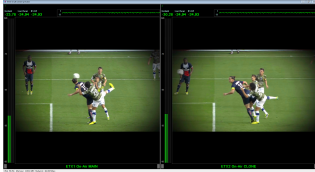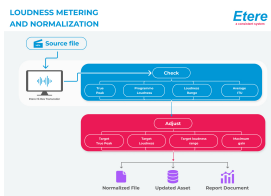# EA6778 ETERE ETX-L LIVE LOUDNESS CONTROL

Etere ETX-L Live Loudness Control prevents excessive audio jumps and provides automatic audio control using ITU-R BS. 1770/ITU-R BS.1771 and peak value analysis.

loudness

Etere Loudness Control diagram

Etere ETX-L integrates predictive scheduling control capabilities instead of using dedicated processing hardware with manual management.

Etere ETX-L Live Loudness Control is the most versatile software for correcting common errors and avoiding fines due to excessive transmission volume. With Etere, it is also possible to perform a preliminary calculation of the output volume through the loudness statistics of a specific broadcast day.

This automated audio control feature is currently available for Etere Automation with ETX, Etere ETX-M Multiviewer, and Etere Ad Insertion/ Etere continuously monitors embedded multi-channel surround audio loudness while seamlessly adjusting system gain across all channels to ensure loudness levels are at an optimum level.
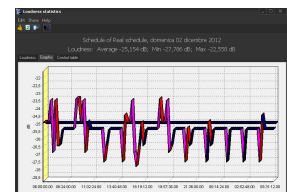
Key Features

☐ Perform all audio controls before, thus avoiding playlists with audio errors to be sent on-air, supporting multiple simultaneous controls

☐ Omit using audio compressors thanks to its capability of "predicting" the average loudness before the on-air and acting directly over the loudness to make it meet the loudness guidelines

☐ Eliminate loudness problems, making your workflow fast and accurate; thus ensuring that you will never receive expensive fines by the competent authority due to an excess of the permitted loudness limits

☐ Up to 100x file-based audio control including also true-peak detection performed across multiple channels to ensure that "peak-program level limits" are adhered for each channel

Loudness Average

A television playlist's "daily loudness average" is automatically calculated using the Etere Loudness Statistics module. This tool computes the loudness average of all the events featured on it, also performing some loudness checks such as:

☐ Events present in the playlist must not exceed the daily average in more than a user-defined tolerance (in dB)

☐ Events present in the playlist must not exceed the loudness of the previous event in more than a user-defined tolerance (in dB)

Workflow Integration

Etere Media Asset Management (MAM) integrates an automatic and high-speed video quality check, including loudness analysis capabilities. The asset loudness data is subsequently saved in the MAM database as an asset metadata.

Etere Ecosystem Integration

Etere ETX-L is integrative with Etere Ecosystem.

☐ As a very first action, the operator sets -before the on-air- in Etere Executive Scheduling the minimum/maximum volume for the forthcoming scheduling

☐ Etere CMS will automatically check the true peak loudness and audio phase of all materials' audio outputs, marking the detected values in the asset's EDL at the exact points they was encountered

☐ Checked asset forms are automatically catalogued in Etere Media Asset Management (MAM) to let the operator know in advance where a manual check needs to be performed

☐ The operator will be alerted in case any error is encountered (i.e. the loudness doesn't respect all the set benchmarks) during the production, ingest or other work's phases

☐ The loudness integration can be further enriched by using Etere HiRes Transcoder to support file-based loudness normalization as well as common encoding, decoding and transcoding operations between different audio formats