



Materia

User Guide

v1.0

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Materia

Additive Re-Synthesizer

[Materia](#) is an additive re-synthesizer that transforms any sample into a playable instrument. Load a sample and Materia analyses it into partials, each with its own frequency, amplitude, phase, and complex envelope.

From there, you can reshape the spectrum, redraw how individual partials evolve, add resonant material models, filtering, and modulation, then play the result polyphonically. Keep the character of the original sample or push it into completely new territory.

Materia is available for macOS, Windows, and Linux (VST, VST3, AU, AAX, CLAP). It's also available on the App Store for iOS and iPadOS (AUv3 and Standalone).

Installation

macOS

- Double click on the DMG archive to extract it
- Right click on the PKG installer and click open
- Follow the instructions to install the plug-in(s)

Windows

- Extract the ZIP archive
- Double click on the setup file (.exe)
- Follow the instructions to install the plug-in(s)

Linux

- Extract the tarball archive
- Run `./install.sh`
- Follow the instructions to install the plug-in(s)

Registration

When you open the plugin for the first time, the activation window will appear automatically. If it does not appear, open it by clicking the  icon next to the bypass button in the top right corner of the plugin.

A registration window with a light gray background and rounded corners. At the top center is a black icon of a flask with a stopper and three bubbles. In the top right corner is a small 'X' icon. Below the icon, the text 'Log in to authorize' is centered. There are three input fields: the first has an envelope icon and the label 'Email'; the second has a key icon and the label 'Password'; the third is a button labeled 'Log In'. Below these fields, the text 'or drag the offline license file here' is centered.

Online

- If you haven't created an account yet, you can [sign up here](#)
- Enter your email and password and click Log In.

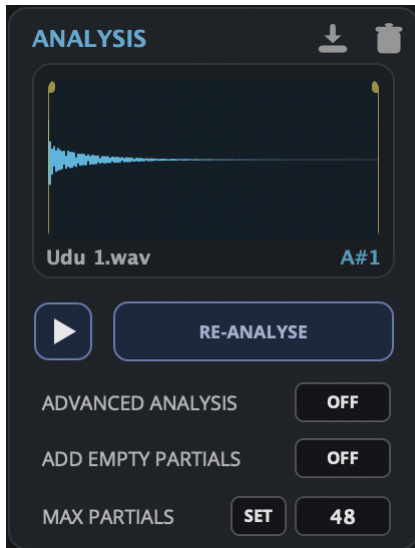
Offline

- Download the license file from your [account](#).
- Drag and drop the license file into the registration window, or click the *offline license file* label below Log In to select the license file.

Parameters

Analysis

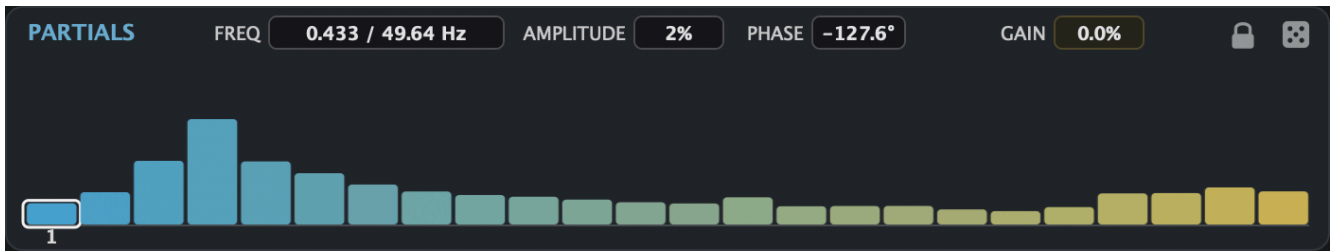
The Analysis section is where a source sample enters Materia. Drag a file onto the waveform display or click to load



- Advanced Analysis* Uses a more detailed analysis to determine an independent envelope duration and sustain loop for each partial. Analysis takes longer.
- Add Empty Partial* Adds silent partial slots beyond those detected in the sample, so new harmonics can be created manually.
- Max Partial* Sets the maximum number of partials generated during analysis, from 1 to 96.
- ↳ *Set* Applies this count to the current sound without re-analysing the sample. Increasing the count adds silent partials for editing; decreasing it removes excess partials.

