File-based TV news: Acquisition to analysis

Tapeless workflow

Telestream discusses automation of news workflows from field acquisition to the newsroom. By **David Heppe**, senior vice president, sales & marketing, Telestream

In the fast-paced news environment, a number of critical factors determine a news operation's success. Time to air and staying ahead of the competition are crucial. Station personnel must manage content coming from different locations in different formats. There is increasing pressure to contain costs and maximise operational efficiency. So, a major challenge for many news organisations is: How do you quickly and efficiently collect news content from the field and ingest it into the facility, while preserving legacy infrastructure investments?

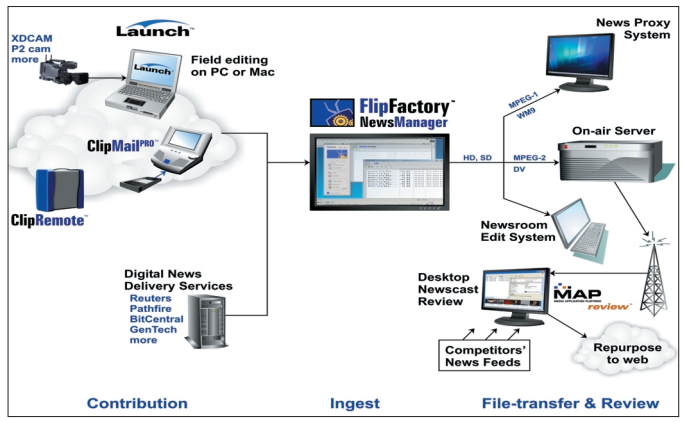
The answer lies in the move to flexible, file-based workflow solutions that automatically connect the various pieces of the news workflow: from cameras and editing in the field to station ingest, delivery to newsroom production systems, and ultimately delivery to the station's playout server.

Starting in the field

Today's file-based media technologies offer the opportunity to radically improve the news workflow. Starting with acquisition, news crews need a simple way to acquire video as digital files. Sony's XDCAM and Panasonic's P2 formats — and Grass Valley's recently announced Infinity series — provide just such a solution. The proliferation of Mac and PC-based laptop field editing systems from companies such as Grass Valley and Avid enable journalists to quickly edit their news stories locally as digital files. The next challenge is how to get the edited news package back to the station quickly and efficiently.

Telestream, a company with solutions for encoding and moving media across IP networks, targets this need with its Launch personal IP media delivery application. Launch software loads onto either a Mac or Windows-based video editing system. When the edited news story is complete, the journalist calls up the Launch application to transcode the media into the desired output file format, and sends it to the station over any available internet connection.

A choice of contribution-quality output formats allow the journalist to meet varying quality and deadline requirements, eg, a 1Mbps Windows Media 9 format may be used to meet tight deadlines, while a 10Mbps MPEG-2 or QuickTime format may be selected for editing. Telestream's proprietary HyperLaunch technology included in Launch enhances transmission throughput by minimising WAN bottlenecks and automatically resuming interrupted transfers.



This file-based delivery solution takes a lot of pressure off the news journalist, who can now quickly send the edited media directly from his laptop via Wi-Fi, or from any location outfitted with an IP connection, including a sports venue, an internet café, or an OB vehicle with IP connectivity. It provides the news organisation with a cost-efficient file-based ENG solution. It also reduces dependency on mobile trucks, and eliminates the need to transport physical media (tape or disk drive) back to the station.

Ingest at the station

Today more and more news media are arriving at the station as digital files — from digital delivery services such as Reuters WNE, digital news feeds from field laptops outfitted with Launch, or from a ClipMail media delivery appliance. The challenge for the news organisation is how to effectively ingest the media files at the station and redistribute them to newsroom production systems and servers without having to dub to tape.

Hurdles such as incompatibilities between vendors' file formats pose a threat to successful file-based workflow integration. And sometimes even the promise of standards becomes anything but standard. For example, the Material Exchange Format (MXF) is a transport standard developed to enable media exchange between different vendors systems. However, MXF only addresses the media wrapper. The media within the wrapper may still cause incompatibility issues when trying to transfer those files between systems.

Recognising these issues, Telestream developed FlipFactory News products to provide an automated, file-based news ingest solution at the station. FlipFactory converts formats and transfers media, eliminating the need for baseband video conversions, manual metadata entry, and cumbersome handling of tape. Media and metadata files are automatically transferred between systems such as broadcast servers, cable VoD servers, editing systems, streaming servers and archives, thereby preserving the life of these legacy systems and enabling repurposing of content for different outlets.

FlipFactory News automatically monitors multiple ingest sources commonly found at news facilities, including news subscription servers from Reuters WNE, files delivered by Launch and ClipMail, FTP servers, legacy video servers and edit system folders. Media and metadata files are automatically ingested, converted and delivered to destination newsroom systems in the formats required by each. These include newsroom systems from Avid, Grass Valley and Sony.

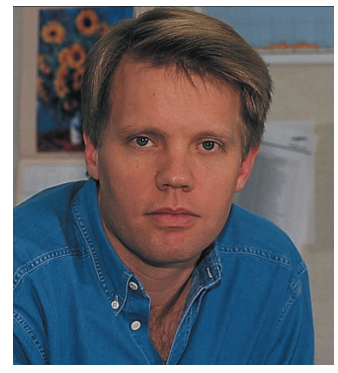
Analysing programmes

Once news content has been acquired and edited and newscasts have been aired, news organisations generally want to review their newscasts and they need some sort of storage management solution. Here again, file-based technologies play a key role.

In response to customer requests for simple media access solutions, Telestream launched its MAP products. These file-based software applications provide powerful tools for capturing, organising, viewing and sharing media files across the network.

Specifically for news, MAPreview provides multi-feed media file capture, organisation, search and review in a Windows-based enterprise application. For broadcasters, this tool simplifies the tasks of analysing newscasts alongside those of competitors as well as critiquing the station's own news productions. Multiple users across the facility can simultaneously gain instant access to newscasts for review from any networked desktop — either live during the broadcast or at a later time.

As demonstrated, the integration of file-based technologies into the news workflow provides a number of operational advantages for today's television news organisations.



David Heppe: The elimination of tape and physical media, metadata extraction, automated transcoding and delivery all reduce stress, steps, and cost