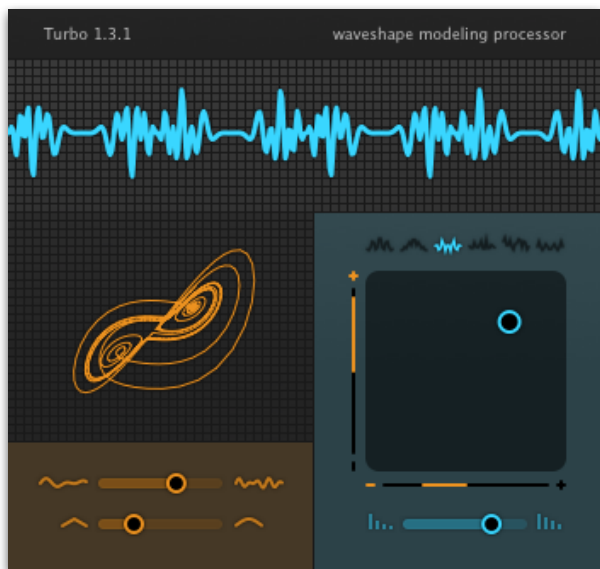




Sinevibes
audio innovations

Turbo waveshape modeling processor



Overview

Turbo is an AudioUnit effect plugin that turns simple sounds into completely new rich textures.

It features 6 original waveshaping models which drastically transform the input signal and vastly enrich it's harmonic content. Simply by processing basic waveforms, these models can produce an astonishing variety of sounds, emphasizing all of their dynamic and spectral variations. Turbo also includes a two-dimensional fractal generator that can be applied onto the waveshape model to add various interesting effects, from wobbling drones to chaotic morphing. Thanks to all these unique possibilities, Turbo now allows you to easily achieve results that were previously only possible with complex modular synthesis systems.

Features

- Six high-definition waveshape transformation algorithms.
- Dynamic fractal generator for waveshape modulation.
- Intuitive, resolution-independent user interface with graphical feedback and full parameter automation.

Compatibility

Turbo requires Mac OS 10.5 or later. It is a Universal Binary with 32 and 64 bit compatibility. You will also need an AudioUnit host application that supports Cocoa user interface technology. Please make sure to install the demo version to test Turbo on your system.

Installation

Installing Turbo

To install Turbo, simply open the disk image and then double-click the installer package. Follow the few next steps in the installer dialog, and then you will find Turbo in all compatible host applications.

Removing Turbo

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

Getting support

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

Turbo basics

Waveshaper is an effect that directly transforms the input signal's waveform. It introduces a lot of new harmonic partials, making the sound more spectrally rich and dense. Depending on the selected waveshape model and kind of input signal, the results you get from Turbo can be anything from smooth and clean, to rough and dirty.

The best way to start experimenting with Turbo is to process simple synthesizer sounds based on sine, triangle, saw and square waveforms. Try taking two or more of such waveforms, mixing and detuning them in different ways. As the next step, apply a low pass filter onto your synthesizer sound to make it more smooth, or add resonance to make it more metallic or even screaming. If you play such sounds polyphonically, the waveshaper will drastically emphasize the frequency beatings between the notes, and you can find many note combinations that create strong roaring or pulsating effects. Try these examples and you will quickly realize how many amazing possibilities waveshaping offers while being really easy to use.

Turbo also features a fractal generator based on a Lorenz attractor, which is an endlessly changing chaotic system. This generator produces two different but correlated modulation signals that are separately applied onto the waveshape X and Y parameters. Depending on the generator rate, modulation direction and depth you can achieve many interesting effects, such as wobbling drones, stereoscopic image expansion and chaotic waveshape morphing.

The user interface of Turbo is color-coded, with the waveshaper elements represented in **blue** and fractal generator elements in **orange**. Combined with unique shape of each control, this lets you quickly memorize what does what, and then operate Turbo completely intuitively.

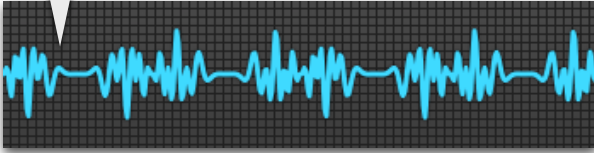
All continuous controls are represented either as sliders or two-dimensional pads. The latter are especially convenient because your Mac's mouse or trackpad itself is a two-dimensional control, and thus lets you adjust two parameters at the same time. On all sliders and pads, command-click resets them to default position. Every single parameter of the Turbo can also be automated through the host application.

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

Turbo user interface

Waveform preview

Shows how the output signal will look if the input is a single sine wave partial.



Waveshape model

Selects one of the six waveshape algorithms.

Waveshape Y modulation

Fractal modulation depth of the Y pad parameter.

Waveshape XY pad

Adjusts the parameters of the waveshaper model.

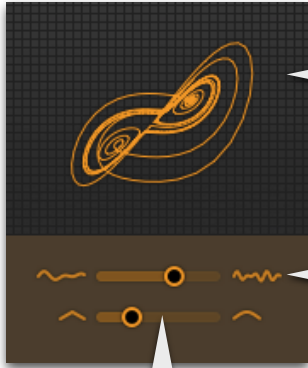
Waveshape X modulation

Fractal modulation depth of the X pad parameter.

Harmonics

Adjusts the amount of harmonics in the input signal.





Fractal waveform

Shows the fractal generator output as a two-dimensional figure.

Fractal rate

Adjusts the speed of the fractal modulation generator.

Fractal smoothness

Adjusts the smoothness of the fractal modulation generator.

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Version history

- 1.3.1 – Top bar indicating plugin title and version
- 1.3.0 – Completely new, redesigned user interface with cleaner control shapes and better color contrast
 - New two-stage input filter for smoother sound
 - New “harmonics” control slider
 - Support for parameter automation begin/end gestures
 - User interface screenshot can now be saved in PNG format
- 1.2.4 – New waveshaper model selector graphics
- 1.2.3 – Improved user interface with enhanced controls and color contrast
 - Fixed rare plugin initialization and validation issues
- 1.2.2 – Fixed pop sound sometimes occurring on plugin initialization
 - Fixed rare crash issue in some hosts
- 1.2.1 – Minor user interface enhancements
 - Improved stability of plugin initialization
- 1.2.0 – Vastly redesigned user interface with enhanced controls
 - Input low-pass filter is now used to eliminate excessive harshness in the higher frequencies
 - The original harmonics are now being toned down compared to the waveshaper harmonics, making the overall effect more prominent
 - Increased the XY pad control depth of the waveshape model #3
 - To avoid control interference, parameter adjustment with mouse dragging now only works for last clicked control or control group
 - Screenshot saving functionality (Control+Option+Command+click)
 - New preset patches
- 1.1.2 – Fixed plugin control issues when multiple instances are open
- 1.1.1 – Smoothness control for fractal generator
 - New 2D display of fractal generator output

- 1.1.0
 - Dynamic fractal generator for waveshape modulation
 - Command-click to reset slider and pad positions
 - User manual
- 1.0.1
 - Fixed compatibility issue with PowerPC G4 processors
- 1.0.0
 - Initial release