FlipFactory Avid Unity TransferManager Plug-in Configuration and Installation Guide

The **FlipFactory Avid TransferManager Notification Plug-in** enables automated ingest of a newly transcoded FlipFactory media file into an Avid Unity media network or Avid DV editing system via Avid Unity TransferManager.

The Avid Unity TransferManager product provides a mechanism through which media, not already in a native Avid format, can be easily moved into Avid workspaces. TransferManager is available as a Standalone application for an Avid editing system or as a Workgroup version using a dedicated server.

The FlipFactory TransferManager Plug-in couples the flip process with TransferManager ingest, so that when the job is complete, the DV media with timecode are ready for editing. No import steps are required. Supported Avid editing platforms include NewsCutter and MediaComposer DV.



TransferManager Configuration

Avid TransferManager software requires a number of specific configuration files that detail the capabilities for a particular workflow. The following files are utilized by the TransferManager (server and client) software:

- AvidTMAAPI_Ingest_DeviceToSetupFile.txt 、
- AvidTMAAPI_Ingest_HostToDevice.txt
 run on the TM client PC
- Tmclient.ini
- TMServer.ini runs on the TM server PC

Basically, ingest requests into the TransferManager are of the form:

INGEST UserName DeviceName ClipName WorkspaceName

Where:

UserName refers to the name of the TransferManager server DeviceName is the name of the ingest device from which the transfer is requested ClipName is the name of the clip on the ingest device to import WorkspaceName is the receiving workspace (on a Unity/LANshare)

The UserName parameter is actually a hostname (the TransferManager server hostname) that is specified in the Tmclient.ini file. The TransferManager client software (a series of DLL files) scans the Tmclient.ini file during initialization to obtain this name. A typical Tmclient.ini file is:

[MyServer,MyWorkgroup] MyServer = johnk, myworkgroup

The Tmclient.ini file will need to reside in the WINNT directory in order to be properly located by the TransferManager client software.

In this case, the server johnk is the network server running the TransferManager software. The 'myworkgroup' value is only utilized if the TransferManager server is in a workgroup that is different that the client machine. In this case, the 'myworkgroup' value would be replaced with the workgroup name in which the TransferManager server resides.

The DeviceName is a parameter that is configured by the TransferManager administrator. The administrator utilizes the TransferManager Server Configuration tool (supplied by Avid) to generate a TMServer.ini file. The following screenshot illustrates the TransferManager Server Configuration Tool populated for a standalone configuration with one ingest device created, named RefServer1.

Workgroup Settings Vorkgroups Baset manager nostname: Workgroup transfers enabled Asset manager hostname: Delete temporary comp. files Accept incoming workgroup transfers Workgroup names: Workgroup names: Add Delete Edt Baset manager hostname: Delete Delete Edt	, TransferManager Server Configuration		
Asset manager nostname:	Workgroup Settings	Workgroups ↓ WG transfers enabled ↓ Incoming transfers enabled	Total Transfers (All Types) Max. simultaneous transfers: 8
Schedule File Name:	Asset manager hostname: Accept incoming workgroup transfers without MediaManager login No-login workspace:	Delete temporary comp. files Workgroup names: Add Delete Edit	Playlist Information Use Newsroom rundowns to schedule transfers User name: Password:
Standalone Settings Playback	Standalone Settings	Playback	Schedule File Name:
Accept incoming transfer after timeout	Accept incoming transfer after timeout	Playback transfers enabled	Browse
Timeout: 0 seconds Max. simultaneous transfers: 0	Timeout 0 seconds	Max. simultaneous transfers:	
Directory for incoming transfers: C:\OMFI MediaFiles Browse TransferManager Server System Settings TransferManager Server System Settings TansferManager Server System Settings TransferManager Serve	Directory for incoming transfers: C:VOMFI MediaFiles Browse TransferManager Server System Settings	Playback devices: Add Delete Edit	Cancel Save
Enable auto-cleanup of transfer queues	Enable auto-cleanup of transfer queues	Ingest	
Auto-cleanup transfers older than 360 minutes	Auto-cleanup transfers older than 360 minutes	✓ Ingest transfers enabled	
Run auto-cleanup every 12 hours Max. transfers: 2	Run auto-cleanup every 12 hours	Max. transfers: 2	
C Server logging off Be/Server1 Add	C Server logging off	RefServer1 Add	
C Standard logging on Delete	C Standard logging on	Delete	
Debug logging on Edit	Debug logging on	Edit	

The AvidTMAAPI_Ingest_DeviceToSetupFile.txt and the AvidTMAAPI_Ingest_HostToDevice.txt files provide one-to-one mapping between a particular setup device identity and the particular Setup DLL library.

The contents of these files, customized to work with the TransferManager configuration specified above, are:

AvidTMAAPI_Ingest_HostToDevice.txt: RefServer1 FFServer

AvidTMAAPI_Ingest_DeviceToSetupFile.txt: FFServer FFSetupProto

As mentioned previously, these files provide mapping between the specified device (in this case, RefServer1) and the associated Setup DLL library (in this case, FFSetupProtod).