Partials

Each bar represents one analysed sine partial. Click a bar to select it, or drag across the display to reshape the spectrum.

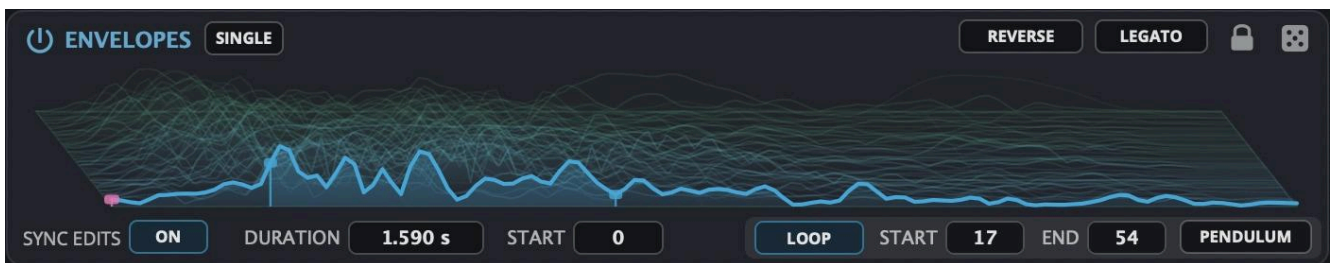


- Freq* Sets the frequency of the selected partial. The display shows its harmonic ratio and resulting frequency in Hz.
- Amplitude* Sets the volume of the selected partial.
- Phase* Sets the starting phase of the selected partial in degrees.
- Gain* Applies a global gain adjustment to all partials.

Envelopes

The Envelopes display shows how every partial changes over time. The selected envelope is highlighted while the others remain visible as a reference. Drag points or segments to reshape the envelope, or change the start point.

You can click on the Single button to switch to single partial view.

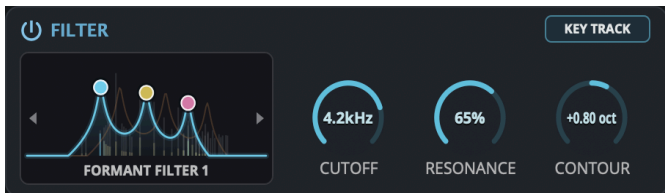


- Reverse* Plays the envelope backwards, from end to start.
- Legato* Starts overlapping notes from the ongoing partial-envelope playback position instead of restarting their partial envelopes. This is independent of the Legato setting in the Voice section.
- Sync Edits* Applies duration, start, and loop changes across all partials.

<i>Duration</i>	Sets the total length of the selected partial envelope.
<i>Start</i>	Changes the start point of the envelope
<i>Loop</i>	Repeats a section of the envelope while a note is held. <i>Start</i> and <i>End</i> set the loop boundaries.
<i>Pendulum</i>	Alternates the loop direction, playing forwards and backwards.

Filter

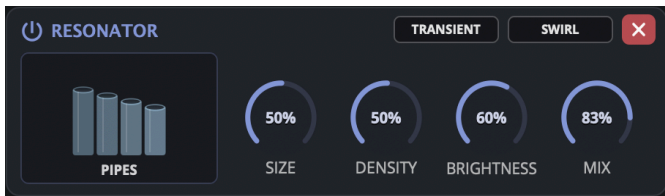
The Filter section shapes the tonal balance of the sound by removing or emphasising selected frequency ranges.



Type	Selects the filter mode and slope, including low-pass, high-pass, band-pass, notch, and formant filters.
Key Track	Links the cutoff frequency to the played note, keeping the filter's response relative to pitch.
Cutoff	Sets the filter's main frequency.
Resonance	Boosts frequencies around the cutoff, adding emphasis and character.
Contour	Controls how strongly the main amplitude envelope modulates the cutoff frequency. Positive values raise the cutoff as the envelope rises; negative values lower it.

Resonator

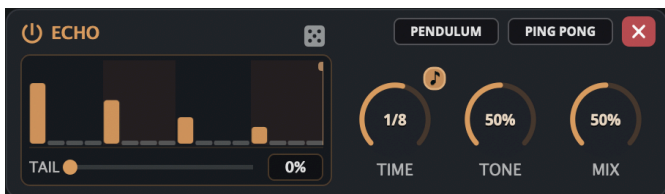
The Resonator adds the acoustic character of physical materials to the sound. Choose a material and adjust its size, density, brightness, and mix to shape the resonance.



