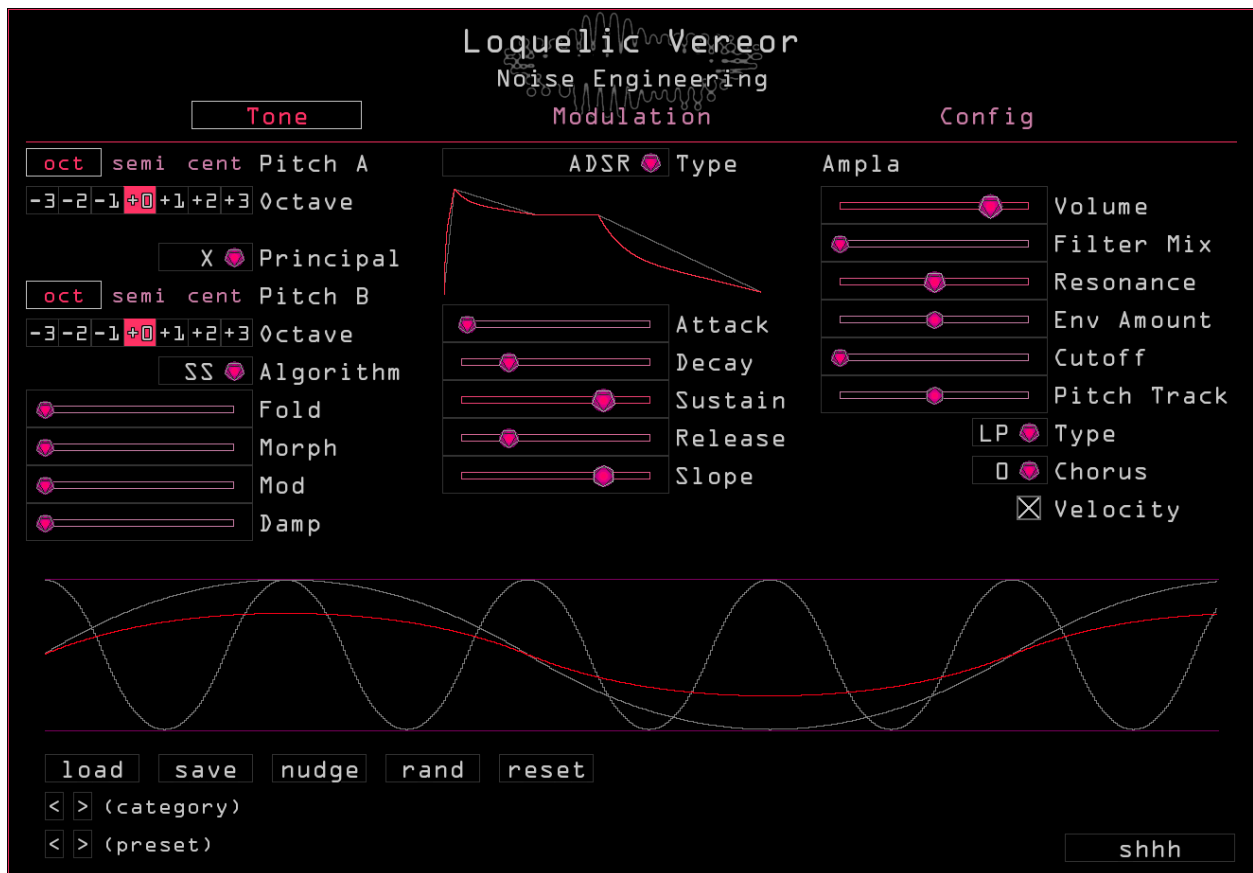


Loquelic Vereor

A synthesizer built around interpretations of three classic synthesis algorithms



User Guide

Welcome to Loquelic Vereor.

Loquelic Vereor is a complex oscillator built around interpretations of three classic synthesis algorithms with dual pitch control. It creates a huge variety of sounds parameterized by four tone and two pitch controls. Despite its old-school roots, Loquelic Vereor is more than capable in the context of contemporary sound design. If you need some leads for your house track or a drone for your newest film score, Loquelic Vereor's easy-to-use timbral controls and deep modulation system make up an inspiring palette for any application.

Loquelic Vereor is heavily inspired by our hardware roots, and its structure is similar to complex oscillator modules, which are rarely found in the world of software. Loquelic Vereor has two oscillators, but they are used to modulate each other in different ways instead of simply being mixed together, creating unique timbres that are far more complex and varied than those found in more traditional multi-oscillator subtractive synthesizers.

Loquelic Vereor is a perfect extension to any producer's toolkit. Creating the perfect melody, bassline, or sound effect has never been easier – and you've never heard anything quite like Loquelic Vereor.

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Installation

Windows

Log into portal.noiseengineering.us

Navigate to the “Plugins” tab, and click the link that says “Click here to download the installer for NE Products (W64)”

Double-click the downloaded file to run it.

NE Products will use your web browser to authenticate your plugins. Log into your Portal account on the webpage that opens if prompted, then return to NE Products.

Click on “Update plugins for [email]”.

Close NE Products, run your DAW, and your plugins will appear!

Mac

Log into portal.noiseengineering.us

Navigate to the “Plugins” tab, and click the link that says “Click here to download the installer for NE Products (OSX)”

When the download completes, open the installer file and follow the instructions.

Open NE Products. On Mac, it can be found with Finder in Applications or with Spotlight.

NE Products will use your web browser to authenticate your plugins when you run it. Log into your Portal account on the webpage that opens if prompted, then return to NE Products.

Click on “Update plugins for [email]”.

Once plugins are installed, the message at the top of the screen will display “Your plugins are up to date.”

Close NE Products, run your DAW, and your plugins will appear!

Uninstallation

Run NE Products again, and click “Uninstall Plugins.”

If you’d like to also remove their preset files, click “Uninstall Plugins and Presets.”

Doing this removes all presets in the factory directories, **including user-created presets**, so please copy any files you’d like to save to a different location before performing this action.

Function Descriptions

Complex oscillators come from the world of hardware, starting with the famed Buchla synthesizers. In contemporary hardware, a complex oscillator is a pair of oscillators that modulate each other and are often processed by wavefolders. Here at NE, we like to put our own spin on things, so our complex oscillator uses three unique algorithms, giving you sounds you have never heard.

VO

The VO algorithm is roughly based off of the VOSIM algorithm described in Curtis Roads's epic *Microsounds*. This algorithm amplitude modulates a carrier by an exponential to create a more complex harmonic structure. The simplest carrier is a sinusoid which produces a spectrum with a Gaussian distribution centered on the carrier. More complicated waveforms produce Gaussians around each harmonic, producing spectra similar to comb filtered noise.

Pitch A is the fundamental frequency of the carrier. Pitch B is the retrigger frequency of the exponential decay.

FOLD

Sets the wavefold threshold on the final wavefolder

MORPH

Changes the waveform of oscillator A

MOD

Phase modulates oscillator A by oscillator B

DAMP

Sets the decay constant on oscillator B relative to its period

SS

Algorithm SS is a highly modified version of summation synthesis originally developed by James Moorer.

