



Sinevibes
audio innovations

Frequency audio-controlled synthesizer

The screenshot displays the 'Frequency 1.2.0' audio-controlled synthesizer interface. The top left corner shows the version number 'Frequency 1.2.0' and the top right corner shows 'audio-controlled synthesizer'. The interface is divided into several sections:

- Control Panel (Top Left):** Features two horizontal sliders with '+' and '-' markers, a vertical slider, and a dropdown menu with options: 1/4, 1/4, 1/2, 1/2, 1/12, 1/8 (highlighted), 1/8, 1/6, 1/64, 1/32, 1/24, 1/16.
- Waveform Visualizers (Top Middle):** Two square plots showing waveforms. The left plot has a green circle, and the right plot has a blue circle. Below the right plot is a blue slider.
- Waveform Plot (Top Right):** A large plot showing a complex waveform in blue on a dark grid background.
- Timeline (Bottom):** A horizontal axis labeled 1 to 32. Below it is a grid of green bars of varying heights, representing a sequence of notes or events over time.

Overview

What is it?

Frequency is an AudioUnit effect plugin for creating unique synthesizer sounds. Its sound generation concept is based on a dual oscillator with additive waveforms and waveshape modeling, whose pitch comes from the built-in note sequencer and dynamics are taken from the input signal. With this combination, Frequency transforms any rhythmic material into a lively synthesizer instrument, all via a simple, color-coded interface.

What can it do?

- Turn drum loops into amazing synth and bass lines.
- Generate fat-sounding drone and buzz sounds.
- Create glitch, noise and oldschool game effects.

Compatibility

Frequency works with Logic, GarageBand, Live, Maschine, Studio One, ReNoise, Reaper, Bidule and other Mac software that supports AudioUnit instrument plugins. It requires OS X Leopard, Snow Leopard or Lion.

Installation

Installing Frequency

To install Frequency, simply open the disk image, double-click the installer package and follow the next few steps in the installer dialog. Once the installation is complete, you will find Frequency in the AudioUnit effects list in all compatible host applications.

Removing Frequency from your Mac

- Open Finder.
- Navigate to the folder */Library/Audio/Plug-Ins/Components*.
- Move the file *Frequency.component* to the trash.

Getting support

Should you need any help with Frequency, please do not hesitate to contact [Sinevibes support](#) via our site.

Frequency basics

The core of Frequency starts with an oscillator which produces two waveforms of selected type and has variable detune and balance. The waveforms' phases are always randomized so the sound is slightly varying per channel and is also drifting in the stereo field. The oscillator is then routed into one of the six waveshape transformer models that dramatically enrich the sound's spectrum. If you experiment with different oscillator and waveshape settings, you will easily see what a wide palette this seemingly simple setup can produce.

Since Frequency is an effect, it takes an audio input, but doesn't use it directly. Instead, it has an envelope follower which extracts its dynamic characteristics and then applies them onto the oscillator level, as well as the waveshape parameters. This allows the synthesizer sound to follow the expression of the input signal.

The pitch of the oscillator is controlled by Frequency's note sequencer which is synchronized to the host application's transport and runs at speeds of up to 1/64th note. The root key of the note sequencer can be set from C1 to C3, and with the two-octave range of each note this gives you a range of four octaves.

For a quick start with Frequency, apply it onto a tempo-synchronized drum loop, and walk through some of the preset patches. This will let you realize that this is a unique and very capable synthesizer, and not one that is typically associated with this term.

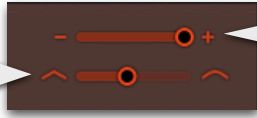
The user interface of Frequency is color-coded: oscillator elements in **green**, waveshape transformer in **blue**, envelope follower in **red**, and note sequencer in **orange**. Combined with unique shape of each control, this lets you operate Frequency very intuitively, without unnecessary visual clutter.

To save a screenshot of Frequency, hold down Control, Option and Command, and then click anywhere on the interface.

Frequency user interface

Envelope sensitivity

Adjusts the sensitivity of the input envelope follower.

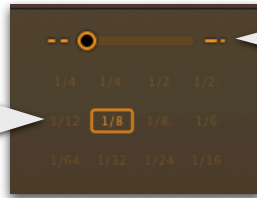


Envelope smoothness

Adjusts the smoothness of the input envelope follower.

