

Sentinel

surround sound audio monitor



Broadcast Loudness and QoE Monitoring

The Qualis Audio Sentinel has all your loudness measurement and logging requirements covered. Moreover, it measures virtually every parameter necessary to ensure optimum audio reaches your viewers. It operates unattended, reducing personnel requirements, and gives instant access to all measurements, whether seconds ago, or months ago.

The Sentinel proves compliance with the CALM Act, and delivers a competitive advantage in improved viewer audio QoE.

CALM Act Loudness Compliance conforms to ITU-R BS.1770, ATSC A/85 and EBU R128 standards. Continuous metering, display, alarming and logging of all standardized loudness parameters. Patent-pending *dual stream™* technology measures interleaved commercial and program segments simultaneously.

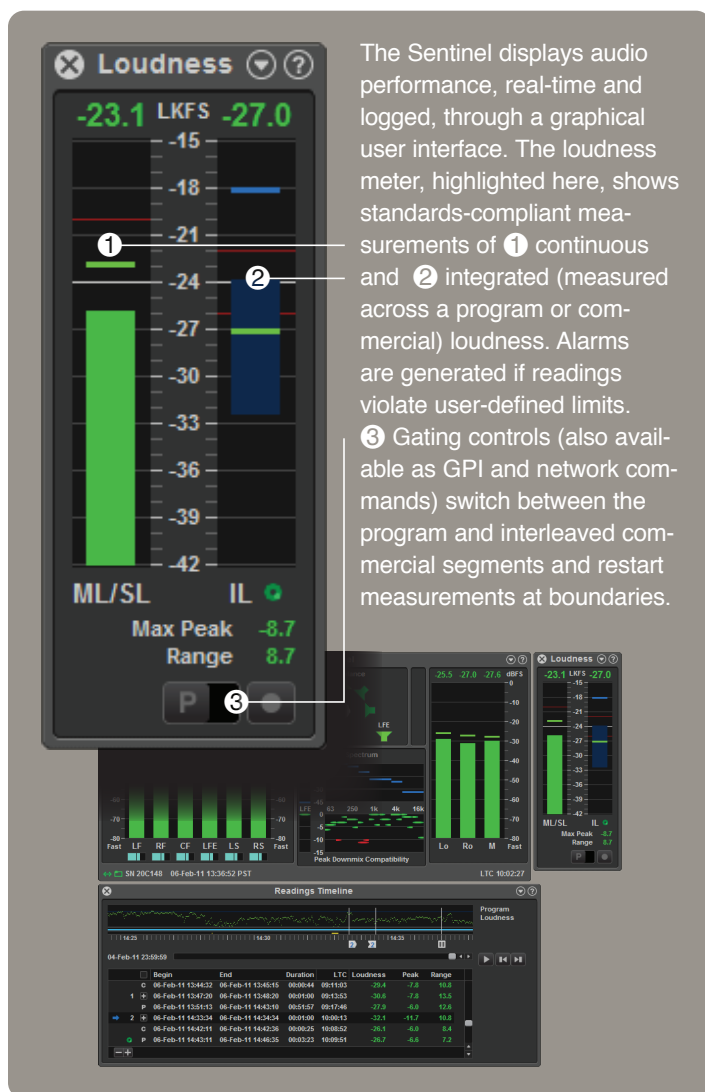
Unattended Operation with Alarms puts an electronic listener and a cyber technician on constant watch, eliminating continuous aural checks by skilled listeners, plus monitoring the technical integrity of the audio stream.

