mxf speed rail

UNIFIED PRODUCTION ENVIRONMENT

www.mog-technologies.com

OVERVIEW

ABOUT MOG

MOG Technologies helps broadcasters and the post-production community to accelerate their migration to file-based production workflows and thus to simplify their workflow processes.

MOG Technologies provides innovative products and solutions to broadcasters, post-production houses, outside broadcasters, mobile studios and live-feed productions, with the main ambition to explore a new professional market based on the development of centralized ingest solutions for the end-user broadcaster.

Using its own development tools and investing highly in R&D, MOG Technologies is revolutionizing the broadcast market and is becoming a worldwide supplier of high-quality centralized solutions with its mxfSPEEDRAIL product line. Simplifying broadcasters' and production houses' workflow processes is the most important goal of the company.

MOG Technologies was awarded as one of the best Portuguese companies during 2011 by PME EXCELÊNCIA 2011 and has been recently certified for its research, development and innovation great results and activities.

OVERVIEW

CENTRALIZED SOLUTION

MXF SPEED RAIL

MULTI CAMERA | GANG CONTROL

LIVE-FEEDS | OB VANS

VTR

SDI RECORDER

XDCAM and SxS READER | P2 READER | PORTABLE DISK

P2/XDCAM PLAYER | XDCAM STATION

FTP SERVER | VIDEO SERVER

TRANSCODING SYSTEM | MEDIA ASSET MANAGER

FILE-BASED INGEST

REAL TIME PLAYBACK, QUALITY CONTROL, PREVIEW IN BROADCAST MONITOR

REAL TIME PLAYBACK

MANAGE, CONTROL, SCHEDULE

EDIT WHILE INGEST/CAPTURE

QuickTime | AVID | MXF | AVC-INTRA | Avid DNxHD | DVCPRO HD | XDCAM HD | ProRes

MEDIA STORAGE / MEDIA BACKUP

PROXY STORAGE | PORTABLE HARD-DISK | ONLINE STORAGE

DIGITAL DELIVERY

PLAYOUT SERVERS

WEB PUBLISHING

ARCHIVE

UNIFIED PRODUCTION ENVIRONMENT

The unique mxfSPEEDRAIL technology can be seamlessly integrated with the most popular broadcast technology and formats, offering **high traffic performance**, **great interoperability between platforms** and **efficient metadata sharing**.

With access to a full range of automated solutions for **File-Based Ingest, SD-HD/SDI Capture, Digital Delivery** and **Real Time Playback**, the mxfSPEEDRAIL customers will be able to achieve the highest performance in the most diverse file-based workflows.

REDUCED COSTS with FAST TURNAROUND OF CONTENTS

The mxfSPEEDRAIL is the ideal file-based solution for post-production, playback and file archiving as it integrates the essential components of the creation process into a single and unified platform, offering cost saving and reducing production creation time.

MODULAR ARCHITECTURE

The modular architecture of mxfSPEEDRAIL means that it can either be purchased as a whole centralized system or as individual products that the customer can suit to its own requirements. Each system has also available a wide range of models, that can be customized from the most complex to the most simple workflow.

MULTI-FORMAT, MULTI-RESOLUTION and MULTI-CHANNEL

The mxfSPEEDRAIL is a perfect fit for multi-channel workflows as it allows multiple simultaneous transfers with generation of hi-res and proxy versions. Its multi-format capabilities also enable the user to encode its media contents in all professional broadcast formats.

POWERFUL METADATA ANNOTATION ENGINE

The mxfSPEEDRAIL Centralized Solution is completed with a powerful metadata annotation engine in order to ease the proper identification of the material, saving your time and money. And in order to keep track of assets, mxfSPEEDRAIL preserves camera metadata when transferring clips, during ingest processes.

