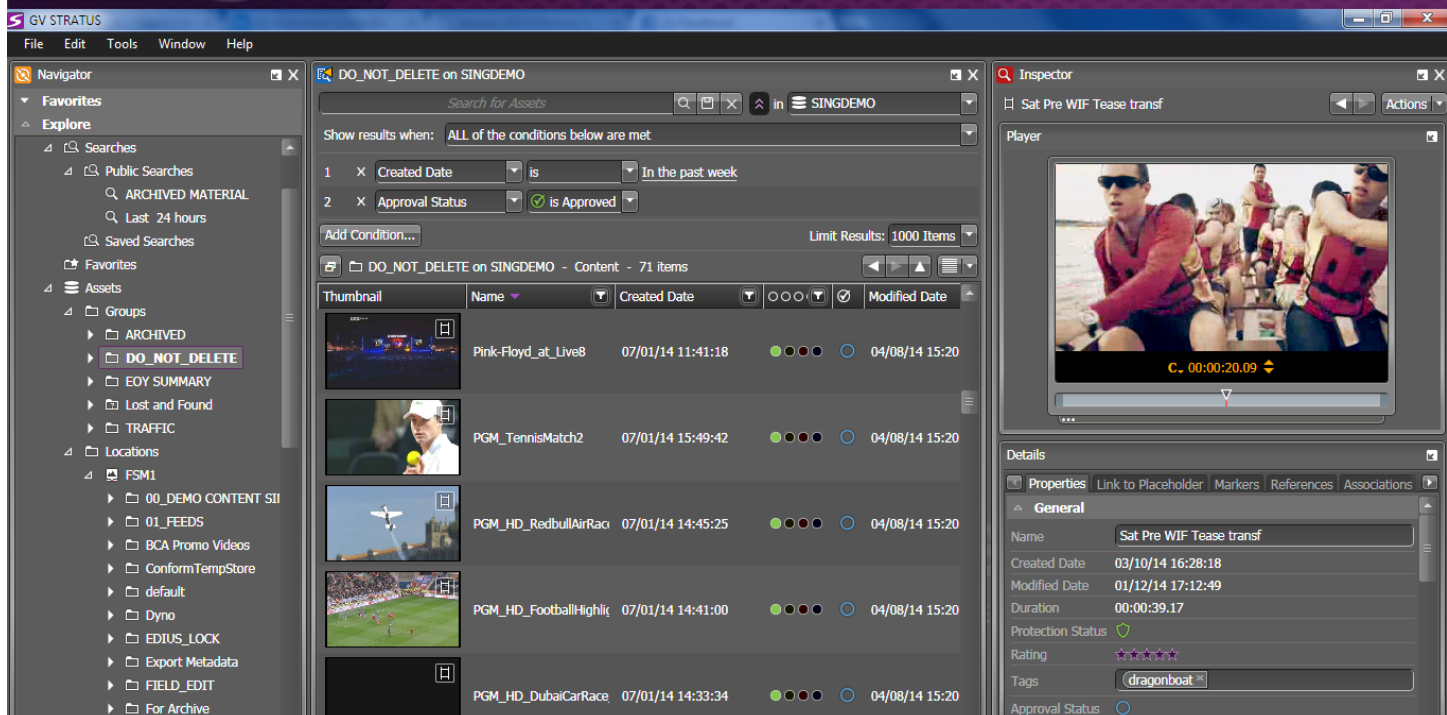


Importing Media from Harmonic Servers to GV STRATUS/K2 Systems

Bea Alonso, Director, GV STRATUS Business Development

January 2015

APPLICATION NOTE



The screenshot displays the GV STRATUS application interface. The main window is titled "DO_NOT_DELETE on SINGDEMO". It features a search bar and a filter section with two conditions: "Created Date is In the past week" and "Approval Status is Approved". The search results are displayed in a table with columns for Thumbnail, Name, Created Date, and Modified Date. The table lists several assets, including "Pink-Floyd_at_Live8", "PGM_TennisMatch2", "PGM_HD_RedbullAirRac", "PGM_HD_FootballHighlig", and "PGM_HD_DubaiCarRace". On the right side, there is an "Inspector" panel showing a video player with a thumbnail of a group of people in a boat. Below the video player, the "Details" panel shows the "General" tab with fields for Name, Created Date, Modified Date, Duration, Protection Status, Rating, Tags, and Approval Status.

