Hexonator 6-voice melodic resonator

WHAT IS IT

INTRODUCTION

Hexonator is a unique spectral effect that creates organic chord progressions, tasty melodic textures, or ambient drones out of almost anything. It is built upon six melodically tuned resonators which isolate and emphasise matching frequency components in the incoming signal. With its chord sequencer, it makes it possible to "play" these resonators musically, producing fresh synthetic sounds that are full of life and character. Hexonator also includes a multi-mode filter for final shaping, and everything can be animated using two powerful modulators with multiple waveforms and adjustable chaos.

Just like with all Sinevibes products, Hexonator offers an incredibly simple, lightweight yet attractive user interface. It is comprised of high-contrast, colour-coded shapes for instantly intuitive operation. There are clever animations and transitions built in which makes the whole experience even more fun and engaging.

SPECIFICATIONS

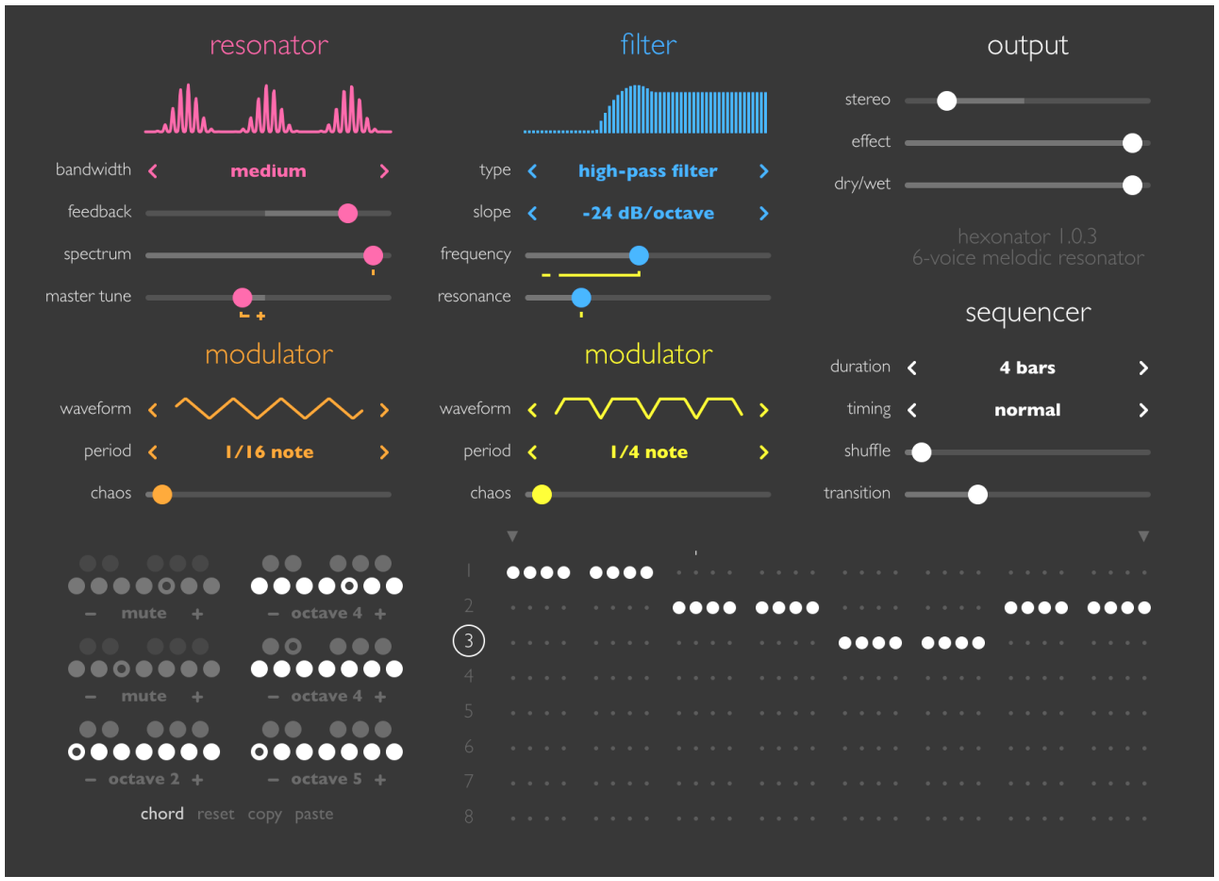
– Six melodically tuned resonators with positive/negative feedback and adjustable bandwidth.
– Resonator chord sequencer with up to 32 steps, variable timing, shuffle and glide.
– Multi-mode filter with low-pass, band-pass, high-pass modes, -12 dB and -24 dB per octave slopes.
– Two modulators with 8 waveforms and adjustable chaos.
– Precise host transport synchronisation supporting tempo and time signature automation.