SDI CAPTURE

The mxfSPEEDRAIL S1000 is a powerful and flexible multi-format SDI recording system that can not only fulfill the capture requirement of baseband signals, but also supports innovative capabilities such as scheduled capture, live-feeds recording, temporary fallback storage, multi-camera control, edit-while capture and remote monitoring through the web.

EDIT WHILE CAPTURE

The mxfSPEEDRAIL S1000 enables to start capturing a videotape or video feed and then open the new clip into an NLE timeline while the underlying files are still growing. The system supports Edit While Capture for both Avid and QuickTime formats and even enables the simultaneously capture in both formats, using a single SD or HD input.

MULTI-CAMERA MANAGEMENT

With Gang Control capabilities, the mxfSPEEDRAIL S1000 increases shooting and editing productivity by reducing the complexity on multi-cam environments, reducing also the need for extra automation systems. This features means that the system is able to fully control several cameras at the same time, enabling also to apply metadata to all the gang controlled systems.

BUILT-IN VTR CONTROLLER and SCHEDULING ENGINE

mxfSPEEDRAIL S1000 makes batch capturing tape assets a simple task, due to its frame accuracy and built-in VTR controller, and the scheduling engine takes care of capturing one-off and recurring feeds at any time and date.

MULTIPLE DESTINATIONS and FLEXIBILITY

The system generates MXF, Avid and Quicktime files simultaneously, making it a perfect fit for complex workflows. Besides, its scalability and reliability offers compact units with unlimited expansion as well as an optional fallback storage, increasing confidence and efficiency in the overall production environment.

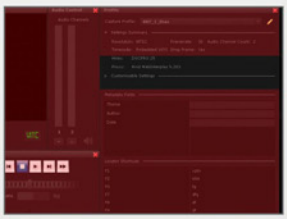
USER INTERFACE

Remote Web Interface with Video Monitor

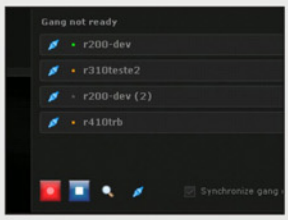
Video Monitor

VTR Controller

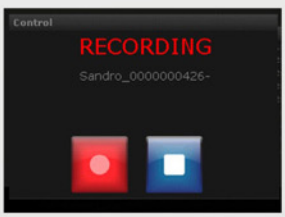
Scheduler



Layout Editor



Gang Control



Record Control

FORMATS

HIGH RESOLUTION VIDEO CODEC

- Support for 23,08, 50 and 59.94 Hz systems (8 or 10 bits)
- XDCAM™ - IMX (30,40,50 Mbps)
- XDCAM™ HD - MPEG2 420 (18, 25, 35 Mbps), 422 (50Mbps)
- DVCAM SD (25Mbps)
- DVCPRO SD (25 and 50 Mbps)
- DVCPRO HD (100 Mbps)
- DNxHD® (36, 120,145,185,220 Mbps)
- AVC-I (50 and 100 Mbps)
- ProRes 422

AUDIO

- PCM (16 or 24 bits @ 48KHz)
- Audio monitoring and VU meter
- Up to 16 channels of embedded audio (SMPTE 272M / SMPTE 299M)
- Stereo Audio Support

WRAPPERS

- MXF OP1a (SONY Compatible)
- MXF OPAtom (Avid native)
- Quicktime (.mov for Final Cut Pro)

MULTI-RESOLUTION

INPUTS

- SDI (SMPTE 259M)
- HD-SDI (SMPTE 259M / SMPTE 292M)

OUTPUTS

- 1 or 2 full resolution clips per channel
- 1 or 2 proxy resolution clips per channel

PROXY ENCODING

- Avid™ MPEG2 (SIF - Source Input Format @ 2Mbps)
- MPEG4 part 2 (SIF @ 2Mbps)
- H.263 (Web Interplay)
- H.264 (Web Interplay)

TIMECODE

- LTC (SMPTE 12M)
- VITC (SMPTE Rp188)
- Time of day
- From VTR (BVW)

