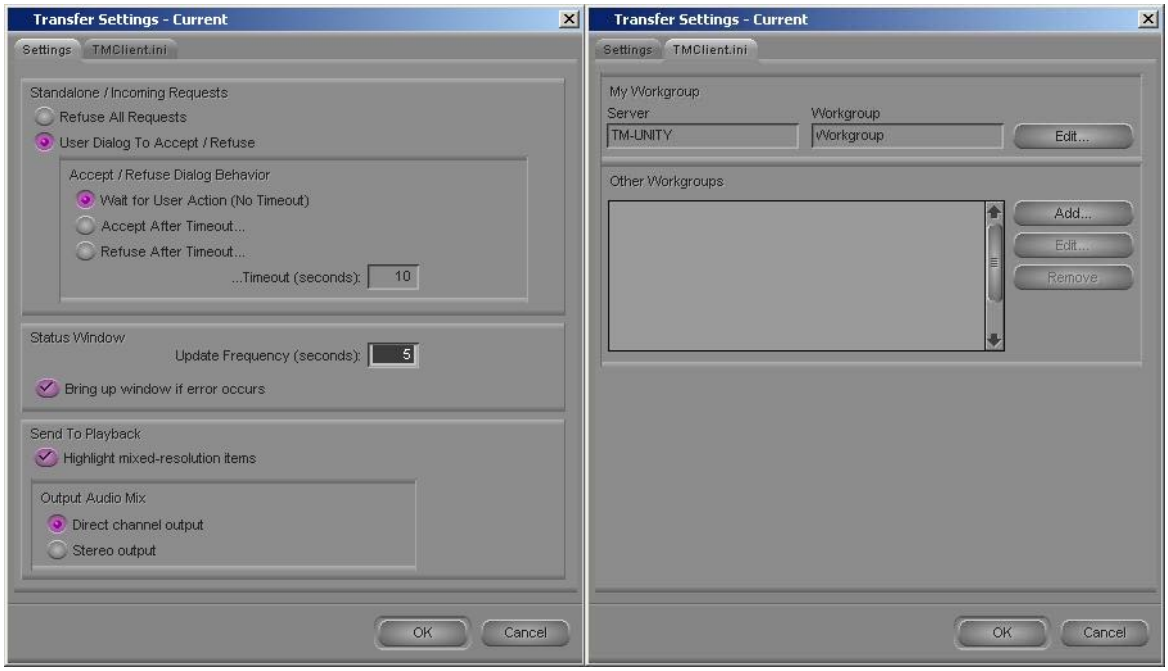
() Set Media Creation (in the Project Settings) to OMF or MXF (identical to what is set in Avid Transfer Manager)



() Set Media Creation (all tabs) to MPEG 30, 40 or 50, according to what bitrate the footage is recorded on XT[2]

() Set Transfer settings (in the Project Settings)

- TMClient.ini settings:
  - Server : Computer name of the server where runs Avid Transfer Manager Server. Example : TM-UNITY
  - Workgroup : example : Workgroup



8.8 Useful information

Avid Media Composer must perform an Audio Mix down before transfer to EVS (done automatically when a transfer is initiated).

No video blanks should remain in the time line (fillers used in timeline), including at the beginning and at the end of the time line. An alternative is to replace the filler by black video or make a video mixdown.

At least one audio track and one video track must be present in the time line.

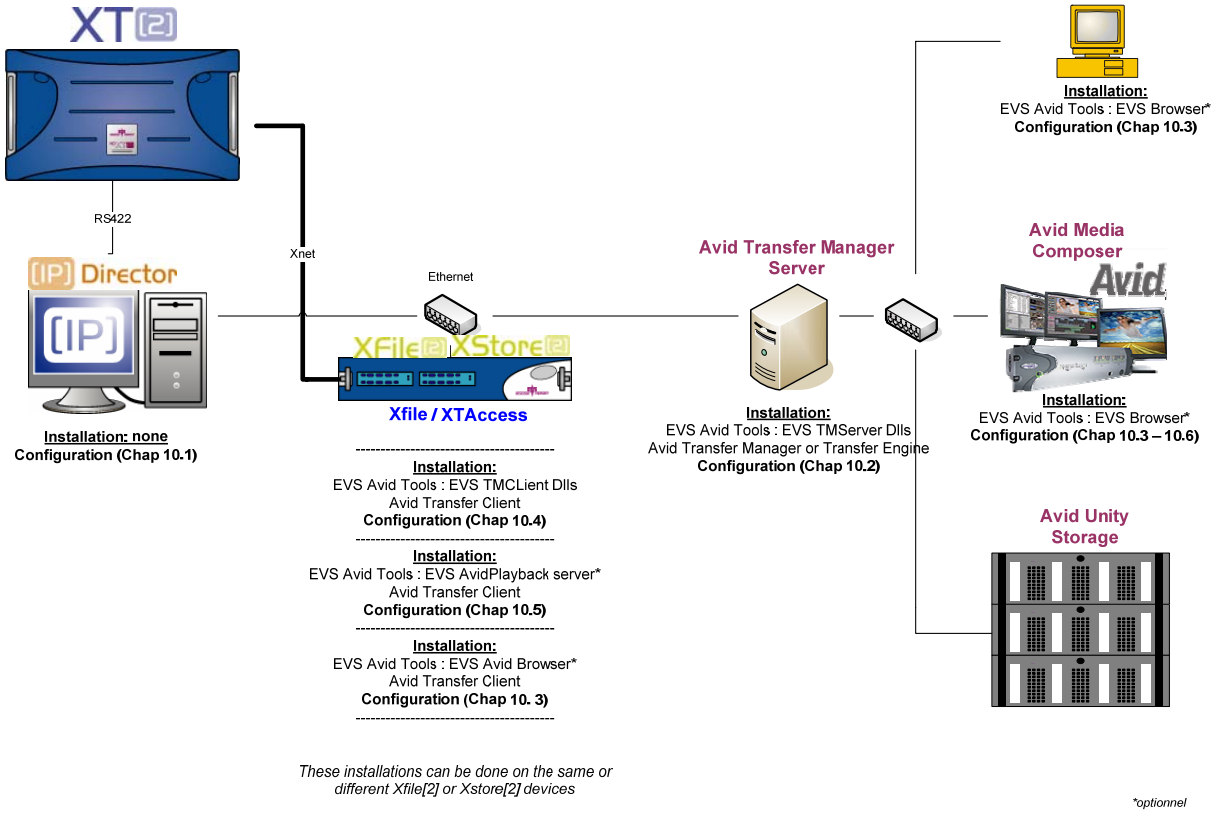
All video effects need to be rendered before transfer

9 DETAILLED INSTALLATION AND CONFIGURATION

This section explains in details which installshield and options to install for each workflow. The installation for each installshield is explained in section 7.

The following diagram shows a typical EVS/Avid system and the different installations of component for each device:

- EVS IPDirector workstation
- EVS XFile[2] or XStore[2] (Where you can run XFile or XTAccess)
- Avid Transfer Manager Server
- Avid Editing station (Media Composer or NewsCutter).



Devices to be configured for each workflow described in section 6:

- **"Push streaming" via IP Director** : IPDirector - config only (§ 9.1), XFile/XTAccess (§ 9.3), Avid Transfer Manager Server (§ 9.2)
- **"Push" via backuped files** : XFile/XTAccess maintenance menu (§ 9.3) or EVS Avid Browser on any device (§ 9.4), Avid Transfer Manager Server (§ 9.2)
- **"Pull" via backuped files or streaming GigaBit XT[2]** : EVS Avid Browser on Avid Media Composer (§ 9.4), Avid Transfer Manager Server (§ 9.2)
- **Live feed streaming (XStream)** : XFile (§ 9.3), Avid Transfer Manager Server (§ 9.2)
- **Send to Playback** : XFile (§ 9.5), Avid Transfer Manager (§ 9.2), Avid Media Composer (§ 9.6.2)

The installation of components for each device is described in the followings sections.

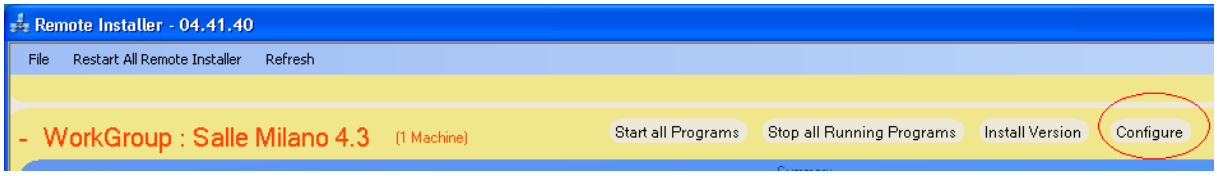
9.1 EVS IPDirector

IPDirector must be configured for the workflow “push” streaming to Avid explained in section 6.5.1.

No EVS Avid tools or Avid Transfer Manager Client need to be installed on the IPDirector workstation. You just need to configure “Avid Export” target. Note that “push” and “pull” via backup files workflows described in sections 6.5.2 & 6.5.3 need to create “Backup” target : they are not explained in this section as this configuration is related to IP Director and XFile/XTAccess backup only.

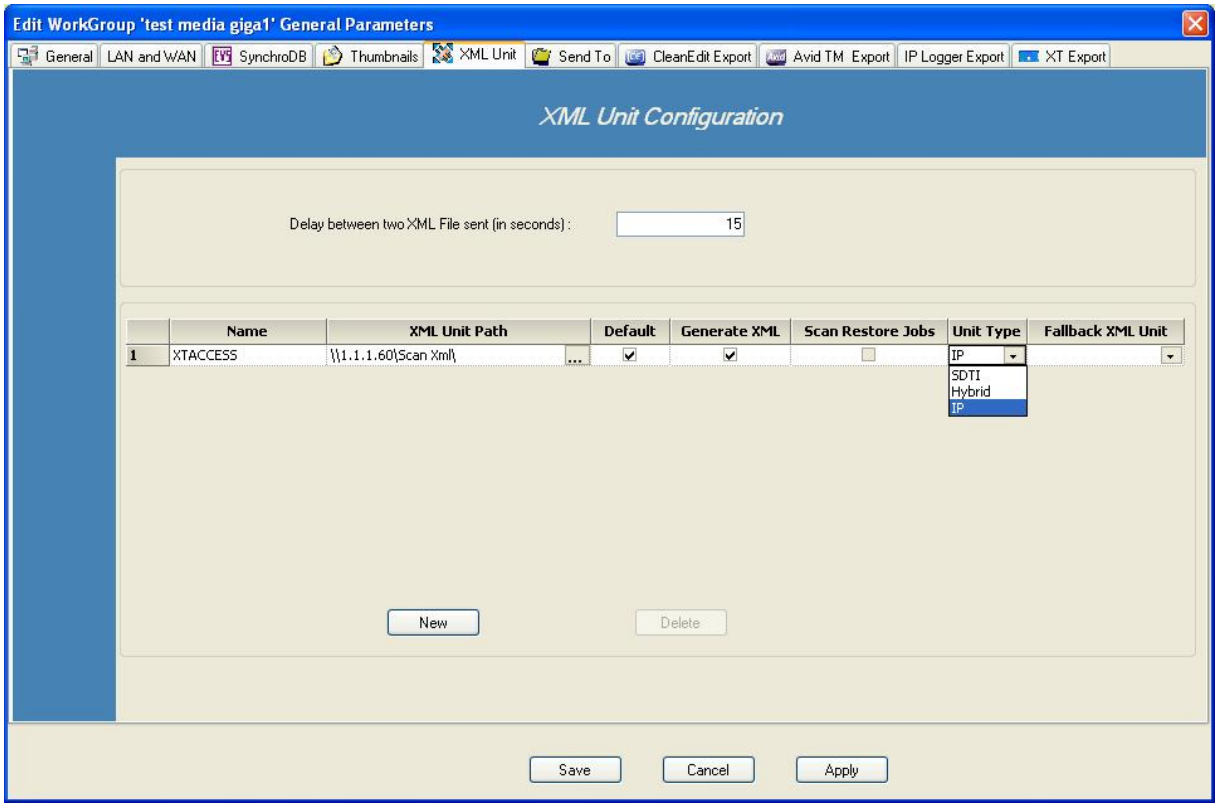
Open the Remote installer of the IPDirector

Click on the configure button:



XML Unit

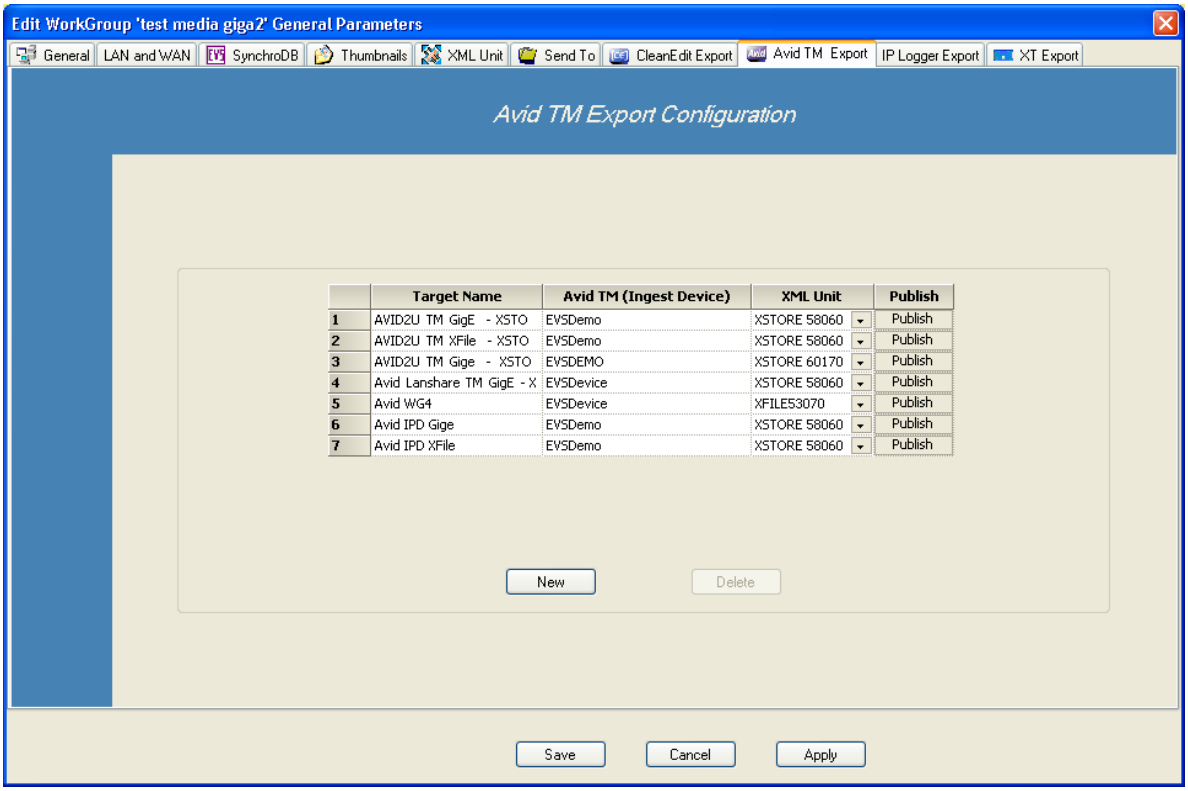
Select the XML Unit Tab and Click on the ‘New’ button to add a new XML unit.



- **Name** : Name of the XML Unit
- **XML Unit Path** : UNC of the folder where the XML file will be put. This is the folder to be scanned by XTAccess.
- **Default** : specify the default XML Unit (in case not specified in the other configuration tabs.
- **Unit Type** :
  - IP : Gigabit access with XTAccess (to be chosen !)
  - SDTI : SDTI access with XFile
  - Hybrid : *future use*
- **Fallback XML Unit** : To specify a second XML Unit path. In case the XML Unit Path is not accessible, Fallback XML Unit will be used instead.

Avid TM Export Tab

Select the Avid TM Export Tab and Click on the 'New' button to add a new target.



- **Target Name** : This name will appear in the IP Director 'Send To' menu. It is used to identify the AVID target in the IP Director interface

- **Avid TM (Ingest Device):** Name of the EVS Device for the interface with Avid Transfer Manager Server. This information is used by Avid Transfer Manager Server to specify from which ingest device the transfer is initiated. If you want to ingest your clips in a specific subdirectory into Interplay. You can add this subdirectory after the ingest device. Example: EVSDemo:Day1 (in this case the clips will appear in interplay into the /Ingest/Day1 folder (see chapter on the creation of folder into Avid Interplay Access).

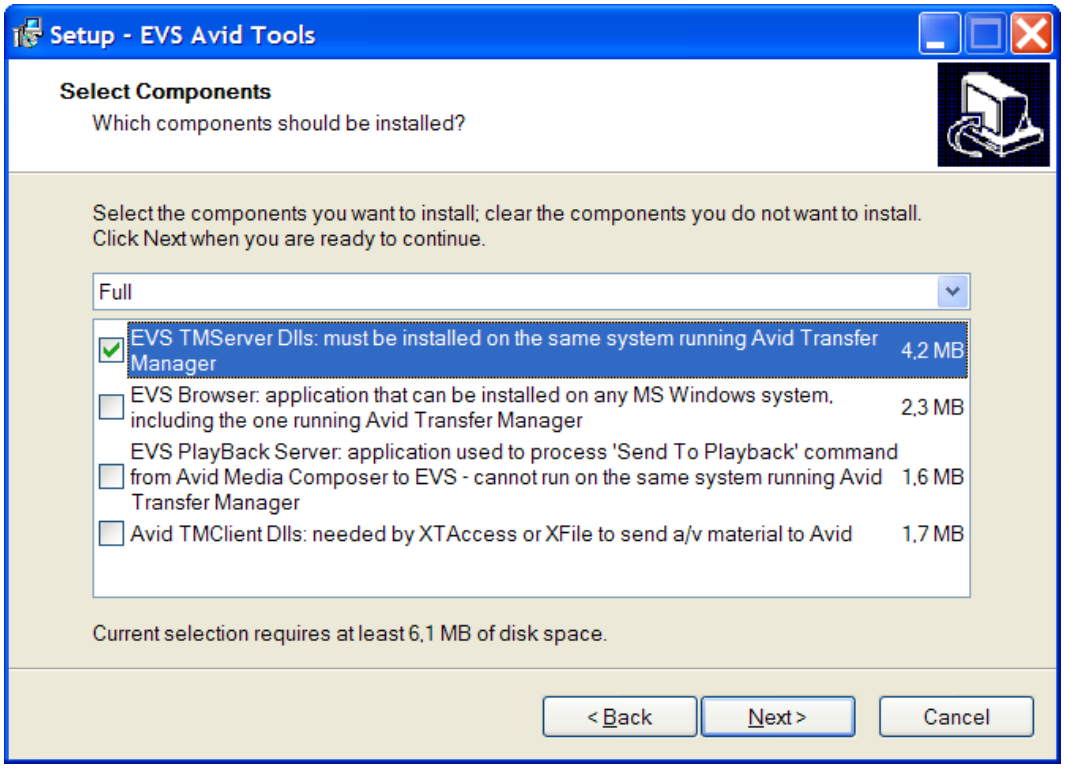
- **XML Unit**: specified the XML unit which will be used to perform the job. This unit should be located on the XFile or on the XTAccess which will be connected to the AVID Transfer Manager.

9.2 Avid Transfer Manager Server

Avid Transfer Manager must be configured for all the workflows described in section 6.