FOLD

Sets the wavefold threshold on the final wavefolder

MORPH

Changes the waveform of all oscillators

MOD

Phase modulates oscillator A by oscillator B

DAMP

Controls the generated spectra with higher values producing higher power harmonics.

PM

The PM algorithm is a naive time-domain two-oscillator phase-modulation implementation that combines both oscillators with amplitude modulation.

FOLD

Sets the wavefold threshold on the final wavefolder

MORPH

Changes the waveform of both oscillators

MOD

Phase modulates the oscillators by each other

DAMP

Blends between oscillator A and B through their product (AM)

Shortcuts

Cmd/Ctrl+Click or Cmd/Ctrl+Mouse wheel

For finer control, hold Cmd (Mac) or Ctrl (PC) while moving a parameter.

Double click

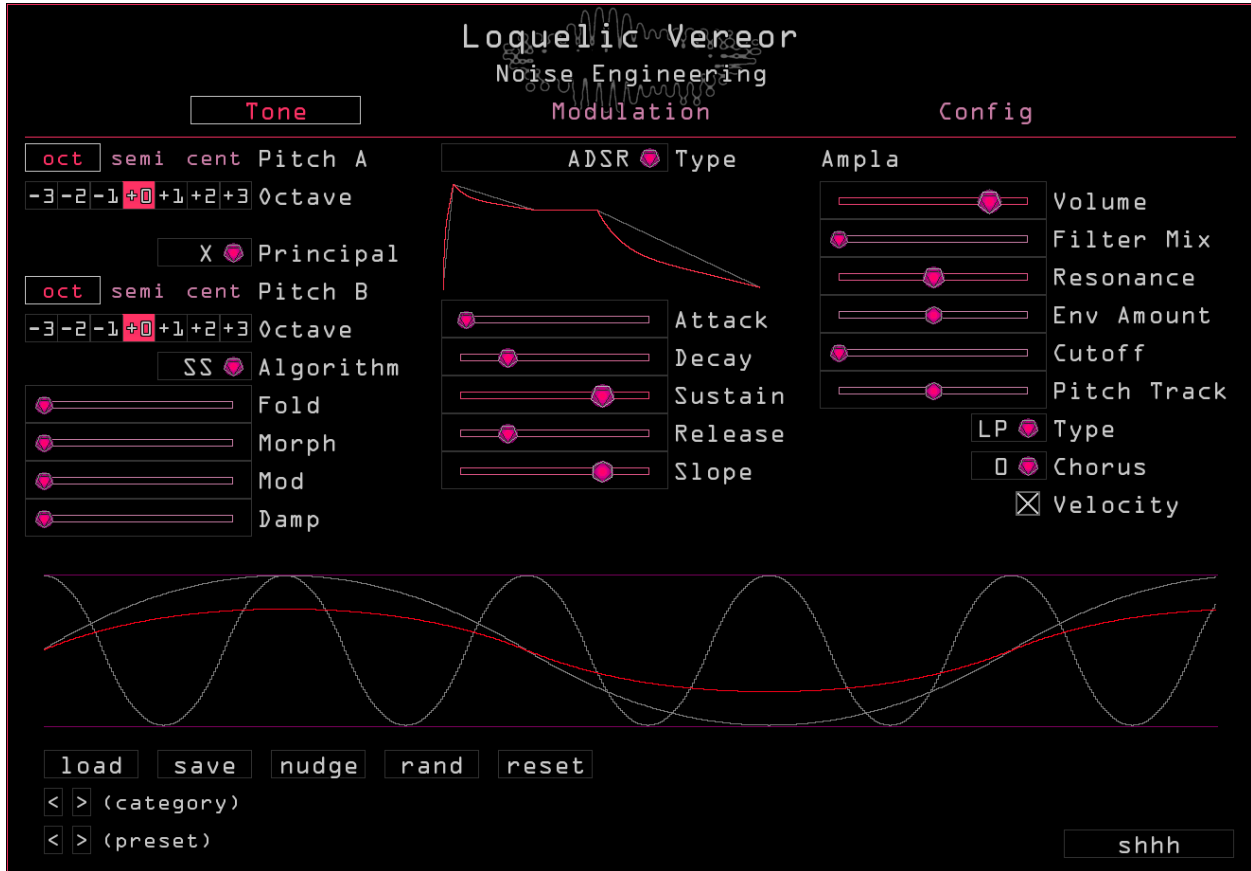
Resets any parameter to its default state.

Scroll

Hover over any parameter and scroll to adjust. Scroll+Cmd (Mac) or Scroll+Ctrl (PC) give finer control.

All of these work to edit step levels in LFO Step shape as well.

Tone Page



Pitch A/Pitch B

Right-click to bring up the modulation window for broad-range pitch modulation.

oct (Pitch A/Pitch B)

Changes the pitch of the oscillator by octaves.

semi (Pitch A/Pitch B)

Changes the pitch of the oscillator by semitones.

cent (Pitch A/Pitch B)

Changes the pitch of the oscillator by cents.

