EQX

EQ-X is a five band fully parametric EQ with independent control of Filter Type, Gain boost and cut, Frequency, and Q factor (bandwidth) for each band. EQ-X offers Extreme Definition filtering at sampling frequencies up to DXD with notch, low pass, hi-pass, peak and shelving filter types available.

The state space filter design of this Extreme Definition Equalizer has been specifically optimized to deal with the highest audio resolutions while still permitting very low noise & distortion, typically offering a THD+N of better than -110dB, throughout the entire audible (and even non-audible) range. Of course, this new digital filter’s topography, while designed with high sample rate in mind, also offers the extra benefits and low noise to 1FS equalization.

STRIPTOOLS AND BUSTOOLS

Strip and Bus Tools are a quick and efficient way of adding the Equalization and Dynamics (compression and expansion) functions commonly found on hardware consoles to channels and busses. Strip and Bus Tools are particularly economical with DSP processing power. Each processing block may be switched ‘into circuit’ individually. Blocks which are not ‘in circuit’ do not use DSP resources.

THE MODULOMETER

The Modulometer is a faithful reproduction of the classic meter fitted to Nagra portable Tape recorders.

Common operational practice to is set levels so the meter reads (average) -8 when recording speech. This is partly due to the modulometer’s characteristics as a quasi peak meter (quasi because it has the ballistics of a mechanical meter) and it also reflects the caution required in location dialogue recording where a lost take can represent many thousands of dollars. Although not by any means desirable, a low level signal is better than one with distortion from peak clipping.
DYNAMICS

A comprehensive dynamics processing module. Functions available include one gate, one expander, two compressors, one limiter, and a de-esser. The operation of each of these effects is interrelated in this comprehensive dynamics processor, and the user interface shows the operative dynamic range where each process takes effect.

MS ENCODER

Either input can be phase reversed, the input levels are adjustable and the both channels can be individually panned anywhere between hard left and hard right.

Encode Levels With the controls hard Left and Right and Unity gain applied signals are encoded in this way:

\[ M = A + B - 3\text{dB} \]
\[ S = A - B - 3\text{dB} \]

ANGUDION

Basically AnguDion II is a special kind of compressor and a little more. It is designed to be used as the last step of a mastering process. As such AnguDion II supports mono, stereo and 5+1 sound format and adds punch, body, clarity and width to your sound.

VU/PEAK METER

This measures the peak value of the audio signal. Peak metering is very useful to check the absolute digital level of the audio signal. The Peak meter bars are blue and it has a default release time of 16 dB/second.

The VU (Volume Unit) meter displays an average amplitude level. The VU meter is displayed in orange/yellow colour, has a default integration time of 60 ms and a release time of 10 dB/second.

This display measures the instantaneous dynamic range of the audio signal. Basically this is the difference between the Peak and the VU display. If a pure sine tone is measured, the dynamics would be zero. The Dynamics meter is displayed in yellow and has a default release time of 12 dB/second.
**METER BRIDGE**

The Meter Bridge Panel can present a meter display for every Input strip and Bus present in the current Mixer and external Machine configured in the Monitor and is usually displayed on a third TFT screen.

The Meter Bridge also indicates the currently selected mixer strip with a yellow outline, whether any strips are Muted or Soloed and optionally shows Fader Automation mode per strip.

You do not have to use the Meter Bridge but, especially when used with Ramses MSC, it offers flexible metering in one place.

With complex Mixers and routing, the Monitor can help to keep things logical.

**PHASE OSCILLOSCOPE**

This plug-in combines a phase meter and an X/Y oscilloscope.

A good stereo mix should be somewhere in between 0 and +1. The oscilloscope gives you some information about the stereophony and the phasing of a stereo signal. A signal which is completely mono appears as a vertical line.

If only the right channel carries a signal, it is displayed as a straight line at a 45° angle from the bottom left to the top right.

If only the left channel carries a signal, it is displayed as a straight line at a 45° angle from the bottom right to the top left. If the left and right channels are out of phase, this would result in a horizontal line.

A decent stereo mix would appear as a vertically shaped cloud as shown.

**SURROUND METER**

Gives a very useful indication of energy distribution in a surround sound field.

The Surround Meter incorporates automatic gain ranging which maintains a meaningful display for a wide range of material. There are no settings to adjust!