INTERFACE OVERVIEW

Global settings for the six resonator voices

Settings for the multi-mode filter

Output settings



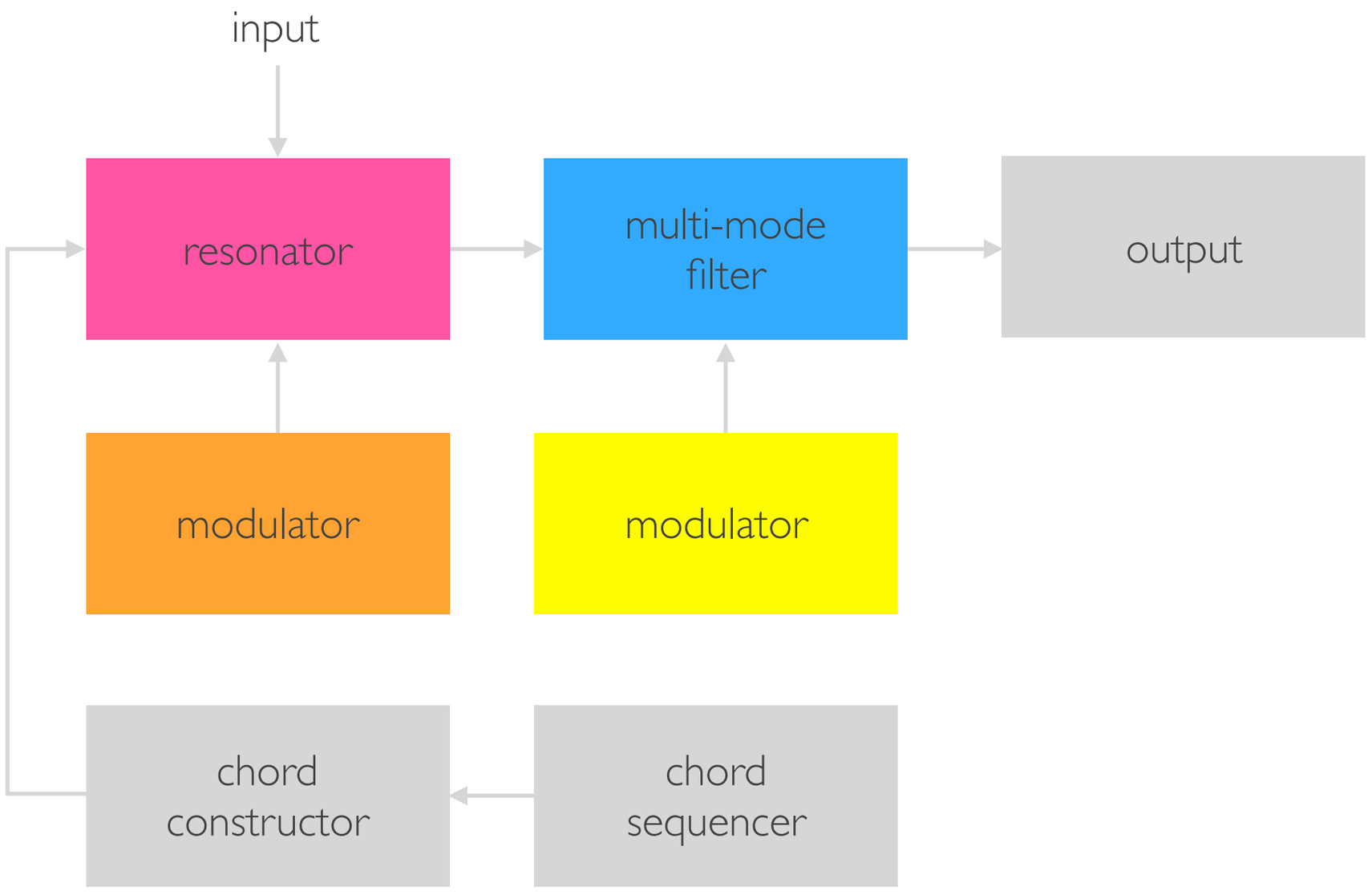
Resonator and filter modulator settings

Chord constructor

General chord sequencer settings

Chord sequencer pattern

INTERNAL STRUCTURE



FUNCTION GUIDE

RESONATOR

At the heart of Hexonator is a resonator system with six "voices" each comprised of a dual-stage feedback delay line and a single- or dual-stage resonant filter. These voices are tuned to particular frequencies. As the input audio is passed through them, its spectral components that match these frequencies are amplified, other frequencies are drastically attenuated. The resulting sound is a note or a chord that varies its character according to the input audio and its musical pitch according the Hexonator's sequencer.

– **bandwidth** sets the spectral width of the resonators' voices: wide, medium, or narrow
– **feedback** adjusts the intensity of the resonance effect, the control is bipolar for emphasising either even or odd harmonics
– **spectrum** shifts the resonators' spectrum against their musical tuning in a range of 0 to 36 semitones *modulatable*
– **master tune** shifts the resonators' musical tuning in a range of -12 to +12 semitones *modulatable*

FILTER

All six resonator voices are mixed together and passed through Hexonator's finishing multi-mode filter.

– **type** sets the filter type: low-pass, band-pass, or high-pass
– **slope** adjusts the steepness of the filter's spectral curve: -12 or -24 dB per octave
– **cutoff** is the filter's cutoff frequency *modulatable*
– **resonance** is the filter's resonance intensity *modulatable*

OUTPUT

This is Hexonator's final stage with the output mix settings.

– **stereo** spreads the six resonator voices into left and right channels, the control is bipolar for a different even/odd voice spread
– **effect** adjusts the overall loudness of the resonators' output
– **dry/wet** adjusts the balance between the dry input signal and the resonators' output