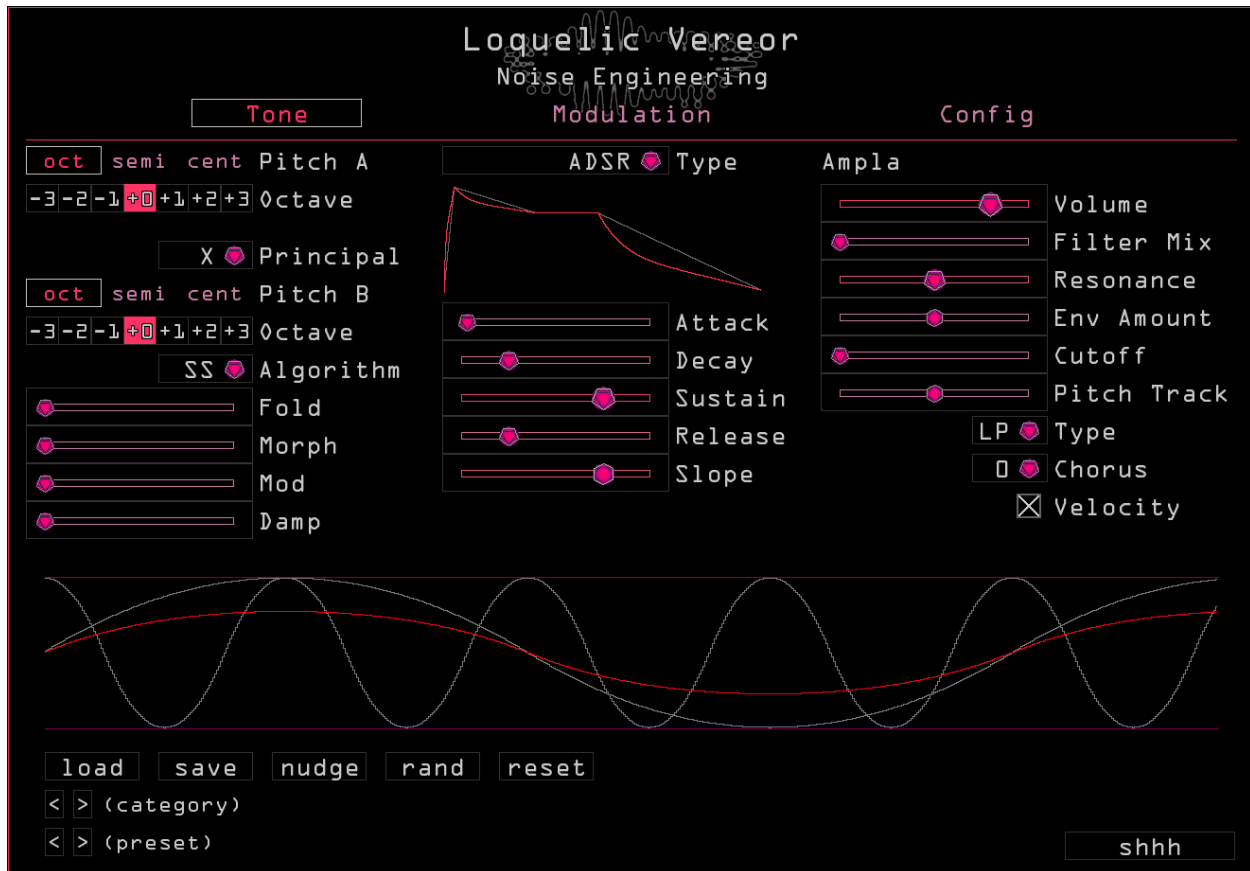
Principal

Enables oscillator sync.

- A: Oscillator B syncs to oscillator A.
- X: Sync is disabled.
- B: Oscillator A syncs to oscillator B.

Algorithm

Selects the synthesis algorithm used to generate sound. Descriptions of the different modes can be found above in the section titled "Function Descriptions."



Fold/Morph/Mod/Damp

The four main tonal parameters of Loquelic Vereor. Parameter functionality varies by mode and is described above in the section titled “Function Descriptions.”

Type

Selects the envelope type used to control the dynamics of the synthesizer.

Percido: A simple attack/decay envelope with three parameters:

Time: Sets the overall length of the envelope.

AT/DC: Sets the ratio of attack to decay within the period set by Time.

Slope: Sets the curve of the envelope.

ADSR: An ADSR envelope, common in many synthesizers.

Attack

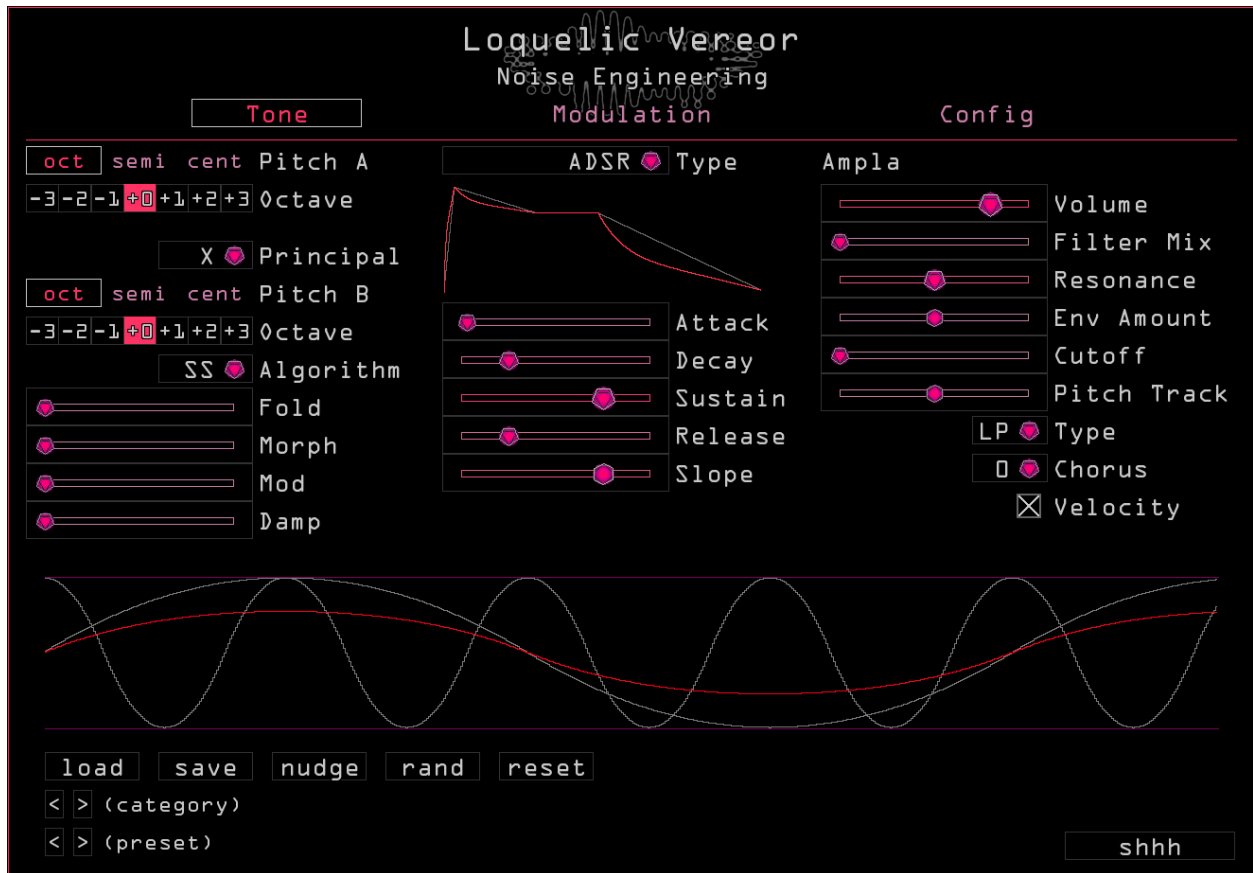
Controls the attack time for the envelope: this sets the amount of time it takes the envelope to go from minimum to maximum.

Decay

Controls the decay time for the envelope: this sets the amount of time it takes the envelope to go from the peak reached in the Attack stage to the level set in the Sustain stage.

Sustain

Sets the sustain level of the envelope: this is the level the envelope holds at after the Attack and Decay stages while a note is held down.



Release

Sets the release time for the envelope: this is the amount of time it takes the envelope to go from the Sustain level to minimum.

Slope

Changes the curve of the Attack, Decay, and Release stages of the envelope.

Volume

Sets the output level of the plugin.

Filter Mix

Controls the mix between a VCA and a VCA+filter.

Resonance

Resonance control for the filter. At high values, the Resonance modulates the filter cutoff frequency for added harmonic content. This parameter will only be audible if the Blend parameter is set higher than minimum.