<i>Model</i>	Selects a material-inspired algorithmic resonator, including pipes, plates, glass, wood, stone, gongs, membranes, and springs.
<i>Transient</i>	Makes the Resonator respond mainly to the initial attack of each sound, creating a sharper, more percussive resonance.
<i>Swirl</i>	Swirl adds slow, independent movement to the resonator's left and right pickup points, creating a wider, more animated stereo image. Enable it for spacious, evolving resonant tails.
<i>Size</i>	Controls the perceived size and length of the resonating material, affecting the pitch and resonance character.
<i>Density</i>	Controls the number of resonant modes, from a sparse, focused response to a fuller and more complex sound.
<i>Brightness</i>	Controls the damping and high-frequency content of the resonator, from dark and muted to bright and lively.
<i>Mix</i>	Sets the dry/wet balance.

Echo

The Echo creates rhythmic delays using a programmable pattern of taps.

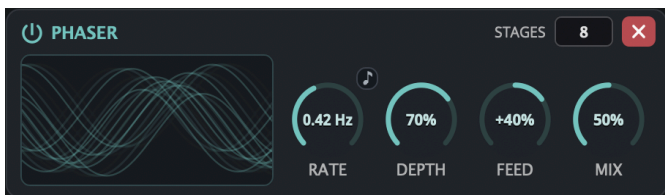


<i>Pendulum</i>	Alternates the tap pattern forwards and backwards on successive repetitions.
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<i>Ping Pong</i>	Alternates the echoes between the left and right channels.
<i>Tail</i>	Controls how strongly the complete tap pattern feeds back and repeats. Increase it for a longer, gradually fading echo sequence; set it to zero to hear the pattern only once.
<i>Time</i>	Sets the timing of the delay taps.
<i>Tone</i>	Adjusts the brightness of the echoes. Turn it down for darker, softer repeats, or raise it for a brighter, more detailed sound.
<i>Mix</i>	Sets the dry/wet balance.

Phaser

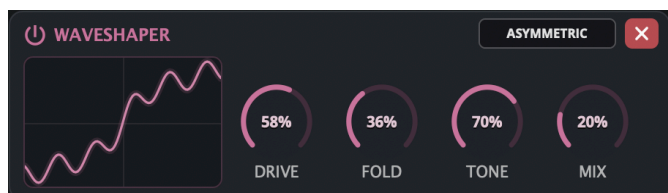
The Phaser creates moving peaks and notches by modulating a series of phase-shifting stages. Adjust the rate, depth, feedback, and number of stages to shape the movement and character of the effect.



<i>Stages</i>	Sets the number of phase-shifting stages, changing the number and complexity of the peaks and notches.
<i>Rate</i>	Sets the speed of the phaser modulation.
<i>Depth</i>	Controls the amount of modulation applied to the phaser.
<i>Feed</i>	Controls the amount and polarity of feedback, emphasizing the phaser's resonant character.
<i>Mix</i>	Sets the dry/wet balance.

Waveshaper

The Waveshaper reshapes the signal to add harmonics and distortion. Adjust the drive, folding, and tone to move from subtle saturation to more complex, aggressive textures.

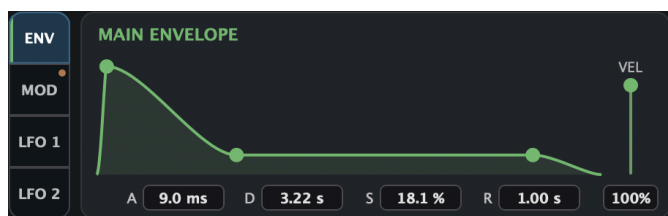


<i>Asymmetric</i>	Applies different shaping to the positive and negative sides of the waveform, creating a less symmetrical harmonic character.
<i>Drive</i>	Controls how strongly the signal is driven into the waveshaper, increasing distortion and harmonic content.
<i>Fold</i>	Introduces wavefolding, adding increasingly complex harmonics as the amount is raised.
<i>Tone</i>	Adjusts the brightness of the processed signal.
<i>Mix</i>	Sets the dry/wet balance.

Envelope & Mod Envelope

Envelope shapes the volume of each note using Attack, Decay, Sustain, and Release.

