Cant EQ

Rack Extension User Manual
Version 1.1

dustydevices

Introduction

Cant EQ is a Rack Extension effect device by Dusty Devices. It is a filter that neutrally shifts the tonal balance of the signal toward either the low or high end without coloring the sound. This is useful for brightening up a sound or adding more weight to the low end.

Front Panel

Bypass/On/Off

Standard Reason feature. Bypass lets the signal through without applying any processing, On is the normal processing mode, Off doesn't process the signal and silences the outputs.

Display

Visualizes the canting slope, the Pivot frequency and the change in dB, and optionally the frequency analysis of the signal after the filtering. The frequency analysis is auto-fitted to the display, and the dB values are a relative reference point, not actual dB Full Scale values. Out Gain doesn't affect the canting slope graphic.

Unity

Unity is related to the Pivot control. By default, with Unity at the maximum setting ("Pivot"), the unity gain is at the Pivot frequency. However, sometimes this causes a lot of unwanted boost at one of the frequency extremes, especially if Cant is automated or controlled with a CV. When Unity is set to minimum ("0 dB"), any canting applied will attenuate the signal so that either extreme of the frequency response stays at unity gain. The extreme points chosen are 31.25 Hz and 16 kHz.

Unity can also be set to anything in between the two settings, where both behaviors are smoothly mixed.

Pivot

Controls the frequency which stays at unity gain when canting is applied (with Unity in the "Pivot" position).

Cant

The filter slope in decibels per octave. Positive values boost frequencies above the Pivot frequency and attenuate frequencies below the Pivot frequency. Negative values do the opposite.

Out Gain Gain of the outgoing signal. Can be used to compensate for any changes in the signal gain caused by the filtering.

Level Meter Displays the signal peak level.

Monitor Switch Located to the right of the level meter, this button cycles the Level Meter display between the Input signal peak level, the Output signal peak level, or display off, in case you are easily distracted by pretty flashing lights.

Rear Panel

Audio In & Out Stereo input, stereo output. Cant EQ processes the channels independently.

Modulation In CV inputs and corresponding scaling knobs for modulating the device parameters. Pivot and Cant modulation is limited to their knob extreme values. Gain can be modulated past its knob extremes.

Latency

Cant EQ introduces a short latency of 2 samples at all sample rates. If Cant EQ is used in a parallel chain that is being mixed with the original signal without automatic latency compensation, you can properly align the signal by adding a Cant EQ to the dry signal without any canting applied after it is fed to the parallel chain.

Thanks

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