User Guide

Powered by RPCX

Welcome

Today there are a number of different EQ's available...so why another one?
Well, Rob Papen is all about sound and he was convinced he could
add something great to the Reason Rack Extension EQ world!

When you open RP-EQ in your Reason Rack you will see that it is far from a bread-and-butter equalizer and several unique elements were added to the core equalizer unit.

The toolbox now includes a MONO/STEREO Split filter, which is used a lot in modern EDM/Dance music to get a very tight low end.

The Air section is also fantastic on your master channel to open your mix in a stunning way.

And in true Rob Papen style, RP–EQ comes with many great Presets including contributions from several well-known DJs and Producers for instant user inspiration.

Rob Papen and the RPCX team, May 2017

Top Controls

Bypass

Switches between processing the input signal (On) and passing through the signal unaltered (Bypass) or no output at all (Off).

Patch Controls

Here are shown the standard Reason patch browser controls.

Spectrogram

RP-EQ has a spectrogram which displays the input signal as an FFT Spectrogram behind the EQ display. Turning the Spec button 'Off' will disable the Spectrogram view.

Boost

The Boost function amplifies the sound fed into the Spectrogram. Please note that this does not make the audio output louder – it only applies to the visualisation engine. Use this function to get a more detailed spectral view of soft passages in your music.

Release

The Release control determines how long it takes for the spectrum to fall back to a flat line after a reduction in signal levels.
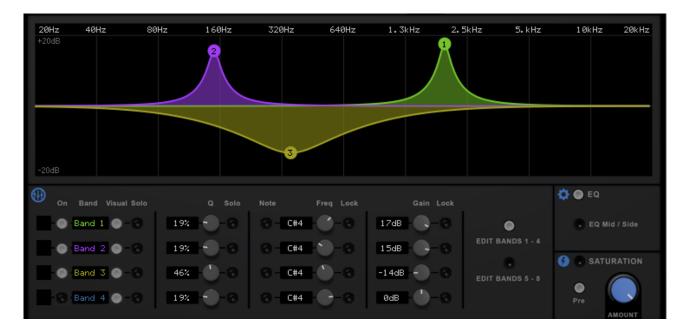
Volume

Controls the main output volume.

VU Left / Right

The VU meter displays the output from the EQ.

Equalizer

At the heart of RP-EQ is the 8-band parametric peaking Equalizer (EQ).
This part consists of a graphic edit screen and below it also includes dials and functions to make the workflow as comfortable as possible. The EQ can also work in Mid / Side mode (please see below).

In addition to frequency we also include a 'note' value for each band, which in certain situations can be a very handy feature.
In the lower section, you can find the 'Lock' button for each of the EQ Bands frequency and Gain. This can be very useful if you don't wish to change these settings and simply lock them in place.

EQ Off / On / Mid/Side

Clicking on the EQ Button in the EQ screen will turn Off / On the EQ.

Clicking on the EQ Mid / Side with set the EQ to Mid / Side mode. In EQ Mid / Side mode, Band 1 to 4 are labelled as M (for mid) and Bands 5 to 8 as S (for side).

Edit Band 1 – 4 / 5 - 8

Displays either bands 1 to 4, or 5 to 8.

EQ Band On / Off Icon

Clicking on the EQ Band On button on the left-hand side turns On / Off that EQ band.

EQ Band Visual

Turns On / Off the visual display of the selected EQ band

EQ Band Solo (visual)

Solo's the selected EQ band (i.e .the other bands are turned off visually)

EQ Band BW

Changes the Bandwidth of the band, from very narrow at low values to very wide at high values.

EQ Band BW Solo

Changes the band to a band pass filter, and turns off the other bands. What you will hear is the band in a solo way.

EQ Band Frequency / Note

This allows you to set the frequency of the band either as a frequency from (20 Hz to 20 khz), or as a note, from MIDI note 0 (C-1) to 127 (G9). In Frequency mode, you can set the frequency using the dial; in Note mode, you can click on the note readout to display the menu where you can select a note.

Frequency Lock

Locks the EQ band's frequency. This is a very handy feature if you don't want to move the frequency by accident using the mouse in the upper graphic screen.
Also with some presets, this can be used as part of the preset EQ setting.

Gain

Gain of the EQ Band, positive movement increases the volume of that band; negative reduces the volume of that band.

Gain Lock

Locks the EQ band's gain. This is a very handy feature if you don't want to move the gain by accident using the mouse in the upper graphic screen.