Sequencer rate

Adjusts the speed of the sequencer according to the length of each step (from 1/64 to dotted 1/2 note).



Sequencer swing

Adjusts the amount of swing between odd and even steps. As it's moved from left to right, odd steps get longer and even steps get shorter.

Oscillator waveform

Switches between one of six oscillator waveforms.

Balance modulation

Adjusts the modulation depth of oscillator balance by the envelope follower.



Oscillator XY pad

Adjusts the voice detune (horizontal) and balance (vertical) of the two oscillators.

Oscillator glide

Adjusts the glide (portamento) time of the oscillators' pitch.

Waveshape model

Selects one of the six waveshape algorithms.

Shape modulation

Adjusts the modulation depth of waveshaper parameters by the envelope follower.

Shape XY pad

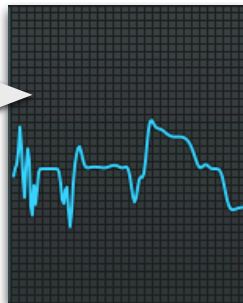
Adjusts the parameters of the waveshaper model.

Harmonics

Adjusts the amount of harmonics in oscillator output before it enters the waveshaper model.

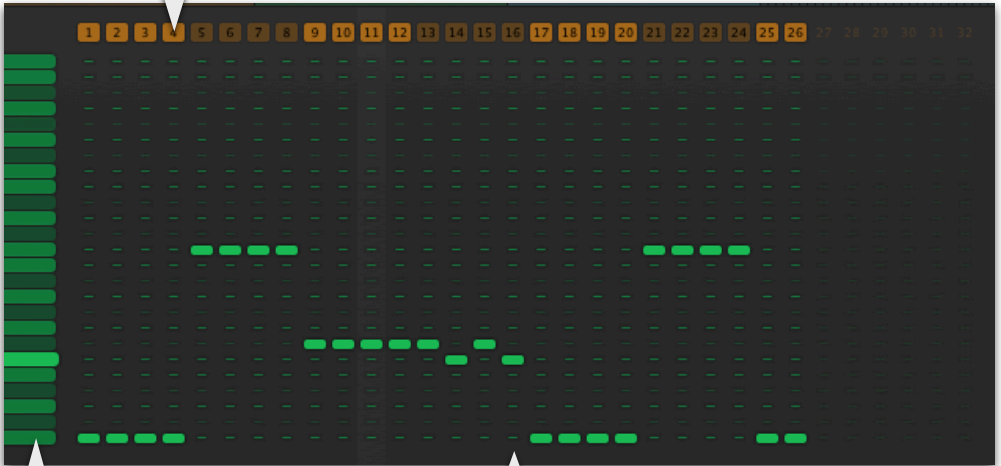
Waveform scope

Previews the output sound's waveform.



Step numbers

Indicate the numbers of note sequencer steps.
Click any step to change the sequence length.



Root note selector

Sets the root key of the note sequencer (from C1 to C3).

Note sequencer

Sets the note pitch per each sequencer step.
Command-click sets all steps to the same note.
Option-click randomizes all steps.

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Version history

- 1.2.1
 - Command-drag on the note matrix sets all steps to the same note in addition to command-click
 - Improved plugin initialization stability
 - Fixed plugin validation issue

- 1.2.0
 - Completely new user interface
 - Reworked graphics engine for much faster user interface response
 - Step markers with contrasting even/odd beats
 - Top bar indicating plugin title and version
 - Running sequence position marker
 - Re-calibrated envelope follower and oscillator filter algorithms
 - Two new pulse oscillator waveforms
 - Improved host synchronization
 - New “harmonics” control slider
 - Support for parameter automation begin/end gestures
 - New preset patches

- 1.1.1
 - Improved user interface with enhanced controls and color contrast
 - Improved automation labels for oscillator root key and waveform
 - Fixed rare plugin initialization and validation issues
 - New preset patches

- 1.1.0
 - Redesigned user interface with enhanced controls
 - Increased note sequencer length to 32 steps
 - New triangle, saw and square oscillator waveforms
 - Oscillator balance modulation by envelope follower
 - More prominent sound of the waveshaper
 - Increased XY pad control depth of the waveshaper model #3
 - New preset patches

- 1.0.0
 - Initial release