FUNCTION GUIDE

MODULATOR

Hexonator has two dedicated tempo-synchronised modulators: first is routed into the resonator (spectrum and master tune parameters), second is sent into the filter (cutoff and resonance). The modulation depth of each parameter is adjusted using the correspondingly-coloured handles under each parameter slider. It can be dragged to be either positive or negative, with the latter effectively inverting the selected waveform shape.

– **waveform** sets the modulator to one of 8 waveforms: triangle, saw, square, pulse, trapezoid, notch, 3x and 4x staircase
– **period** defines the speed of the modulator in relation to the host app tempo: from 1/128 note to 8 bars
– **chaos** gradually applies a random amplitude onto each cycle of the modulator

CHORD CONSTRUCTOR

Hexonator has 8 separate chords that define the musical pitches of each of the resonator voices. The chord is selected for editing in the sequencer: chords are numbered 1 to 8, the selected one is circled out. Click on the keyboard to set the musical note of each resonator voice, use the **-** and **+** buttons to change the octave of the note. Click on the **octave** label to mute the voice. You can also **reset** the chord to default settings, as well as **copy** and then **paste** one chord into another.

CHORD SEQUENCER PATTERN

This pattern defines the order in which the chords are played by the sequencer. Simply click or click and drag to define which chord is played at each step. The right triangular marker can also be dragged to change the length of the pattern.

SEQUENCER

– **duration** sets the duration of the whole pattern in bars: 1, 2, 4 or 8
– **timing** defines whether the steps are arranged in groups of four (normal timing) or three (triplet timing)
– **swing** changes the length relation between even and odd steps, producing a rhythmical "shuffle" effect
– **transition** adjusts the time it takes for one chord to glide into another: from 5 milliseconds to 1 second