METADATA

- User Defined Metadata Templates with Unicode Support
- Real time Metadata, by setting user-defined locators
- Avid specific metadata fields (e.g. title or annotation)
- Closed Caption VANC - SMPTE 436M

ASSET MANAGEMENT

- Avid Interplay Checkin via Interplay Web Services
- AAF Output for Standalone Avid Editors
- XML metadata output for non-avid workflows
- Multiple metadata deliveries per destination

CAPTURE MODES

- Crash Record using local interface, web browser or BVW / VDCP
- Scheduled capture based on time-of-day
- Online and Offline VTR Batch Capture

CONTROL

- BVW/VDCP Protocol Support
- VTR Control (BVW)
- Remote web based interface
- Local user interface
- SOAP interface (web services)
- Gang Channel Control (with automatic neighbors detection)

SUPPORTED STORAGE

- Avid Unity MediaNetwork
- Avid Unity ISIS
- Omneon MediaGrid
- Any generic shared storage
- Removable e-SATA drives

FILE-BASED INGEST

The mxfSPEEDRAIL F1000 is a high quality centralized, multi-format and metadata-rich ingest system that transfers material between editors, devices, servers and network folders. Using an automated method, the system distributes tasks to the chosen destination, and automatically starts the ingesting process, preserving camera metadata when transferring clips and supporting XMPilot XDCAM Metadata.

EDIT WHILE INGEST

Editing while the video server is still recording saves time and money, getting things in and out as swiftly as possible. The mxfSPEEDRAIL F1000 supports growing files ingest from any professional broadcast format, including also Quicktime (.mov), meaning a perfect match for Final Cut Pro editors.

FASTER THAN REAL TIME

Since the ingest process is critical to the success of any production project, the mxfSPEEDRAIL reduces errors and costs by simply moving media between servers and editors, with faster than real time speeds and multiple simultaneous transfers. It also supports the generation in high resolution and low resolution formats, increasing your editing productivity.

PRE-SELECT, TRIM AND MERGE

The F1000 has trim and merge capabilities, giving finer control to whatever is sent to the production area. The video clip preview is also a perfect enhancement that will allow the user to perfectly control its video contents, now with enhanced metadata mapping and new audio swapping capabilities.

TRANSCODING CAPABILITY

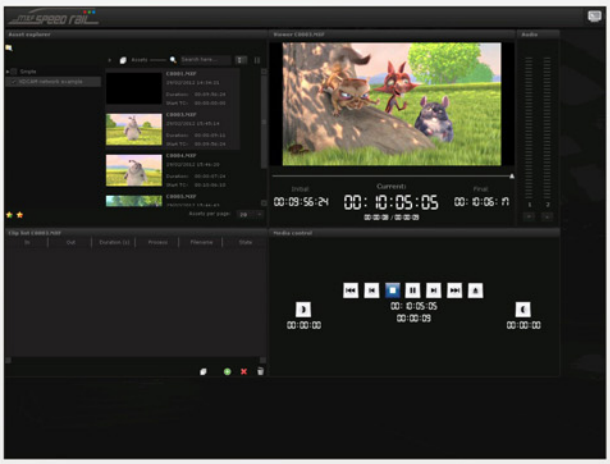
The mxfSPEEDRAIL F1000 is an extremely efficient system for file-based workflows that allows the user to monitor every step of the ingest process, being also able to unified the media formats through the same workflow with a capable and solid transcoding chain.

REAL TIME PLAYBACK TO SDI

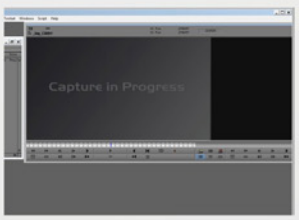
Simpler and extremely intuitive, the mxfSPEEDRAIL F1000 enables the full control of your ingested media files through a unique interface environment, being able to provide live preview and Quality Control of your contents a your Broadcast Monitor.

