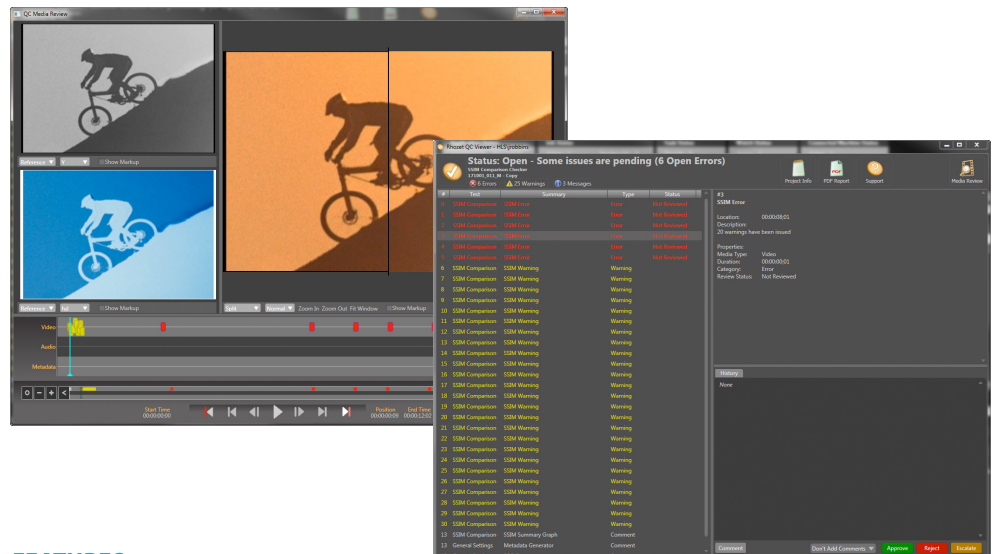


HIGHLIGHTS

- Fully integrated with Rhozet WFS and Carbon Coder
- Analyzes each file to help identify problematic files
- Comprehensive tests on multiple file attributes to ensure top quality
- Interactive Quality Review Tool finds exact problem areas, enabling fast and accurate fixes
- Detailed PDF reports of all data

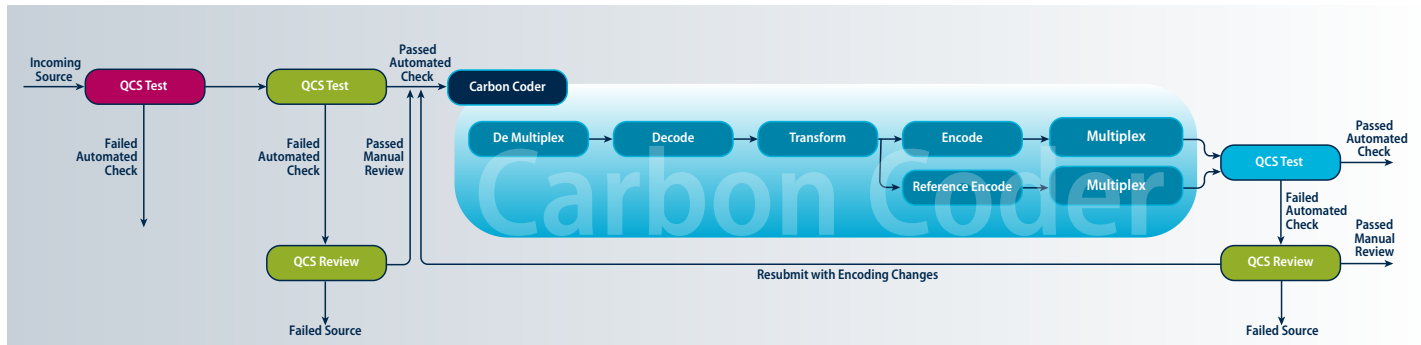
Harmonic's Rhozet™ Quality Control System (QCS) ensures high quality output through a powerful, automated quality control engine. Rhozet QCS automatically analyzes each and every file to help identify possibly problematic files both before and after the transcode process. The interactive quality review tool included with Rhozet QCS further simplifies troubleshooting, enabling a smoother and more efficient process. QCS is fully integrated with the Rhozet Workflow System and Carbon Coder, providing a powerful system that meets the needs of the most complicated transcoding workflow.



FEATURES

- **Streamlined Integration** - Developed by the Rhozet team at Harmonic, the QCS software is fully integrated with Rhozet WFS and Carbon Coder.
- **Problematic File Identification** - Out of the thousands of files created by a transcoding farm every day, this software analyzes each and every one to help identify possible problematic files both before and after the transcode process. This leads to a much more efficient quality control process for file-based workflows by focusing the task down to only files with potential problems.
- **Comprehensive checks** - QCS examines each aspect of a file for possible problems, including video properties, audio properties, video quality, standards compliance and metadata.
- **Interactive Quality Review Tool** –The interactive timeline-based review tool takes you to the exact place in the file with the problem, shows a full description of the problem, and allows you to see a split screen view of before and after the transcode. Additionally, it allows a QC engineer to go problem by problem through a single file, comment on each and every one individually, and ultimately decide to allow the file to pass or go back to be modified again.
- **Full Reporting** – Rhozet QCS leverages the database in Rhozet WFS to record all data on which reports can be run. Additionally, Rhozet QCS provides detailed PDF reporting for every asset.

QUALITY CONTROL TEST



• Basic Asset Assessments

• Video Assessments
• Audio Assessments

• Video Quality Comparison

BASIC PROPERTIES

- Aspect Ratio
- Bit-Rate
- Duration
- Frame Rate
- Resolution
- Video Codec
- Audio Codec
- Number of Video Channels
- Number of Audio Channels

VIDEO CHECKS

- Black Frame Detection
- Brightness/Contrast
- Drop Frames
- Blockiness Detection
- Cadence Detection
- Freeze Frame Detection
- Luma/Chroma Levels
- White Point
- Letterbox/Pillarbox Detection
- Interlacing (visual and metadata analysis)

AUDIO CHECKS

- Audio Levels/Clipping
- Mute/Silence Detection
- ITU-R BS.1770-1 loudness verification

QUALITY COMPARISON

- PSNR (Peak Signal-To-Noise Ratio)
- SSIM (Structured Similarity Image Measurement)