Automating Ingest, Transcode, and Delivery Frees up Creative and Technical Staff

By Edel Garcia

Since the advent of NLEs, ingesting and transcoding raw media files has been the tedious front end of the 'editing' process, while creating, QC-ing and delivering multiple versions to spec, the onerous back end. Over time, editing systems have evolved with tools to help with those processes, but they still tie up creative people and systems with non-creative work and add significant time to overall project turnaround.

Advances in media workflow technology have delivered solutions that content creators can use to break out of that cycle – solutions like Telestream ContentAgent that fully automate ingest, transcoding, and delivery workflows from camera card to post-production. These software-based applications handle meat-and-potatoes tasks such as ingesting media from camera cards into editorial, and creating deliverables including broadcast, international masters and viewing copies. They integrate with third party tools to orchestrate WAN acceleration, file-based quality control management, motion compensated frame rate conversion, social media uploading and more.

Most importantly, they are designed with an intuitive user interface that enables teams to design flowchart-style graphical workflows easily, so non-technical staff can take control of the process – engineers are not required.

Offloading ingest, transcode and delivery workflows from editing suites to purpose-built software enables teams to process files significantly faster at every step and frees up expensive creative gear and talent. Considering editors can receive up to 100 hours of raw footage for an hour-long piece, the time it takes to process media on the front end really adds up – especially with the growth of larger 4K, UHD, and HDR files that take even longer to ingest, transform, and deliver when tasking the CPU power of a typical editing system.

The Ingest Process of Your Dreams: It happens without you

Beyond cost and time savings, the intelligence built into software like ContentAgent enables incredibly efficient workflows. On the ingest side, post teams can simply add all footage received for a project – in multiple camera formats– into one storage location in the editing ecosystem; locally or in the cloud.

The software can then monitor it and trigger workflows that look at different types of metadata – how many channels of audio? MP4 or XDCam? – then execute the required work automatically, and with context awareness. If it 'sees' four channels of audio it has one set of directions. If it sees eight stereo pairs it executes something else. It's all automated, and all of the metadata is preserved so it's easily found later.

A powerful, resolution-independent transcoding engine can process files from SD to HD, 4K and beyond, resizing, cropping, padding, converting frame rates and mapping audio channels, burning in logos, text and subtitles, and automatically adjusting colors to legal range.

The software's intelligent automation enables it to process media even when staff's not on site. Teams can feed a whole day's shoot into the pipeline and go home for the night. The next day it will be processed and put in the right storage location for editors, with the right naming convention, in the proper codec.

Automated creation of deliverables and QC

Intelligent automation also lightens the load on the delivery side. Once editors finalize a sequence, they can offload creation of the master and deliverables – even QC, to be handled automatically. They can send the final to software like ContentAgent and have an automatic workflow create the required file formats, check and correct for compliant video and audio levels, and ensure each deliverable meets its required specs. Combined with QC technology like Telestream's Vidchecker-post running on the same dedicated hardware as the ingest/transcode/delivery software, even common QC tasks can be performed automatically – and more accurately, as the intelligence built into this kind of software eliminates inevitable human error by automating each process.

Once a file passes QC, software can deliver straight to the source, whether that means copying a file to the right location on a network for a broadcast playout server, sending files to other networks using WAN acceleration tools like Aspera or Signiant, or creating an MP4 file, then delivering it directly to specific social platforms like Twitter, Vimeo, or YouTube using account info uploaded into the software. The ability to easily share files to cloud storage locations enables the remote workflows that have become a standard part of the media pipeline.

The technologies to automate the tasks associated with ingest, transcoding, QC and delivery are available, affordable, and easy to use. . Equipped with just two software applications running on the same small, 1RU server, content producers can fully automate, and significantly accelerate, file based post workflows – today. Software can take on the burden of this non-creative work, freeing engineers, creative people, and creative systems to do what they were born or built to do.

To learn more about this purpose-designed offering and streamline your ingest/transcode/QC/delivery workflow, visit https://pages.telestream.net/l/693253/2022-10-05/325m85.

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