HoRNet ELM 128

HoRNet ELM 128 is a metering plugin that complies with the EBU R128 standard. The plugin provides five different loudness measurement: momentary, short-term, integrated, dynamic range and true peak.

This new kind of loudness metering comes from broadcasting and aims to reduce the difference in the perceived levels of different programs, to help with this task HoRNet ELM also provide a normalization function that adjusts the gain in realtime so that no signal exceeds the suggested -23 LUFS.

This meter uses LUFS as measurement units (Loudness Units Full Scale) a LUFS is equivalent to a dB but the difference come from the pre emphasis filter used before any loudness calculation, this filter compensates the non linearities of the human hear do that any measurement takes into account ho we human perceive sounds.

The five meters use different integration times and metering concepts:

- Momentary: measures the perceived loudness of the last 400ms
- Short term: measures the perceived loudness of the last 3s
- Integrated: it's the recorded loudness since the beginning of the measurement (or from the last reset operation) but discarding the longest silence parts or the highest passages that may occur in a long program (a movie, a tv show, etc.)
- Range: is the loudness range of the program in LU
- True Peak: this meter shows the maximum level of the signal in dBFS using a 4x oversampling (below 192KHz sampling frequency) to faithfully represent the inter-sample peaks.

Momentary loudness display

Short-term loudness display

Integrated loudness display

Pauses the current metering

Reset the current metering

Activate the normalization function

Select the normalization source

Loudness range display

True Peak display