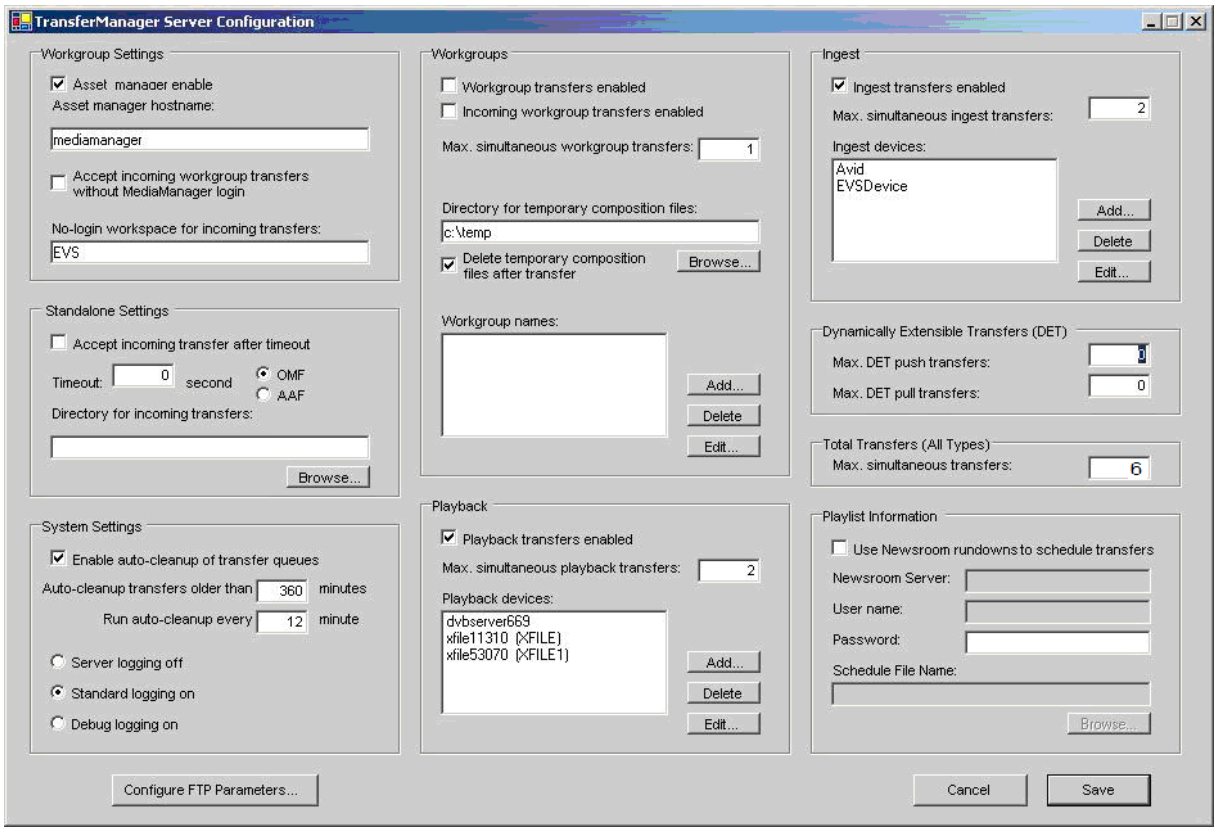
STEP 1 : Install EVS Avid Tools.

Launch EVS Avid Setup and select EVS TMServer dlls (see section 7.1).

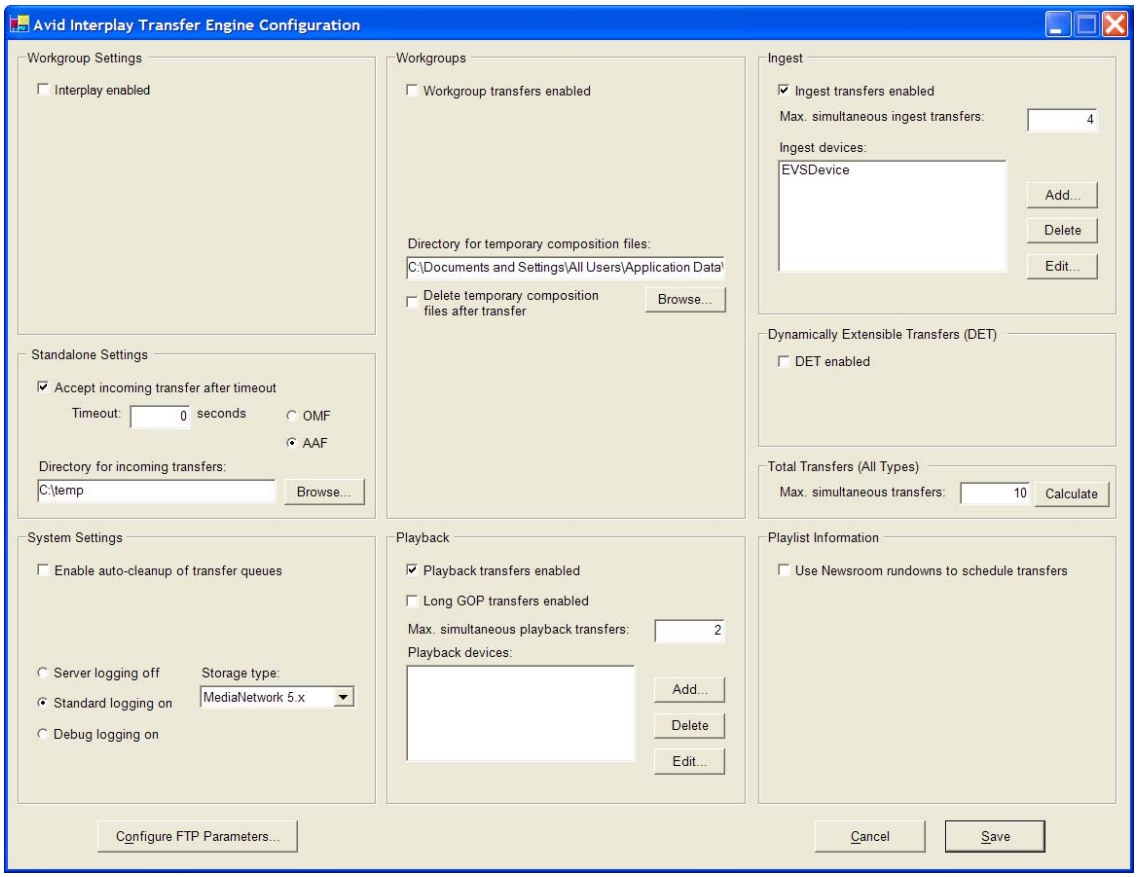


STEP 2 : Transfer Manager Server Configuration .

This is a typical configuration to be used with EVS. See “Avid Unity Transfer Manager – Setup and User’s Guide” for additional information.



Or since Interplay 1.5



- **Workgroup settings :**
    - Asset Manager HostName : in case the system is connected to a Avid Media Manager server, the name of the asset manager must be specified
    - Non-login Workspace for incoming transfer : please enter the Unity Workspace name, in this case EVS.
- **Standalone Settings :** to be filled in case of a TM in standalone on MCA station.
    - You must select either OMF or AAF mode. This must be compliant to the Media Creation mode in your project settings in MCA.
    - Directory for incoming transfer must be defined accordingly :
    - OMF : Drive:\OMFI MediaFiles
    - AAF : Drive:\Avid MediaFiles\MXF\1 for example
- **Playback :**
    - Select “Playback transfers enabled”
    - Choose the max. simultaneous playback transfers, e.g. 2 (value range is 0-20)
    - Add the computer name where the EVS Avid Playback Server is running. In this example, it is dvbserver669 or xfile11310.
- **Ingest :**
    - Select “Ingest transfers enabled”
    - Choose the max. simultaneous ingest transfers, e.g. 2 (value range is 0-20)
    - Add the EVS ingest device used for transfer (Xfile or EVS Avid Browser). In this example, it is EVSDevice (TM Host name) like defined above.
    - You can also add a catalog where the ingest files from EVS will be stored. You have first to create this catalogue on Interplay Access.
- **Total transfer :**
    - The value must >=(2 x # ingest transfers + # playback transfers) . When using the example above (4 ingest and 2 playout) this equates to a total of 10 simultaneous transfers.
    - Max Total transfer advised by Avid : 8

STEP 3 : Check the connection with storage drive for ingest and playback.

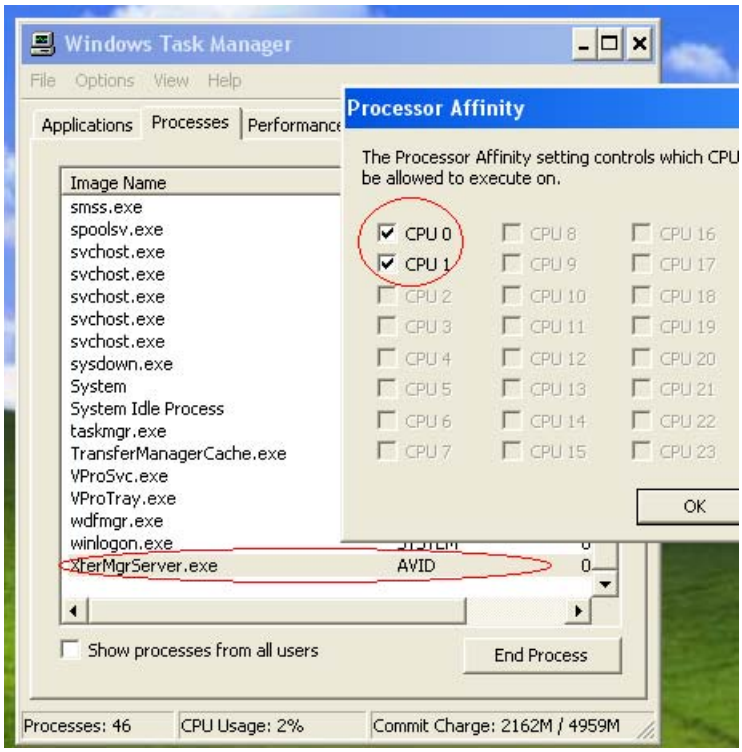
Transfer Manager Server must access through the network (LAN) the ingest and playback storage with read and write files capabilities.

You must thus check the access via UNC path (Windows host name and IP address) (e.g. using Windows Explorer/entire Network/).

Note that for the “push” streaming from IP Director where XFile is used as a gateway only, storage does not need to be accessible (only the IP address of XFile).

Remarks/tips :

- **Windows Workgroup / Domain :** As XFile is defined in a Workgroup, Avid Transfer Manager and other Avid devices must also be defined in a Workgroup, not a Domain ! Workgroups can be different but the same workgroup for all the EVS & Avid devices will facilitate the search of a device in the Windows network.
- **Domain …**(to be completed)
- The storage drive can be mapped on the Transfer Manager server for an easy reconnection after a re-boot.
- Windows workgroup and logon could cause some difficulties to access the drive. Some tips :
    - Use a login on the storage device with a password. Windows XP could block the access without password like login DVB and no password.
    - Create an User with login and password of the remote drive computer and add Administrator properties to this user.
    - Once accessible, map the remote drive on the Transfer Manager server so the access will be automatically restored at each reboot of the Transfer Manager Server.
- TM Client do not need to be installed on the Transfer Manager Server device, unless other client application are running like Avid Media Composer (i.e. standalone configuration).
- If the Transfer Engine is installed on a dual core machine , you can increase the performance by select the two core into the Affinity of the Task Manager



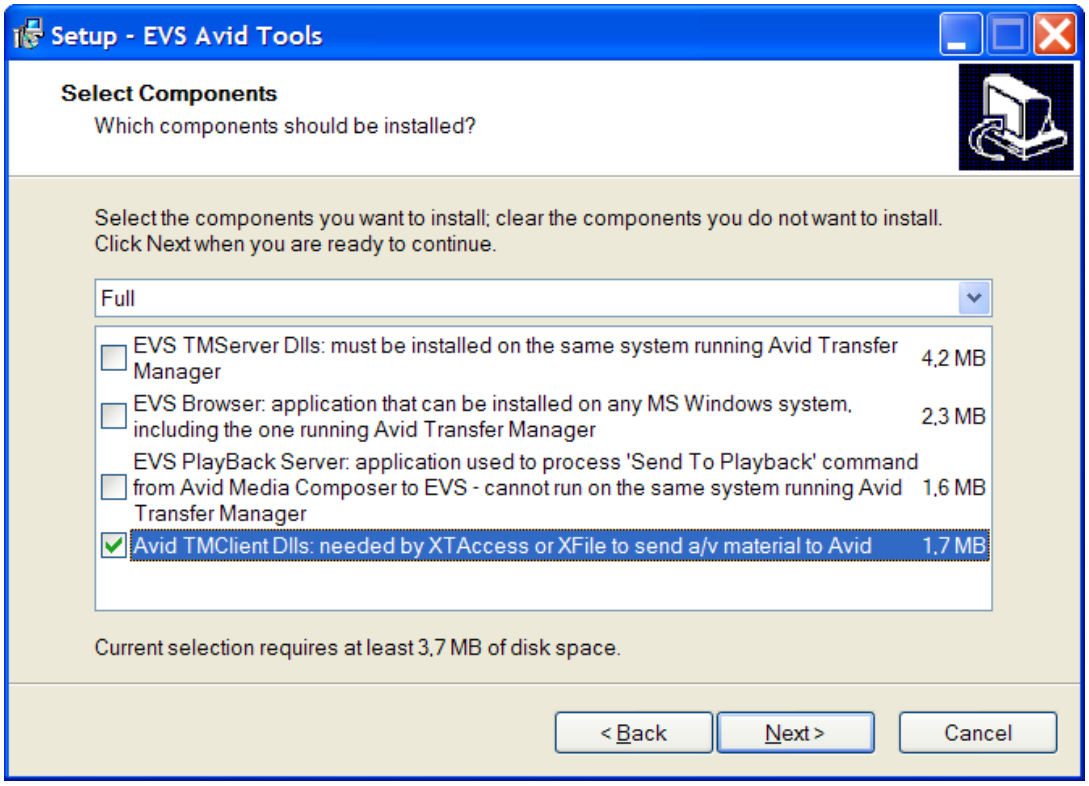
9.3 XFile/XStream & XTAccess

The EVS XFile, XStream & XTAccess are used in the following workflows:

- Clip “push” streaming via IP Director & XFile or XTAccess (see section 6.5.1).
- Clip “push” via backuped files (using XFile Export in Maintenance menu) (see section 6.5.2)
- Live Feeds streaming via XStream (see section 6.5.4).

STEP 1 : Install EVS Avid Tools.

Launch EVS Avid Setup and select Avid TMClient dlls (see section 7.1).



STEP 2 : Transfer Manager Client Installation

See section 7.2

STEP 3 : Edit TMClient.ini

Copy the TMClient.ini file from folder c:\Program Filess\EVS Avid Tools\ to C:\Program Files\EVS Broadcast Equipment\XFile\ or/and C:\Program Files\EVS Broadcast Equipment\XTAccess\. And then replace the Avid TM server name in the TMClient.ini file by the computer name of the server where Avid Transfer Manager runs.

Example :

[MyServer,MyWorkgroup]

MyServer = TM-UNITY, WORKGROUP

- Tip : remove in TMClient.ini all references to servers which are not available on the network: otherwise initialisation of the transfer will be delayed (risk of timeout) before starting transfer of data.

STEP 4a : XFile/XTAccess Configuration.

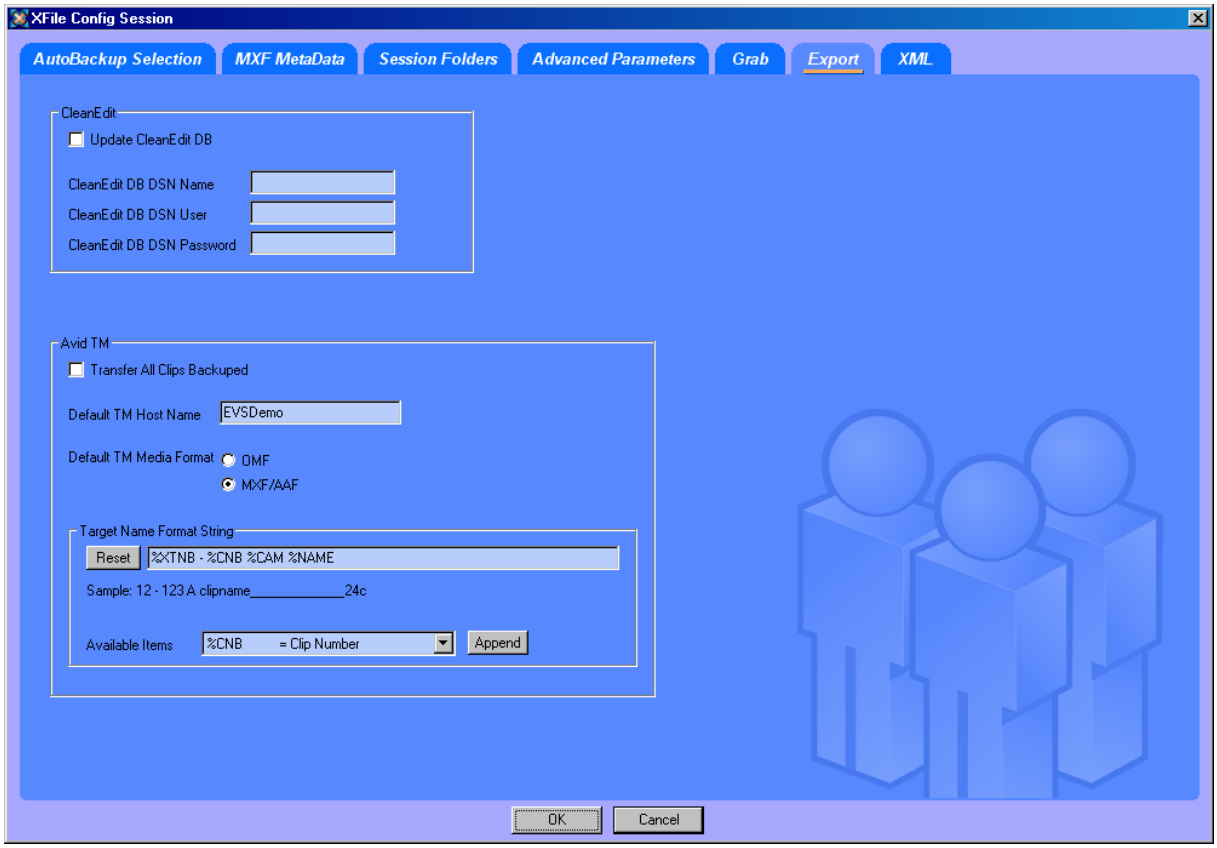
Remark :

- Using IP Director

The XML file triggering the transfer will collect all the information related to the transfer. XTAccess is working only with XML file and IP director. So there is no configuration for XTAccess - see also XTAccess User's Manual.

- Using the XFile GUI

In XFile GUI, select "Export" configuration tab in "Config Session" : see also Xfile User's Manual.



- **Transfer All Clips Backuped** : Each clip backuped will be automatically transferred to Avid if checked. Otherwise no action will be taken after a backup of file. **Typically not selected.**
- **Default TM Media Format :**
  - **OMF:** specify the OMF file format as file format on Avid storage
  - **MXF/AAF**: specify the MXF/AAF file format as file format on Avid storage

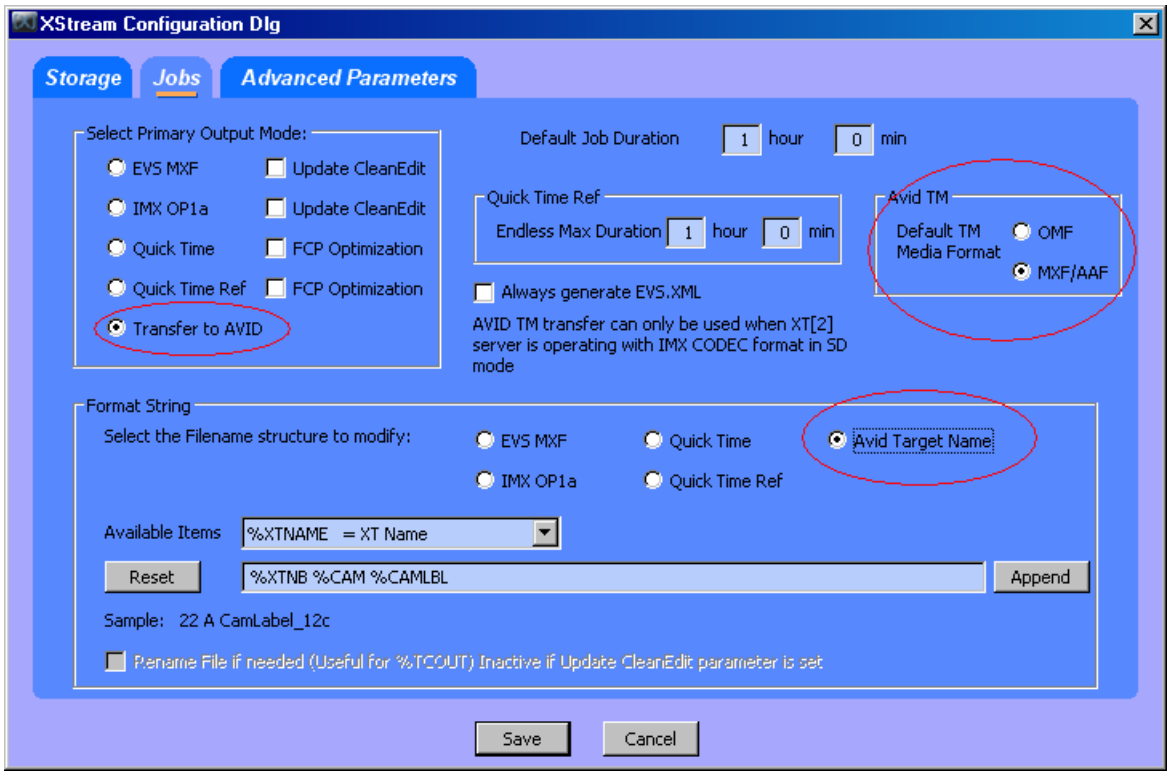
- **AvidTM:default TM_HostName** : e.g. EVSDevice as defined in the Transfer Manager Server Configuration (Ingest)

- **Target Name Format String** : This is the name format of the file to be generated in Avid storage.

