



Automated Quality Control  
for all production environments



IMF | AS-11 | DOLBY VISION™

## Automated Video Quality Check

QScan is a family of fully-featured, comprehensive, file-based Automated Quality Control solutions that tests media content for a vast array of faults or errors. From the entry level QScan One (with single file processing), to QScan Pro (that can test four files concurrently), right up to the enterprise level QScan Max, there is a solution for any business or workflow. Suitable for online, VOD and broadcast content, QScan has an intuitive web-based user interface that allows users to set up templates for testing in minutes. The latest version of QScan includes IMF testing and now with Dolby Vision™ / HDR support.

### General Features

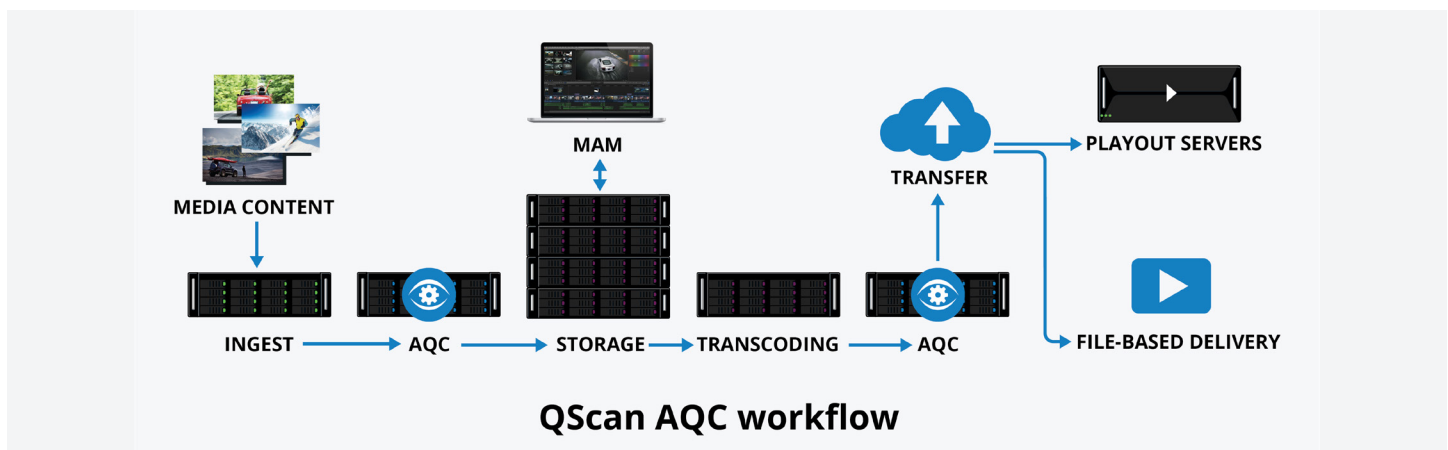
- ▶ Efficient, fast, intuitive, visual & robust web-based system
- ▶ Scalable for growing workflow environments
- ▶ Interoperable Mastering Format (IMF) Package analysis
- ▶ Dolby Vision™ HDR compliance checks
- ▶ Built in templates for ease of compliance checking
- ▶ Single pass analysis takes the guesswork out of setting test thresholds
- ▶ Multi-level reporting environment
- ▶ Leading edge multi-format and multi-parameter analysis
- ▶ Pre-roll/post-roll and TC-in/TC-out event configuration
- ▶ Cloud-ready web based software
- ▶ Hardware / CPU efficient

