



Zap audio-controlled synth

WHAT IS IT

INTRODUCTION

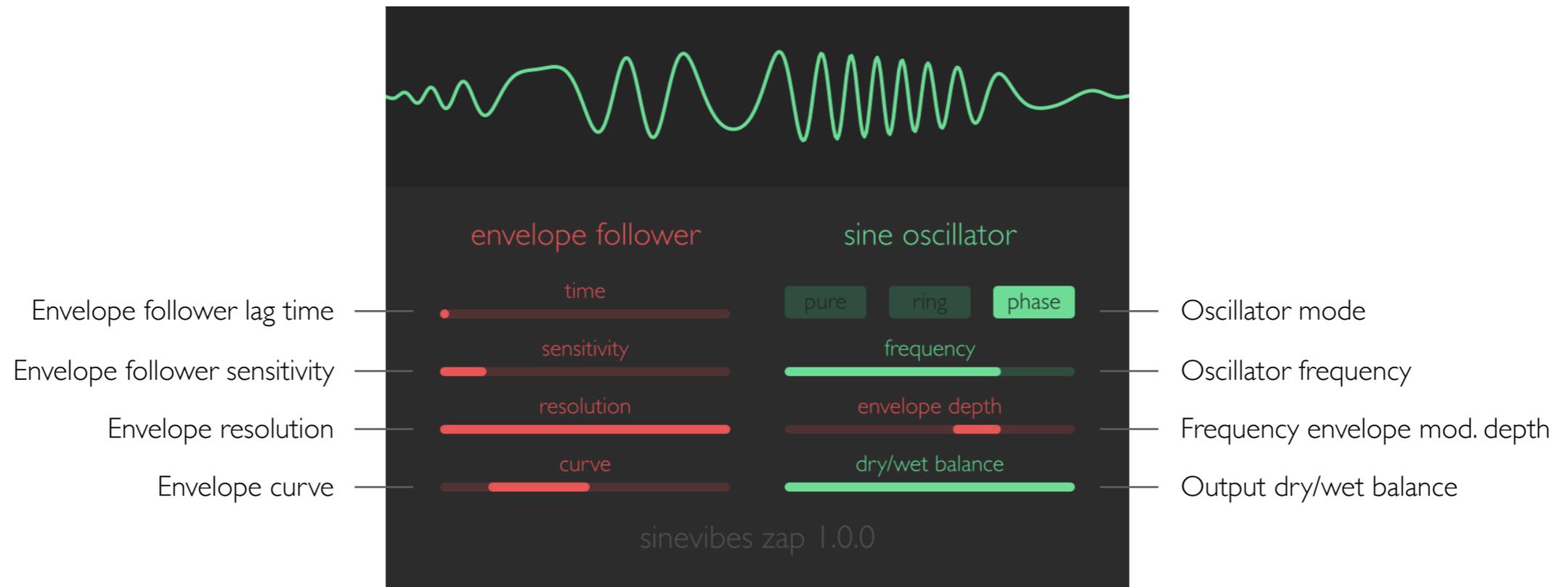
Zap is a unique mini-synthesiser controlled by incoming audio. It starts with an envelope follower that tracks the peak energy of the sound and then applies it onto the frequency of a monophonic oscillator. With three different oscillator waveform modes and features like envelope stepping, Zap can turn any sound source into dynamic synth sweeps, sub-basses, blips, chirps or glitches.

Zap has a simple and stylish user interface built with colour-coded graphics and full Retina resolution support. It has subtle animations and a live output waveform view, making even such a simple effect very fun and engaging to work with. And yet, thanks to hardware-accelerated rendering, Zap feels fast and responsive even on older, lower-end Macs.

SPECIFICATIONS

- Signal envelope follower with variable lag time and curve, plus level stepping feature.
- Three oscillator modes: pure sine, ring-modulated sines & phase-modulated sines.
- Realtime output waveform display.

INTERFACE OVERVIEW



THE BASICS

ENVELOPE FOLLOWER

Zap starts with an envelope follower that detects the dynamics of the incoming audio. The **time** slider adjusts the follower lag between going from its maximum to its minimum value, making the envelope snappier (min) or lazier (max). On this and all other sliders, you can use *command*-click to reset them to their default values. The **sensitivity** parameter increases the incoming audio level, bringing out more detail in the silent portions and making the louder portions more flat. By default, the detected envelope is continuous, but by reducing the **resolution** parameter it can be made discrete, stepped. The **curve** slider adjusts the final shape of the envelope, varying it from logarithmic (min) to original (centre) to exponential (max).

SINE OSCILLATOR

Zap's envelope follower is sent to control a simple oscillator which has three modes: **pure** sine wave, two sine waves with **ring** modulation and two sine waves with **phase** modulation. The **frequency** slider adjusts the initial frequency of the oscillator. The **envelope depth** slider below it adjusts the depth of oscillator frequency modulation by the envelope follower, it can be positive or negative giving normal or inverted modulation. Finally, the **dry/wet balance** parameter adjusts the mix between the original input audio and Zap's oscillator.