STEP 4b : XStream Configuration.

Note: XFile must be first configured as described in the previous section for the Avid Host Name and Avid Name format string.

In XStream application, select “Jobs” configuration tab in “System Configuration” : see also XStream User’s Manual.



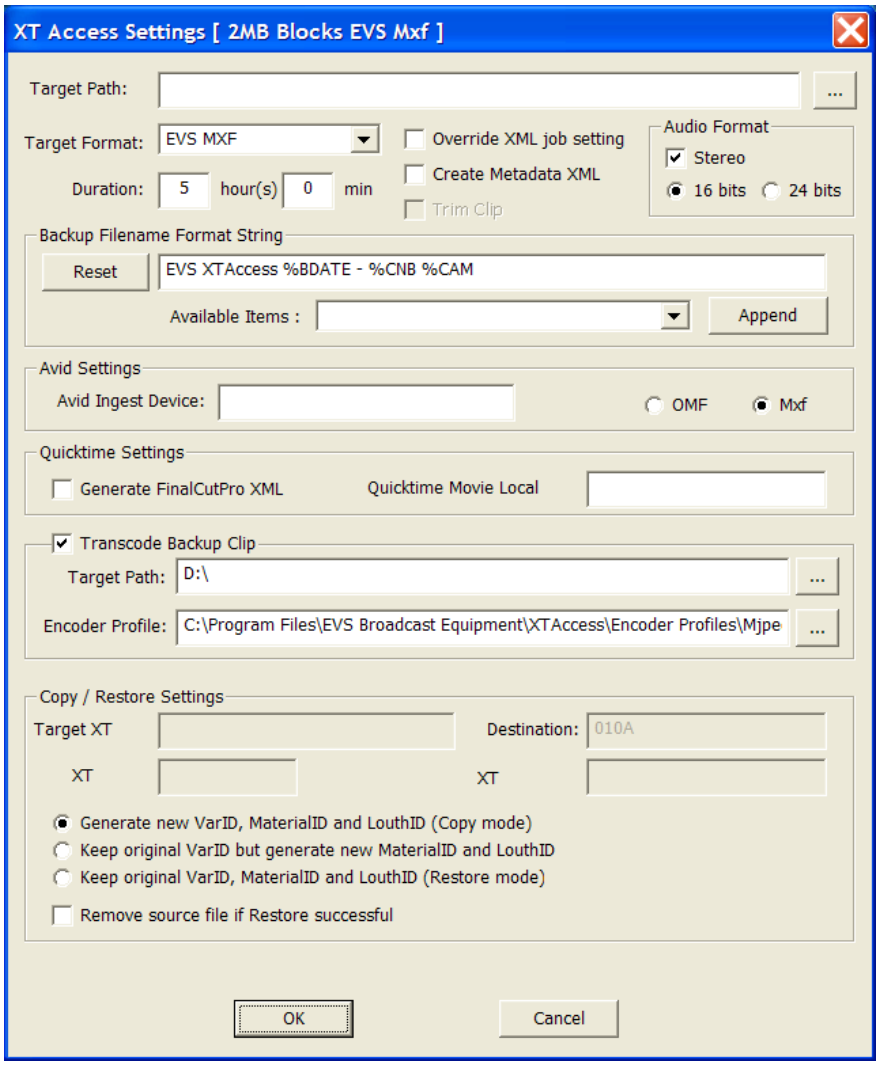
- **Primary Output Mode :** Select Transfer to Avid TM.
- **Avid TM** : select the OMF or MXF to specify the Avid file format used by Avid NLE or Unity Storage.
- **Format String** : Select and edit the Avid Target Name. This is the name format of the file to be generated in Avid storage

Remark

XStream will use the default TM host configured into XFile

STEP 4C : XTAccess Configuration

- XTAccess is used only with XML job files. But some XTAccess settings are not supported by XML. They must be specified in the local settings of the XML Jobs Scan



- **Audio Format** : Audio format configuration

  16-Bit/24-Bit : stereo button to select the audio resolution.

- **Format String** : Select and edit the Avid Target Name. This is the name format of the file to be generated in Avid storage
- **Avid Ingest Device** : Avid Host name defined in Avid Transfer Manager server configuration (Ingest) if not define into the XML file. **OMF/MXF** : Stereo button to select Avid file format after Avid ingest. : OMF or MXF/AAF.

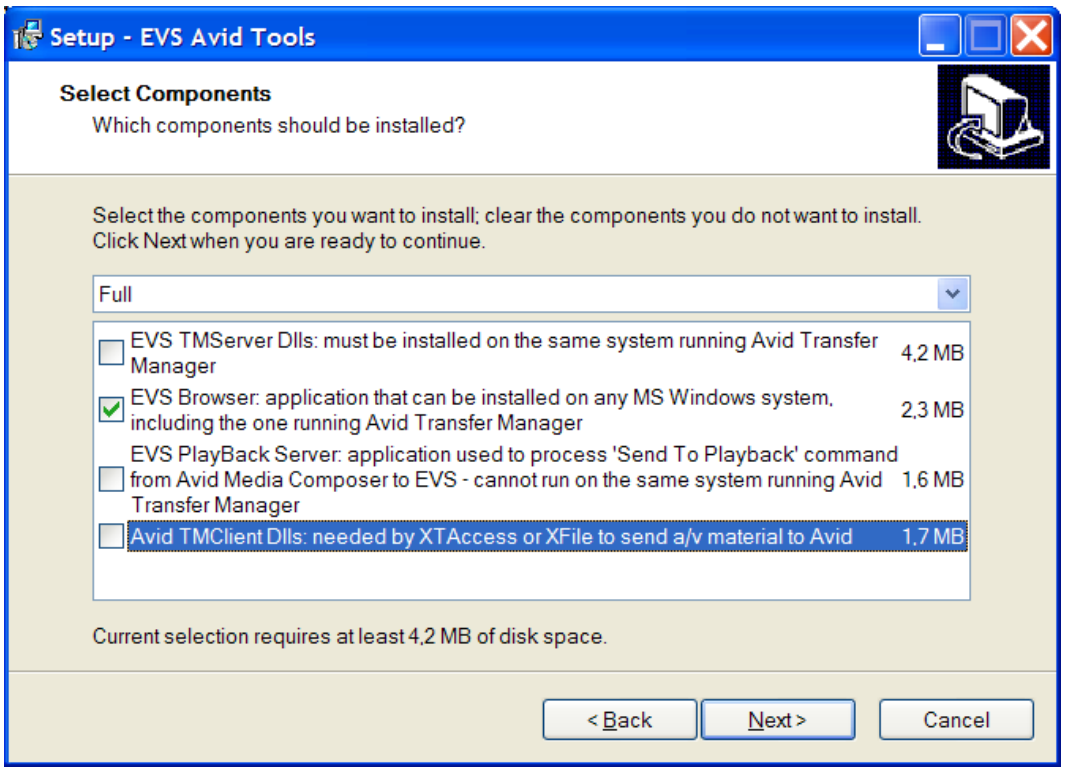
9.4 EVS Avid Browser

The EVS Avid browser is used in the following workflows :

- Clip “push” via backuped files (see section 6.5.2): the browser is installed on any remote device connected to Avid Transfer Manager and XFile storage via LAN.
- Clip “pull” via backuped files (see section 6.5.3) : the browser is installed on the Avid editing station (i.e. Avid Media Composer)
- Clip “pull” streaming from GigaBit XT[2] – Multicam 9 onwards (see section 6.5.4) : the browser is installed on the Avid editing station (i.e. Avid Media Composer) and configured in FTP XT access mode.

STEP 1 : Install EVS Avid Tools.

Launch EVS Avid Setup and select EVS Browser (see section 7.1).



STEP 2 : Transfer Manager Client Installation

See section 7.2

STEP 3 : Edit TMClient.ini

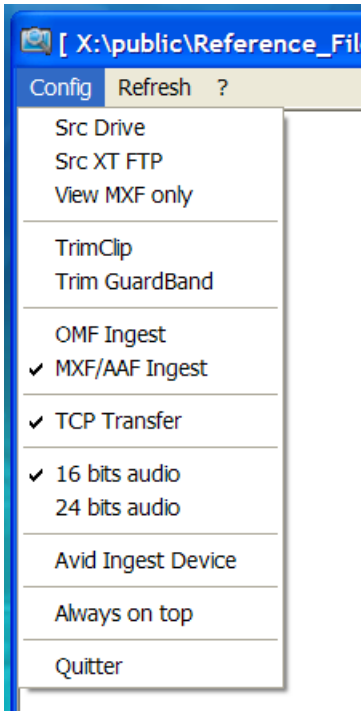
Edit the file “TMclient.ini” located in C:\Program Files\EVS Avid Tools\ by adding or replacing the Avid TM server name by the computer name of the server where Avid Transfer Manager runs. Example :

[MyServer,MyWorkgroup]

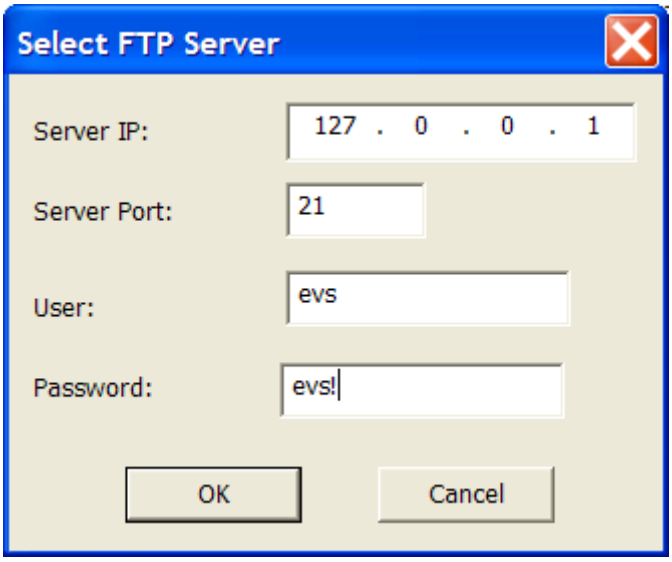
MyServer = TM-UNITY, WORKGROUP

- Tip : remove in TMClient.ini all references to servers which are not available on the network: otherwise initialisation of the transfer will be delayed (timeout) before starting transfer of data.

STEP 4 : EVS Avid Browser Configuration.



- **Refresh** : To refresh the directory selected. Shortcut : F5.
- **Source**
  - **Src Drive (Shared drive Mode)**: Browse through the network to select a drive/directory to browse. Click on OK and all the files available in this directory will be displayed. The drive path must be a UNC.
  - **Src XT FTP (FTP Mode)** : Select it to use the EVSAvid browser in FTP mode. Configure the FTP XT[2] server (Multicam 9) that you want to reach



  - Server IP: Ip address of the FTP XT[2] server
  - Server Port: Port of the FTP XT[2] server (by default 21)

- User: User define into the FTP XT[2] server
- Password: Password define into the FTP XT[2] server]

- **View MXF only** : to filter and only display MXF files.
- **Clip Trimming :**
    - **TrimClip :** Select this option to transfer only Clip IN/OUT instead of File IN/OUT.
    - **Trim GuardBand :** In case TrimClip is selected, this allows to add a guard band to Clip IN/OUT.
- **Avid file format :**
    - **OMF File:** specify the OMF file format as file format on Avid storage
    - **MXF/AAF File** : specify the MXF/AAF file format as file format on Avid storage
- **TCP Transfer** : for future use
- **Audio sampling resolution :**
    - **16 bits audio :** select this option to ingest in 16-bit audio
    - **24 bits audio** : select this option to ingest in 24-bit audio
    - Note that the Avid Media Composer Project must be setup accordingly regarding its audio sampling resolution parameter in Audio Project settings.
- **Avid Ingest Device** : This the name of the EVS device defined in the Transfer Manager Server Configuration (Ingest section) : e.g. EVSDevice
- If you want to ingest your clips in a specific subdirectory into Interplay. You can add this subdirectory after the ingest device. Example: EVSDemo:Day1 (in this case the clips will appear in interplay into the /Ingest/Day1 folder (see chapter on the creation of folder into Avid Interplay Access).

- **Always on top** : Select this option to always display the EVS Avid Browser on top of the display layers (overlaid)

9.5 EVS Playback Server

EVS Playback server is used for the Send to Playback workflow (Avid to EVS) (see section 6.6) :

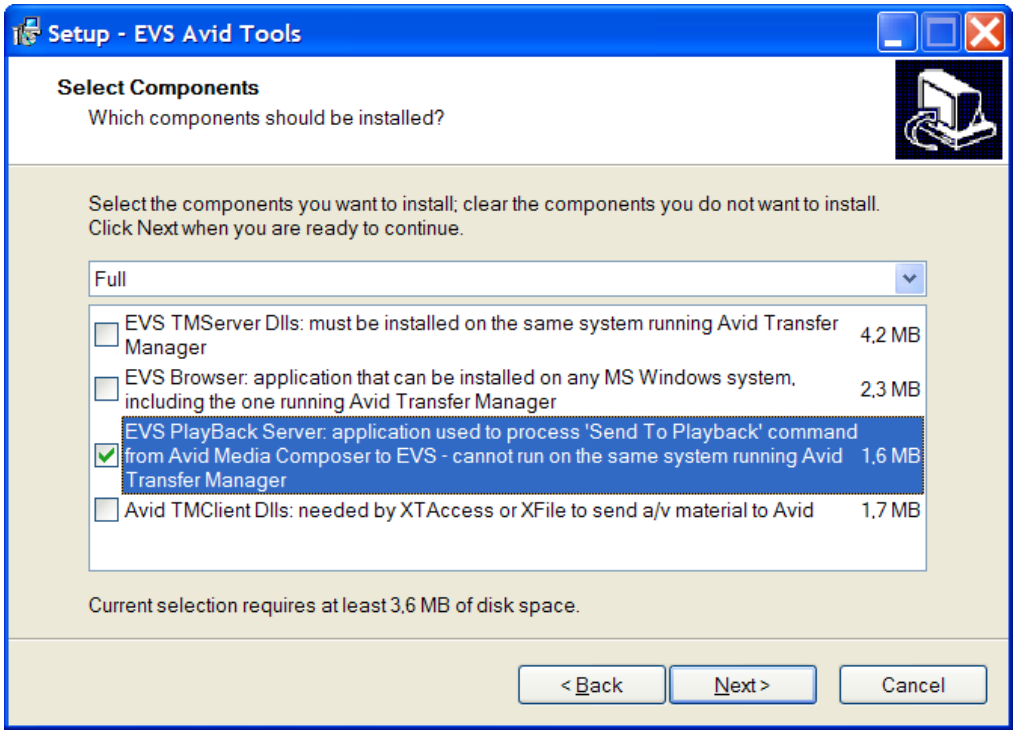
This server must be installed on any workstation connected via a LAN to the Avid Transfer Manager Server. **Typically it is installed on the destination Xfile but this is not mandatory**.

Important Notes : Send to Playback workflow uses an Avid TCP/IP protocol with some implications :

- The EVS Playback Server **MAY NOT BE** installed on the Avid Transfer Manager Server. This will result in Avid protocol errors (TCP ports conflicts by both applications).
- Avid Send to Playback is based on a TCP/IP protocol. The Ethernet GigE connection used to communicate with Avid Transfer Manager must be located in the first position in the Windows Network setup of the workstation to choose this interface. Otherwise Transfer Manager server is not able to “see” the EVS Playback server application. Loopback and other Ethernet boards must be either disabled or shifted behind.

STEP 1 : Install EVS Avid Tools.

Launch EVS Avid Setup and select EVS Playback Server (see section 7.1).

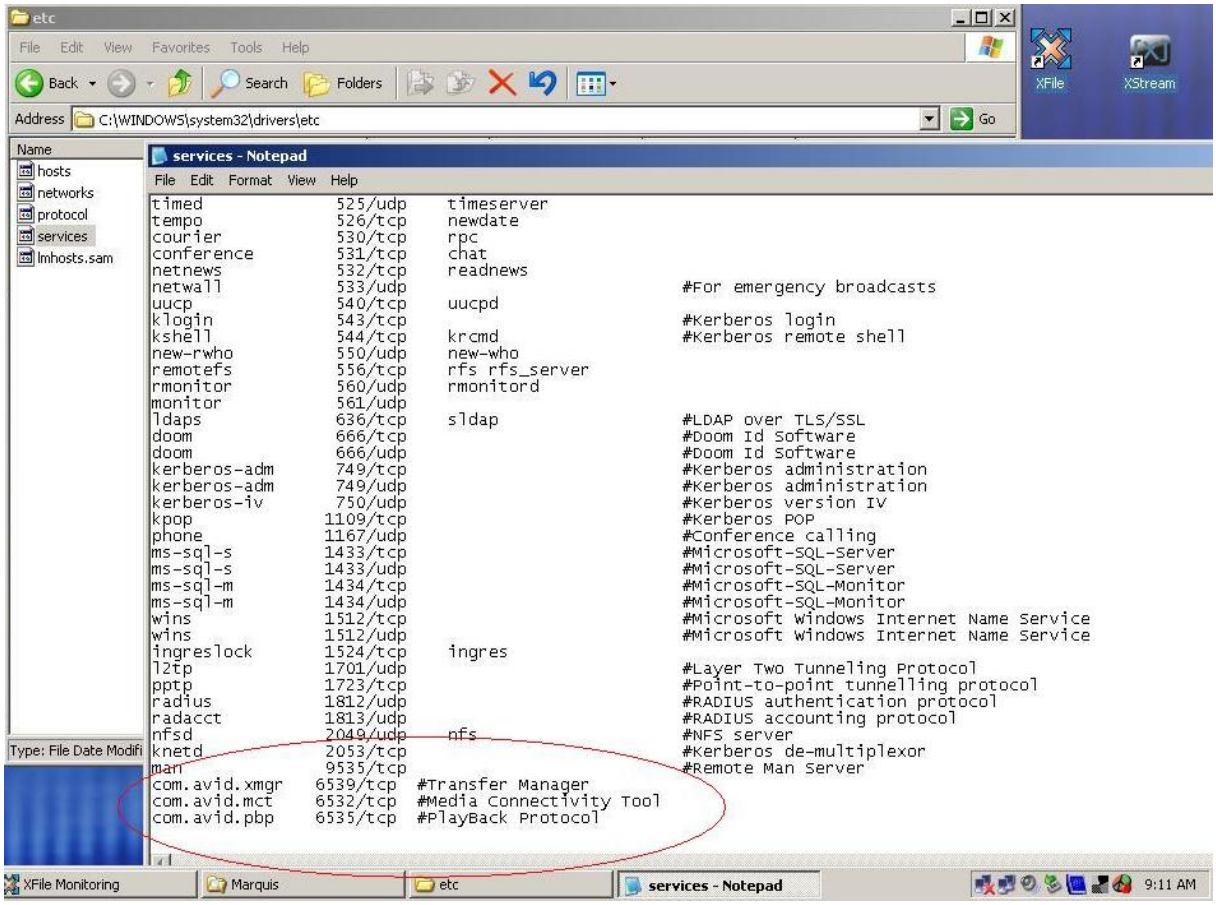


STEP 2 : Transfer Manager Client Installation

See section 7.2

STEP 3 : Check of the Avid protocols port definition

Open the C:\Windows\System32\Drivers\Etc\services (e.g. with Notepad) and check the protocols port are properly defined.