Mod Envelope uses an independent ADSR shape to animate a selected parameter. Unlike the main Envelope, it controls modulation rather than note volume.



LFO 1 & 2

LFOs provide repeating modulation using preset or custom-drawn waveforms. Adjust its rate, loop range, amount, and destination, with optional tempo sync.

The two handles on the sides of the waveform set its loop boundaries. Drag the left handle to choose where the loop begins and the right handle to choose where it ends.



Voice

Glide	Sets the time used to slide between notes.
Noise	Blends in the noisy attack captured from the source sample. Clean tonal sources may produce little or no noise. Sounds without captured noise data use a synthesized noise burst instead.
Detune	Introduces small tuning differences between all partials.
Max Voices	Sets the maximum number of notes that can play at the same time.
Mono	Enables Monophonic mode
Legato	Overlapping notes continue the main and modulation envelopes in Mono mode, or start them directly at Sustain in Poly mode.

Master

Width	Adjusts the output stereo width.
Spectral	Changes how the Width control creates stereo spread, distributing the sound's individual partials across the left and right channels.
Pitch	Transposes the entire instrument in semitones.
Volume	Sets the final output level.
Soft Clip	Applies gentle saturation to control peaks at higher levels.

Using Materia

Start by loading a sample in the sample panel. Materia analyses the sample and turns it into a playable set of partials.

The partial spectrum is the heart of the instrument. Select a partial to adjust its frequency ratio, amplitude, and phase, or use the partial controls to shape the overall balance.

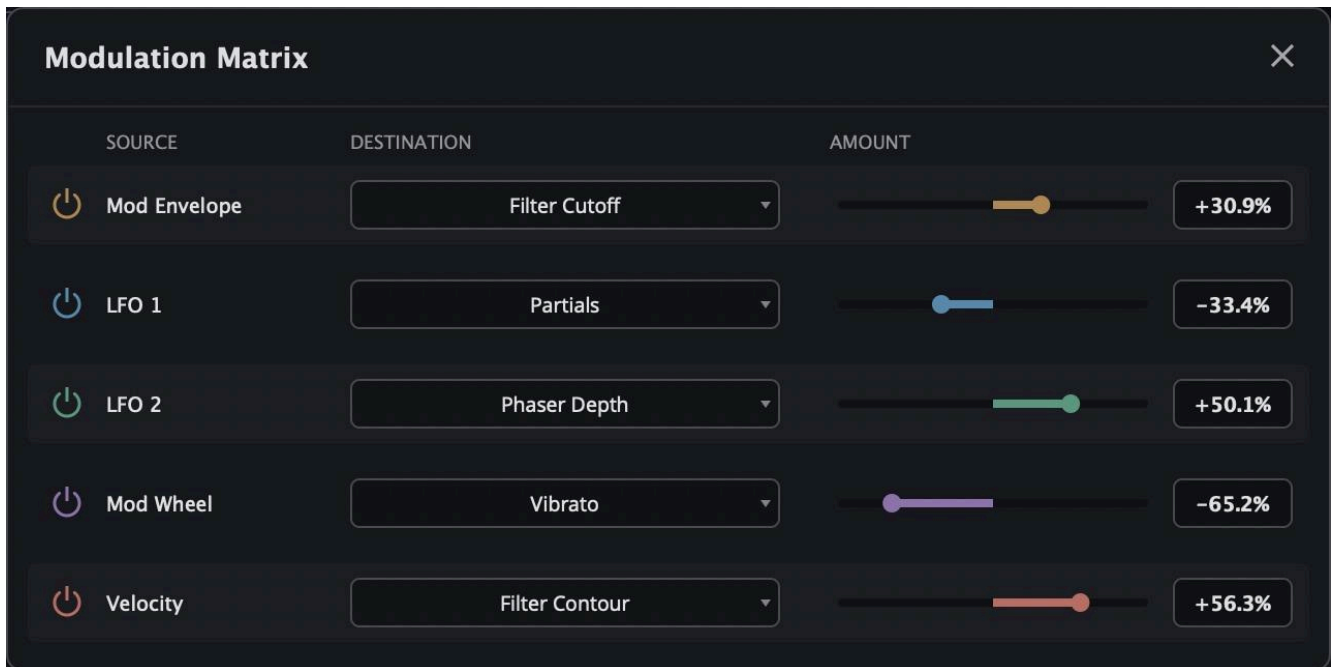
Edit the partial envelopes to change how each harmonic starts, sustains, and fades; enable Sync Edits when the same timing should be applied to every partial. Advanced Analysis determines independent envelope durations and sustain-loop points for each partial, while Add Empty Partials creates silent partials for manual editing.