### Main Advantages

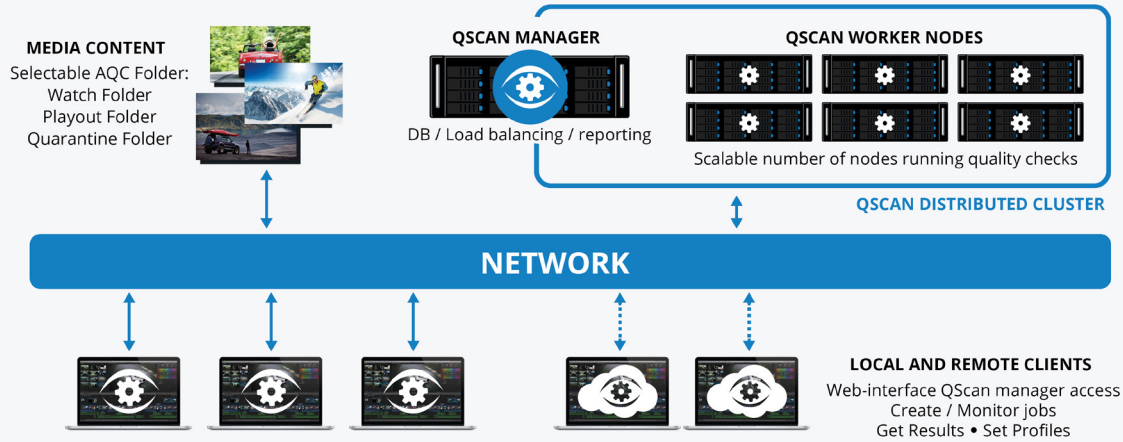
- ▶ Efficient iterative analysis: analyze once, change your threshold multiple times
- ▶ Parallel analysis of multiple simultaneous sources
- ▶ Comprehensive and detailed IMF Tree View
- ▶ Clustering and modular architecture, easy load balancing
- ▶ Allows analysis of YouTube videos directly from URL
- ▶ Straight-forward API for seamless integration in third party applications
- ▶ Graphic timeline chart of measured parameters with one click access to frame view

### Technical Features

- ▶ Support for formats including HEVC, J2K, ProRes, DNxHR and other compression formats for 4K or higher resolution content
- ▶ User definable macros
- ▶ Dolby Vision™ HDR compliance according to Dolby Vision™ Professional Tools v3.0.1
- ▶ AS-11 UK DPP template including PSE testing to ITU BT-1702
- ▶ Enhanced syntax error detection
- ▶ Audio loudness analysis including EBU R128
- ▶ Generic MXF Metadata Analysis supporting AS10 and ARD/ZDF specifications
- ▶ In-depth analysis of contents with frame/waveform view
- ▶ Database storage of measured parameter values
- ▶ Reporting of time codes and frame references
- ▶ Supports IMF Application #2 and Application #2 Extended according to SMPTE ST 2067-20:2016 and ST 2067-21:2016
- ▶ RESTful API with simple JSON objects and informative HTTP messages
- ▶ HTML, PDF, XML and email reporting with event edition/removal by the user
- ▶ Combine previously saved templates for faster creation of new analysis profiles
- ▶ Closed caption detection



QScan AQC workflow



## QScan Scalability: Network

### Application Scenarios

- ▶ QC in all stages of Broadcast workflow
- ▶ Content provisioning and Media Servers
- ▶ Integration in encoding/transcoding tools
- ▶ Integration in video edit tools
- ▶ Playout content health-check
- ▶ Audio and video breakpoint detection
- ▶ QC for ingest processes
- ▶ AQC for DVD Authoring processes

## QScan AQC Specifications

### BASEBAND/WAVEFORM

Gamut Errors
Highest Luminance Level
Lowest Luminance Level
Brightness
Contrast
Luma Footroom Violations
Luma Headroom Violations
Chroma Headroom Violations
Highest Chroma Level

### VIDEO QUALITY

DigiBeta Error
Digital Dropouts
Luminance Line Errors
Chrominance Line Errors
Picture Quality Score
Flash/Strobe Detection
Photo Sensitive Epilepsy (PSE)
Dead Pixel Detection
Noise Detection
Video Blanking Detection

### FRAME STATISTICS

Picture Coding Type
Is Keyframe
Bytes Per Frame
Stream Syntax Errors

### VIDEO CONTENT

Blackness
Freeze
Blockiness
Blurriness
Interlacing Artefacts
Field Order
Temporal Complexity
Field Dominance Errors
Test Pattern Detection
Constant Color Frame Detection
Letterbox and Pillarbox Detection

### AUDIO

Level
Mute
No Audio
Clipping
Sample Clipping
Loudness
True Peak
Max True Peak
Dominating Frequency detection
Audio Phase Detection

### FORMAT CHECKS

Container Format
FileSize
Video Codec
Duration
Resolution
Video Bitrate
Frame Rate
Video Absence
Pixel Format
Coded Aspect Ratio
Display Aspect Ratio
Audio Codec
Audio Bitrate
No. of Audio Streams
No. of Audio Channels
Sample Rate
AS-11 UK DPP Compliance Check
Support for AQC of IMF packages
Dolby Vision™ HDR Compliance
Generic MXF metadata checks