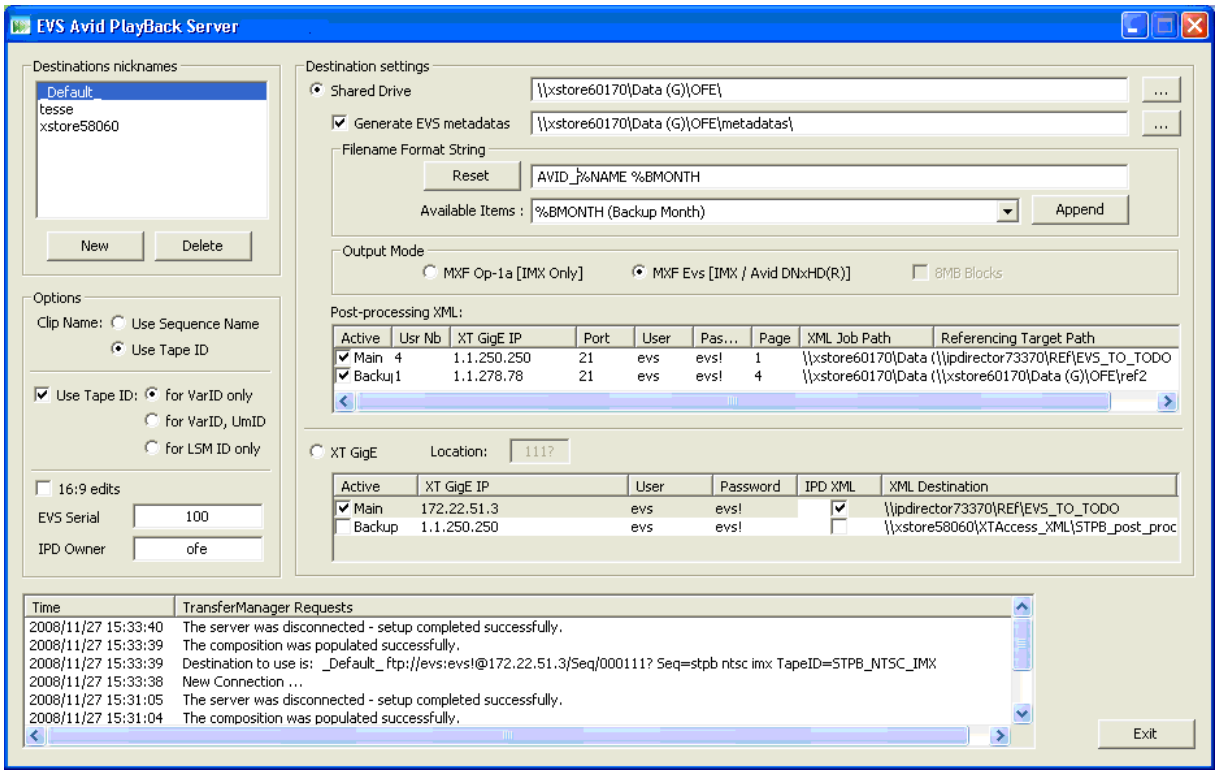
- com.avid.xmgr is added by the Transfer Manager Client installshield
- com.avid.mct is added by the EVS Avid Tools setup (EVS Playback server option)
- com.avid.pbp is added by the EVS Avid Tools setup (EVS Playback server option)

Remark on the use of Firewalls : Avid transfer Manager is based on a TCP/IP protocol. Firewalls could block some ports : The following ports 6539/tcp, 6532/tcp, 6535/tcp must be added in the exception list of the firewall.

STEP 4 : EVS Playback Server Configuration.

Launch EVS Playback Server :

Note : in case of any problem (i.e. RunTime error) to launch the EVS Playback Server, please check the protocols are properly available in the “services” files (see above).

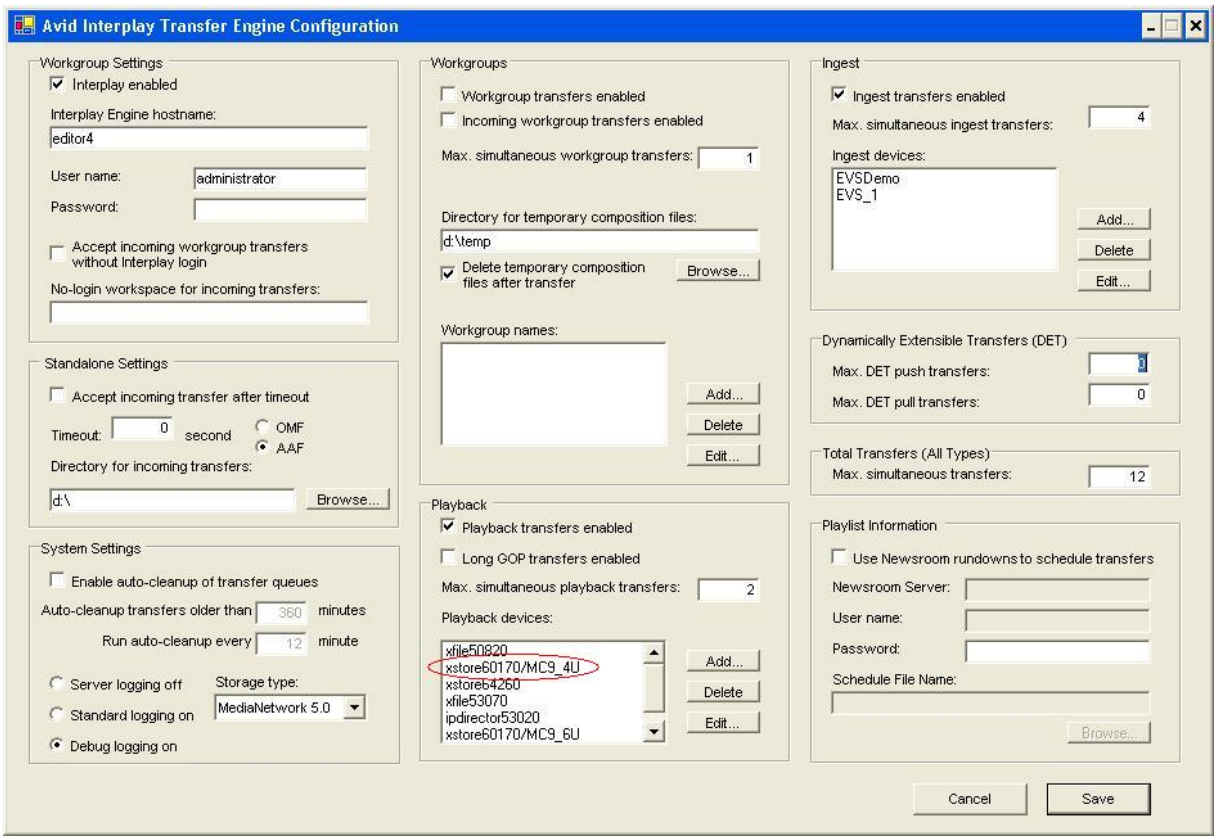


- **Avid Destination nicknames**

  A Avid destination nickname is a profile for this EVS Avid Playback Server. Each profile can have its own configuration.

  It is possible to select from Avid Media Composer “send to Playback” menu a specific profile/nickname. Avid nicknames are defined in Avid Transfer Manager Server Configuration GUI by : “EVSAvidPBserverName/Avid_nickname” :

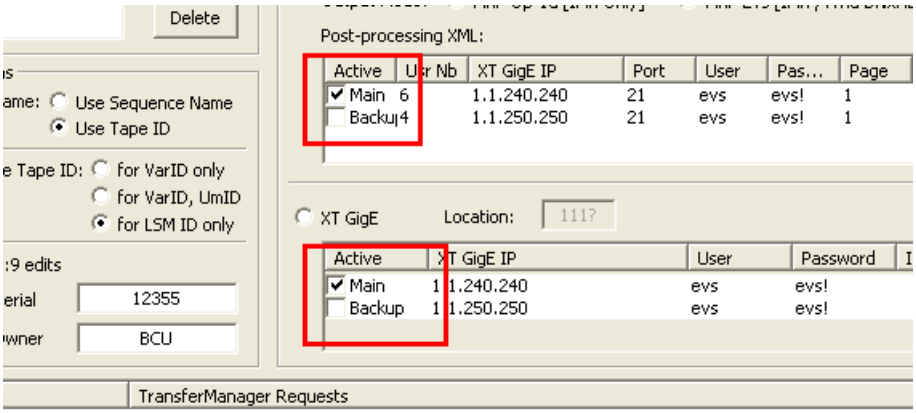
  - EVSAvidPBservername : Windows name of the workstation where is running EVS Avid Playback server
  - Avid_nickname : Avid Nickname or profile on EVS Avid Playback server


Avid Interplay Transfer Engine Configuration
Workgroup Settings
Interplay enabled
Interplay Engine hostname:
editor4
User name:
administrator
Password:
Accept incoming workgroup transfers without Interplay login
No-login workspace for incoming transfers:
Standalone Settings
Accept incoming transfer after timeout
Timeout:
0
second
OMF
AAF
Directory for incoming transfers:
d:\
Browse...
System Settings
Enable auto-cleanup of transfer queues
Auto-cleanup transfers older than
360
minutes
Run auto-cleanup every
12
minute
Server logging off
Standard logging on
Debug logging on
Storage type:
MediaNetwork 5.0
Workgroups
Workgroup transfers enabled
Incoming workgroup transfers enabled
Max. simultaneous workgroup transfers:
1
Directory for temporary composition files:
d:\temp
Delete temporary composition files after transfer
Browse...
Workgroup names:
Add...
Delete
Edit...
Playback
Playback transfers enabled
Long GOP transfers enabled
Max. simultaneous playback transfers:
2
Playback devices:
xfile50820
xstore60170/MC9_4U
xstore64260
xfile53070
ipdirector53020
xstore60170/MC9_6U
Add...
Delete
Edit...
Ingest
Ingest transfers enabled
Max. simultaneous ingest transfers:
4
Ingest devices:
EVSDemo
EVS_1
Add...
Delete
Edit...
Dynamically Extensible Transfers (DET)
Max. DET push transfers:
0
Max. DET pull transfers:
0
Total Transfers (All Types)
Max. simultaneous transfers:
12
Playlist Information
Use Newsroom rundowns to schedule transfers
Newsroom Server:
User name:
Password:
Schedule File Name:
Browse...
Cancel
Save

There are 2 EVS Avid PlayBack Server Transfer Modes:

1. **Shared Drive**: to first create a file and then restore it to XT[2] with XTAccess or XFile
2. **XT GigE**: to directly transfer a sequence from AVID to XT[2] with the GigE connection on the XT[2]

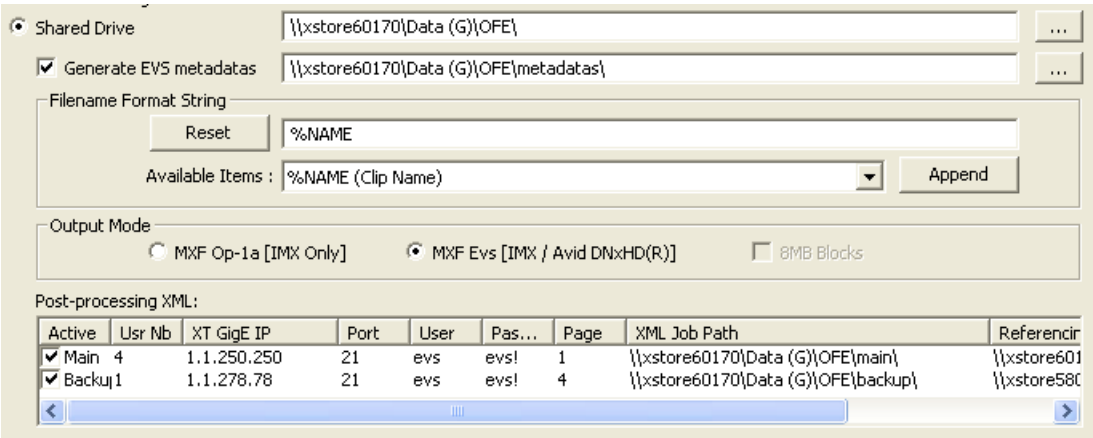
In both modes you can add a Main and then if you want a Backup configuration. This will allow you to restore at the same time your sequence from Avid to two different destinations that might be on different gigabit or SDTI networks.



In case one of both transfers failed, no error message is returned back to Avid Transfer Manager Server because the clip is available on at least 1 XT server. There is no Avid DHM API function to handle this failure case. To be investigated with Avid for future improvement.

9.5.1 Shared Drive

Shared Drive – to generate a file on a drive



- Select "**Shared Drive**" and configure the **Destination Path** if you want to generate a MXF video file before restoring it on XT server: It must be a UNC path (if not the background is red), not through a mapped or local drive.

  Important : check that Transfer Manager server is able to open and write a file in this directory via the network.

- **Generate EVS métadatas**: Select this option if you want create a "light" EVS XML metadata file. This "light" EVS XML metadata file will contains Clip Name, Owner VarID and TapeId metadata.

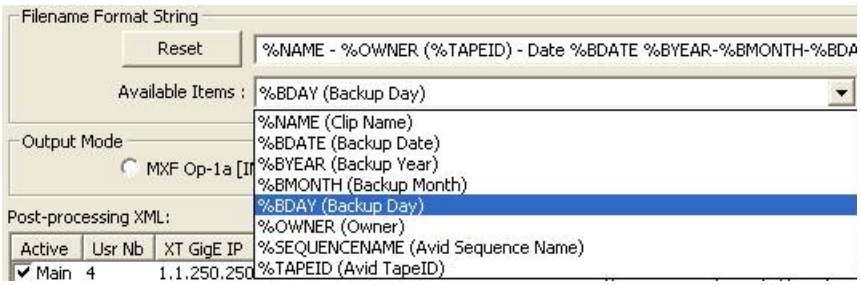
  Example:

```
<?xml version="1.0" ?>
<EVS_Metadatas>
 <General_Infos>
   <XFile_File_Infos>
    <XT_Device_Src>EVS Avid PlayBack Server [v.2.6.23]</XT_Device_Src>
   </XFile_File_Infos>
 </General_Infos>
<Clips_Infos>
 <Clip>
  <XFile_Clip_Infos>
   <XT_UmID>kwKxhLd0</XT_UmID>
   <XT_VarID>123</XT_VarID>
   <XT_ClipName>tata</XT_ClipName>
  </XFile_Clip_Infos>
  <IPDirector_Clip_Infos>
   <TapeID>123</TapeID>
   <Owner>ofe</Owner>
  </IPDirector_Clip_Infos>
 </Clip>
 </Clips_Infos>
</EVS_Metadatas>
```

- **Path for the EVS XML Metadata file**: by default the EVS XML metadata file will be save into the same folder than you shared destination path. If you want to save in a different place you can set here (it must be an UNC path).

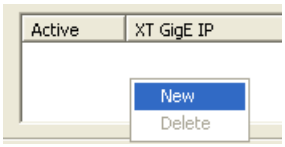
- **Filename Format String**: It is possible to customize the format string of the file name. You can add different dynamic metadata (%NAME,%BDATE...) or static

character (abcdef..) as file name. Default value if string empty or tag empty or RESET is %Name which could be the sequence name or the tape ID depends of your Clip Name option

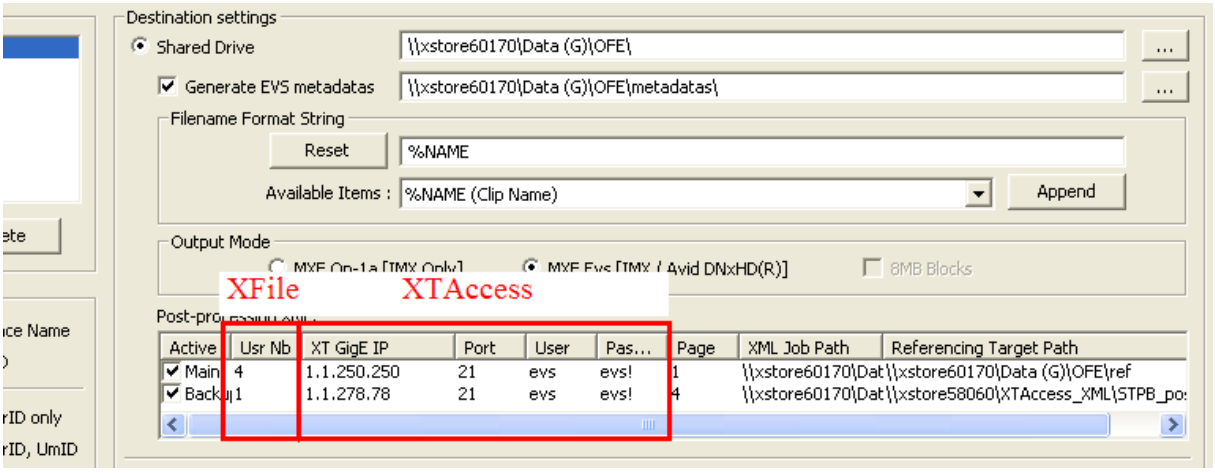


- ***Output Mode*** :
    - **MXF OP-1a:** To select MXF OP-1A as output file format, for IMX-D10 codec only !
    - **MXF EVS:** To select MXF EVS as output file format. Valid for both IMX-D10 & Avid DNxHD ® Codecs.
    - **8 MB Blocks:** Show the EVS MXF size block.

- **Post-processing XML:**
Then after right click on the Post-Processing XML windows to create a main configuration



In case you want to automatically restore the exported IMX/DNxHD file to the EVS XT[2] server, select Main or Backup option. After the generation of the file on the shared drive, the transfer manager will send an XML job file to ask XTAccess or XFile to perform the restore on the XT[2].



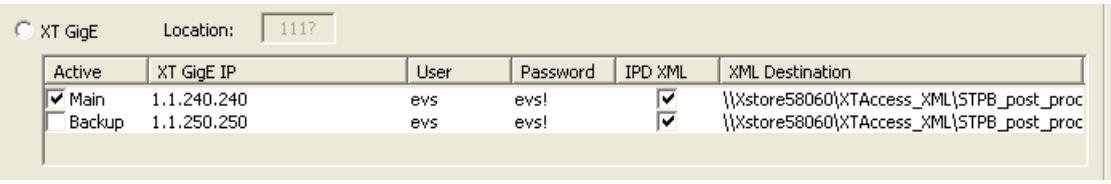
- **Usr Nb**: Enter The XT User Number defined in XFile (XNET ID) used to the restore with XFile (not mandatory if you want to use XTAccess to perform the restore)

- **GigE IP – Port – User – Password**: Enter XT GigE IP – Port – User – Password used to do the restore with XTAccess (not mandatory if you want to use XFile to perform the restore)
- **Page**: Select the Page from where the clips will be restored by XFile or XTAccess.
- **XML Job Path**: Define the directory to post the XML job file. It must be an UNC path (the job_incomming folder of the XFile or XTAccess).

  Example: \\XSTORE60170\XTAccess_XML\Jobs_Incoming\
- ***Referencing Target Pat***: (This option is use to generate a XML file to reference the metadata directly into the IPDirector database) Define the directory where the XFile or XTAccess will send the referencing XML file with the Owner and TapeID information. The STPB will not create the XML referencing file, it is XTAccess or XFile which will create the referencing file in this folder.

  Example: \\IPDirector60180\JOBREF\EVS_TO_DO\

9.5.2 XT GigE



- **XT GigE – Direct access to GigE XT**

Select "**XT GigE**" And configure the **FTP XT[2] server** if you want to restore directly your Avid Sequence to XT through the Gigabit Connection (Multicam 9 onwards).

Important : check that Transfer Manager server is able to open file on the FTP XT[2] server.