In-order for FlipFactory to be able to initiate an ingest with the proper parameters, registry entries on the FlipFactory machine are consulted in order to obtain the Host/Username and the Device name. These registry entries must refer to the same values specified in the Tmclient.ini (the

hostname/username) and the AvidTMAAPI_Ingest_HostToDevice.txt file (the ingest devicename).

For the example above, the following registry key:

My Computer\HKLM\SOFTWARE\JavaSoft\Prefs\net\Telestream\flip\engine\notify\AvidTM

would contain the following values:

device_name	REG_SZ	RefServer1
username	REG_SZ	johnk

FlipFactory and TransferManager

The FlipFactory portion of the TransferManager ingest is comprised of the following components:

- The FlipFactory Avid TransferManager Notification Plug-in
- The FlipFactory Avid TransferManager Proxy
- The FlipFactory Setup and Receiver DLL libraries
- The FlipFactory TransferManager DV Encoder

FlipFactory TransferManager Plug-in

The FlipFactory TransferManager Plug-in is a FlipFactory component that can be attached to any previously created factory configuration. However, only the TMDV Encoder and the DV Standard Definition Codec should be utilized. This is due to the manner in which data are ingested into the Avid Unity TransferManager. The output format of the TMDV encoder is inherently suited for this task.

Manage Factories		
Demo (dema)	Product	
🕈 🧮 Factories	Nickname	
Interview of an octype	Imdv	
← □ (TM_DV)	Description	
Processi/malyze	Available Media Formats	
Products Products Tmdv	O Duplicate Original	O Abekas6000
CTMD//Format)	O AVI	O Telestream Clipmail
Destinations	O DV Stream	O DVD Stream
• (VOD1)	Grass Valley Group Profile GXF	O IPV SpectreView
🗢 🛄 (MResolution)	C Leitch Format	O MPEG 4
	O MPEG Layer-3 Elementary Stream	O MPEG1 System Stream
	O MPEG2 Program Stream	O MPEG2 Transport Stream
	OMF Stream	O PacketVideo MPEG4
	O Pinnacle Liquid	O Pinnacle MediaStream
	OulckTime Streaming	O QuickTime
	C Real Networks	SeaChange Format
	Sony MAV70	TMDV Format
	O VideoClipstream	O VOD Transport Stream
	O WAVE Audio	🔿 Windows Media Format

The ideal mode of operation for the FlipFactory TransferManager Plug-in is to have the newly transcoded files immediately referenced from the FlipFactory server by the ingest mechanism. In order to facilitate this, the FlipFactory TransferManager plug-in allows the definition of a shared network location (shared network folder) which must correspond to the default media destination on the FlipFactory computer. In most cases, this will be the Telestream\FlipFactory\http\media

directory. The media directory must be shared (i.e. able to be accessed by the UNC \\FFServername\media, where FFServername is the hostname of the FlipFactory PC.)

The user would then specify this shared UNC location as the path location in the Notification setup.

NOTE: This path implies that the user of the computer has shared the folder that corresponds to the default media destination. In a normal FlipFactory installation, this would be the C:\Program Files\Telestream\FlipFactory\http\media directory. The user must select the 'media' directory and share it as a network folder. If this step is not performed, the folder will not be available as a selection during the Notification setup. This will cause the ingest workflow to fail.

The FlipFactory TransferManager Plug-in allows a workspace to be specified. This parameter is only utilized by the TransferManager when a LANShare/Unity system is hosting the TransferManager.

The FlipFactory TransferManager Plug-in, when activated at the completion of a job, initializes and connects to the TransferManager server by utilizing the FlipFactory TransferManager proxy.

Wanage Factories	
P Demo (demo) P Factories C (NewAvidNotify) C (CLIPMAIL_420) C (TM_DV) C (NewDVNotify) C (NewDVNotify) C (VOD1) C (MResolution) C (BloombergPS) C (GXF1) C (OMF21) C (QTDV) P (TMNotify_NoDelivery) P Process/Analyze P Indifications C	AvidTM Unity1LAN Share Workspace MYWORKGROUP Windows Networking Domain/Workgroup Name TELESTREAM Destination Folder JOHNK/media Browse UNC Path to the shared default media destination (FlipFactory\http\media)

The Notification definition is illustrated in the following screenshot:

In the event that certain network configurations or other factors impede feasibility of the above situation (for example, if the Avid TransferManager server cannot access the shared http/media folder), FlipFactory can deliver the newly transcoded media files to a shared network folder on an intermediary network location. From this location, the ingest will be performed. The downside of this process is the extra time it takes to carry out the interim delivery. The Delivery Transport of

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Network Folder is required in order for the files generated by the TMDV Encoder to be delivered to the specified destination.

The following screenshot illustrates the definition of a network folder destination.

