



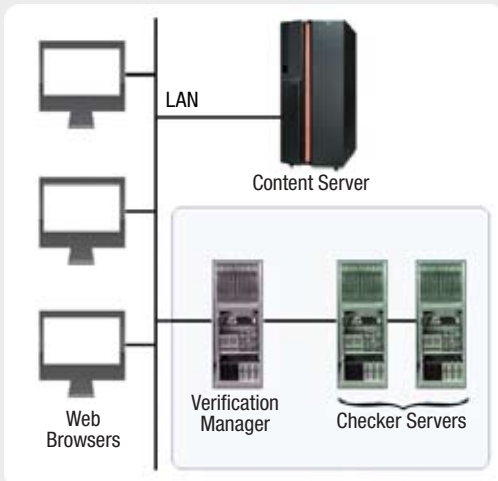
QC / Automated Content Verification System

Content Readiness - Beyond QC

Baton Advantages

- Most comprehensive formats support
- Most complete quality checks
- Pre-defined playout specs
- Enterprise scalability across server/cores
- Integration readiness with workflows across content lifecycle phases
- Production proven with multiple integrations in play

Baton Environment

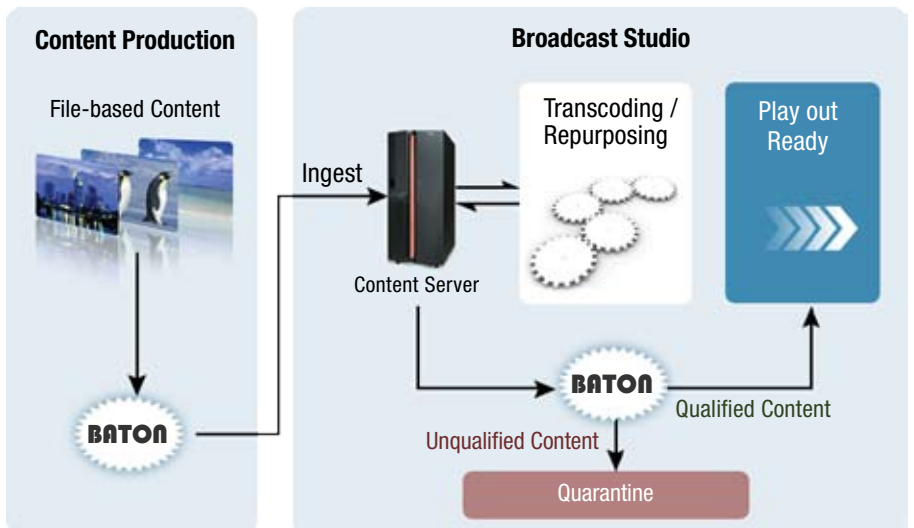


File-based workflow is a mainstream reality in the media production and broadcast industry. Ingest, acquisition, repurposing, and distribution are getting re-aligned to the file-based workflows. There is an explosion in digital content with multiple formats demanded by new channels and new markets. File-based content enables transformation at several stages in content lifecycle. There are various technologies available to edit and repurpose content. The re-aligned technologies, diversity of content, and multiple transformations result in uncertainty about content quality. In this highly competitive and constantly evolving media environment, traditional approaches of manual QC do not work.

Interra's Baton - a QC/Automated Content Verification System- ensures Content Readiness in file-based SD, HD, and mixed workflows. Baton's Content Readiness goes well beyond the traditional QC in terms of formats support, quality checks, and flexibility of workflows integration. As an integration ready solution, Baton can be quickly plugged in workflows to enable content readiness, streamline workflows, and ensure cost-effective operations.

Baton is an enterprise-class, production proven software that is readily scalable for large infrastructure or high volume of content. Baton's support for parallel processing enables convenient handling of increased verification load. Baton's web-based architecture enables remote management of verification tasks, and its intuitive interface is easy-to-use for operations.

Baton Content Readiness in Play...



