

# EA1545 ETERE ETX-L LIVE LOUDNESS CONTROL

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

Etere moves towards to a completely new scenario based on file-based solutions which includes predictive scheduling control capabilities; instead of using dedicated processing hardware with manual management.

**Etere ETX-L Live Loudness Control** is the most versatile instrument for correcting common errors and avoiding fines due to transmission's volume excesses; it is also possible thanks to Etere Loudness to perform a preliminary calculation of the output volume through the loudness statistics of a specific day of broadcast.

This audio control feature, currently available for **Etere Automation with ETX**, **Etere ETX-M Multiviewer**, **Etere Ad Insertion** will continuously monitor embedded multi-channel surround audio loudness, seamlessly adjusting system gain across all channels to maximize impact and achieve the target loudness while preserving the spatial imaging.



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## Key Features

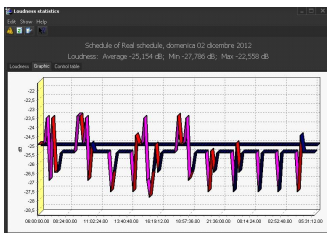
- ◆ Perform all audio controls before, thus avoiding playlists with audio errors to be sent on-air, supporting multiple simultaneous controls
- ◆ Omit using audio compressors thanks to its capability of "predicting" the average loudness before the on-air and acting directly over the loudness to make 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

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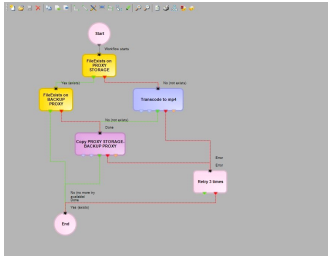
## Loudness Average

The "daily loudness average" of a television playlist can be automatically calculated using the Etere Loudness Statistics module, the tool that computes the loudness average of all the events featuring on it, performing also 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)



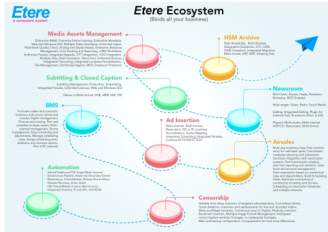
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## Workflow Integration

Content Management System is the Etere solution for an automatic and high-speed video quality check; it now includes loudness measurement capabilities for storing the loudness value of assets in the [Etere Media Asset Management \(MAM\)](#) database to subsequently use it to drive a workflow to reach a specific target performance.

Workflows will be always performed fast and accurately, following an exact procedure which can be modified with custom parameters to either run a single workflow for all materials or run multiple workflows for specific material types.



## Etere Ecosystem Integration

As usual with [Etere Ecosystem](#) solutions, the Loudness Control has been completely integrated in the Etere System to limit operator's work to:

- ◆ 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