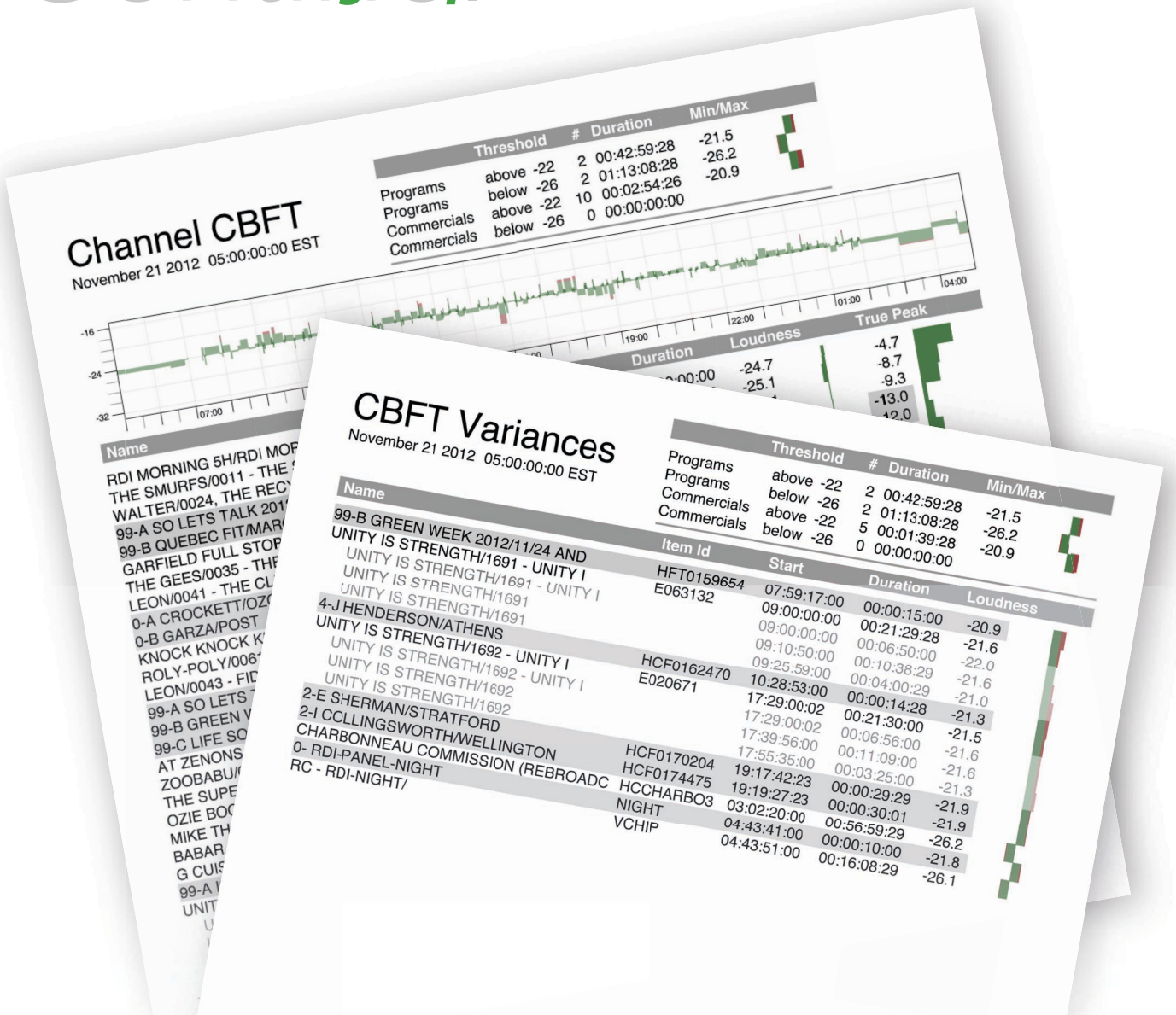
Sentinel

VisiLog™ Reports



CALM Act loudness reporting
Integration with as-run schedules
Accurate, actionable information

Qualis Audio

If you're faced with an FCC CALM Act enforcement action, you don't want to be the one saying 'I don't know' **ATSC/HPA 2013**

The driving force behind the CALM Act was consumer frustration with broadcast audio quality – specifically, loud commercial content. Underneath the technical and legal details, that issue remains at the core of the FCC's implementing regulations. Enforcement investigations are triggered by a pattern of consumer complaints.