Available for Windows and Mac platforms

Baton is integrated with Top-Tier Media Servers, Transcoders, and Workflows throughout the Content Lifecycle

Baton Users

- Broadcasters
- Studios
- Production Houses
- Archiving Facilities

Baton - Industry Leading Solution used by Top-Tier Customers

Backed by Interra's Acclaimed Pre & Post Sales Support



With Dolby certified AC-3, DD Plus, Dolby-E analysis



Baton Salient Features

High Level Features

- Web based, Enterprise application that enables multiple users to access the system simultaneously using standard browsers
- Capable of handling large volumes of content in a distributed environment
- Easily scalable for verification workload increase
- High availability for 24x7 usage
- Intuitive user interface with visual cues to enable easy scheduling of tasks and quick grasp of error results
- Executes in background with remote configuration and scheduling
- Web Services to integrate with studio workflows and asset management systems

Verification and Reporting Features

- Compliance to media standards
- Easy to customize test plans based on custom requirements
- Automatic creation of test plans
- Extraction and verification of parameters and metadata in the content
- Detailed error description: error severity, location of error, and time code
- Reports in XML & PDF formats
- Incremental reports of tasks in progress
- Thumbnails of erroneous pictures
- Quick profiling of content without scheduling content for verification

Task Scheduling and Monitoring Features

- Priority-based scheduling of tasks
- Easy integration with content servers
- Watch folder operation
- Task scheduling strategies to handle verification load
- Utilities to manage disk usage

Post Verification Actions

- Email, TCP, UDP alerts
- Moving of qualified files to playout
- Moving of unqualified files to quarantine

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Content Readiness - Beyond QC

Some Baton Checks

Container Level Checks

- Content layout
- CableLabs VoD compliance
- Play time
- File size
- Packet size
- Teletext
- Number of audio/video streams
- Ancillary data
- Digital cinema compliance

Video Checks

- Frame rate
- Bit rate
- Frame size
- Aspect ratio
- Resolution
- Duration
- Video format
- Picture scan
- Color format
- Close caption
- Blockiness
- Cadence
- Black frames
- Freeze frames
- Black bars
- Color gamut
- Luma/Chroma levels
- Flash detection
- Brightness
- Contrast
- Pixelation
- Blurriness
- White point
- Drop frame
- Combing errors
- Block error
- Stripe error
- Upconversion
- Field order

Audio Checks

- Silence
- Clipping
- Mute
- Test tones
- Loudness
- Phase detection
- Wow & Flutter
- Transient noise
- Audio distortion
- Jitter

Baton Supports

Workflows

SD, HD, Mixed workflows

Media Containers

MXF, GXF, LXf, DVB/ATSC/MPEG-2 Transport, ASF, AVI, MPEG-2 Program/DVD VOB, 3GPP, 3GPP2, MP4, AVCFF, MOV, QuickTime, QuickTime Reference Movies

Video Codecs

MPEG-2, IMX30/50, XDCAM, D10, DV(25/50/100), MJPEG2000, DNxHD (VC-3), Uncompressed RGB (in QuickTime), H.264, MPEG-4, VC-1, Apple ProRES, PhotoJPEG, MJPEG-A, MJPEG-B, Uncompressed YUV

Audio Codecs

AC-3, Dolby Digital Plus, Dolby-E, MPEG-Audio, MPEG-2.5, MP3, BWF, AAC, AAC Plus, AES3, LPCM, ADPCM, AIFF, WAV, WMA (Standard & Professional), DV Audio

Baton Verification Report

Description	Location	Type	Severity
3 pixels were found to be less than expected Min Luma value 16 and 267 pixels were found to be greater than expected Max Luma value 235. Restriction specified: 16-235.	Pictures [4E]	Decoded Video	Critical
32 pixels were found to be less than expected Min CB value 14. Restriction specified: 14-255.	Pictures [4E]	Decoded Video	Critical
4130 pixels (0.28%) were found to be Out-of-Sync. Restriction Specified: -2N to 125K.	Pictures [4E]	Decoded Video	Critical

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