First right click to create a main configuration

Then you can configure you shared drive mode:

- ***Location*** : ClipID of the first location to check when restoring. 2 modes are considered :
  - *123X* : X could be A, B, C, D, E or F (in capital letter). In that case XT Access will check the availability of the clip, e.g. 123A clip.
    - If not available, the transfer Manager will show an error message. You will need to try again with a different location.
    - If available, the transfer will be done
  - *123?* : In this case, the "Question Mark" allows XTAccess to check the entire camera label. First check the availability of 123A, then 123B, 123C, 123D, 123E, 123F, 124A, 124B, etc.

- ***IP Address*** : enter the IP address of the XT server
- ***User*** : Login of XT FTP server
- ***Password*** : Password of XT FTP server
- ***IPD XML***: Select this option to generate XML file to reference the metadata directly into IP Director Database.

- ***XML Destination***: Define the directory where the Transfer Manager will send the referencing XML file with the Owner and TapeID information to the IPDirector database.

  Example: \\IPDirector60180\JOBREF\EVS_TO_DO\

- **Common parameters for a specific profile or Avid nickname**
  - **Clip Name Use** :
    - **Sequence Name:** The clip name in XT server will be the Avid Sequence Name defined in the Avid NLE.
    - **Tape ID:** The clip name in XT will be the Tape ID entered during Send to Playback procedure. (The TapeId cannot contain Unicode and will be reduced to 24 character)

  - **Use Tape ID for VarID only**: In this case the UmID will be automatically generated by EVSPB server (or Multicam) and will be different for each server. The LSMID will depend of the location box. VarID will be identical for both Main & Backup servers and will be the Tape ID from Avid.
    - **In GigE mode**: If the VarID is already used, an error message will be issued and no clip is created.
    - **In shared mode**: If the VarID is already used; it is XTaccess or Xfile which will display the error message. The file is created.

    This option is convenient for automation using VarID to control Main and Backup XT servers on the <u>same</u> SDTI network.

  - **Use Tape ID for VarID, UmID:** Only valid for a single server or servers Main & Backup on separate SDTI networks. VarID = UmiD = TapeID from Avid. The LSMID will depend of the location box and will can be different for each server.
    - **In GigE mode**: If the VarID or UmID are already used, an error message will be issued and no clip is created.
    - **In shared mode**: If the VarID or UmID are already used; it is XTaccess or Xfile which will display the error message. The file is created

    This option is convenient for automation using VarID or UmID to control Main and Backup XT servers on <u>different</u> SDTI network.

  - **Use Tape ID for LSM ID only**: LSMID = TapeID for both Main & Backup servers. The TapeId has to be well formatted: ***<u>123X</u>*** : where X could be A, B, C, D, E,F or ? (In capital letter). The VarID and UmID will be automatically generated.

    - **In shared mode**:

- If the LSMID is not correctly formatted: the Transfer Manager and the Send To Play Back server will display an error message. No file is created.

- If the LSMID is not available on the XT[2]: the Transfer Manager will not display an error message. It is the XTAccess or XFile which done the restore which will display the error message. The file is created.

- **In XT GigE Mode:**

  - If the LSMID is not correctly formatted: the Transfer Manager and the Send To Play Back server will display an error message. No clip is created

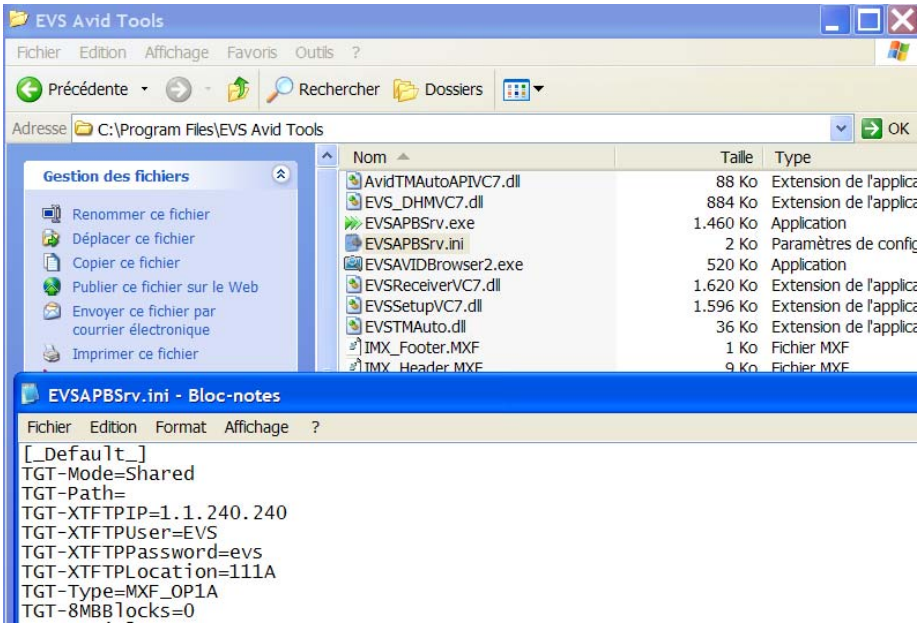
  - If the LSMID is not available on the XT[2]: the Transfer Manager will display the same error message. No clip is created

In this mode the Location or the destination page is not used.

- **EVS Serial**: Select **the EVS Serial number** to uniquely generate an ID Material on XT server which will be associated with Exported MXF media. The Serial Number must be a value between 1 and 16333.
- **16:9 edits**: Avid Transfer Manager does not export the video aspect ratio: this must be forced at the level of EVS Playback Server when generating the IMX file.
- **Owner:** IP Director owner (user) to be referenced to IP Director Database (*IPD XML or XML Destination* – see above). If left blank, the "XT Generic User" is pushed into IP Director Database.

All the configuration of the Send To Play Back server is saved in an ini file that you can use to replicate your configuration on different computers.

C:\Program Files\EVS Avid Tools\EVSAPBSrv.ini


EVS Avid Tools
Fichier Edition Affichage Favoris Outils ?
Précédente
Rechercher
Dossiers
Adresse C:\Program Files\EVS Avid Tools
OK
Gestion des fichiers
Renommer ce fichier
Déplacer ce fichier
Copier ce fichier
Publier ce fichier sur le Web
Envoyer ce fichier par courrier électronique
Imprimer ce fichier
Nom
Taille
Type
AvidTMAutoAPIVC7.dll 88 Ko Extension de l'applica
EVS_DHMVC7.dll 884 Ko Extension de l'applica
EVSAPBSrv.exe 1.460 Ko Application
EVSAPBSrv.ini 2 Ko Paramètres de config
EVSAVIDBrowser2.exe 520 Ko Application
EVSReceiverVC7.dll 1.620 Ko Extension de l'applica
EVSSetupVC7.dll 1.596 Ko Extension de l'applica
EVSTMAuto.dll 36 Ko Extension de l'applica
IMX_Footer.MXF 1 Ko Fichier MXF
IMX_Header.MXF 9 Ko Fichier MXF
EVSAPBSrv.ini - Bloc-notes
Fichier Edition Format Affichage ?
[_Default_]
TGT-Mode=Shared
TGT-Path=
TGT-XTFTPIP=1.1.240.240
TGT-XTFTPUser=EVS
TGT-XTFTPPassword=evs
TGT-XTFTPLocation=111A
TGT-Type=MXF_OP1A
TGT-8MBBlocks=0

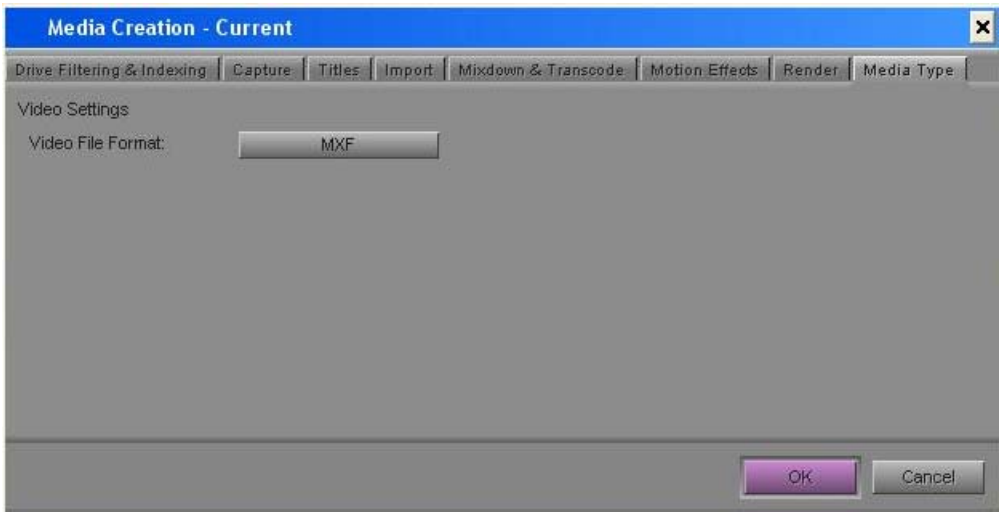
9.5.3 Audio Filler in Send to Playback DHM

- Audio Filler has been implemented in EVS DHM Send to Playback
- EVS DHM automatically fill in the missing frames with an audio filler when :
    - Some audio tracks are missing (e.g. 3 tracks instead of 4)
    - Some parts of the audio track are left blank (audio holes)
    - Some Audio tracks are shorter than video track
- Audio mix down is not anymore requested before send to playback to EVS XT
- Limitations :
    - EVS DHM does not support video filler. Video mix down is still needed in case of parts of the video track are left blank.

9.6 Media Composer Configuration

9.6.1 EVS to Avid Workflows

In Project settings, **Media Creation** must be setup as “OMF” or “MXF”. When using Media Manager or Interplay Engine, OMF or AAF (MXF) is defined in Media Manager or Interplay Engine setup. Any project linked to Media Manager/Interplay Engine will be automatically setup to the actual mode.



Note : Media Creation mode OMF/MXF must be identical to the OMF/MXF mode in Transfer Manager server.

- In standalone mode, you must select it manually in “Transfer Manager Configuration”. ***Note that MXF mode generates an error in TC format. It is then recommended to use OMF mode in standalone mode.***
- With Avid Unity environment, the mode is automatically defined by Media Manager.

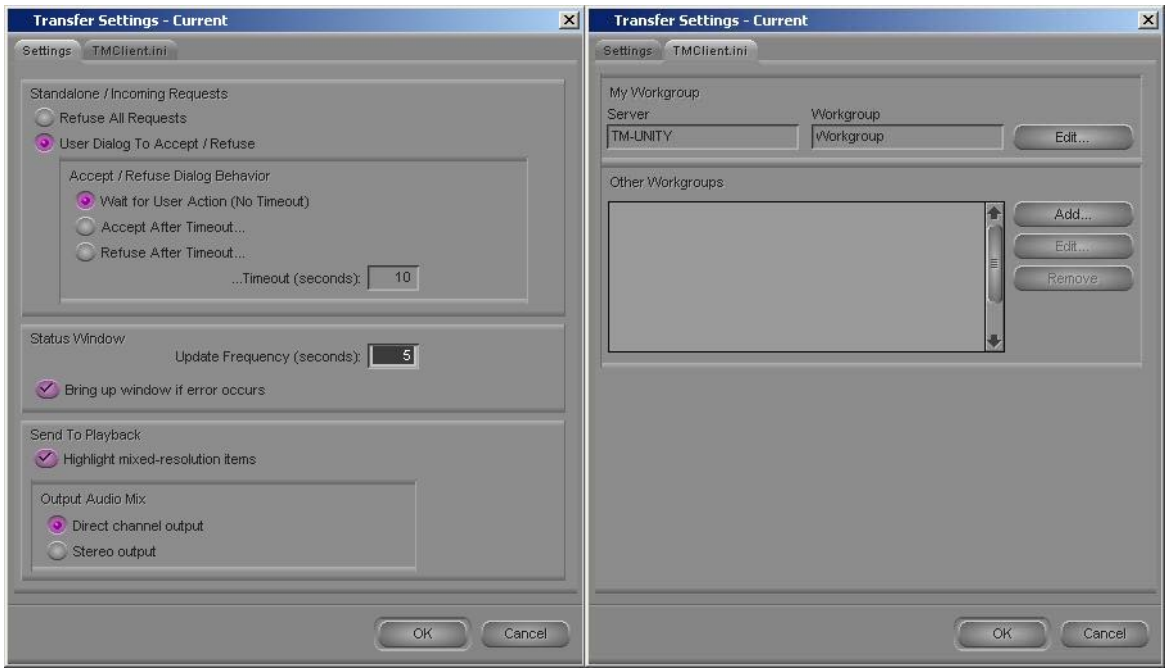
9.6.2 Export Avid to EVS workflows (EVS Playback Server)

Note : Transfer Manager Client must be installed on Media Composer station (see section 7.2)

In Project settings, **Transfer** must be configured as follows :

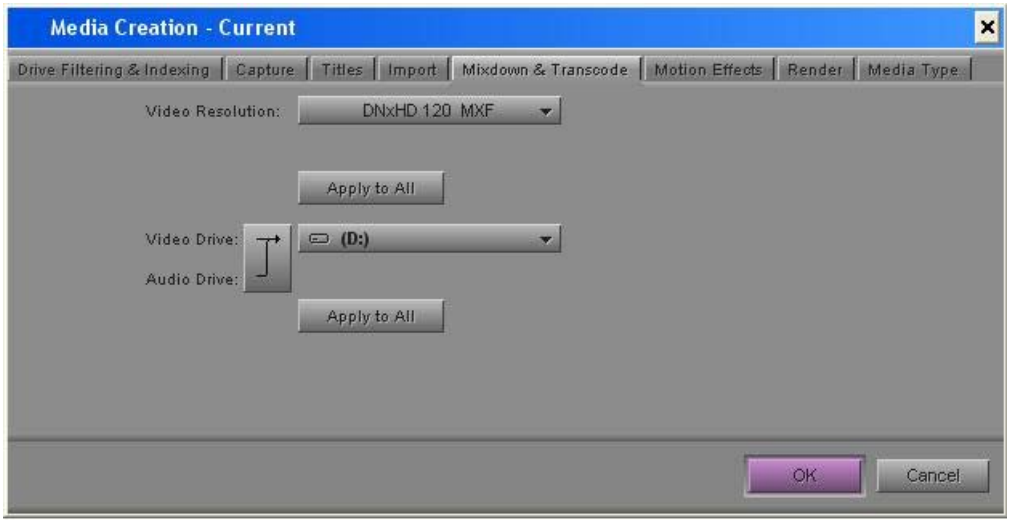
- Settings
  - Output Audio Mix : Direct channel output or stereo output
- TMClient.ini

- Server : Computer name of the server where runs Avid Transfer Manager Server. Example : TM-UNITY
- Workgroup : example : Workgroup

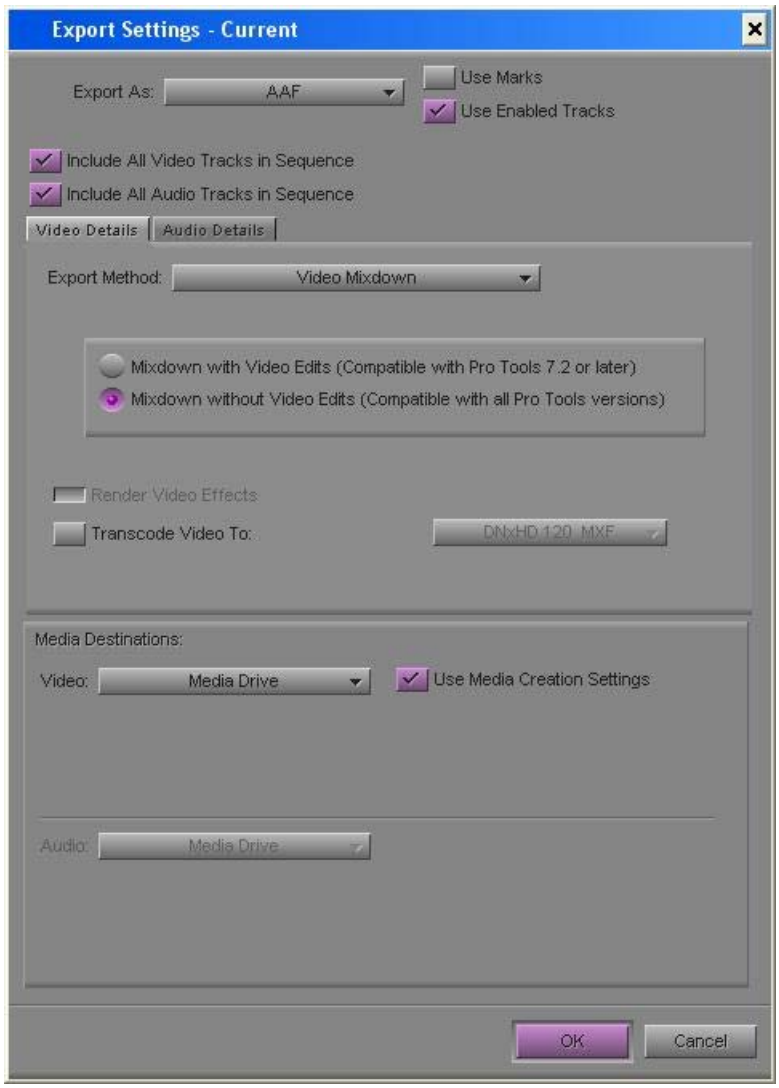


We only support one video track from AVID to EVS but you can use more than one video track if you do a mixdown

To do this mixdown: you have to configure in the MediaCreation setting the MixDown & Transcode tab in DNxHD or MPEG



And you have to configure the Export setting to do mixdown before send the sequence to EVS:


Export Settings - Current
Export As:
AAF
Use Marks
Use Enabled Tracks
Include All Video Tracks in Sequence
Include All Audio Tracks in Sequence
Video Details
Audio Details
Export Method:
Video Mixdown
Mixdown with Video Edits (Compatible with Pro Tools 7.2 or later)
Mixdown without Video Edits (Compatible with all Pro Tools versions)
Render Video Effects
Transcode Video To:
DNxHD 120 MXF
Media Destinations:
Video:
Media Drive
Use Media Creation Settings
Audio:
Media Drive
OK
Cancel

10 LOG DESCRIPTION

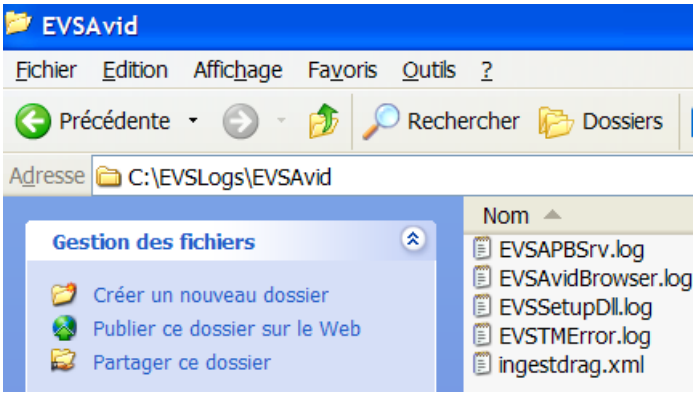
In case of trouble: You can send to EVS the EVS log which are on the Client computer and Server computer (Transfer Manager) + the Avid Transfer Manager log.

That will help the EVS Support to help you.