USER INTERFACE

Monitoring, configuration and operation are all straightforward using mxfSPEEDRAIL F1000 intuitive and centralized web-based GUI, acessible from anywhere in the network.

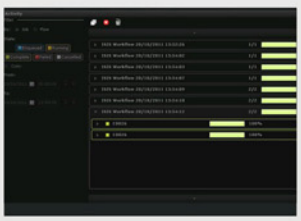


Centralized Ingest Interface

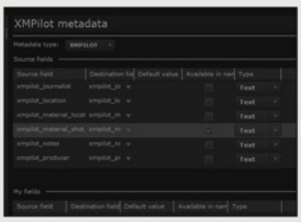


Edit While Ingest

Growing Files Support

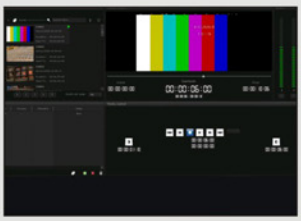


Ingest Monitoring



Metadata Planning

Clip Preview



Trim, Merge and Subclipping

MAIN FEATURES

- Ingest media files into any post-production storage
- No need to use an editing suite for ingest operations
- Simultaneous ingest of clips and support for growing files ingest from FTP servers or network folders
- Hot-Folders and Hot-Swap
- Unattended operation with optional scheduling
- Multi-format (XDCAM, P2 and generic MXF OP1a files)
- Multi-resolution workflow enabler
- Transfer of device metadata to video editor or MAM
- XDCAM Metadata workflow support (XMPilot™ and EssenceMark™)
- Preview, select, trim, merge and rewrap MXF files
- Automatic clip renaming based on user defined templates
- Intuitive web browser interface for monitoring and configuration
- No quality loss with up to 6 times real time transfer
- Web services (SOAP) API for MAM integration
- Spanned clips support

FORMATS

INPUT FORMATS

- XDCAM™ - IMX D10; DVCAM
- XDCAM™ HD - MPEG2 4:2:0; 4:2:2
- XDCAM EX and XDCAM Station (XDS)
- P2 - DVCPRO, DVCPRO 50, DVCPRO HD
- AVC-Intra

INPUT WRAPPERS

- MXF OP1a compliant
- Quicktime (.mov - DV and MPEG)

PROXY ENCODING

- Avid OPAtom
- MXF Op1a
- H.263 web interplay

SUPPORTED STORAGE

- Avid Unity™ MediaNetwork
- Avid Unity™ ISIS
- Omneon MediaGrid™
- Generic shared storage via CIFS
- Removable e-SATA drives

DIGITAL DELIVERY

DIRECT EXPORT OF AVID SEQUENCES with CLIP PREVIEW

Maximizing your digital delivery efficiency, the mxfSPEEDRAIL O1000 manages your video, files and metadata export processes into any chosen destination, enabling the automated background export and stitching of Avid sequences as MXF OP1a files, optionally generating versions for the web.

EASY INTEGRATION WITH NO NEED TO USE AN EDITING SUITE

The mxfSPEEDRAIL O1000 is a workflow automation enabler that allows an easy integration with playout servers, archives and web distribution portals. With mxfSPEEDRAIL O1000 you will be able to export, stitch and publish your Avid sequences as standard MXF OP1a files and web versions without the need to use an editing suite for export operations, being able to export several sequences simultaneously.

REMOTE ACCESS THROUGH THE WEB

Using an intuitive and centralized web browser interface, users will be able to explore, control, monitor and configure the status and progress either using user driven or unattended operations.

FREEING THE EDITOR FOR ITS MAIN PURPOSE

With mxfSPEEDRAIL O1000, the user performs a simple «send to» within the editor and selects a pre-configured profile, selecting its destination. After this, the system will work in the background, freeing the editor for its main purpose: editing!