Env Amount

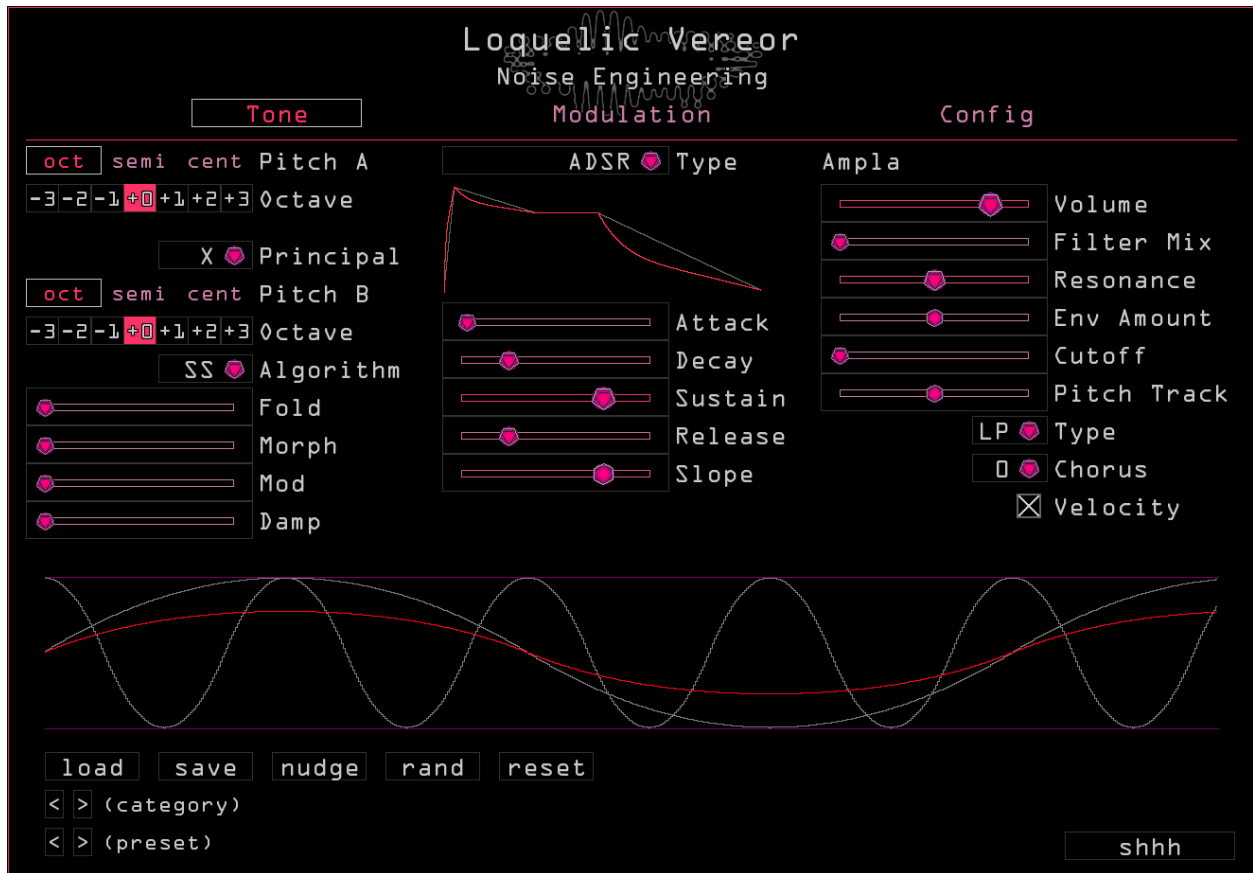
Controls how much the envelope opens the filter.

Cutoff

Sets the minimum frequency for the filter.

Pitch Track

Controls how much the filter's frequency tracks the notes being played.



Type

Sets the filter type: LP (lowpass), BP (bandpass), or HP (highpass). The filter will only be audible if the Filter Mix parameter is set higher than minimum.

Chorus

Enables a vintage-inspired chorus. 0 is off, I is some, and II is a lot.

Velocity

Toggles whether or not the synth's dynamics change based on velocity.

Presets



Presets are stored in the computer's file system, and the controls below allow for modification and navigation through the files and folders of presets. You can create a new preset "Category" by creating a subfolder in the preset directory, and saving new presets within it.

load

Load a preset.

save

Save a new preset.

< > (category)

Loads the next/previous folder of presets in the preset directory.

< > (preset)

Loads the next/previous preset.

nudge

Applies a small amount of randomization all tonal parameters and modes. Randomization can be bypassed per control in their individual modulation menus. Useful for creating slight variations of sounds.

rand

Completely randomizes all tonal parameters and modes. Randomization can be bypassed per control in their individual modulation menus. Use this to create inspiring new sounds and ideas.

reset

Resets all parameters to their default settings.

shhh

Panic button; ends all notes.



Modulation

All plugins feature a comprehensive routing system making use of a variety of modulation types and sources. When modulation is enabled on a parameter, a box showing the range of enabled modulation will appear, and a small indicator will move within the range box showing the exact position of the modulation.



Types of modulation

Parameters can be modulated from a variety of sources:

LFOs

Four onboard LFOs that offer a variety of modes, from simple waveforms to envelopes to step sequencers. More detail on LFO modes can be found in the section below titled “Modulation page.”

Mac 1-4

Macros. Four macro sliders can be assigned to any number of parameters. The macros can in turn be mapped to MIDI controllers, automated, or modulated with other LFOs.

Note

Changes value based on what note is currently played; the note range can be changed in Modulation > Other.

Env

Envelope. The onboard dynamics envelope of the synth.

Vel

MIDI note velocity.

Off V

MIDI note off velocity.

Press

MIDI channel pressure.