Mid / Side Mode

Mid / Side processing is a concept developed in 1934 by Alan Bluemlein. By using a patented microphone technique, the concept was developed to recreate how the human ear hears(perceives) the stereo image.
This Mid / Side technique is now widely used as an effective way to improve stereo space in your recordings.

By changing the EQ of the 'Mid' section, you can boost for instance some frequencies to make it more centred/mono. By changing the EQ of the 'Side' section, you can boost for instance some frequencies to make it more stereo wide. Of course, you also may cut certain frequency ranges in the 'Mid' or 'Side' section, to improve your track. It simply depends on the track as to what is best.

RP-EQ divides in 'Mid / Side' mode into two Band groups. Band 1-4 uses the 'Mid' section of the audio and Band 5-8 uses the 'Side' section of the audio.

By EQ-ing both sections in different ways, the stereo feel can be improved in your audio tracks/masters.

EQ (graphic) Screen

Clicking on the EQ Screen allows you to graphically alter the bands values using your mouse.

Left clicking & moving left / right changes the frequency of the band.

Left clicking & moving up / down will change the gain of the band.

Left clicking & moving up / down while pressing Alt changes the band-width of the selected band.

Saturation

Before or after the EQ, the sound goes through a saturation effect.

Clicking on the Saturation button will turn On / Off the Saturation effect.

Important note: the saturation effect is a very minimal detailed change to the sound. It can be compared to tape saturation. The sound will get a bit creamier (thicker) in the low end and because of this it adds a kind of warmth to the sound.
It requires studio speakers to hear the difference. Although very minimal in change it is still a useful function for mastering or when used on individual audio tracks.

Pre

When this is set to On the signal goes through the saturation effect before going into the EQ. If it is set to Off, the signal will travel through the EQ first, and then through the saturation effect.

Amount

This dial controls the Saturation amount applied in percent.

Air

RP-EQ has an additional EQ band, which boosts the very high frequencies at a wide band, to give the sound more 'air'.
It is fantastic on your mix, as mastering tool or to freshen up older recordings.
It can also be great to give the 'lead voice' in your music a bit extra, to make it jump out of the music. In case of a lead voice, note that the amount goes up to 6dB, but often even a tiny change can make a huge difference.

Clicking on the Air button turns On / Off the Air effect.

Amount

The amount the higher frequencies are boosted.

Frequency

Frequency at which the signal is boosted: from 30kHz to 40kHz.
For on your mix or mastering 40kHz setting is great.
For solo instruments or vocals, you could also try 30kHz or higher.

Filter

After going through the EQ, the signal passes through a high pass & low pass filter.
Most obvious use of this filter is to use the HP filter with a setting of 75 kHz like many
classic mixers have. We added 12dB and 24dB, but also different sound colours.
The LP filter is not very common on a mixer, but can still be handy if you simply want to roll
off the high end on a certain track in your music piece. We also have two types of colour
filters.
In combination with using the CV inputs on the back of RP-EQ (or automation) and other
Reason devices (LFO's etc.), this section is of course also very attractive for making
special moving filter sounds (Often used by DJ's).

Clicking on the Filter buttons will turn On / Off the filter. You can also turn both filters On /
Off using the main filter On / Off button.

Both the high pass & low pass can be turned off or can use two different types of 12dB or
24dB filters. You can use the Freq / Q dials to alter the frequency & resonance of the low
pass & high pass filters. You can also use the on screen H and L graphic to adjust the
frequency and Q(resonance) of each.

Mono / Stereo

Sometimes you may want to change the sound below a set frequency to a mono signal (i.e the left channel is same as right channel). Especially for contemporary music a great tool for inside the mix bus or while mastering.
A special feature in this section is that instead of frequency you also can select a note as the split point for the filter.

Clicking on the Mono / Stereo button will turn On / Off the Mono / Stereo effect.

Frequency

This controls the frequency of the mono filter; below this frequency the sound is 'mono-fied'. You can set the range of this frequency using the split range buttons, or if you click on the Note Button, you can set the frequency using a MIDI note, from MIDI note 0 (C-1) to 127 (G9). In Frequency mode, you can set the frequency using the dial; in Note mode, you can click on the note readout to display the note select menu.

Solo

When this is On you will only hear the 'mono-fied' output.

Visual

When this on, the mono range is shown in grey in the Spectrogram screen.

Mode

Determines how the sound is 'mono-fied', either using the left or right channels, the average of the left & right channels (L+R) or the difference between the left & right channels (L – R).

Back Screen

The back screen of RP-EQ shows the Input / Output audio connections and also CV input to each band's frequency, bandwidth & gain, also the Low-pass / High-pass filter frequency and Q(resonance).