9670
LevelTrack Audio Loudness Control AGC Software

Use LevelTrack to Adjust Your Audio and Stay in Compliance

The LevelTrack™ Audio AGC option adds a user configurable audio level management system to Avenue signal processing modules. LevelTrack AGC corrects mismatched audio levels between different program sources or segments within a program. Errors of this type are regrettably common due to inconsistencies between different providers and program elements.

1770 and VU Loudness Algorithms

LevelTrack AGC provides two different approaches for adjusting audio levels: VU algorithms and the ITU-R1770 loudness algorithm.

LevelTrack allows you to run your audio against a 1770 LKFS target range. These loudness measurements and adjustments conform to the ITU-R1770 specification. Loudness is frequency dependent and is weighed based upon case studies that reveal how humans perceive sound and loudness. Dialnorm™ values correspond to 1770 algorithms and contribute to compliance requirements.
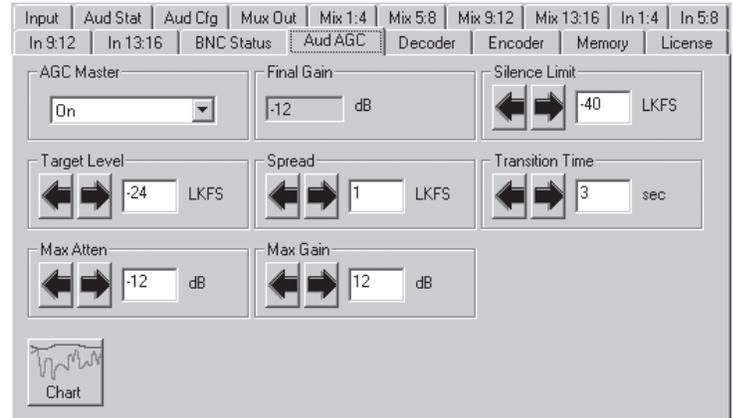
Alternately, VU algorithms may be used where audio levels are weighted with VU metering and measured in dBFS. The VU approach is particularly useful when calibrating and aligning equipment because it is a frequency independent method.
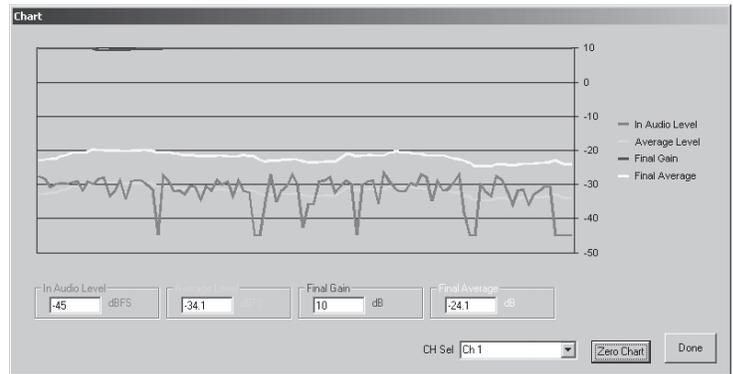
Parameters and Control

Range controls are provided for target level, spread, transition time, silence limit, and maximum gain and attenuation. This flexibility allows the operator to customize LevelTrack to suit the specific audio level challenges in a particular installation. All of these parameters can be easily adjusted through the Avenue Control System.

LevelTrack adjusts the levels for up to 16 audio channels. Based upon the history in each channel, gradual changes are applied to prevent the audio level from dropping below or exceeding user programmable thresholds. This automatic level control can be applied on an individual channel, stereo pair, or 5.1 surround grouping. By adjusting the overall level of the signal, rather than masking the errors with compression, LevelTrack does not upset the internal dynamics of the program material.

LevelTrack operates downstream of the manual audio level adjustments that are already provided in Avenue modules. This allows the automatic feature to assist the operator when needed by simply enabling the channel or grouping.

LevelTrack is controlled through Avenue PC where you can set your own audio automatic gain control target levels. Both 1770 algorithms and VU metering are provided.

The LevelTrack graph shows your audio input level and the final gain applied to the audio signals.

Avenue Modules that can be used with LevelTrack AGC plus 1770 Algorithms

7555 HD/SD Video Processing Frame Synchronizer
7660 HD/SD Embedder, Disembedder and Data Inserter
9550 3G/HD/SD Video Processing Frame Synchronizer
9600 3G/HD/SD Embedder, Disembedder and Data Inserter

LevelTrack AGC Only

All of the below require 7610 or 8415
in order to use AGC (VU/dBfs only, no 1770 support)

7550 HD Legalizer
7600 HD/SD Embedder, Disembedder
7900 HD Up/Down/Cross Converter
7910 HD Upconverter and Cross Converter
7920 HD Downconverter
7930 HD Cross Converter
7940 SD Aspect Ratio Converter

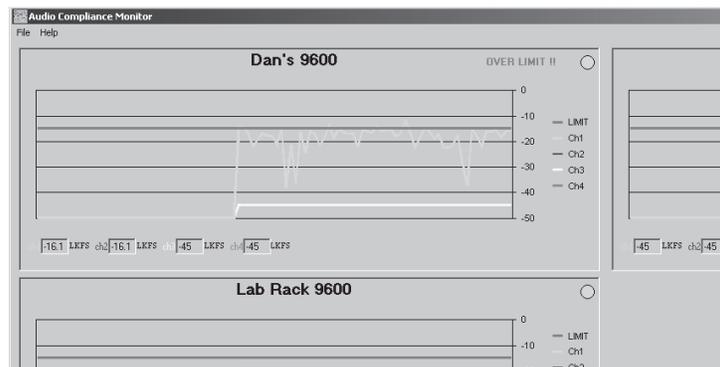www.ensembledesigns.com   +1 530.478.1830

Use Audio Compliance and Monitoring Software to Log Your Audio Levels for Compliance Requirements

Audio Compliance and Monitoring Software provides compliance verification and archiving with the Avenue system. The software gives you the ability to monitor and log levels of audio occurring in selected Avenue modules so that you can show whether audio levels are exceeding a certain configurable limit. You can log both raw data and over limit events. In addition to monitoring and logging, the software can be configured to send email alerts or text messages when audio levels are too high. Use Microsoft Excel, OpenOffice, or any program that can read comma separated values to open the .csv log files.

For broadcasters everywhere, this software allows you to monitor and log audio levels to meet government regulations as well as industry standards and practices.

For broadcasters in the United States, these capabilities are meant specifically to address the need to comply with the Commercial Advertisement Loudness Mitigation (CALM) Act that went into effect in 2012. This law requires broadcasters to ensure that the audio level in commercials is not louder than the regular programming.

Audio Compliance and Monitoring Software is an option that can be added for compliance verification and archiving.

When one of the channels hits a level that exceeds your specified limit, the over limit alarm displays in that module's chart, as shown here.

Audio Compliance Monitor provides logging for both raw data and over limit events.

Modules that are supported:

7555 HD/SD Video Processing Frame Synchronizer
7660 HD/SD Embedder, Disembedder and Data Inserter
9550 3G/HD/SD Video Processing Frame Synchronizer
9600 3G/HD/SD Embedder, Disembedder and Data Inserter

Order Info for 9670 Level Track

9670   LevelTrack Audio Automatic Gain Control Software Key Option
This is a software license and does not require any additional hardware

Order Info for 9690 Audio Compliance and Monitoring

9690   Audio Compliance and Monitoring Software
This software monitors and logs data for all 16 channels for 4 Avenue modules