See below

10.1 EVS Log

You can find the EVS log of this in this folder:



10.1.1 On the client computer

(XFile - EVS Avid Browser – XTAccess)

- EVSSetupDll.log (use with the EVS Avid Browser) :
  Will show you the ingest configuration setup

Example

```
*******************************************
Tue Jul 15 12:40:01.937 * LOG FILE OPENED *
*******************************************
Tue Jul 15 12:40:01.937 EVSSetup Dll v.02.06.20
Tue Jul 15 12:40:01.937 AvCreateAPI
Tue Jul 15 12:40:01.937 EVSSetup::CreateProxyMob
Tue Jul 15 12:40:01.937 Creating AAF Media Type
Tue Jul 15 12:40:01.953 Transfering 1 VideoChannels
Tue Jul 15 12:40:01.953 Private TCs: 1499307 - 1499747 - 25 [ 440 FRAMES ]
Tue Jul 15 12:40:01.953 Entering in EVS_SETUP::ParseXMLDragMessage()
Tue Jul 15 12:40:01.968 EVS_SETUP::ParseXMLDragMessage() exited properly.
Tue Jul 15 12:40:01.968 EVSSetup::CreateProxyMob() found <EVS_METADATAS> node in the ingestdrag : attempt to BuildTapeName()...
Tue Jul 15 12:40:01.968 EVSSetup::BuildTapeName() : HKEY_CURRENT_USER\SOFTWARE\EVS Broadcast Equipment\EVSAvidSetupDll was found in the registry
Tue Jul 15 12:40:01.968 EVSSetup::BuildTapeName() : found key [TrainsTapeNameXPath] with value [/ingestdrag/private/EVS_Metadatas/Clips_Infos/Clip/XFile_Clip_Infos/XT_ClipName]
Tue Jul 15 12:40:01.968 EVSSetup::BuildTapeName() : found key [ClipsTapeNameXPath] with value [/ingestdrag/private/EVS_Metadatas/Clips_Infos/Clip/XFile_Clip_Infos/XT_NumClip]
Tue Jul 15 12:40:01.968 EVSSetup::BuildTapeName() : returned szTapeName [111]
Tue Jul 15 12:40:01.968 EVSSetup::CreateProxyMob() : BuildTapeName() returned [111]
Tue Jul 15 12:40:01.968 StartTC: 16:39:32:07 [25]
Tue Jul 15 12:40:01.968 8 audio Channels
Tue Jul 15 12:40:01.968 Avid Video Codec: Avid::MPEG2::30
Tue Jul 15 12:40:01.968 Adding EVS specific data ...
Tue Jul 15 12:40:01.968 SetSubATTR AV_EVS_BLOCKSIZE 8 SUCCEEDED
```

```
Tue Jul 15 12:40:01.984 Writing Clip Trimming data [ 250 - 630 - +/- 0 ]
Tue Jul 15 12:40:02.296 * LOG FILE CLOSED *
```

- EVSTMError.log (use with XFile – EVS Avid Browser – Xtaccess):
  Will show error message with the Transfer Manager Client Dll from Avid

- EVSAvidBrowser.log (use by the EVS AVID Browser)
  Will show you some log about the EVS AVI Browser Software GUI

- ingestdrag.xml (use with)
  Will show you the ingest information (metadata and configuration) of your last clip sent to AVID.

10.1.2 On the server computer

(AVID Transfer Manager)

- EVSReceiverDll.log (use for ingest EVS to Avid)
  Will show you all the transaction between the Transfer Manager (+EVS Receiver dll) and the XT GigE, File or Streaming trough XFILE (SDTI)

Example

```
Tue Jul 15 15:05:09.640 EVSReceiver:1: v.02.06.20
Tue Jul 15 15:05:09.703 Media Duration is 45000
Tue Jul 15 15:05:09.703 Trimming Media [ 0 / 45000 ]
Tue Jul 15 15:05:09.718 Using XT FTP Transfer [ftp://evs:evs!@1.1.249.249:21\Seq\000111A_JS6N258W_
.CLP ]
Tue Jul 15 15:05:09.718 Media is 30 Mbits/s and 8 Audios [9 tracks]
Tue Jul 15 15:05:09.718 AddFtpServer: evs:evs!@1.1.249.249
Tue Jul 15 15:05:09.718 Trying to open ftp server [ 1.1.249.249:21 ]
Tue Jul 15 15:05:09.718 Reply: 220 EVS FTP Server (v) 07.04 (d) 01/10/2008 (a) B.Harmel [B: 8 MB L:1.1.249.249:21
R:1.1.220.220:45384]
Tue Jul 15 15:05:09.718 CTRL: USER evs
…
Tue Jul 15 11:53:43.328 Reply: 250 Directory changed to "X:\Seq\".
Tue Jul 15 11:53:43.328 CXTFtpClient::OpenXTClip._szClipFileName [000111A_JS6N258W_ .CLP]
Tue Jul 15 11:53:43.328 Opening file [ /Seq\/ ] [ 000111A_JS6N258W_ .CLP ]
Tue Jul 15 11:53:43.328 CTRL: NOOP
```

This log is very interesting in case of ingest failure

- EVSDHM.log (use for the Send To Play Back Avid To EVS)
  Will show you the communication between the Transfer Manager (+EVS DHM dll) and the XT GigE or the creation of an EVS MXF file

Example:

```
Tue Jul 15 10:58:59.546 TGT-Mode: XTFtp [Succeeded]
Tue Jul 15 10:58:59.546 Target Address ftp://evs:evs!@1.1.250.250/Seq/000731? [Succeeded]
…
Tue Jul 15 10:58:59.562 Opening DNxHD file [ ftp://evs:evs!@1.1.250.250/Seq/000731? ]
Tue Jul 15 10:58:59.562 Aspect Ratio: 4:3
…
Tue Jul 15 10:59:03.828 Trying to open ftp server [ 1.1.250.250:21 ]
Tue Jul 15 10:59:03.843 Reply: 220 EVS FTP Server (v) 06.71 (d) 07/08/2008 (a) B.Harmel [B: 8 MB L:1.1.250.250:21
R:1.1.220.220:35436]
Tue Jul 15 10:59:03.843 CTRL: USER evs

Tue Jul 15 10:59:03.843 Reply: 331 User name okay, need password.
Tue Jul 15 10:59:03.843 CTRL: PASS evs!

Tue Jul 15 10:59:03.843 Reply: 230 User logged in, proceed.
Tue Jul 15 10:59:03.843 --- Opened Client connection [ ftp://evs:evs!@1.1.250.250/Seq/000731?_-Xc9SDvW_Untitled
Sequence 01 .CLP ] ---
```

This log is very interesting in case of Send To Play Back failure

- MetadataUpdate.xml (use in GigE mode)
  Will show you the last update XML file send it to the XT[2] after a send to playback in GigE mode

10.1.3 On the Send To Play Back server computer

(Most of the time XFile)

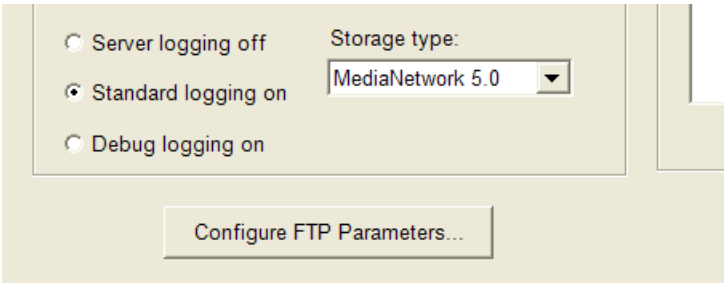
- EVSAPBSrv.log (log of the send to play back server)
  Will show some information about the nick name use by the transfer manager in his setup step

10.2 Avid Log

You can find the log of the transfer manager on this folder:

C:\Documents and Settings\All Users\Application Data\Avid\Temp\TMServerLog\

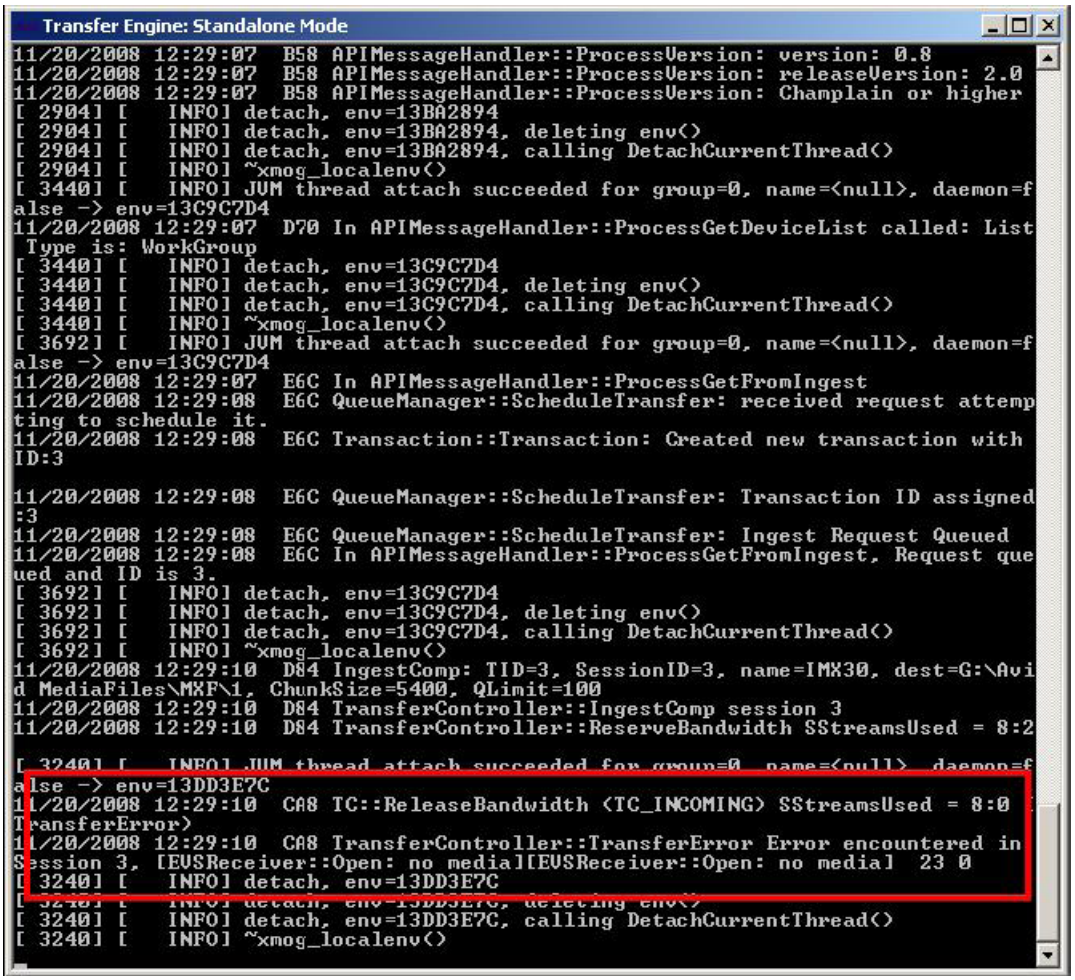
The level of the log can be configured into the Transfer Manager configuration



10.3 Testing

The easiest way to test the system is to use EVS Avid Browser. Assuming the clip is on the XStore59800\D drive (your mapped network drive on the TM) you can double click the clip you wish to send in Avid Browser and it should start transferring.
Be sure you have some IMX EVS MXF Files available to test with.
The MOST COMMON error seen in TM is:

Failed to Open IMX Target: No Media Error



This is usually because the TM cannot “see” the directory where the media is coming from.
The error on EVS Avid Browser will be:

Example: your media is on the E drive of the XFile (XStore59800\E), and you have mapped the D drive (XStore59800\D). An example would be either to map the new network drive to XStore59800\E or move the file from the E drive to the D drive.
The error below usually dictates that the TMClient.ini is not correct:

The error below usually dictates that the Ingest Device name is not correct:

Once you are successfully transferring clips from EVS Avid Browser to TM, other problems (like XFile/XStream and IPD/XTAccess) are usually much quicker to solve.
First things to check with XFile and XTAccess is always that the TMClient.ini is correct.
Next, check the Ingest Device Name settings.
Finally, check where the media is stored.
There are various ways of stabilizing the Windows network.
Create a new user on the TM (eg DVB) with the XF credentials.
Create a new user on the XF (eg Avid) with the TM credentials.
Make sure all Windows PCs have a password (you may have to create one on the XF).
Put the XF in the Avid DNS
Put the TM in the EVS DNS (if applicable)
Use the Hosts file on the XF and TM to help network between them (located in C:\WINDOWS\system32\drivers\etc)
Resolve multiple DNS suffixes in the network adapter settings.
Check the network binding order if using multiple NICs on the TM or XF.

Most problems with the installation and configuration of EVS and Avid integrations come from Windows networking. Once the network is stabilized, the configuration is relatively easy to troubleshoot.

A lot of the error message seen will not make sense. Wherever you are seeing them, check you can send a file in the simplest way (through Avid Browser). This way you know the Browser Ingest Device is working. You also have a disk with media on it that you know the TM can see and transfer from.

From this point you can modify the settings in your current application (XFile/IPD) to match that of Avid Browser to see if the new settings work.

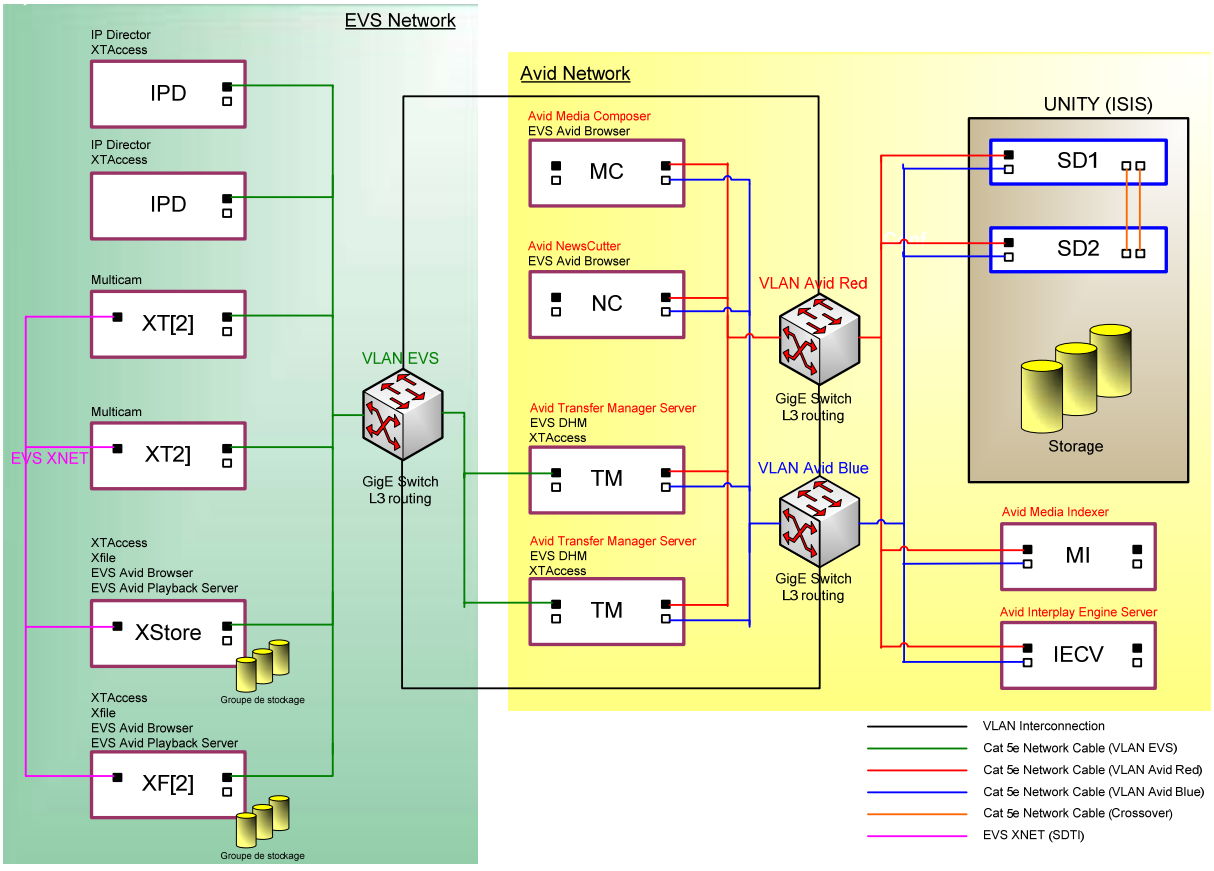
11 EVS AND AVID NETWORKING

The following section proposes some recommendations and rules to interconnect EVS and Avid networks. These recommendations have been discussed with Avid IT experts. For additional information about Avid networking rules, please refer to the document : Network_Requirements_for_Unity_ISIS_and_Interplay_V1[1].3.1.pdf.

Important Notice : EVS/Avid integration could be based on more complex or simpler networking topologies. The following recommendations must be adapted to the actual system. Please contact EVS support for advises.

11.1 Recommended Interconnectivity

The diagram below represents the recommended interconnection of EVS and Avid networking.



EVS network is composed of :

- EVS VLAN (subnet)
- XT[2] servers
- IP Director stations
- XStore or XF[2 workstations

Avid network is composed of :

- One or several VLANs (depends on the level of redundancy and protection proposed by Avid)
- Transfer Manager Servers
- Editing workstations (Avid Media Composer or Avid News Cutter)
- Unity Storage (Unity FC or ISIS)
- Interplay Engine and Media Indexer (optional)

EVS and Avid Subnets are clearly separated in this configuration, where the Avid Transfer Manager servers plays the role of “gateway” between EVS and Avid subnets.

This topology has several **advantages** :

- EVS and Avid networking responsibility are clearly separated : EVS devices are not directly connected to the Avid subnets.
- Avid Transfer Manager server is suitable as an application “gateway”. It transfers compressed frames between EVS and Avid storage without any IP routing performed at this level.
- Transfer of audio and video data between EVS and Avid is only based on L2 routing, which is more efficient than L3 routing
- Control of Transfer Manager processes (XTAccess, EVS Avid Browser and EVS Avid Playback Server) can be done through L2 or L3 routing.
- Full Jumbo Frames performances can be reached. Actually Avid VLANs never support Jumbo Frames because Avid ISIS IP protocol (UDP based) does not support Jumbo Frame.

11.2 Networking configuration rules :

11.2.1 Transfer Manager server

- Dedicate an NIC board (add a new GBE board if needed – contact Avid support)
- Connect this NIC to the EVS switch
- Configure the NIC with suitable EVS IP Address and mask (subnet). Possibly a default gateway in case of multiple EVS VLANs
- Configure the NIC board with Jumbo Frame capabilities, provided that EVS Subnet supports Jumbo Frames.

11.2.2 EVS devices

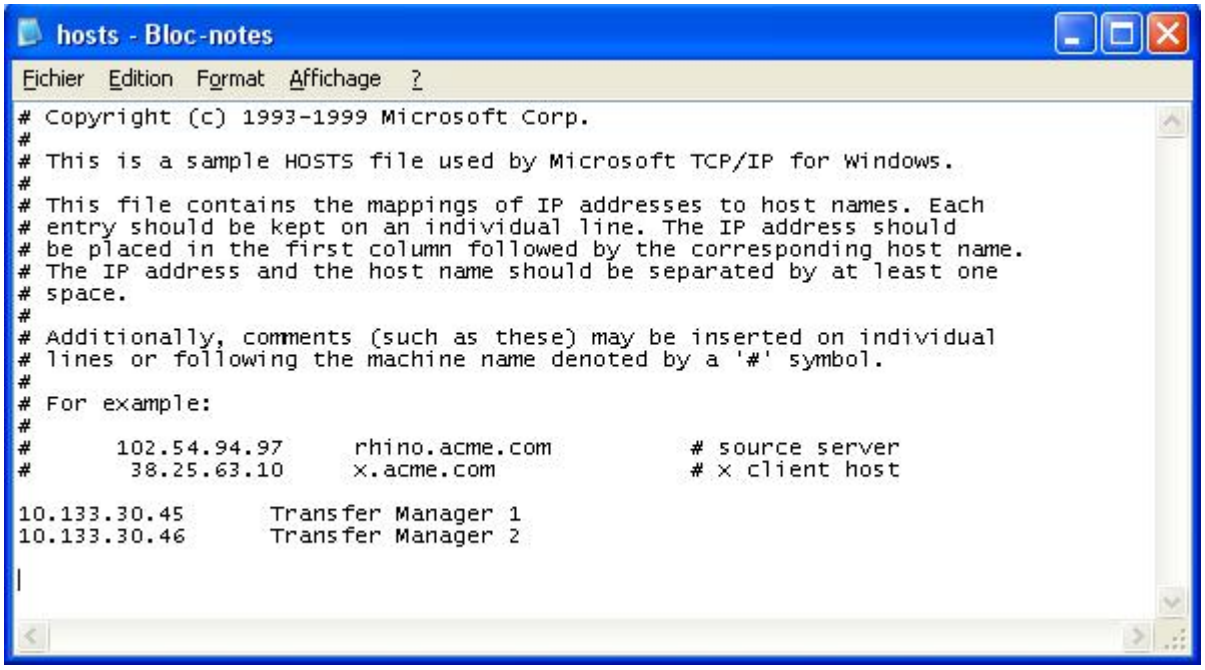
- EVS switches must support Jumbo Frames
- It is recommended to configure in Jumbo Frame EVS boards of devices where XTAccess, EVS Avid Browser and EVS Avid PlayBack Server.