FORMATS

INPUT WRAPPERS
- IMX (30,40,50 Mbps)
- DVCPRO, DVCPRO 50, DVCPRO HD
- DNxHD® (115, 120, 145, 175, 185, 220 Mbps)
- AVC-I
- MPEG LGOP

WRAPPERS
- MXF OP1a
- MP4 (for web streaming)

PROXY ENCODING
- MPEG4 (H.264) for web streaming
- Proxy H.263 (interplay web proxy)

AUDIO
- Dolby-E
- Audio Mapping

SUPPORTED STORAGE
- Avid Unity MediaNetwork
- Avid unity ISIS
- Omneon MediaGrid
- Generic Shared Storage via CIFS
- Local Drive in Standalone Systems (output)

REAL TIME PLAYBACK

The NEW **mxfSPEEDRAIL P1000** it's a Real Time Playback system, able to ensure straightforward quality control processes and allowing to effectively share, distribute and monetize media assets across many workflows and delivery platforms.

PREVIEW AND MONITOR YOUR MEDIA CONTENTS WITH BROADCAST QUALITY

The mxfSPEEDRAIL P1000 is able to **preview and monitor your media contents with broadcast quality**, across a **wide range of platforms and channels** with cross-vendor platforms. The system ensures an effective quality control with intelligent monitoring from ingest processes into transmission.

SUPPORT FOR ALL PROFESSIONAL FORMATS AND CODECS

The mxfSPEEDRAIL P1000 will turn your playback operations into simple and solidly tasks by enabling **frame accurate HD-SDI playback from all professional formats and codecs** through a **single and intuitive Interface**, also available over **remote access**.

QUALITY CONTROL WITH A BUILT-IN MEDIA PLAYER

The new system enables Quality Control review from your native resolutions, using a built-in media player and optionally displaying audio levels, being able to play your files directly into a professional monitor with full support for metadata.

FORMATS

HIGH RESOLUTION VIDEO CODEC

- Support for 50 and 59.94 Hz systems (8 or 10 bits)
- XDCAM™ - IMX (30,40,50 Mbps)
- XDCAM™ HD - MPEG2 420 (18, 25, 35 Mbps), 422 (50Mbps)
- DVCAM SD (25Mbps)
- DVCPRO SD (25 and 50 Mbps)
- DVCPRO HD (100 Mbps)
- DNxHD® (115, 120, 145, 175, 185, 220 Mbps)
- AVC-I (50 and 100 Mbps)
- ProRes 422

WRAPPERS

- MXF OP1a (SONY Compatible)
- MXF OPAtom (Avid native)
- Quicktime (.mov for Final Cut Pro)

CONTROL

- BVW / VDCP Protocol Support
- VTR Control (BVW)
- Remote Web Based Interface
- Local User Interface
- SOAP Interface (web services)