Thumbnail	Name	Created Date	Modified Date
	Pink-Floyd_at_Live8	07/01/14 11:41:18	04/08/14 15:20
	PGM_TennisMatch2	07/01/14 15:49:42	04/08/14 15:20
	PGM_HD_RedbullAirRac	07/01/14 14:45:25	04/08/14 15:20
	PGM_HD_FootballHighlig	07/01/14 14:41:00	04/08/14 15:20
	PGM_HD_DubaiCarRace	07/01/14 14:33:34	04/08/14 15:20

Inspector Panel:

Player: Sat Pre WIF Tease transf

Details:

- Properties:** Link to Placeholder, Markers, References, Associations
- General:**
 - Name: Sat Pre WIF Tease transf
 - Created Date: 03/10/14 16:28:18
 - Modified Date: 01/12/14 17:12:49
 - Duration: 00:00:39.17
 - Protection Status:
 - Rating:
 - Tags: (dragonboat)
 - Approval Status:

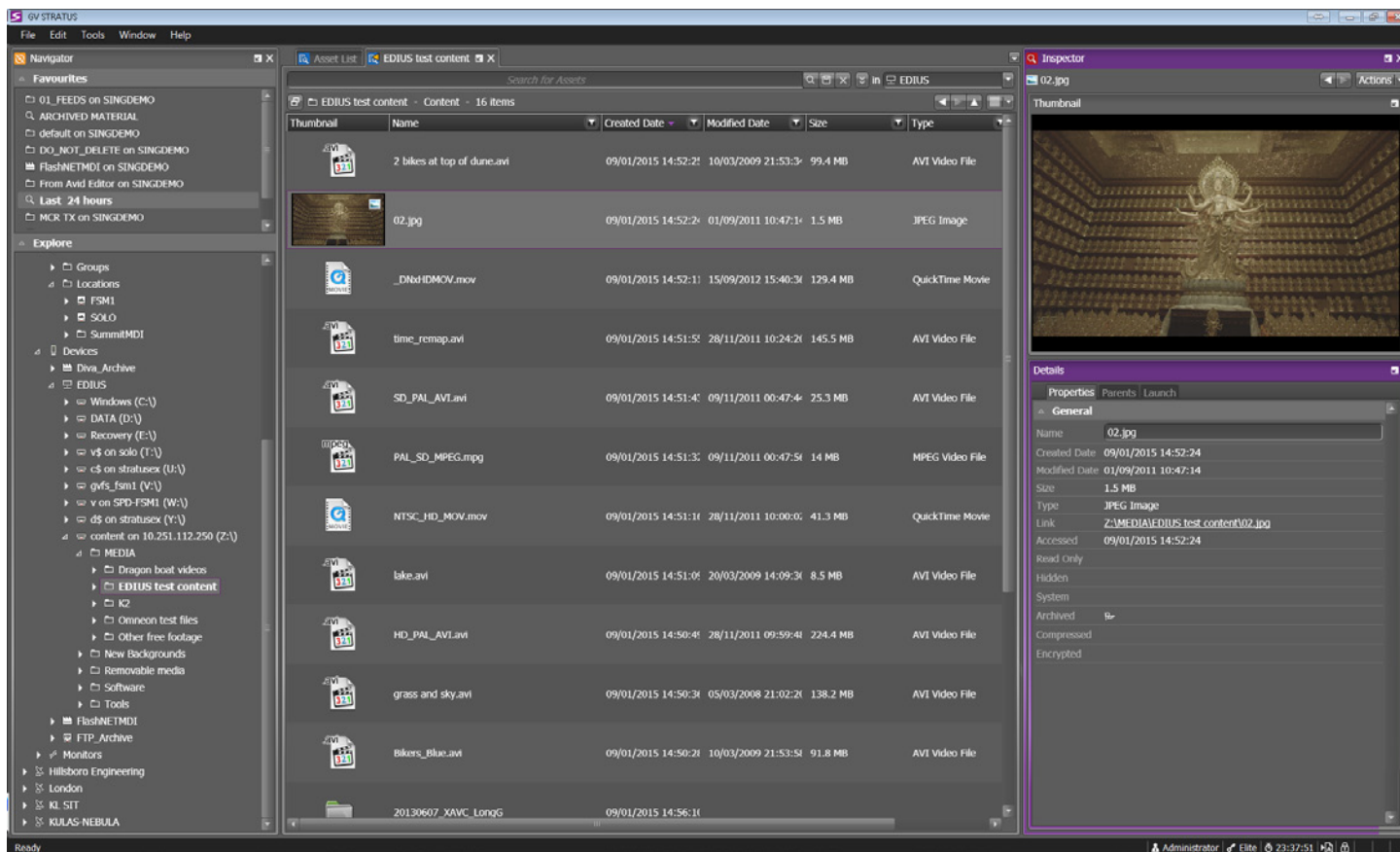
Introduction

GV STRATUS, from Grass Valley, a Belden brand, is a full set of production tools in one application — designed for simplicity, efficiency and speed. Its user interface provides the ability to review the contents and perform searches on any Windows OS drive that is mapped onto the physical workstation where it is running.