Slide

MIDI slide parameter

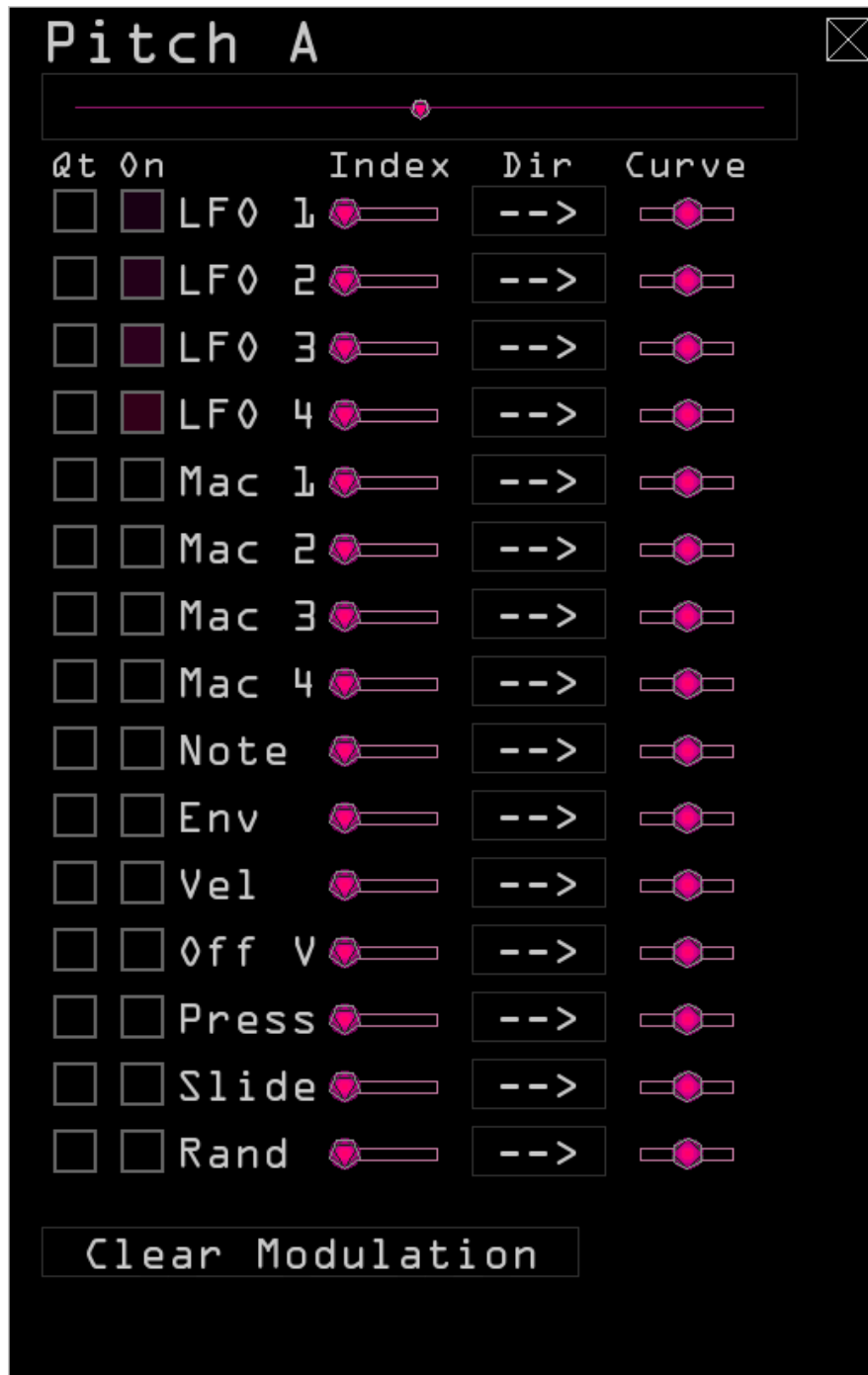
Rand

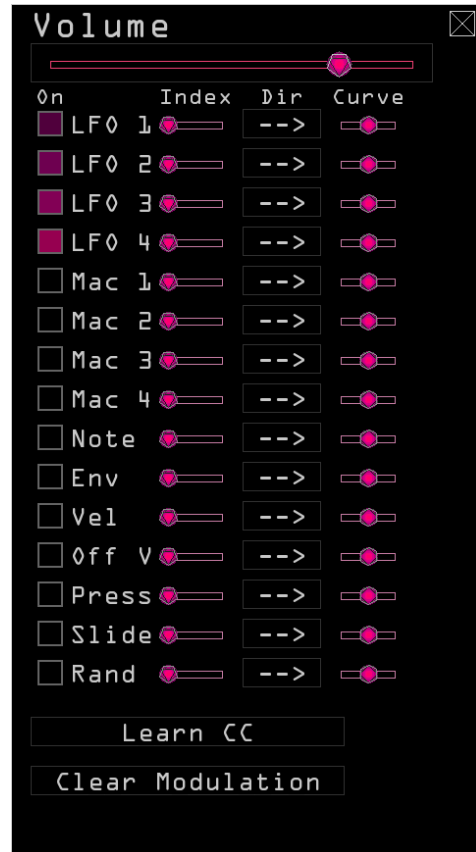
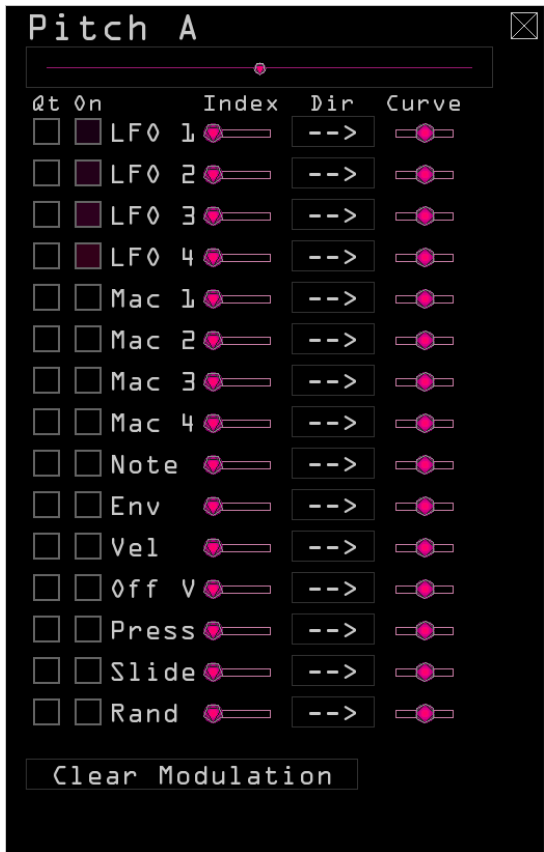
A polyphonic random value generated each time a note is played.

Learn CC (only visible when MIDI Learn is checked on the Config > Controls page) Parameters can be assigned to MIDI CC.

Modulation Assignment

When a parameter is right-clicked (Control+click on Mac), a context menu appears with modulation routing options:





Parameter slider

A copy of the parameter being modulated, for easy adjustment.

Qt (pitch only)

Toggles whether incoming modulation directly affects pitch (unchecked), or is constrained to only play in-tune notes (checked).

On

Each modulation source has a checkbox; when checked, modulation from that source is enabled.

Index

Sets the amount of modulation from a particular source. Fully left, modulation is bypassed.

Dir

Direction. Sets the polarity and inversion of incoming modulation.

--> **unipolar**: modulates from the point selected on the parameter up to the level indicated by the Index setting

<--> **bipolar**: modulates around the center point set by the parameter

<-- **inverted unipolar**: opposite modulation from unipolar

>--< **inverted bipolar**: opposite modulation from bipolar

Curve

Each modulation source has a Curve slider that changes how modulation affects the parameter. In the center, modulation is linear, and the parameter movement matches incoming modulation exactly. To the right modulation is more logarithmic, and to the left more exponential.

Allow Randomize

When checked, this parameter can be randomized when “rand” (Tone page) is clicked.

Learn CC

Click this to enable MIDI CC learn on a parameter. Move a parameter on your MIDI controller and the plugin will exit learn mode and the parameter will now respond to that CC. If clicked by mistake, click “waiting on CC” to exit learn mode. Click “forget CC” to remove an assignment.