11.3 DNS Configuration

EVS and Avid often use DNS to map IP address and Windows naming of workstations. Typically an EVS DNS is set for IP Director system and another Avid DNS is set for Interplay system.

It is possible to make several DNS working together but it need IT specialist to configure them accordingly.

When only some devices must interoperates between EVS and Avid, it is simple to edit the “Hosts” file of the devices. This “Hosts” file is located in C:\WINDOWS\system32\drivers\etc\



- On EVS side, edit the “Hosts” file of devices running XFile, XTAccess, EVS Avid Browser and EVS Avid Playback Server
- On Avid side, edit the “Hosts” file of the Avid Transfer Manager servers and possibly Avid editing stations like Avid Media Composer in case EVS Avid Browser is installed

11.4 Workflow Networking Considerations

11.4.1 XTAccess (push mode)

- Check the EVS subnet supports Jumbo Frames. If it is not the case, disable the Jumbo Frame settings on the Transfer Manager NIC to EVS subnets otherwise Jumbo Frames will be dropped by the EVS switch
- XTAccess NIC does not need to be Jumbo Frames enabled as it is only used to initiate and control the Transfer Manager process (no transfer of data between XT[2] and Transfer Manager Servers). Anyway some cases have shown that XT and Transfer Manager automatically set their MSS at 1500 Bytes when Jumbo frames is not enabled on XTAccess devices. For maximum performances, it is advised to set Jumbo Frames on XTAccess devices. Need to be further investigated by EVS Lab.
- XTAccess could run on Transfer Manager Server. Anyway this configuration has not yet been completely validated.

11.4.2 EVS Avid Browser on EVS device (push mode)

Same considerations as for XTAccess (see above)

11.4.3 EVS Avid Browser on Avid editing stations (pull mode)

- EVS Avid Browser must be able to browse the EVS storage (via file access) or XT[2] content (via FTP connection). The editing station running EVS Avid Browser must be connected to EVS VLAN. 2 solutions :
    - Provide L3 routing capabilities between EVS and Avid subnets. Use a default gateway on the Avid Editing station to be able to reach the EVS subnet
    - Use a dedicated NIC on the Avid Editing stations to be connected to EVS subnet. This method needs additional “wired” links between EVS and Avid networks.

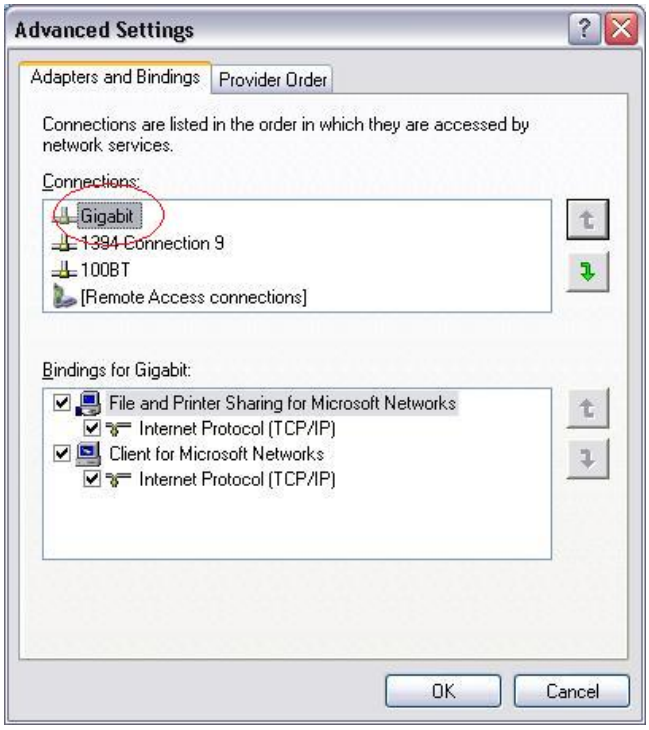
11.4.4 EVS Avid Playback Server

Same considerations as for XTAccess (see above)

12 KNOWN BUGS, LIMITATIONS & CONSTRAINTS

12.1 Generalities

- **Transfer Manager FTP mode:** It does not use the Avid TM APIs. It is possible to transfer IMX MXF OP-1a file located on a FTP server using the Avid FTP client like a browser. Note only IMX MXF OP-1a is supported (development done for XDCAM import/export)
- **Use of Multiple Network Connections on XFile** : Avid Transfer Manager API is based on a TCP/IP protocol. The Ethernet GigE connection used to communicate with Avid Transfer Manager must be located in the first position in the Windows Network setup of the workstation to choose this interface. Otherwise the IP Address sent to Transfer Manager is wrong and Transfer Manager server is not able to "see" the EVS ingest devices or the EVS Playback server application. Loopback and other boards must be either disabled or shifted behind. You can modify the position of the GigE connections in Windows Start Menu : Settings>Network Connections>Advanced>Advanced Settings like below :



- **Firewall:** Avid transfer Manager is based on a TCP/IP protocol. Firewalls could block some ports : The following ports 6539/tcp, 6532/tcp, 6535/tcp must be added in the exception list of the firewall.
- **Windows Workgroup / Domain:** As XFile is defined in a workgroup, Avid Transfer manager and other Avid devices must also be defined in a workgroup, not a domain. Workgroups can be different but the same workgroup for all the EVS & Avid devices will facilitates the search of a device in the Windows network.
- **Interplay only supports Avid AAF/MXF file format** (not OMF). EVS Avid Browser must be setup accordingly. Streaming from IP Director or XStream lets Avid choosing the file format automatically.

- **Avid Best Practices Recommendations :**
  - Avid recommends max. of 4 simultaneous transfers (ingest & playback) per Transfer Manager Server.
  - Avid recommends to restart Transfer Manager Application at least once a week

12.2 Ingest to Avid

- **Avid DNxHD® Codec with Quick Time format:** not supported by EVS. The only way to transfer an Avid DNxHD® Codec file to Avid is via Avid Transfer Manager, not via Manual import of Avid DNxHD® Codec file wrapped in Quick Time Movies.
- **WG 4:** TMAuto generates AAF/MXF files with TC and duration errors. OMF mode is recommended when using TMAuto (i.e. "push" workflows – see section Workflows). No problem with Avid Interplay versions.
- **Push workflows with Interplay**: the file duration is set at 2 seconds at the beginning of the transfer. The duration is updated only after 2-3 minutes. In the meantime, only the 2 sec of content are available for editing. Limitation by Interplay.
- **Editing during transfer to Avid** is possible provided :
  - Avid file format (storage) is AAF/MXF (not OMF)
  - Media Manager or Interplay Engine (Unity) is implemented to access Media during transfer
  - Avid shared storage (Unity family) is implemented (not possible with local storage).
- **Multi Camera Editing mode**: It is only possible to group synchronized inputs or clips for multi camera editing once the clip is completely transferred to Avid (Avid MXF file closed). It is then not possible to edit synchronized camera in one group during transfer. This is a limitation related to Avid Media Composer.
- **Missing frame:** In Interplay versions, the transfer of 59.94 fps files (IMX-D10 and Avid DNxHD® codecs) is complete but Media Composer does not display the last frame (Push mode only). Workaround : add guard bands to the clip before transfer.
- **Windows Vista 64-bit** : EVS Avid tools are not compliant with 64-bit CPU processors. In particular, EVS Avid Browser can not run on Avid Media Composer with Windows Vista 64-bit.

12.3 Send to Playback (to EVS)

There exist some limitations or constraints related to the **Avid sequence** in order to correctly use Avid Send to Playback feature with EVS devices:

- The Avid sequence must be setup in IMX (MPEG) 30, 40 or 50 or Avid DNxHD® Codec, not DV or any other codec!
- Audio settings resolution must be 16-bit or 24-bit, uncompressed and 48 KHz
- Avid Media Composer must perform a Audio Mix down before transfer to EVS
- Only one video track defined in the timeline, all the additional video tracks must be rendered before transfer

- At least one audio track and one video track must be present in the time line.
- In case video and audio fillers are added in the timeline, you must force a video & audio mixdown before transfer otherwise those fillers will be ignored in the MXF file generated for restoration on XT server. An alternative is to replace the filler by black video.

Other bugs and limitations:

- **Invalid characters**: Invalid characters for writing a Windows names are not supported in EVS Avid Playback server. This limitation concerns either the “Avid sequence name” or the “TAPE ID” following the option selected for clip name.
- **Unicode:** The Transfer Manager doesn’t support Unicode metadata. All Clip Name, VarId and Keyword in unicode will be replace by the word “UNICODE” before transfer to Avid.
- **Transfer cancelled** : In case the transfer to EVS is cancelled, the clips remains as they are on XT server, not complete.
- **Aspect ratio** : Aspect Ratio parameter is not supported in XFile while restoring an EVS MXF file.

12.4 Tips

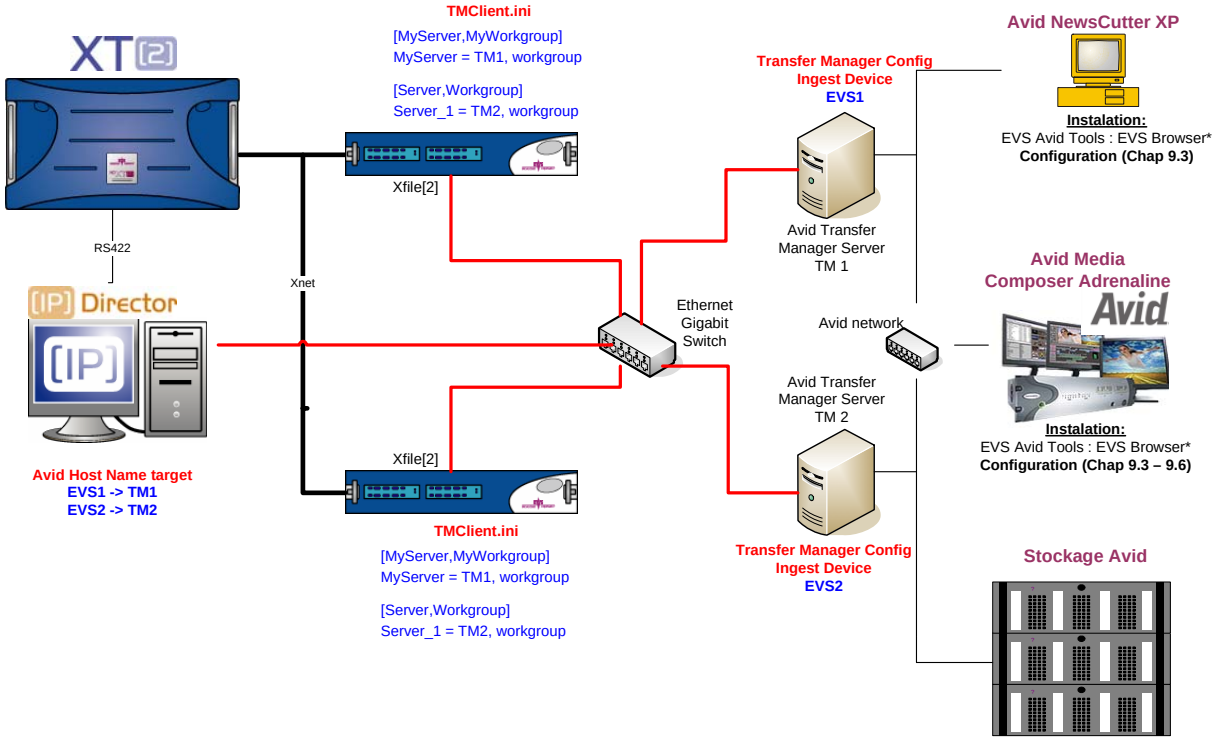
- TMClient.ini: remove all references to servers which are not available on the network: otherwise initialisation of the transfer will be delayed (timeout) before starting transfer of data.

13 WORKING WITH MULTIPLE TRANSFER MANAGER SERVERS

Big studio environments are composed of a large amount of EVS XT servers, IP Director stations, XFile/XTAccess gateways and also multiple Transfer Managers Servers attached to the Avid Unity System.

Avid Transfer Manager Server can not manage active redundancy or load balancing : this means the EVS server must specifically define which Transfer Manager is targeted.

The figure below represents a typical environment with 2 XFile/XTAccess Gateways connected to 2 Transfer Manager Servers. This configuration can be extended to multiple XFile/Transfer Manager Servers. We consider the workflow “push streaming” triggered by IP Director.



On the IP Director stations, we can define several Avid targets : we will consider 2 Avid targets TM1 & TM2.

In the configuration menu of the Transfer Manager Servers, the Ingest devices will be named EVS1 in TM1 and EVS2 in TM2. Similarly, the HostName of the Avid target of IP Directors stations will be also named EVS1 for TM1 and EVS2 for TM2.

When selecting an Avid Target, IP Director will send a XML file to a predefined directory to be scanned by XFile gateways. This directory can be the local XML directory of the XFile/XTAccess (local scan) or a centralized directory scanned by several XFile (Load balancing).

The XFile/XTAccess will use the Avid Hostname defined in the XML (EVS1 for target TM1 or EVS2 for target TM2) to select the target Transfer Manager server. In order for any XFile/XTAccess device to connect any Transfer Manager Server, the TMClient.ini file located

in the XFile directory must list all the transfer Manager servers available like described bellow :

[MyServer,MyWorkgroup]
MyServer = TM1, workgroup

[Server,Workgroup]
Server_1 = TM2, workgroup

In this sample file, the XFile/XTAccess will connect both TM1 & TM2 and select for the transfer the one where is defined the appropriate Ingest device : EVS1 in TM1 or EVS2 in TM2. We can put additional servers names in the [Server,Workgroup] tag.

As Transfer Manager is not capable of managing load balancing or redundancy, we must pay attention in the definition of the Avid target in IP Director. A good practice is to divide the IP Director stations to specific Transfer Manager Servers with a backup target in case the main Transfer manager is down.

Important Notice : we must use XFile v1.12.01+ in order to refer to the Avid HostName defined in the XML and not the default name defined in XFile configuration. This bug was found in XFile v1.11.02 and solved in v1.12.01!

14 WORKING WITH AVID MEDIA MANAGER (WG 4)

Avid Media Manager is related to Avid Unity WG 4.

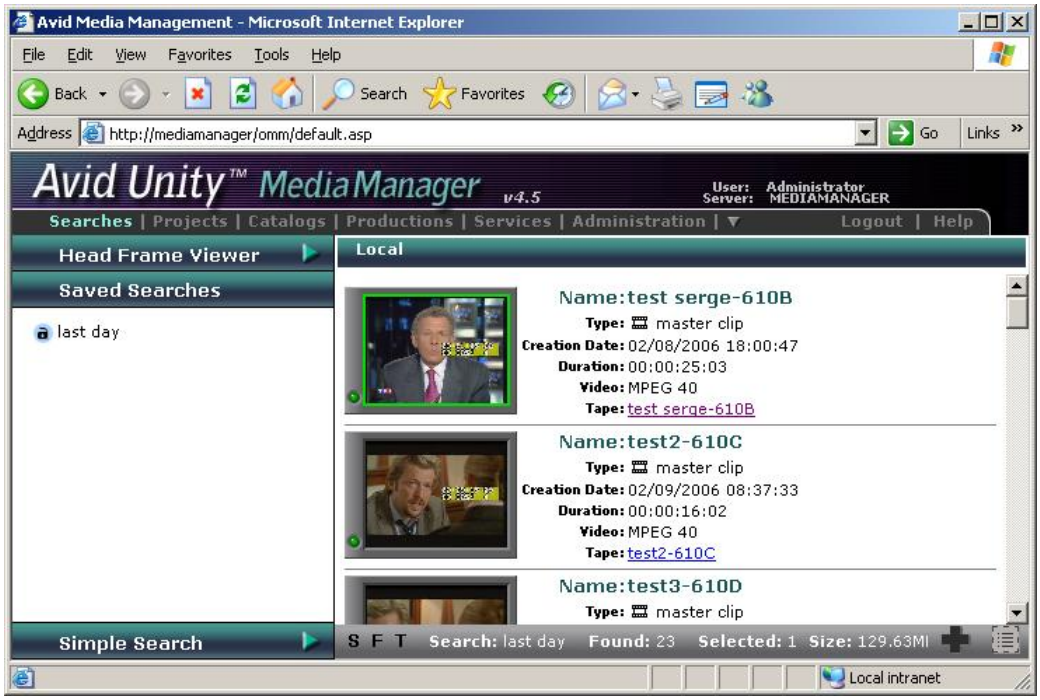
It allows to easily manage Avid Unity Content thanks to a powerful web browser.

By launching Internet Explorer with the Media Manager URL, you can manage and monitor the content stored on an Unity system from any remote station : Transfer Manager, Media Composer NLE, XFile, etc.

Please refer to Media Manager User's manual for detailed procedure.

14.1 Clips Search and Import to a bin

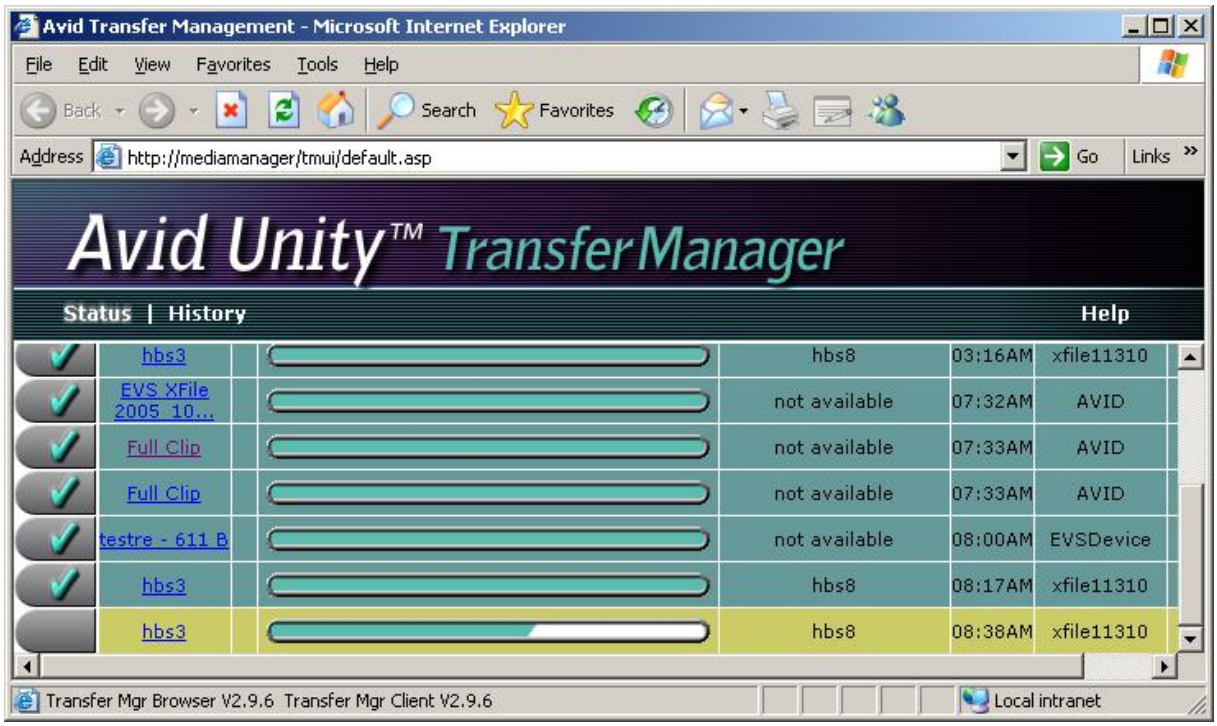
- Search a list of clip by defining a search criterion
- Right-click on a clip to display its attribute. "Expand" button allows for showing all the information related to this clip in Media Manager
- From Media Composer station, drag & drop the selected clip into the bin



14.2 Transfer Manager

In the Media Manager browser, select “Service” to launch a Transfer Manager Status Internet Explorer window. This monitor provides :

- Status of the transfer with a progress bar
- Logs of the transfer when completed (transfer rate – some bugs!, transfer LManager server, etc.)