Among other benefits, this allows users to navigate to third-party storage devices or video servers, and directly import files into the GV STRATUS/K2 environment, provided those files are compatible for native import (typically wrapped as MXF OP1a, GXF or self-contained QuickTime movies). Please refer to “About file interchange mechanisms on K2 systems” in the GV STRATUS Topic Library for the full range of supported formats, file types and wrappers.

GV STRATUS, in combination with the Grass Valley K2 media platform, incorporates an open file system and a number of services and features to make it fast and easy to share content with standard storage devices or with other systems across networks.

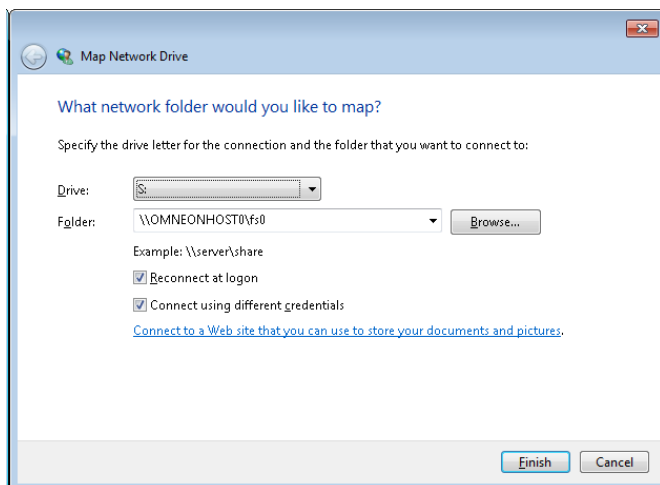
This Application Note focuses on how this process allows direct import of MXF OP1a wrapped files from Harmonic servers and storage. Although care has been taken to test a range of formats from various models of Harmonic servers, certain video formats or server types may not be compatible. Note that all media files used on our tests were fully closed, completed (i.e., not growing) files.



GV STRATUS application displaying contents of a mapped drive.

Workflow

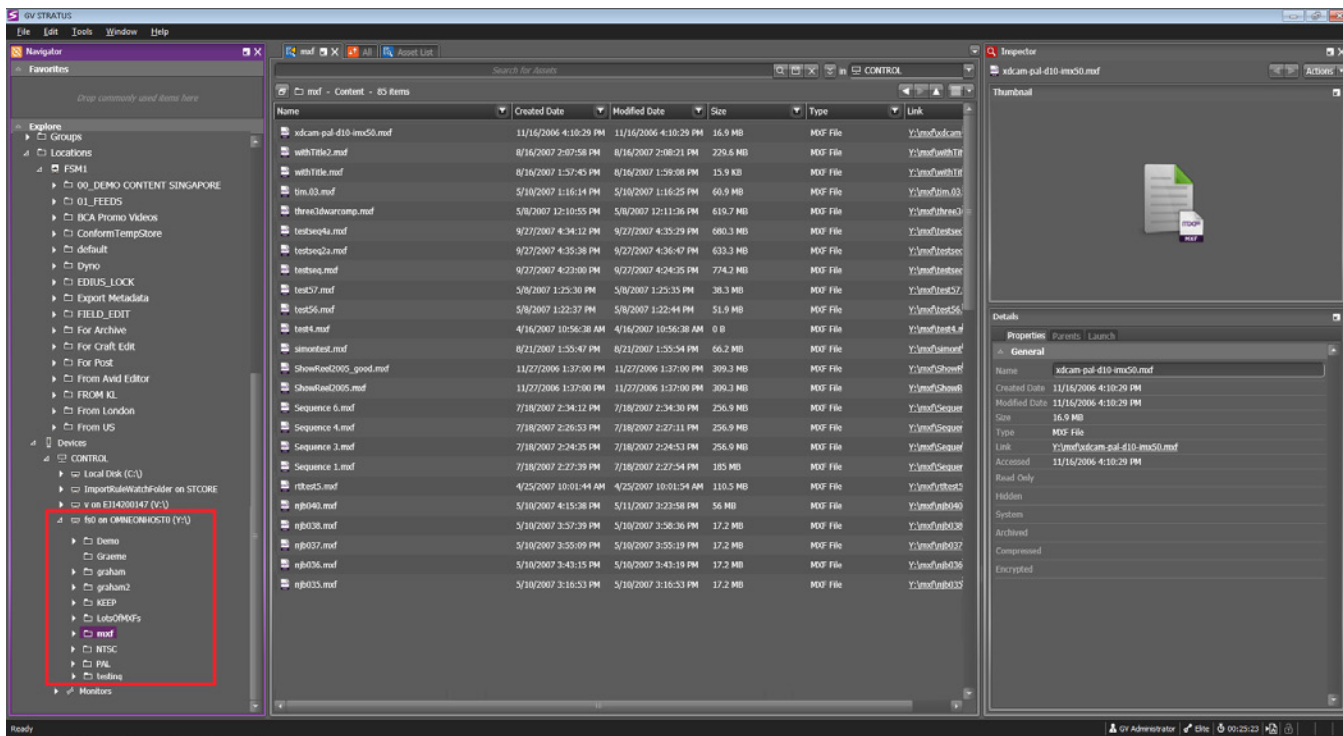
No configuration steps are required for this operation. The one prerequisite is that the login credentials used to log on to the GV STRATUS client allow writing to the K2 media drive, as well as to the GV STRATUS destination bin(s). Typically, this user needs to be part of the GV STRATUS domain or workgroup, and have write access to the K2 destination bin.