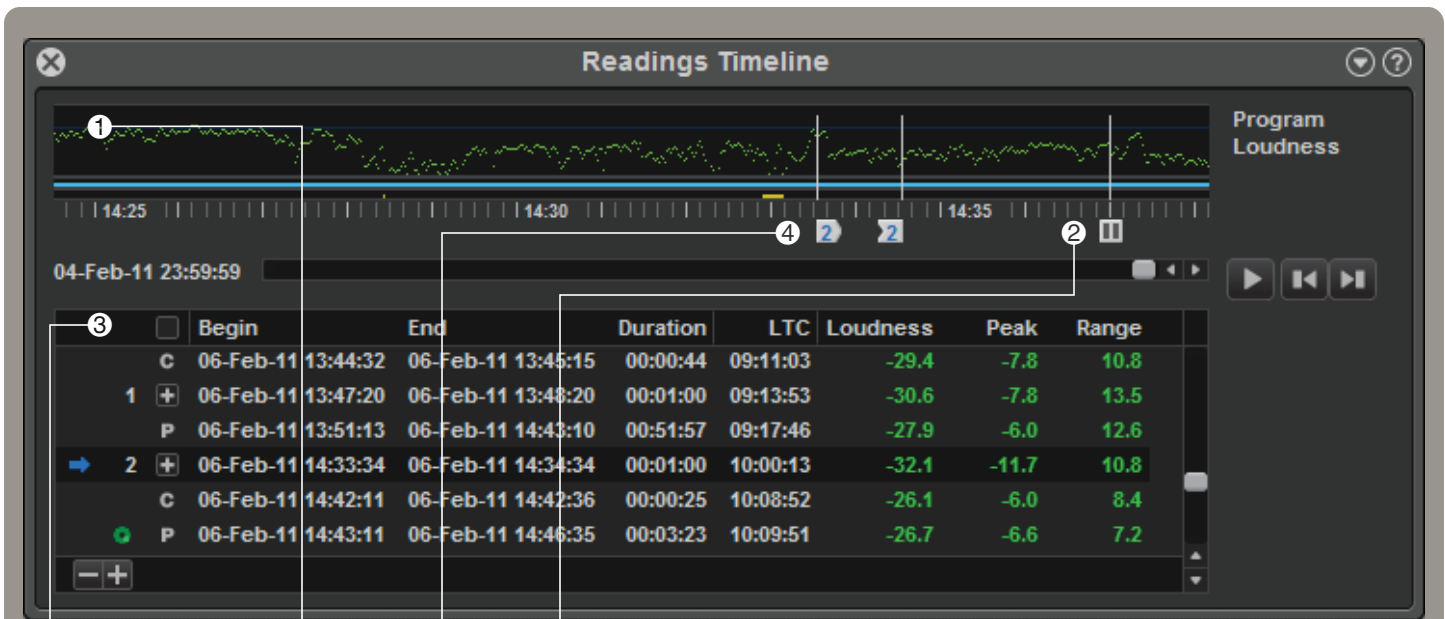
Archival Logs of every measured parameter, at your fingertips. The Sentinel saves 27 hours of log data internally which can be automatically transferred to your long-term storage repository.

Loudness and QA Forensics™ Toolbox not just logs, but comprehensive tools to investigate loudness exceptions and quality-of-service issues. The same displays employed when measuring and reporting errors in real-time are there for analysis of all your logged data.

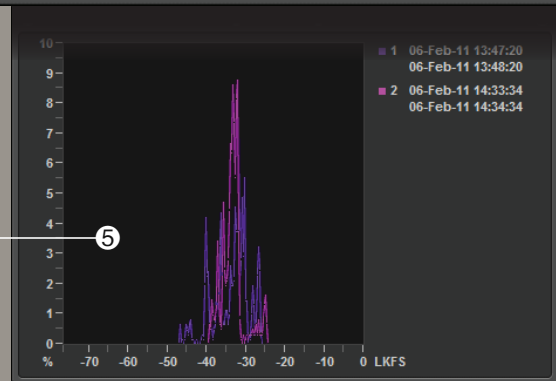
Quantitative Downmix Analysis identifies stereo and mono downmix issues using patent-pending technology, eliminates the need to monitor or interpret graphical displays, and can generate alarms from objective quality criteria.

Comprehensive Metadata fully displays PCM and Dolby Digital metadata; patent-pending technology detects intra- and interchannel errors and inconsistencies.





The Readings Timeline panel provides an overview of the readings logged by the Sentinel. ① The timeline lets you move back and forth in time. The meters display the log data at your ② current position. ③ The programming segment table shows real-time loudness readings from the Sentinel. You can also ④ position multiple segment cursor pairs on the timeline to calculate loudness measurements after the fact; profiles for these segments appear on the ⑤ Histogram panel, for comparison and detailed examination.



The only audio QoE tool that offers:

- standards-compliant loudness metrics
 - continuous and integrated measurement
 - dual stream™ interleaved program/commercial monitoring
- unattended operation
 - alarms and notifications, local and remote
 - browser-based interface
 - concurrent access by multiple users
- logging
 - automated log transfer to long-term archive
 - browser-based log data retrieval
 - QA Forensics™ toolbox for after-the-fact analysis
- comprehensive audio fault detection
 - downmix compatibility, channel balance
 - hum, channel reversal, channel interchange
 - intra-channel and inter-channel metadata analysis



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