

Hologram by Sinevibes spectral audio resynthesizer

WHAT IS IT

INTRODUCTION

Hologram is a creative effect processor that resynthesizes the sound in real time. It does this by splitting the input signal into multiple frequency bands, analyzing their dynamics, and then recreating the signal's spectrum with an array of sine oscillators. The result is a wide variety of pleasantly smooth synthetic tones whose spectral and dynamic characteristics are controlled by the input audio. To take it even further, Hologram also has two highly flexible, multi-waveform modulators that apply rhythmic motion to its resynthesis engine.

The plugin features a color-coded interface with sharp graphics, handy parameter value displays and lively animations. A large spectrogram view allows to precisely see what the effect is doing. And as usual with Sinevibes software, Hologram supports Retina screens and offers great responsiveness even on old or low-spec hardware.

SPECIFICATIONS

- Spectrum analyzer with up to 64 frequency bands.
- Sine oscillator array for real-time signal resynthesis.
- Two separate modulators with 8 waveforms, adjustable chaos, lag and curve.
- Advanced transport sync algorithm with support for tempo and time signature automation.

INTERFACE OVERVIEW

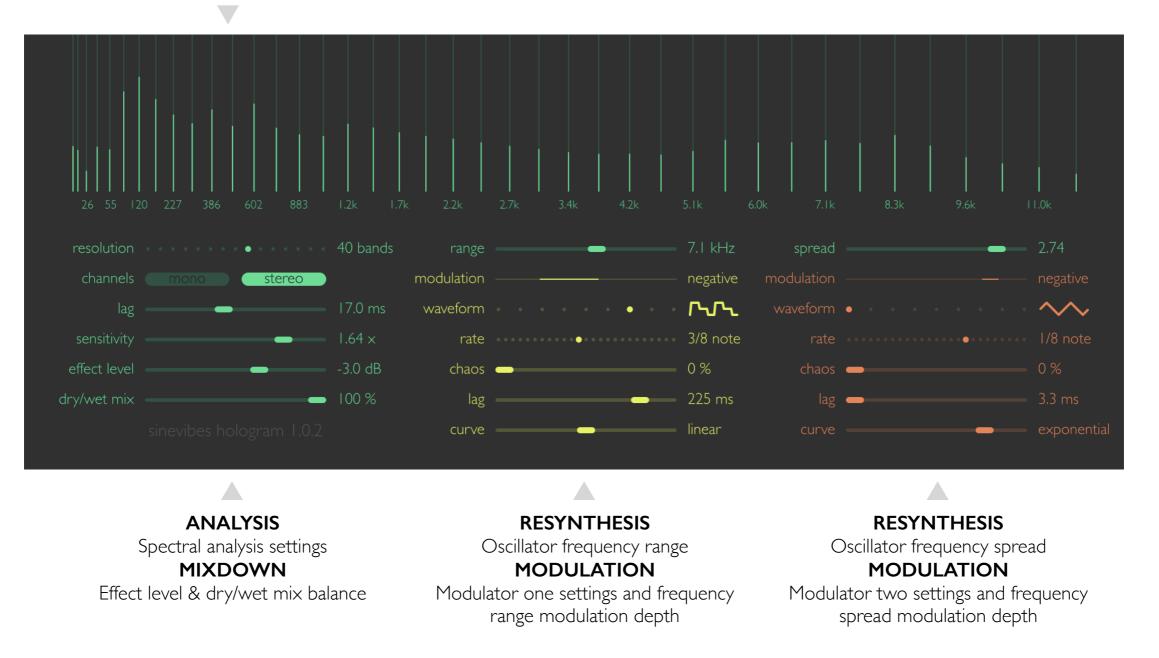
SPECTROGRAM

Shows oscillator frequencies and current sound level for each resynthesis band You can reset any control to its default value using either a double-click or a command-click

DEFAULTS

AUTOMATION

Every control sends automation to the host application, so you can record it straight from the interface



FEATURES GUIDE

ANALYSIS

In the analysis stage, Hologram splits the input signal's spectrum into separate frequency bands, the amount of which is defined by the *resolution* parameter (from 8 to 64 bands). The effect can operate in mono or stereo depending on the *channels* parameter. Analysis *lag* defines how quickly the dynamics of each frequency band are tracked (from fast/snappy 3.3 ms to slow/lazy 300 ms), and *sensitivity* adjusts the dynamics tracking curve (from concave to linear to convex).

Important note: the *resolution* and *channels* settings greatly affect the plugin's processor load, use them with caution. At their maximum settings (64 bands, stereo) there are 512 separate DSP processes running within a single plugin instance.

RESYNTHESIS

In the resynthesis stage, an array of sine oscillators recreates the spectrum of the input signal. The frequency **range** that the oscillators cover is adjustable from 1 to 20 kHz and can also be modulated by modulator one. The frequency **spread** parameter defines how the individual oscillators' frequencies are spread in the defined frequency **range**, and it can be modulated by modulator two. The frequency **range** and **spread**, together with analysis **resolution**, define the character of the synthesized sound.

MODULATOR ONE & TWO

Hologram features two modulation generators that are always synchronized to the host's tempo and transport location. Eight **waveform** shapes are available (triangle, saw, square, pulse, trapezoid, notch, 3x and 4x staircase) and their **rate** can go in a range from 128th note to 16 bars. The **chaos** function randomizes the waveform's amplitude for each individual modulator cycle. The **lag** parameter changes shape transitions (from fast/snappy 3.3 ms to slow/lazy 300 ms). The **curve** parameter shapes the modulator's waveform output from logarithmic through neutral to exponential, changing the modulation character.

To apply modulation onto a parameter, drag the modulation depth slider under it right (positive waveform polarity) or left (inverted polarity). The modulation start and end depth points change according to the position of the effect's parameter slider.

MIXDOWN

In this final output stage, the **effect level** adjusts the wet effect level (from muted to +6 dB) and the **dry/wet balance** slider adjusts the mix between the dry input and wet processed signal.



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