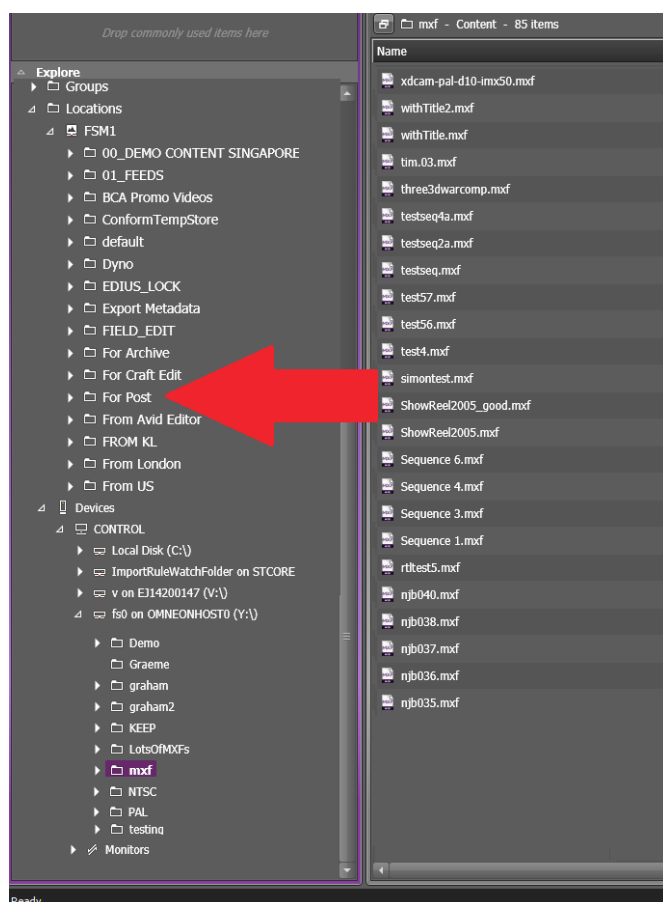
Before you log on to GV STRATUS, be sure that the Harmonic server/storage is mapped as a shared drive on the client PC, at Windows level.

Mapping a shared drive on Windows.

Now launch and log on to the GV STRATUS client and navigate to the [Devices] tab on the Explorer list (left-hand side). If the Harmonic drive was mapped successfully, you will be able to see its folder tree and be able to navigate its contents.



GV STRATUS client with a mapped drive on Harmonic MediaPort server.



Locate the MXF OP1a file(s) that you wish to transfer from the Harmonic server to GV STRATUS/K2. Then simply drag and drop the file(s) to the desired destination K2 bin.

