Improve Workflow Efficiency with Automated QC throughout the Content Lifecycle

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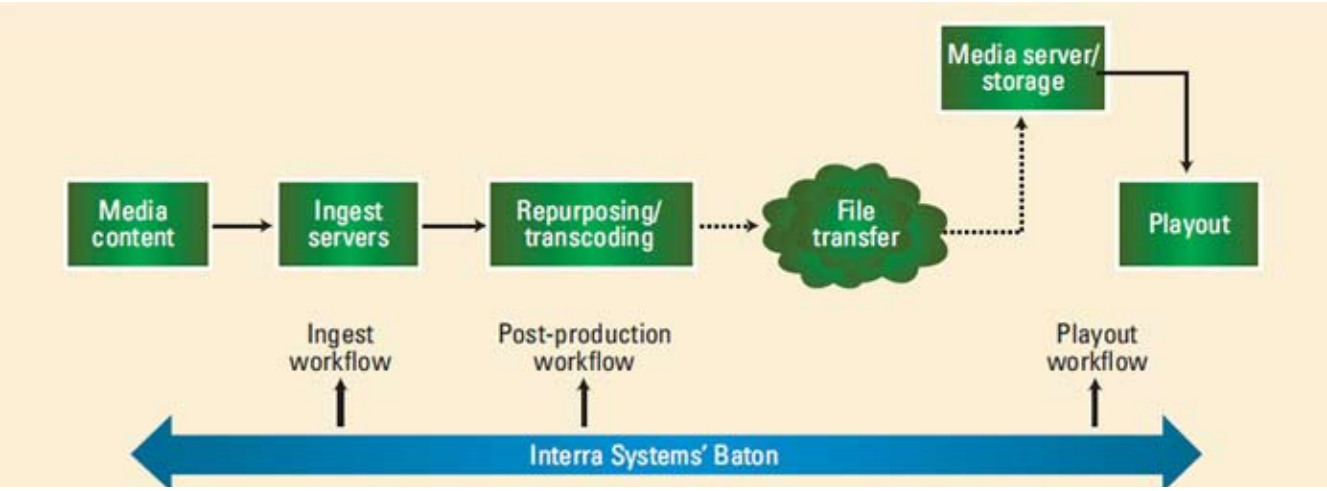
The migration of media content from tape-based analog to file-based digital media creates opportunities to improve operational efficiencies across the content lifecycle. Factors contributing to operational efficiencies include human productivity, improvement in content throughput, quality, management and monetization across the content lifecycle. While the efficiency potential of file-based workflows is appealing, there are many hurdles to realize these efficiencies.

Tape-based workflows are driven by a rigid medium. The operational groups transform media content using dedicated devices, physically transfer the content and visually qualify the content hand off. New, emerging file-based workflows are driven by a more flexible medium, and they offer opportunities to speed up the content lifecycle. A file can be modified by software, analyzed by software and transferred via high-speed networks. From creation to playout, file-based content can be transformed and transferred faster. This increased flexibility and speed introduces new challenges to ensure the media content is correct at each phase of the content lifecycle. This need is fulfilled by recent technology advances in automated content verification/QC solutions.

Interra's Baton

Interra Systems' Baton is an automated content verification/QC solution that ensures content readiness of file-based media in terms of standards compliance, AV quality, playout specification compliance and more. As file-based content evolves across various workflows, the content is presented in various formats with its associated metadata, and it requires relevant quality checks at each stage. In each workflow, Baton applies appropriate QC measures to verify the format, quality and playout compliance of the content.

Automated content verification is a common thread across content workflows to verify every transformation and transfer of file-based content. Figure 1 illustrates how this QC solution can affect efficiency across workflows in the content lifecycle. Baton's content verification is objective and independent of any tools that transform the content.



Interra System's Baton enables automated content verification/QC in various workflows across all stages of the broadcast production chain

QC in Ingest, Post Production and Playout

The ingest process typically involves getting the content from multiple sources, such as traditional VTRs, tape libraries and live camera feeds, and from different locations. Externally, post-production

teams or content providers can upload content to FTP locations; internally, interoffice files are transferred using smart automated file transfer utilities. The diversity of content sources, formats and locations make it difficult for content aggregators to ensure quality of the ingested content. A QC solution for this stage in the content lifecycle can speed content acquisition and enhance the supplier throughput to automatically comply with predefined specifications/quality standards. Baton can detect the artifacts at an early stage of the content lifecycle with simultaneous scans of multiple watch folders, FTP locations and shared SAN or NAS storage to optimize the ingest workflow.

The post-production process involves tasks such as content editing using nonlinear editing tools, closed-captioning insertion and stitching the contents into a timeline. The process also involves multiple levels of transcoding, including insertion of multilanguage audio and enforcement of region-specific censorship policies. The post-production process is complex, and it can introduce many compatibility issues, quality issues in video, human errors or even insertion of incorrect audio or video that could remain undetected until playout. The QC solution in this workflow can ensure content quality, thus minimizing long delays and disruption to content monetization. Baton verifies transcoding defects and generates reports with embedded thumbnails, time code and content summary. Reports can be widely used as industry-standard, hand-off protocol between content aggregators and post-production houses. Again, an independent QC is critical to verify that the transcoders have not negatively impacted the content quality.

The playout workflow typically involves compliance with playout specs and integration with automation infrastructure such as video servers and content distribution systems. The QC solution at this stage helps streamline the content workflow to avoid distribution errors. Baton supports various playout specifications and is integrated with video/SAN servers and file-transfer and content distribution systems to ensure content readiness.

Conclusion

File-based workflows can improve operational efficiencies across the content lifecycle. The digitized content in these workflows helps speed the content lifecycle, automate content transformation for enhanced monetization and enable operational cost savings. As content is transformed and transferred faster, automated content verification becomes a critical factor in streamlining and realizing the efficiency potential of file-based workflows.