Clear modulation (only visible when MIDI Learn is checked on the Config > Controls page)

Resets modulation checkboxes, amounts, direction, and curve. Does not affect CC assignments.

Modulation Page

Click the sections in the left column to navigate to that page and edit modulator settings and routings.

The screenshot shows the 'Modulation' page of the Loquelic Vereor software. The interface is divided into three main sections: 'Tone', 'Modulation', and 'Config'. The 'Modulation' section is currently active and highlighted. It contains several controls for four Low-Frequency Oscillators (LFO 1-4) and other modulation parameters. The controls include sliders for 'Index', 'Speed', 'Shape', 'Phase', 'Time Warp', and 'Noise'. There are also buttons for 'Wave', 'Free', 'Add Route', and 'Add Rand'. A waveform display at the bottom shows a sine wave with a '2.00s' time marker and a 'Reset LFO' button below it.

LFO 1-4

Index

Sets the modulation range of the LFO.

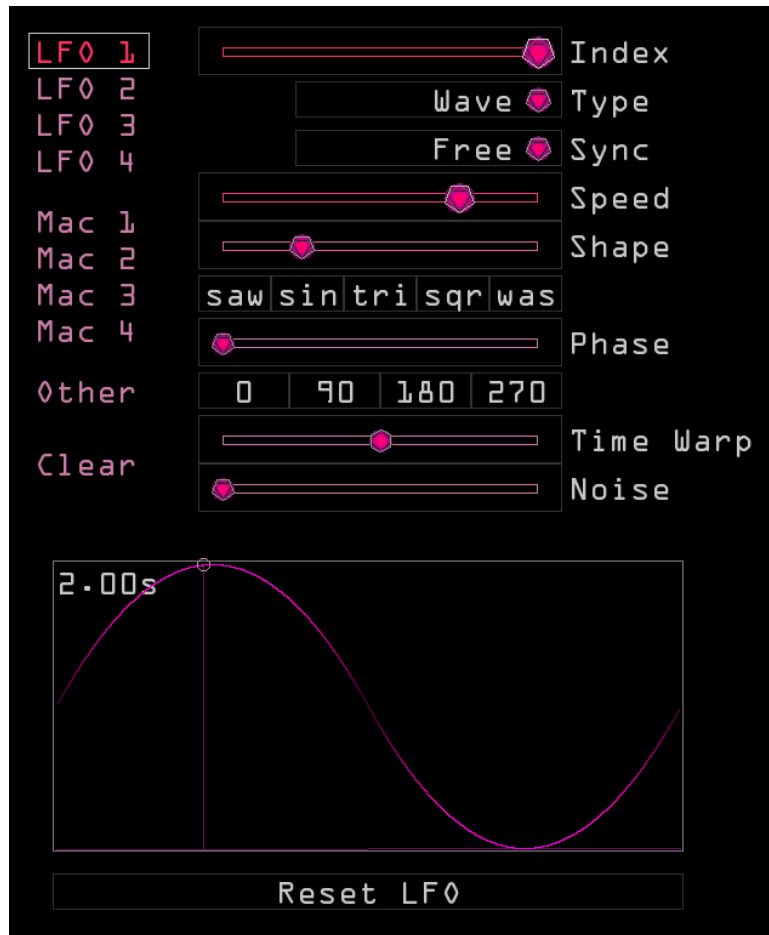
Type

Sets the type of LFO. Options include Wave, Step, and ADR, described in detail in the sections below.

Reset LFO

Resets the LFO back to its default state, respecting Type.

Type: Wave



Sync

Sets the source of timing for the modulator.

- **Free:** A single completely freerunning LFO; never resets.
- **Transport:** Speed is set in seconds, but the LFO follows the transport of the DAW.
- **Tempo:** A single LFO that is synced to the DAW's tempo and transport.
- **Poly Free:** Each note played gets its own LFO; LFOs are reset at the start of each note.
- **Poly Tempo:** A tempo-synced LFO is created per note; LFOs reset at the start of each note.

Speed/Beats

Sets the rate of the LFO. In unsynced modes, this is a slider that sets the rate in seconds. In synced modes (Tempo and Poly Tempo), this is a fraction that sets the rate in beats (for example, 4/1 would be equal to 1 bar in 4/4 meter). If a synced mode is selected, the rate can be doubled or halved with the *2 and /2 buttons respectively.

Shape

Morphs between different waveforms.

saw/sin/tri/sqr/was

Selects a shape preset for the waveform. Choose saw, sine, triangle, square, or inverted saw.

Phase

Changes the starting point of the wave.

0/90/180/270

Selects a preset for the phase of the waveform.

Time Warp

Skews the timing of the waveform.

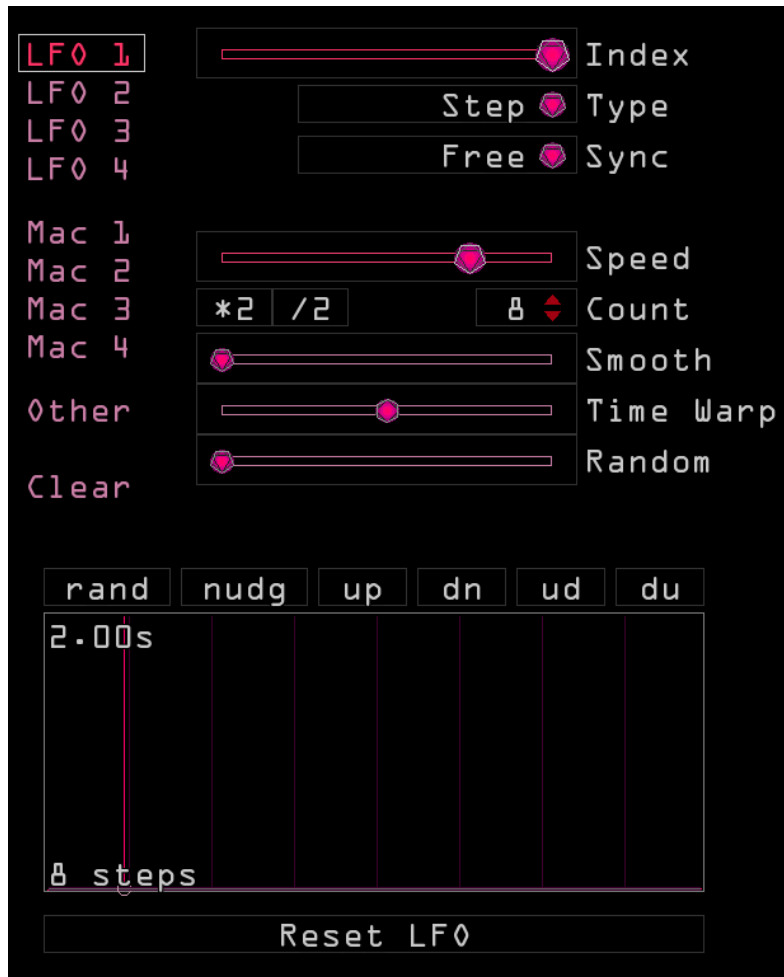
Noise

Adds randomness to the waveform.