Avid Transfer Management - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://mediamanager/tmui/default.asp
Go Links
Avid Unity™ TransferManager
Status | History
Help
hbs3 hbs8 03:16AM xfile11310
EVS XFile 2005_10... not available 07:32AM AVID
Full Clip not available 07:33AM AVID
Full Clip not available 07:33AM AVID
testre - 611 B not available 08:00AM EVSDevice
hbs3 hbs8 08:17AM xfile11310
hbs3 hbs8 08:38AM xfile11310
Transfer Mgr Browser V2.9.6 Transfer Mgr Client V2.9.6
Local intranet

15 WORKING WITH AVID INTERPLAY

Avid Interplay is the new MAM developed by Avid. It replaces the former Avid WG 4 and its related applications like Media Manager.

Avid Interplay is composed of a suite of servers and client applications.

Servers :

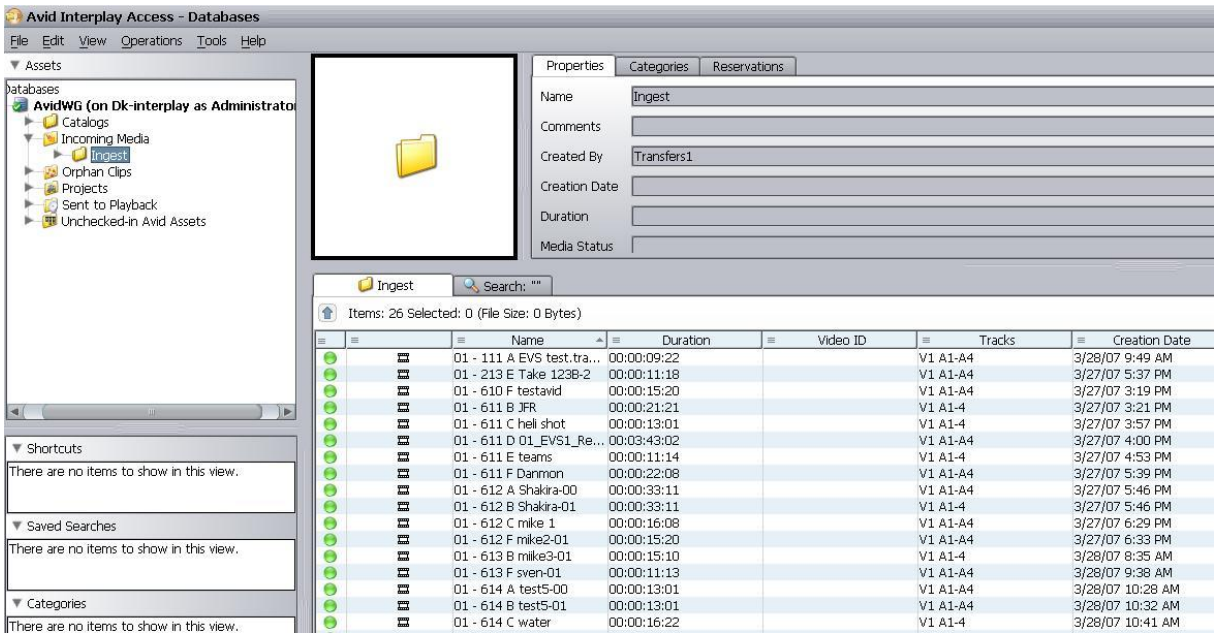
- **Avid Interplay Engine** : The Avid Interplay Engine is the power centre of an Interplay real-time nonlinear production environment. It combines an advanced production asset database with workflow management software for instant access to any type of production asset. Built-in project management features enable everyone to perform at peak efficiency, with moment-by-moment status views for managers.
- **Avid Transfer Engine Server** : Ingest media, transfer media between workgroups, or send finished sequences to a playback device while Interplay keeps track of everything. This is the same application as the Avid Transfer Manager server used in WG 4.

Client Applications :

- **Avid Interplay Access** : The Avid Interplay Access asset management client is a direct pipeline into the Interplay media database. Team members can easily search, navigate and organize assets; add or modify media objects such as master clips, sequences, and effects; work with graphics files; and store, track, and modify scripts, spreadsheets, or other project-related files and their version histories—all in their native applications
- **Avid Interplay Assist** : Assistants and interns can review and log video, select shots, and add markers with comments that are automatically visible to producers and editors
- **Avid Interplay Access window in Media Composer :** the same feature provided by Avid Interplay Access but directly integrated into the Media Composer editing application.
- **Avid Transfer Engine Client :** Client related to the Avid Transfer Engine server
- **Avid Interplay Transfer Status :** Tool to monitor the transfer status of Transfer Engine Server

Those applications are Windows based applications to be installed on any Windows client workstations connected to Interplay. There is no Web interface as with Media Manager in WG 4.

15.1 Avid Interplay Access



The Avid Interplay Access asset management client is a direct pipeline into the Interplay media database.

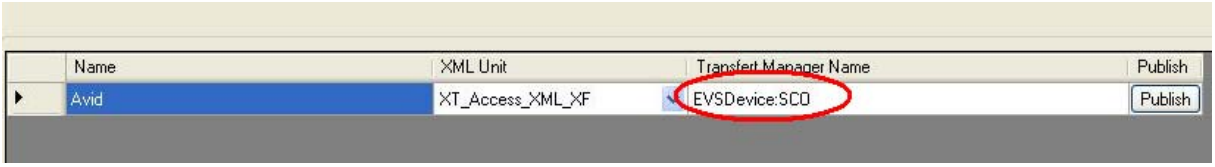
This client application can be installed on any workstation connected via a network to the Interplay Engine.

Installed on an IP Director workstation, the EVS operator can easily search, check, and navigate into assets.

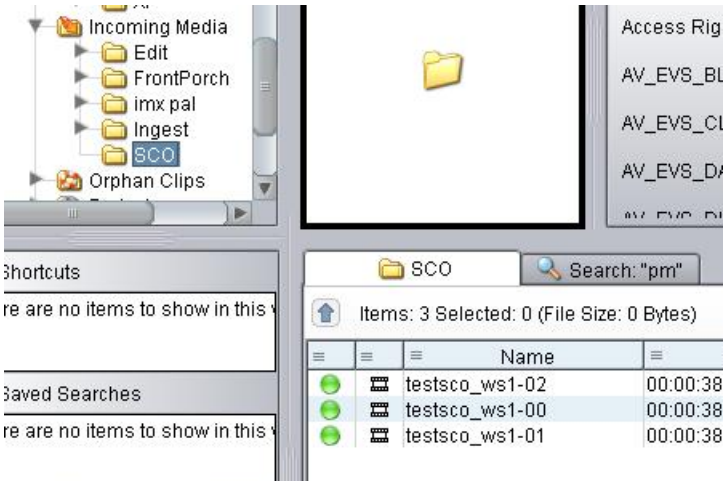
Installed on a Media Composer, the Avid Editor can search, check, and navigate into assets, but also drag & drop the assets into its bin or in the timeline to start editing.

15.1.1 Folder in Interplay Access

If you want create folder into Interplay Access with your ingest media. You can put as ingest device: xxxx:folder

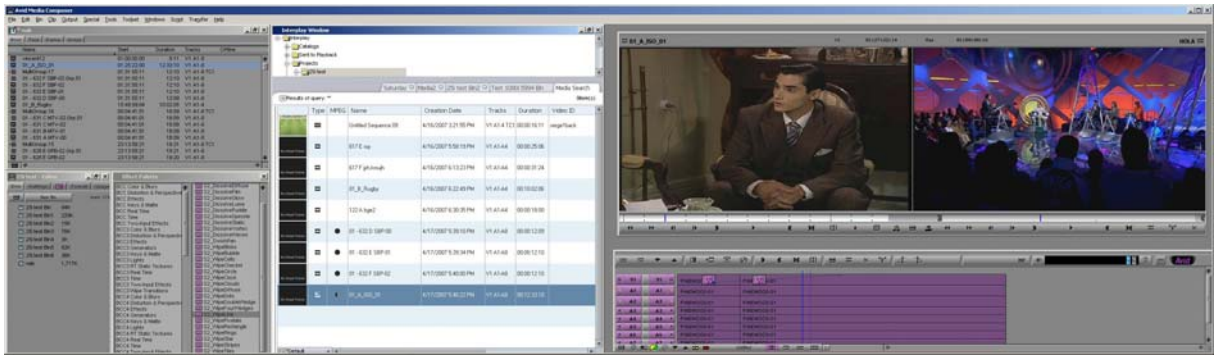


- Where “xxxx” is your ingest device
- And where “folder” is the name of the folder you want to create into interplay



In this case all your media will be send into the SCO folder under Incoming Media folder.

15.2 Avid Interplay Access Window in Media Composer



Avid Interplay Access window can be launched from the Media Composer menu.

The Avid Editor can search, check, and navigate into assets, but also drag & drop the assets into its bin or in the timeline to start editing.

Avid does not recommend to launch this Access window in Media Composer at the same time as Interplay Access client or Interplay Assist applications to avoid any conflict to access the database.

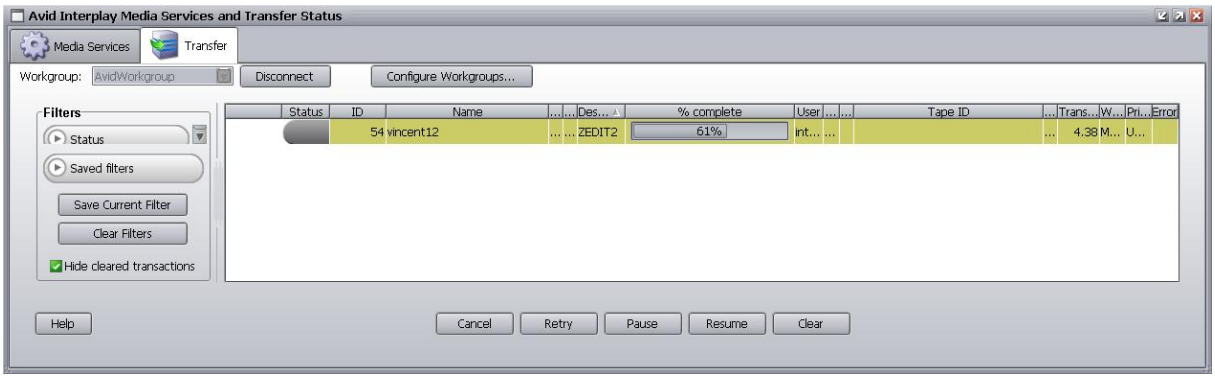
15.3 Avid Interplay Assist

The optional Avid Interplay Assist desktop video tool is a cost-effective way to review and log video, select shots, and add locators and comments using ordinary desktops and laptops on the network.

As Interplay Access, this is an application client that can be installed on any workstation. On an IP Director workstation, Interplay Assist can be used to search, check and preview content on Avid storage.

Note : you need a dongle with appropriate license rights to run this application.

15.4 Avid Interplay Transfer Status



Avid Interplay Media Services and Transfer Status is a tool that can be installed on any workstation connected to Interplay Engine media database.

Running on an IP Director workstation, these tools allows for monitoring the transfer status thanks to its progress bar and check the completeness or failure of the transfer.

15.5 EVS Metadata and logs transfer to Avid Interplay

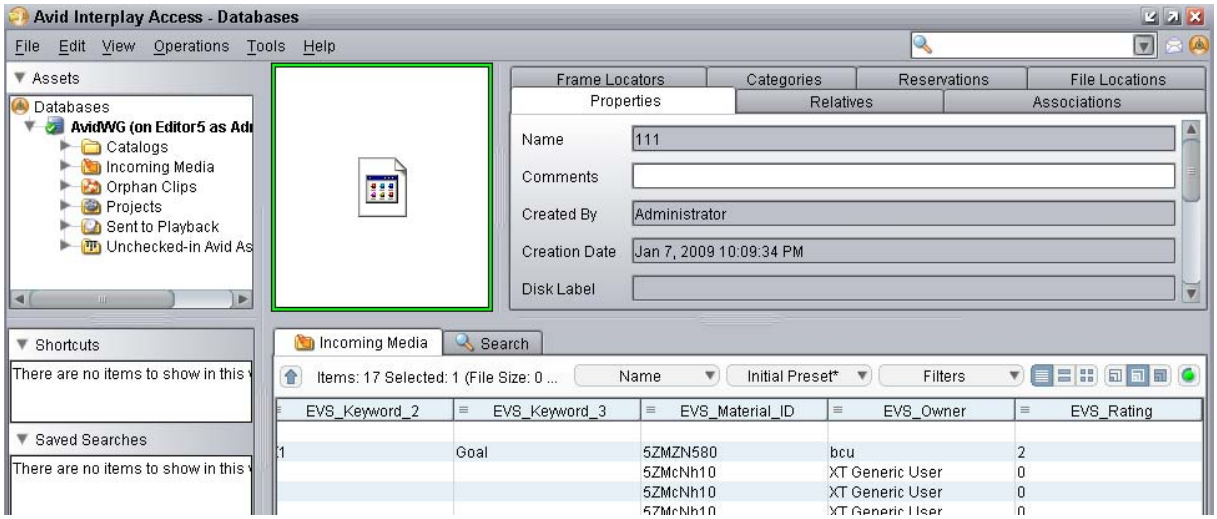
15.5.1 Metadata

- XTAccess, XFile and XStream support the transfer of EVS CCLIP, EVS IP Director Metadata.
- Avid DHM API is used for this purpose, not Avid Interplay WebServices.
- Metadata are displayed in the User's Properties of a clip in Interplay Access or Interplay Assist
- Metadata are sent to Interplay at the beginning of the transfer. It is not possible to update the metadata during or after the transfer. A new transfer request must be initiated to modify the metadata.
- No metadata are transferred from Avid Interplay to EVS during a send to Playback
- List of Metadata available in Interplay :
    - Clip Metadata (XT server) :
        - EVS_ClipName
        - EVS_TC_IN
        - EVS_Duration
        - EVS_TC_OUT
        - EVS_Clip_Duration
        - EVS_Device_SRC
        - EVS_Audio_Codec
        - EVS_Backup_Time
        - EVS_Creation_Time
        - EVS_Creation_Time_GMT
        - EVS_Material_ID
        - EVS_Nb_Audios_Mono
        - EVS_Nb_Video
        - EVS_Processing_Device
        - EVS_Video_Aspect_Ratio
        - EVS_Video_Codec
        - EVS_Video_Interlaced
        - EVS_Video_STD
        - EVS_Video_System
        - EVS_Camera
        - EVS_Camera_Label
        - EVS_Camera_Pref
        - EVS_Keyword_1
        - EVS_Keyword_2

- EVS_Keyword_3
- EVS_Num_Clip
- EVS_Rating
- EVS_Short_Ref_TC
- EVS_TC_System
- EVS_UmID
- EVS_User_Nb
- EVS_ClipIDSrc

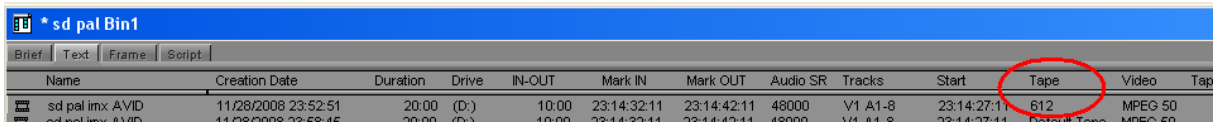
o IP Director Metadata

- EVS_LsmSerialNumber
- EVS_MSListID
- EVS_MSListPos
- EVS_Keywords
- EVS_Participant
- EVS_Owner
- EVS_PublishedGroups
- EVS_TapeID
- EVS_Users_fields



15.5.2 Avid Tape Metadata

The Avid “Tape” Metadata can be setup to contain one of the EVS Metadata Tag.



To change the EVS Metadata which will be set into the Avid Tape Metadata: You have to change the EVSAvidSetupDll key in the registry of the Ingest (XTAccess/XFile) machine

HKEY_USERS\Software\EVS Broadcast Equipment\EVSAvidSetupDll\

- TrainsTapeNameXPath (for the backup of train to Avid)
- ClipsTapeNameXPath (for the backup of clips to Avid)

The xxxxxXPatch key must contain /ingestdrag/private/ + the XML Path to the EVS XML Metadata you want:

Example

- /ingestdrag/private/EVS_Metadatas/Clips_Infos/Clip/XFile_Clip_Infos/XT_ClipName
- /ingestdrag/private/EVS_Metadatas/Clips_Infos/Clip/XFile_Clip_Infos/XT_NumClip

```
<EVS_Metadatas>
<Clips_Infos>
<Clip>
<XFile_Clip_Infos>
<XT_ClipName>IMX-525i60</XT_ClipName>
<XT_UmID>7tbk5ldW</XT_UmID>
<XT_Name>                    </XT_Name>
<XT_NumClip>16</XT_NumClip>
<XT_Camera>A</XT_Camera>
<XT_Short_IN>27393354</XT_Short_IN>
<XT_Short_OUT>27394926</XT_Short_OUT>
<XT_Short_REF>27393354</XT_Short_REF>
<XT_Clip_Duration>00:00:26:06</XT_Clip_Duration>
<XT_Short_IN_str>11:40:12:23</XT_Short_IN_str>
<XT_Short_OUT_str>11:40:38:29</XT_Short_OUT_str>
<XT_Short_REF_TC_str>11:40:12:23</XT_Short_REF_TC_str>
<XT_Offset_TC>-24875108</XT_Offset_TC>
<XT_TC_System>4</XT_TC_System>
<XT_TC_System_str>sys29.97</XT_TC_System_str>
<XT_Keyword_1>          </XT_Keyword_1>
<XT_Keyword_2>          </XT_Keyword_2>
<XT_Keyword_3>          </XT_Keyword_3>
<XT_Keyword_4>          </XT_Keyword_4>
<XT_Keyword_5>          </XT_Keyword_5>
<XT_ClipIdSrc>7tbj7on1</XT_ClipIdSrc>
<XT_FillAndKey_Type>0</XT_FillAndKey_Type>
<XT_FillAndKey>       </XT_FillAndKey>
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<XT_Rating>0</XT_Rating>
</XFile_Clip_Infos>
</Clip>
</Clips_Infos>
</EVS_Metadatas>
```
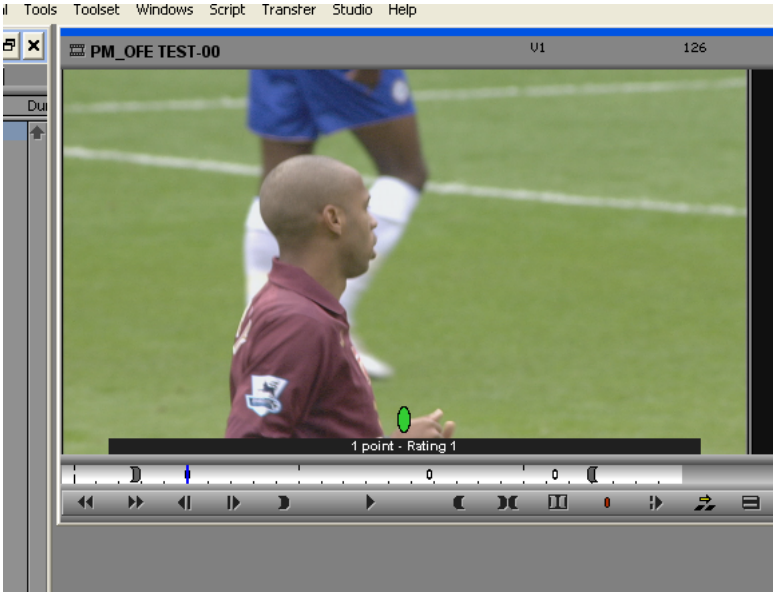

15.5.3 Locator

Logs created with IPDirector 5 can be send to Avid as Locator through the Transfer Manager.

If you create logs with IPDirector on the live feed and then consolidated it in one clip (see IPDirector documentation). When you send this clip to Avid all the log will be send as locator into the MediaComposer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1 point - Rating 1

16 ACRONYMS

- AAF : Advanced Authoring Format
- IMX D10 : MPEG-2 I-only video format developed by Sony.
- MCA : Avid Media Composer Adrenaline HD
- MM : Avid Media Manager
- Mob : Abstract class for content. Like a container with information about the content.
- OMF : Open Media Framework. Avid legacy file format in Production.
- NLE : Non Linear Editing (system)
- MXF : Material Exchange Format
- TM : Avid Transfer Manager