NOTE: If this scenario is utilized, the Networking entry within the notification element (above) must be left blank. Conversely, if the Notification element defines a shared network location, indicating that a delivery is not necessary, a Delivery element must NOT be defined for the factory.

FlipFactory Manage - Microsoft Internet Explorer	
Manage Factories	
🖗 🗂 Demo (demo)	Network Folder
♀ ☐ Factories	Domain/Workgroup Name
C (NewAvidNotify)	TELECTREAM
CLIPMAIL_420)	
	Destination Folder
Or Control Monitors	JOHNK/Fast Browse
🗢 🗂 Process/Analyze	·
🕈 🗂 Products	
P □ _tmdv	
C [[MDV Format]	
P Destinations	
Notifications	
COD1)	
Image: Image: Organization (MResolution)	
Saving account informationdone	Local intranet

The Network Folder destination is required in-order to ensure that the location of the media is a UNC addressable file system. A UNC addressable location is required so that other components utilized during ingest can access files.

FlipFactory TransferManager Proxy

The FlipFactory TransferManager Proxy exists to provide a mechanism for routing messages between the FlipFactory FlipEngine and the Avid TransferManager server. To facilitate this, the Proxy makes use of the TransferManager Automation API. The Proxy is responsible for initializing a session, connecting to the server, submitting the ingest job, and providing status updates.

FlipFactory Setup and Receiver DLL Libraries

The Setup and Receiver DLL libraries exist to provide a specific underlying functionality to the TransferManager server through a set of well-known interfaces. At a high level, these DLL files provide the TransferManager with a means of locating the required media for ingest and then feeding individual frames of data to the TransferManager.



Installing the FlipFactory/TransferManager client software

Step1:

First, FlipFactory software should be installed on the target system. Once FlipFactory software installation is complete, proceed to the next step.

For reference, the files listed below will be delivered into a directory named TransferManager Components within the main FlipFactory distribution (Program Files\Telestream\FlipFactory).

Step 2:

Following the successful FlipFactory installation, it is necessary to install the TransferManager client software from Avid. This software consists primarily of a series of DLL files required for communication with the Avid Unity TransferManager server.

NOTE: Without the successful completion of this step, the install/registration of the FlipFactory TransferManager components will fail.

The Avid Unity TransferManager client software is generally available as a redistributable module from Avid, labeled as the TransferManager Client Software installer. When installing this module, the 'Install client for Avid Editor' should be specified (instead of the Media Manager selection). Once the installation is complete, proceed to the next step.

Step 3:

After successful installation of the Avid client software, the following files must be placed in the WINNT/system32 directory:

TMClient.ini FFAvidTMProxy.dll FFSetupProto.dll

Step 4:

Once these files have been copied, the following command must be executed from a DOS (cmd) window:

Regsvr32 FFAvidTMProxy.dll

This command registers the FFAvidTMProxy library with the operating system.

NOTE: Failure to successfully complete this step (executing the regsvr32 command) will result in an unsuccessful installation.

Step 5:

Next, the TMClient.ini file must be edited to reflect the proper server name of the TransferManager server. This information is detailed in the beginning paragraphs of this document. It is important that the name of the TransferManager server be correctly specified in this file. Additionally, if the TransferManager server resides in a workgroup/domain that is different from that of the client computer, then this new domain/workgroup must be entered as well. Below is an entry example:

[MyServer,MyWorkgroup] MyServer = TMServ1, EditorGroup

In this case, the TransferManager server, TMServ1, resides in the workgroup EditorGroup.

Step 6:

The following text files:

AvidTMAAPI Ingest DeviceToSetupFile.txt AvidTMAAPI Ingest HostToDevice.txt

must exist in the WINNT directory on the FlipFactory (client) machine. These files form an association between the defined ingest device (on the TransferManger server side) and the ingest setup library (on the client side). The only value that must be updated, after these files have been copied into the WINNT directory, is the name of the ingest device.

The ingest device (by default named: RefServer1) within the file:

AvidTMAAPI Ingest HostToDevice.txt file

must correspond to the entry that was made (or will be made) on the TransferManager server side (via the TransferManager configuration tool).

The file:

AvidTMAAPI Ingest DeviceToSetupFile.txt file should not have to be modified.

Step 7:

Next, the FlipFactory TransferManager registry entry (the sample file: AvidTMRegistrySettings.reg) must be imported into the registry on the FlipFactory machine.

This creates a new key with two string values. These string values refer to the ingest device name and the user name (the TransferManager Servername). These must coincide with the values you specify during the configuration of the Avid TransferManager. The string RefServer1, in most cases, can remain the same.

Step 8:

Following these steps, the FlipEngine service must be stopped and restarted.

Step 9:

On the Avid Unity TransferManager side, the FFReceiverProto.dll file (located in the FlipFactory distribution) must be copied into the WINNT/system32 directory on the TransferManager server.

Step 10:

Next, a new ingest device must be created via the TransferManager configuration tool (as detailed earlier in this document).

At this point, the FlipFactory/TransferManager workflow will be ready for use.

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