Color (only visible when Noise is above minimum)

Changes the intensity of randomness added to the waveform.

Type: Step



Sync

Sets the source of timing for the modulator.

- **Free:** A single completely freerunning LFO; never resets.
- **Transport:** Speed is set in seconds, but the LFO follows the DAW's transport.
- **Tempo:** A single LFO that is synced to the DAW's tempo and transport.
- **Poly Free:** Each note played gets its own LFO; LFOs are reset at the start of each note.
- **Poly Tempo:** A tempo-synced LFO is created per note; LFOs reset at the start of each note.

Loop

Repeats infinitely when checked, or plays once when unchecked.

Speed/Beats

Sets the rate of the sequencer. In unsynced modes, this is a slider that sets the rate in seconds. In synced modes, this is a fraction that sets the rate in beats (for example, 4/1 would be equal to 1 bar in 4/4 meter). If a synced mode is selected, the rate can be doubled or halved with the *2 and /2 buttons respectively.

Count

Sets the steps in the sequencer; the up and down arrows change the count by one, and the *2 and /2 buttons respectively double or halve the count.

Smooth

Adjusts how smooth the transition between steps is.

Time Warp

Skews the timing of the sequencer.

Random

Adds per-step randomization to the sequence.

Graph

Edit your sequence here by clicking and dragging or use the preset buttons:

- **rand:** Randomizes the sequence entirely.
- **nudg:** Slightly changes the values of each step.
- **up:** Generates an ascending pattern across the steps.
- **dn:** Generates a descending pattern across the steps.
- **ud:** Creates a triangle pattern across the steps.
- **du:** Creates an inverted triangle pattern across the steps.

Type: ADSR

Polyphony

When checked, a new envelope is created for each voice. When unchecked, a single envelope is generated for all voices.

Loop

When set to once, the envelope goes through a single cycle per note press. When set to loop, the envelope will loop as long as a note is playing.

Attack

Controls the attack time for the envelope; this sets the amount of time it takes the envelope to go from minimum to maximum.

Decay

Controls the decay time for the envelope; this sets the amount of time it takes the envelope to go from the peak reached in the Attack stage to the level set in the Sustain stage.

Sustain

Sets the sustain level of the envelope; this is the level the envelope holds at after the Attack and Decay stages while a note is held down.

Release

Sets the release time for the envelope; this is the amount of time it takes the envelope to go from the Sustain level to minimum.

Slope

Sets the curve of the envelope with linear in the center.

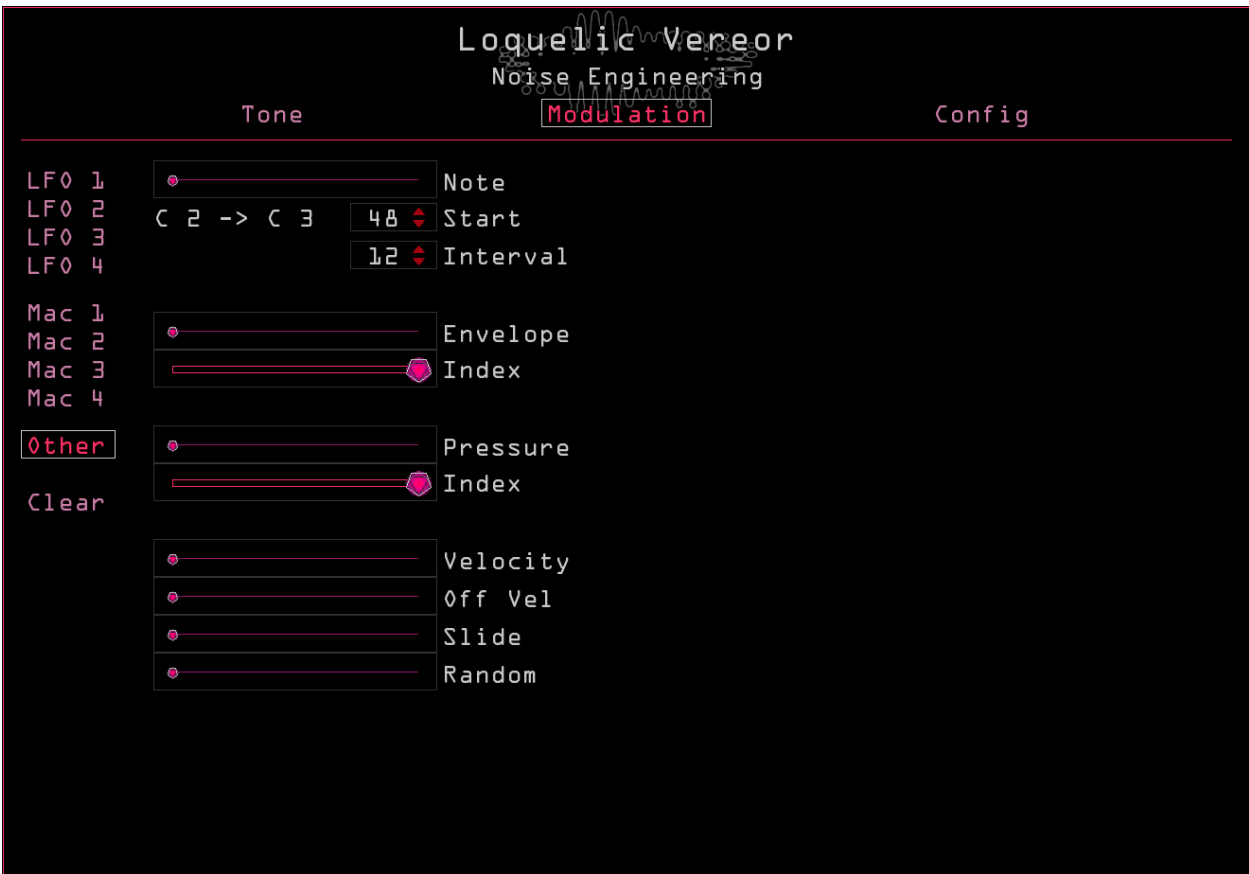
Macro



Mac 1-4

Four sliders that can be assigned to any number of other parameters, and modulated by LFOs or MIDI CCs.

Other



Note

Indicates the current Note modulator value.

Start

Sets the lowest note in the Note modulator range. Notes below this give the minimum value.

Interval

Sets the highest note in the Note modulator range. Notes above this give the maximum value.

Envelope

Indicates the current Envelope modulator value.

Index

Sets the range of the Envelope modulator.

Velocity

Indicates the current Velocity modulator value.

Off Vel

Indicates the current Release Velocity modulator value.

Pressure

Indicates the current Pressure modulator value. DAW must be MPE compatible.

Index

Sets the range of the Pressure modulator.

Slide

Indicates the current Slide modulator value. DAW must be MPE compatible.

Random

Indicates the current Random modulator value.

Clear

This page is home to the “Clear All” button. Clicking this removes all modulation routings from the patch. Use it wisely.