METADATA

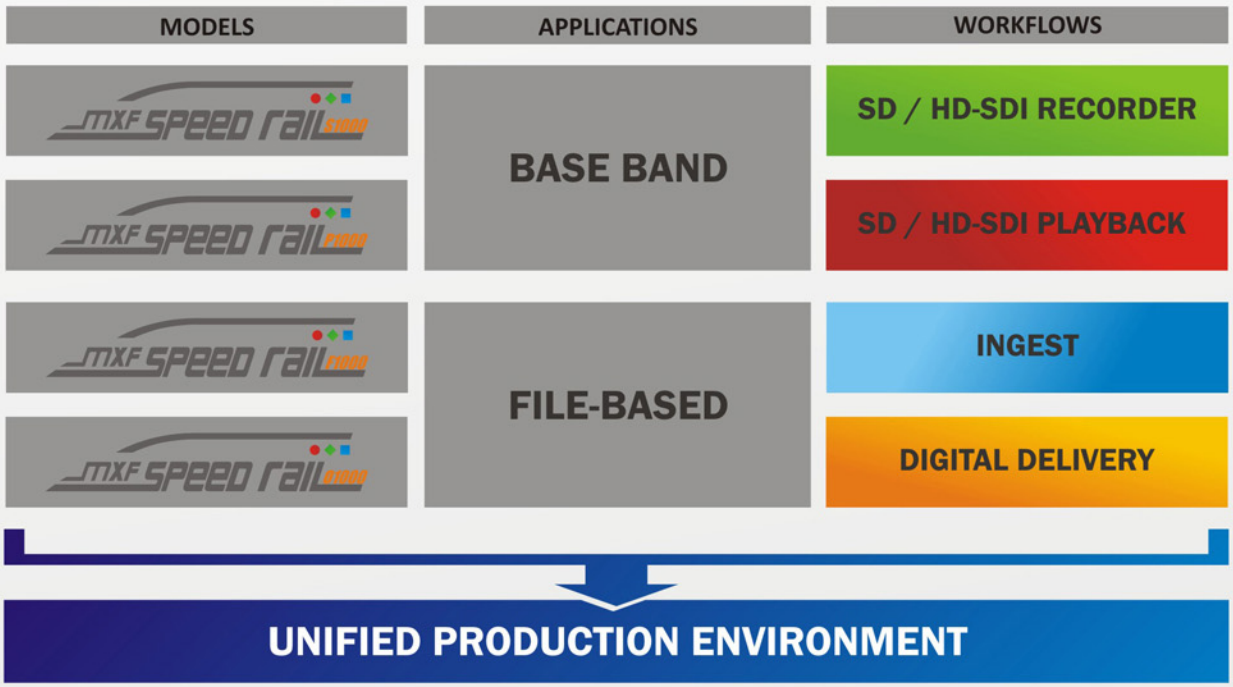
- User defined metadata templates with unicode support
- Real time metadata, by setting user-defined locators
- Avid specific metadata fields (e.g. title or annotation)

FUTURE-PROOF TECHNOLOGY

Using mxfSPEEDRAIL centralized solution you will be able to deliver more channels and services without increasing your resources and costs.

mxfSPEEDRAIL interoperability ensures that you can take advantage of lower cost and generic IT technology and that you can increase the speed and efficiency of your production workflow, being able to immediately delivery your contents for digital distribution among multi-platforms and breaking every incompatibility barrier through the production chain.

With a wide range of models, mxfSPEEDRAIL offers you the ultimate level of flexibility for your post-production environment.



WANT TO KNOW MORE?

To find out why numerous Broadcasters and Post Production Facilities worlwide are already taking full benefits of mxfSPEEDRAIL centralized ingest concept, please contact MOG Technologies at:

info@mog-technologies.com | sales@mog-technologies.com | +351 229 408 224

You can also contact one of our worlwide local channel partners. Please find more information available at:

www.mog-technologies.com

And remember to follow us on:

SUCCESS

CUSTOMERS

ADTV. Avro. BBC. BroadcastSolutions. bTV. Canal+France. Canal+Poland. CanalSur. Channel1. Cine+. DigiSport. DigiTV. Disney. DiKT. Duvideo. ERR. EuromediaFrance. Euronews. ExtraTV. ForthnetMedia. FocusTV. FOX International. GlavKino. HR. ITCarlow.L1. LaRed. M6-MetropoleTelevision. Malsehn. Kro. NBCSports. NCRV. NDR. NovaTV. Nova.cz. ORF. OrissaTV. PacificPostRentals. PrimaTV. ProTV. ProSieben. RadiantGrid. RadioTelevizjaSlovenja. RedBullTV. RiaNews. RoyalAthensConcertHall. RTLNederland. RTS. RTV. RUV. SkyCreativeServices. SVT. SWR. Telecinco. Televisa. TelevisionValenciana. Telson. ThePPSGroup. TorneosyCompetencias. TrioFilm. Turner. TVE. TVIN. VGTRK. VRT. VideoReportCanarias. La10. WPAMediaGroup.