If the file wrapper is natively supported, you will see a “+” symbol that allows you to complete the drag and drop operation. Otherwise, you will get a “forbidden” icon and will not be able to drop on the destination K2 bin within GV STRATUS.

Once the transfer request is accepted, you can monitor it using the GV STRATUS job monitor:

The screenshot shows the GV STRATUS job monitor window. It displays a list of 17 jobs. The first job, 'XDcam50-16Ch', is in progress. The other jobs are complete. The window includes a header with 'All' and a filter dropdown set to 'Max: 100 jobs in All'. The table below shows the details of the jobs.

Name	State	Progress	Source	Destination
XDcam50-16Ch	In Progress	10%	\\10.251.112.250\content\MEDIA\Omneo	FSM1:V:/For Craft Edit/XDcam50-16Ch
GV Live Bumper_subbo	Complete	100%	FSM1:V:/To Hillsboro/GV Live Bumper_su	UnmanagedFTP:V:/SendToPlayout/GV Live E
SPorts High_PR	Complete	100%	FSM1:V:/For Post/SPorts High_PR	Diva_Archive:BUSINESS NEWS/SPorts High_
SPorts High	Complete	100%	FSM1:V:/01_FEEDS/SPorts High	FlashNETMDI:SPORTS/SPorts High
WED	Complete	100%	FSM1:V:/default/WED	FlashNETMDI:PROMOS/WED

The media file will be imported via FTP protocol, hence it is strongly recommended that the GV STRATUS workstation has a dedicated FTP/Media network for best speed and performance. Completion and speed of the transfer will therefore depend very much on the machine's specification, network configuration and network traffic.

Transfers via this means of connectivity adhere to the "non real-time" quality of service (QOS) classifications at the K2/SNFS file system level. This level of QOS management allocates system bandwidth which is unreserved/unused by the record ports, playout ports and edit clients for managed or unmanaged file-based transfers via FTP (file transfer protocol).

If the clip imports successfully, it will be available to play in high resolution as a growing file (before the clip import completed). Addition-

ally, GV STRATUS will create a proxy (low-resolution) copy which will be available to play on low-resolution clients within seconds of the high-resolution file arriving on the K2 storage. From here, the media is available to use with all of the tools and workflows provided by GV STRATUS, such as viewing, adding metadata, storyboard editing, high-resolution editing, playout, etc.

The media file is imported in its native resolution and frame rate. If transcoding is required, an import rule with automatic transcode can be set up in GV STRATUS. Please consult the GV STRATUS Topic Library for information on how to set up and deploy import/transcode rules. Equally, if the original files are provided as QuickTime reference files, it is possible to re-wrap them using a third-party tool, also using a GV STRATUS import rule.

File Compatibility

Grass Valley has tested this import workflow with MXF OP1a files in a range of video formats originated from various Harmonic servers. This, however, cannot guarantee that any and all files from a Harmonic server will successfully be imported. Further testing may be required for specific file specifications, video formats and server models.

Tested Harmonic Servers and Storage:

- Spectrum MediaPort
- Spectrum MediaDirector
- Harmonic MediaGrid

Tested Video Formats:

MXF OP1A files (with 4, 8 and 16 channels of audio, ancillary and timecode track), within the range of SD and HD compression formats supported by K2 as specified in the K2 data sheet and product specifications. Note that certain codecs require additional licenses within

the K2 system — please consult your Grass Valley representative for more information.

• SD DVCPRO 25 PAL	576i 25 Hz
• SD DVCPRO 50 PAL	576i 25 Hz
• MPEG-2 PAL	576i 25 Hz
• HD MPEG-2	1080i 25 Hz
• HD MPEG-2	720p 50 Hz
• HD MPEG XDCAM HD50	1080i 25 Hz
• AVC-Intra 100	1080i 25 Hz
• AVC-Intra 100	720p 50 Hz
• Avid DNxHD120	1080i 25 Hz
• HD MPEG-2	720p 59.94 Hz
• HD MPEG-2	1080i 29.97 Hz Drop frame

Summary

GV STRATUS supports a diversity of media transfer workflows, with manual and automated choices (via workflow rules). Combined with the K2 system's broad support for mainstream file formats and networked environments with shared access to content, this makes GV

STRATUS a versatile and efficient platform for broadcast applications integrated across the nonlinear media production chain. Specifically, it facilitates the import of media files from Harmonic servers and storage for production requirements within the GV STRATUS environment.

References

- GV STRATUS Topic Library
- K2 Systems datasheet