The analysed model is stored with the plug-in state, so a project or a preset can be reopened without the original sample file.

Modulation Matrix

Open the Modulation Matrix from the top bar to view and edit modulation assignments. Each source has an enable switch, a destination, and an amount. Positive and negative amounts apply modulation in opposite directions.

The Mod Envelope and LFO rows control the same assignments shown in their respective panels. The Mod Wheel and Velocity rows provide additional performance-based modulation.

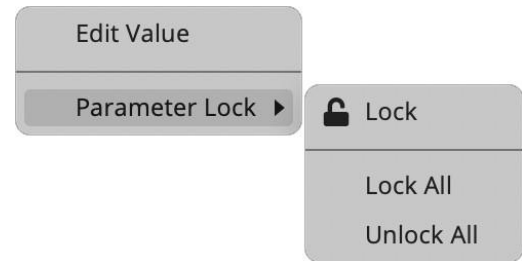


Features

Parameter Lock

If you want to keep the value of one or more parameters while changing presets, or when using the randomizer button, you can use the *Parameter Lock* feature.

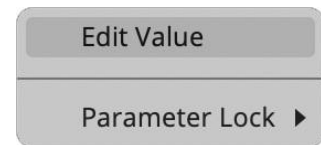
Right click on a parameter and choose *Parameter Lock*.



<i>Lock / Unlock</i>	If locked, the parameter won't be updated when changing presets
<i>Lock All</i>	Locks all parameters
<i>Unlock All</i>	Unlocks all parameters

Edit Value

You can also manually change the value for knobs and sliders. Right click on a parameter and choose *Edit Value*. You can also access this feature with SHIFT + Click.



By clicking on the icon  you can access additional features.

Window Size

You can resize the plugin window using three predefined sizes (*small, standard, big*). You can also resize the plugin window by clicking and dragging the bottom-right corner of the interface. Double clicking will reset to the standard size.

Preset Copy / Paste

You can easily share presets by using this Copy/Paste feature.

Copy to Clipboard The status of all parameters will be saved to the Clipboard

Paste from Clipboard Load a preset from the Clipboard

Enable / Disable Notifications

You can enable or disable the notifications for updates and news (shown by the bell icon). This option is global and it will affect all AudioThing plugins.

Swap Mouse Buttons

If you use the right button as your primary mouse button, the plugin might not recognize it. Use this option to enable it internally in the plugin.

This option is global and it will affect all AudioThing plugins.

GUI Acceleration

You can enable or disable the GUI acceleration supported by your system.

The current and default library is OpenGL.

Graphics Controls

This feature allows you to modify the User Interface's Brightness and Contrast.

End

Where is everything?

The installer will place the plugins, presets, and other data in these folders.

macOS

AU /Library/Audio/Plug-ins/Components/
VST /Library/Audio/Plug-ins/VST/
VST3 /Library/Audio/Plug-ins/VST3/
CLAP /Library/Audio/Plug-ins/CLAP/
AAX /Library/Application Support/Avid/Audio/Plug-Ins/
Data /Users/Shared/AudioThing/

Windows

VST *custom path from the installer*
VST3 \Program Files\Common Files\VST3\
CLAP \Program Files\Common Files\CLAP\
AAX \Program Files\Common Files\Avid\Audio\Plug-Ins\
Data \Users\Public\Public Documents\AudioThing\

Linux

VST ~/.vst/
VST3 ~/.vst3/
CLAP ~/.clap/
Data ~/.local/share/AudioThing/

Credits

DSP & Code	<i>Carlo Castellano</i>
Design	<i>John Gordon, Carlo Castellano</i>
QA	<i>David</i>

EULA

Please visit www.audiothing.net/eula/ to review this product's EULA.

Thank You

Thank you for your purchase! We hope you will have as much fun using it as we had making this product.

For support, please visit www.audiothing.net/support/

For further help or any questions, please contact us here: www.audiothing.net/contact/

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