SUCCESS STORIES

THE CHALLENGE

When deploying its new post-production file-based environment, BBC wanted to achieve the maximum production efficiency with a cost-effective tapeless environment, where tunneling the planning metadata through the workflow and reducing the volume of high quality material in the post production storage played a key part in the requirements.

THE SOLUTION

On a typical day-to-day scenario the discs are ingested using the mxfSPEEDRAIL F1000 pre-set to automatically pick up any media inserted in an XDCAM device and then send a proxy version with hi-res audio to ISIS (checking into Interplay) and a full integral copy of the disc to the NAS archive.

The process is done in the background by the mxfSPEEDRAIL without the need of any other tool, meaning that the ingest process is still being held; the editing software is still editing; and the storage space and bandwidth usage are efficiently used.

THE CHALLENGE

In such a major broadcast event like the 2012 London Olympic Games there is the need to use the most reliable technology, able to ensure a quick and simple way to move and consolidate media with faster than real time speeds, saving time and resources, allowing the immediate distribution of the contents to the eager audience.

THE SOLUTION

With an intuitive and unique interface, mxfSPEEDRAIL F1000 ingest system will conform the captured clips from SONY XDCAM Stations, re-encoding the whole sequence from MPEG2 LongGOP 50Mbps into MXF OP1a, delivering the output to the multi-platform distribution servers. The mxfSPEEDRAIL F1000 will also enable the handling of growing files, saving time to the editors, when sending their EDL's for conform, merging sub-clips from several LongGOP sources.

Additionally, the mxfSPEEDRAIL S1000 - MOG's SDI Recorder - has also been deployed in order to allow a faster access to the media, by capturing simultaneously to the Omneon MediaGrid and Avid Interplay/ISIS, allowing the files to be immediately available in the editing suite, for a faster turnaround of media.

TESTIMONIAL

"This is our fourth Olympics using software products from MOG, and our first time using some of their hardware. They have always been very quick to adapt to our every changing digital media workflows, and have always done so with excellent reliability. " by David Mazza, NBC Sports SVP of Engineering

THE CHALLENGE

The challenge consisted in the migration of bTV's archive and news production processes into a completely tapeless and flexible system.

In order to accomplish this challenge, bTV has installed 15 mxfSPEEDRAIL units for SDI recording, file-based ingest and publishing of media directly from its editing islands.

The main goal of the project consisted in providing bTV with an overall control of every step of the production workflow.

THE SOLUTION

MOG's HD/SDI recorder mxfSPEEDRAIL S1000, has offered bTV the ability to digitize its tape archive into AVC-Intra high quality video codec, thus allowing editing the media immediately while digitizing.

Working in parallel with S1000, MOG's powerful file-based ingest system - mxfSPEEDRAIL F1000 - provides a centralized approach to automatically ingest any type of media files. After the ingest process is completed, the files are normalized into AVID OPAtom format which enables the content distribution for editing and archive systems. The ingested media is immediately available at the new Avid ISIS 5000, allowing a collaborative editing among Avid editors. bTV editors can start editing while the video server is still recording with the possibility to pre-select, trim or merge the ingested material.

Upon editing in Avid suite, the EDL sequences are directly stitched and published by mxfSPEEDRAIL O1000 directly to playout video server as MXF OP1A and to bTV's website as MPEG-4/H.264 files.

TESTIMONIAL

"With mxfSPEEDRAIL centralized solutions we were able to upgrade our facilities to a faster, flexible and reliable HD workflow system. MOG's system covered all of our major needs: recording SDI feeds, ingesting all major formats and publishing the media files directly to our website. Besides covering all our technical requirements, mxfSPEEDRAIL also presented itself as the most cost-effective solution." by Peter Dimitrov, bTV Technical Director

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QUADRO DE REFERÊNCIA ESTRATÉGICO NACIONAL
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