There are a variety of technical and procedural steps you can take to defend against a CALM Act investigation. However, to prevent the investigation from happening, you need to know what you're broadcasting and whether it's likely to trigger complaints.

Prevention is more cost-effective than defense. This is where Sentinel VisiLog goes beyond other monitoring solutions. It's focused on giving you understanding of your broadcast – you know what you're broadcasting, and you know it's okay.

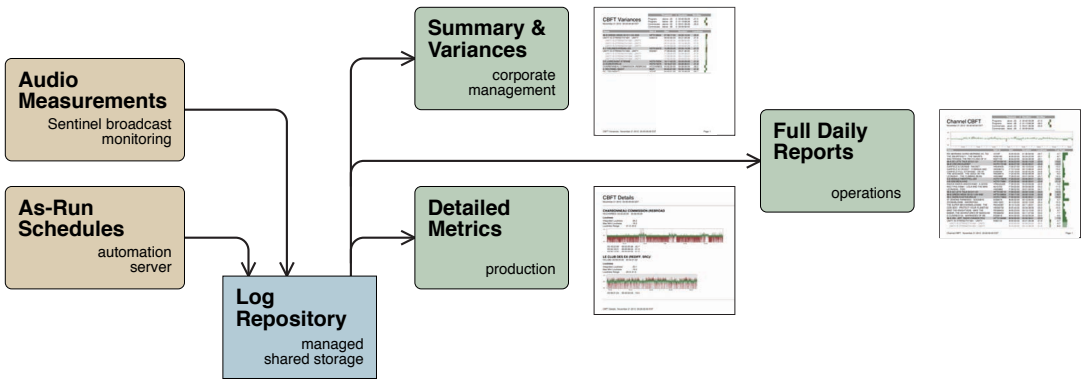
Information for every need

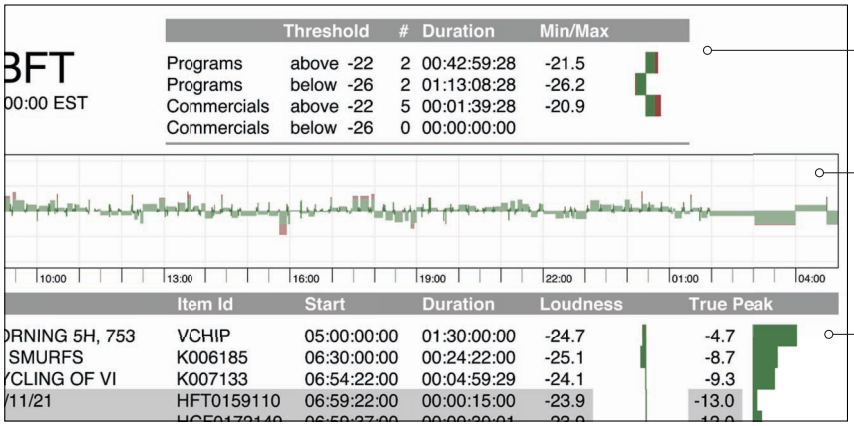
Sentinel VisiLog reporting distills the mass of loudness measurement data and integrates it with your as-run schedule information to deliver reporting tailored to your organizational needs.

The reports are highly configurable, so you can decide what you want to see.

Operations can review the day's broadcast at the level of individual programming elements. Management has summary information and lists of variances to track overall performance. Production can use detailed reports to identify and resolve problems.

All of these reports can be generated and distributed automatically on a daily schedule.





Daily as-run report.

- ***Variance summaries*** *provide a tally of content with problems and let you gauge how close you are to compliance.*
- ***Timeline*** *graph of integrated loudness levels lets you scan the day's broadcast for problem spots.*
- ***Tabular listing*** *displays measurements for each content element identified in the day's as-run log (loudness and true peak are shown; other measurements can be configured).*

What measurements

ATSC A/85 best practices specify measurement criteria for CALM Act compliance, but what do you need to measure and control to keep from getting complaints?

