



unique complex overtone filter effect

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Overview

ZQUEEZER produces a type of auto-modulation effect on the input sound. For every sample of the sound, several hundred adjacent samples get involved. ZQUEEZER slices up frequencies, melting your sound into a mind-bending experience.

For simple harmonic sounds (monophonic instruments, speech, or singing), it leads to a squeezing, flageolet-like effect. It allows you to specifically bring out individual overtones—comparable to string harmonics. On polyphonic sound material, ZQUEEZER creates complex, tangled networks or intermodulations of partial tones, with a strong emphasis on double frequencies.

In the time domain, the effect is some sort of upward octave transposition—a pitch shift. In the frequency domain (i.e. the complete spectrum), we observe a time stretch. From another perspective, the routine can be regarded as an adaptive filter, the coefficients of which are continuously changing as a function of the waveform of the sound itself.

The single parameter OVERTONE is sufficient to select and isolate the flageolet tones. The sweet spot for the effect is located at integer intervals within the overtone range. The number of available overtones has been set to 15, as the effect will sound most optimal at those discrete values. Intermediate values are also possible, enabling the animation of static pure waves. Make sure to try it on Sawtooth or Pulse oscillators. Polyphonic sound material results in kaleidoscopic effects.

The GAIN control has been streamlined for optimal results with the parameter OVERTONE, boosting its “brilliance”. It corrects the amplitude at the output, which is useful for higher fraction values. This control could be treated as an amplitude correction or normalization.

ZQUEEZER is not a lightweight real-time effect. Its original algorithm is based on offline rendering. The basic concept is based on mathematical formulas leading to specific processing chains for the intended sound impression and quality. This can result in higher latency and CPU load, but the exciting aspect here is the nature of the sound generation.

Also, aliasing should be prominent with complex sounds at high overtone settings. However, these settings are useful when animating raw waves. The aliasing will of course be more pronounced with complex input (with higher-frequency spectra). Inserting a lowpass filter before the plugin will dampen that effect.

The fundamental algorithms of ZQUEEZER have been designed and programmed by Austrian composer Günther Rabl. DSP technology and plug-in application by Re-Compose GmbH, with branding and distribution by W. A. Production.

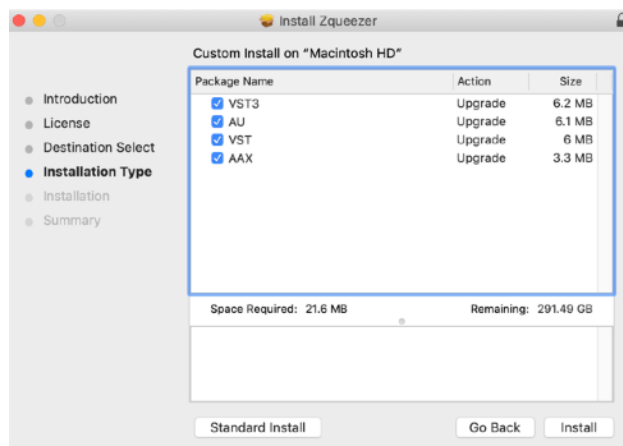
System Requirements

Operating systems: Windows 7 and later (64-bit only), macOS 10.9 and later (64-bit only)

Available interface types: VST2, VST3, AU, AAX

Installation

Unpack your software, start the installer for Windows or Mac, and follow the instructions. By default, all available version formats will automatically be installed. You can also choose which versions you want to install in the process. See the options in the installer window display for custom installation on macOS:



User Interface