Modulated parameters column

When a modulator (LFO, Macro, or Other) is assigned to a parameter, the parameter will appear in this list when on that modulator's page. For instance, if LFO 1 is modulating Attack, click LFO 1 on the left side to view the modulation amount, curve, and checkbox for Attack (and any other LFO 1 modulated parameters) on the right.

The screenshot shows the 'Loquelic Vereor Noise Engineering' interface with the 'Modulation' tab selected. On the left, under 'Tone', there are controls for LFO 1-4, Mac 1-4, Other, and Clear. The 'Modulation' section in the center has a list of parameters: Index, Wave, Free, Speed, Shape, Phase, Time Warp, and Noise. On the right, under 'Config', there are buttons for 'Add Route', 'Clr Routes', and 'Add Rand', and a table of modulation assignments. The table has columns for 'On', 'Index', 'Dir', and 'Curve'. The 'On' column has checkboxes, and the 'Index' column has a knob. The 'Dir' column has left and right arrow buttons. The 'Curve' column has a knob. The table lists parameters: Octave A, Fold, Morph, Mod, and Damp. At the bottom, there is a graph showing a sine wave with a period of 2.00s and a 'Reset LFO' button.

Group

Selects a category of parameters, grouped by location in the interface. For example, the Fold parameter is in the Oscillator group.

Param

Selects a parameter from the current Group category.

Add Route

Adds modulation routing for the selected parameter from the selected modulator.

Clr Routes

Click twice to remove all modulation assignments for the current modulator. To remove a single assignment simply uncheck the On box.

Add Rand

Adds a random modulation destination.

Qt (pitch only)

Toggles whether incoming modulation directly affects pitch (unchecked), or is constrained to only play in-tune notes (checked).

On

Each modulation source has a checkbox; when checked, modulation from that source is enabled. When unchecked on this page, it is removed.

Index

Sets the amount of modulation from a particular source. Fully left, modulation is bypassed.

Dir

Direction. Sets the polarity and inversion of incoming modulation:

--> unipolar; modulates from the point selected on the parameter up to the level indicated by the Index setting

<-> bipolar; modulates around the center point set by the parameter

<-- inverted unipolar; opposite modulation from unipolar

>-< inverted bipolar; opposite modulation from bipolar

Curve

Each modulation source has a Curve slider that changes how modulation affects the parameter. In the center, modulation is linear, and the parameter movement matches incoming modulation exactly. To the right modulation is more logarithmic, and to the left more exponential.

Config Page



Controls

Tuning of A4

Offsets the base pitch of the synthesizer; defaults to contemporary “concert pitch” (A=440hz).

MIDI Learn

Enables internal MIDI learn for most parameters.

MPE

Configures the plugin to expect MPE messages.

Bend Range

Sets the pitch bend range in semitones.

MPE Bend Range

Sets the MPE pitch bend range in semitones.

Polyphony

Sets the maximum number of simultaneous voices the plugin can play.

Legato Time (1 Polyphony only)

If two notes overlap, this sets the amount of time it takes one note’s pitch to slide to the next. Note that legato only functions when the envelope is set to ADSR.

Legato Curve (1 Polyphony only)

Sets the curve of legato slides.

Tuning

The “12-tet” button sets the pitch scaling of the plugin to the default twelve-tone equal temperament tuning. The “load scl” button allows the user to load Scala files for different tuning systems.

Graphics

Static

Adds some retro flare to the GUI.

Size

Sets the size of the plugin window.

Hue

Sets the color scheme of the plugin.

Fire

Adds some attitude to the plugin GUI.

Help

Tooltips

Turn tooltips on or off.

Get Manual

Opens the plugin product page.

I Need Help

Uploads anonymized system information used for troubleshooting and opens the support form. If you're having an issue please press this button and fill out the form to tell us what the problem is! You can also always reach us at noiseengineering.us/pages/contact. Drop us a line and we'll get back to you within two business days.

See All NE Plugins

Opens the plugin shop. Check out all the Noise!

Plugin Locations

Plugin presets install to:

Windows: C:\Users\Public\Documents\Noise Engineering\

Mac: /Users/[name]/Library/Audio/Presets/Noise Engineering/

Noise Engineering plugins are installed to the default locations for the specified plugin formats. In a majority of cases, plugins will not need to be moved. In the rare instance that you need to move your VST plugins, find them in the following locations.

Windows: C:/Program Files/Common Files/VST3/Noise Engineering/

Mac: /Library/Audio/Plug-Ins/VST3/

Note that AU and AAX plugins cannot be moved. For reference, they are installed here:

Mac AU: /Library/Audio/Plug-Ins/Components/

Mac AAX: /Library/Application Support/Avid/Audio/Plug-Ins/Noise Engineering/

Windows AAX: C:/Program Files/Common Files/Avid/Audio/Plug-Ins/Noise Engineering/

Preset Names

Plugin preset names are often weird. It's true. But you may find ours a little strange. Let us explain.

At Noise Eng, we are a small team of nerds. And faced with a daunting task like names for 500 presets for a single plugin, we do what we do best: we automate. We briefly considered using a dictionary, but if you've ever read a dictionary (at least one of us has), you'll know there are some words in there that at least one of our users is bound to not want popping up in their plugin. So we did a workaround.

Stephen, our chief noisemaker and also head engineer, went to the nerdiest resource he could find: the IETF, or the Internet Engineering Task Force. They produce documents for voluntary Internet standards. They are technical and cover things like Network File Systems, MD5, ISCSI, Secure Shell-2, and others. Want a nerdy list? Check it out [here](#).

The Requests for Comments series contain technical and organizational notes about the Internet. So we grabbed some of those and made our own dictionary. If some of the presets have very weird terms -- there is probably an esoteric technical meaning to it. If Joseph or some other name pops up, you can thank them for their contribution to trying to make the Internet a slightly more sane place.

Of course there was still the occasional questionable word here or there, so we went in and made a few adjustments. Now you may one day find a preset with the name Puppies_rainbows or with Unicorn in the name. You can thank Kris for that. Did we miss a questionable word you think we should take out? Get in touch and let us know!

And the categories? During early beta test (alpha beta?), one of our great testers let us know that some of the category names seemed like they were meant to be descriptive, but then were somewhat misleading. He was completely right, so we took a look at this and decided to revise. One thing we think about a fair amount here at Noise Engineering is creativity. In particular, we don't like telling people how to use something. This is part of why we name our products as we do (but that's a story for another day), and we decided to apply the same logic to the plugin categories. But we wanted to bring our normal sense of play to it so you'll find that each plugin has the presets categorized as themes suggested by the team [here](#).

About NE

Noise Engineering is located in Los Angeles, California. We started around 2014 when Chief Noisemaker Stephen McCaul wanted a hobby for his off time from his day job and started making Eurorack modules in a spare bedroom at home. One thing led to another and a couple of years later, he and wife Kris Kaiser quit their day jobs and took the company full time. Noise Engineering has since grown in size and has established itself as a well-regarded and innovative synthesizer brand, with products in Eurorack, 5U, and multiple software platforms.

Special Thanks

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