If you're broadcasting surround sound, a majority of your viewers are listening to downmixed audio. Phase cancellations that can lower signal levels are relatively well known, but downmixing can also significantly increase loudness when there are correlations between channels. In either case, your stereo listeners hear something different.

The regulations focus on the loudness of commercial content, but your viewers perceive commercial loudness relative to the surrounding programming. Program content with poorly-controlled loudness – too soft or too much variation – makes commercials sound too loud.

The Sentinel can detect and characterize all these anomalies. Its VisiLog reporting lets you see them.

Not just numbers

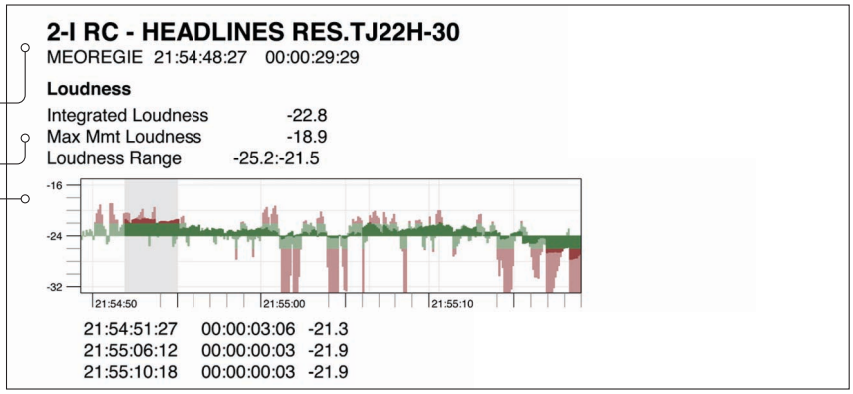
A day's broadcast may consist of 30-50 programs and 500-700 commercials, each measured separately – too many to process manually, and enough to hide problems.

VisiLog reporting can graphically display measurement data to let you rapidly scan for anomalies and help you see patterns that indicate problems. A timeline view, for example, can show loudness inconsistencies or abrupt changes at a glance. Seeing surround loudness alongside its downmix – or seeing the difference between the two – can warn of problems for your stereo listeners.

VisiLog reporting generates PDF format reports for easy distribution. An Excel format lets you use spreadsheet functions to search, sort, filter and manipulate the measurement data. A machine-readable XML format can serve as a gateway to further processing.

Content details. *Reports can be configured to display a variety of metrics. This sample shows some of the possibilities.*

- *Content title, house number, start time, duration.*
- *BS.1770-2/3 loudness measurements.*
- *Combined graph of momentary and short-term loudness measurements (note the highlighted regions of above-threshold loudness – their time, duration and maximum are listed below the graph)*



Selected features

Sentinel surround sound audio monitor

- standard 16-channel SDI or 8-channel AES input module, Dolby decode option; custom configurations also available
- surround program in 5.1, 6.1, 7.1 or stereo format; up to 5 ancillary programs in stereo or monaural format
- loudness measurement of surround program and selected ancillary program or downmix
- ITU BS.1770-1/2/3, EBU R128 compliant integrated, short-term and momentary loudness, loudness range and maximum true peak measurements
- stereo and monaural downmix compatibility measurements
- dialog balance measurement

VisiLog™ reports

- customized import of as-run logs
- configurable time shift of measurement data
- reports of all programming or only variances
- reports may include loudness, true-peak level, downmix loudness, compatibility, etc.
- reports in PDF, Excel, and XML formats
- reports include daily summaries of compliant and non-compliant content
- PDF reports include numeric and graphical displays for each entry
- language and timezone localization
- report customization services

Standards-Based Measurements

The Sentinel provides all measurements required for compliance with ITU BS.1770-1/2/3, ATSC A/85, and EBU R128 standards, including both loudness and true peak measurements. Conventional metering frequently omits true peak measurements, and only tracks sample peaks.

The Sentinel uses a model for schedule and as-run information based on the SMPTE 2021 standard. It provides accurate timing information for program content, and, unlike simpler models, it can represent content that is split into segments. The ability to calculate summary measurements that span an entire unit of broadcast content, not just individual segments, provides the necessary basis for generating correct BS.1770-3 integrated loudness measurements.

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we're listening

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