User Guide

TAL NoiseMaker

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TAL NoiseMaker

User Guide

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1 Introduction to TAL NoiseMaker

1.1 Introduction

TAL NoiseMaker is a versatile subtractive virtual analog synthesizer that offers an easy-to-use interface and a deep sound signature that is ideal for many modern electronic music genres.

NoiseMaker is an improved version of TAL Elek7ro and has a completely new synth engine and user interface. NoiseMaker includes two main oscillators, a sub oscillator, multiple filter types, two LFOs, an envelope editor, and multiple effects.

This user guide will describe NoiseMaker's components in detail, in order to guide the development of unique presets that will make your music stand out from the crowd. Let's make some noise!

1.2 TAL NoiseMaker Specifications

1.2.1 Oscillators

- Three Oscillators
  - Osc 1: +- 24 semitones, fine tune, phase control, saw, pulse, and noise waveforms, and pulse modulation (PM) for pulse waveform
  - Osc 2: +- 24 semitones, fine tune, phase control, saw, rectangle, triangle, and sine waveforms, frequency modulation (FM) controlled by OSC 1
  - Sub Osc (rectangle)
  - Osc 1 & Osc 2 can sync to Sub Osc (when using saw, pulse, rectangle, and triangle waveforms)
- Up to 6 voice polyphony

1.2.2 Master Effects

- Adjustable master tune and transpose
- Monaural and polyphonic portamento
- A ring modulator that modulates Osc 1 with Osc 2

1.2.3 Filters

- Self-resonating 4x oversampled filters (24 dB LP, 18 dB LP, 12 dB LP, 6 dB LP, 12 dB HP, 12 dB BP, Notch, SV 24 dB LP, SV 24 dB HP, SV 24 dB BP, No feedback delay 24 dB LP)
- Negative and positive filter attack, decay, sustain, and release (ADSR)

1.2.4 ADSR Envelopes

- Volume ADSR envelope
- An additional routable ADSR that modulates Filter, Osc 1, Osc 2, PW, and FM (negative and positive)

1.2.5 LFOs

- Two LFO's with free, sync to host, and triggered by note running modes
- Modulates filter, Osc 1, Osc 2, FM, PW, LFO rate, pan, and volume
- Sine, triangle, saw, square, s&h, and noise patterns
- Positive and negative modulation
- Phase control

1.2.6 Additional Effects

- Adjustable velocity dependent control over volume, filter contour, and cutoff
- Adjustable pitch wheel control over cutoff and pitch
- One pole high pass (HP) filter
- Random note detune
- Two-mode Juno chorus
- Reverb with adjustable wet/dry, size, pre-delay, and high/low cut
- Delay with tempo sync, left/right ping pong, and adjustable wet/dry, rate, and feedback
- Adjustable filter drive
- Pre-filter stage adjustable Osc Crush

1.2.7 Miscellaneous

- Midi learn for all knobs
- Panic button

1.3 Presets

NoiseMaker includes 256 built-in presets that are suitable for many electronic music genres. See Section 3 "Presets" for more details.

1.4 Panels

NoiseMaker uses panels to display interface components. Click the title of a panel to show/hide its associated components.

TAL NoiseMaker panels include:

- The Synth 1 Panel – LFO 1, Osc 1 and Osc 2, and Master volume and effects
- The Synth 2 Panel – LFO 2, Filter, and ADSR
- The Envelope Editor Panel – A dynamic, tempo-synced, custom envelope that can control filter, oscillator pitch, FM, ring modulation, and master volume
- The Control Panel – Includes sliders that modify mod/pitch wheel values, and multiple effects such as chorus, reverb, bitcrusher, delay, vintage noise, and filter drive
- The Bottom Panel – Includes a multifunction display, a PANIC button, and controls for MIDI map, loading, and saving presets.

1.5 Components and Elements

1.5.1 Components

Multiple components are nested within each interface panel. Components are the building blocks that allow you to modify built-in presets or create your own sounds. In the example below, OSC1 is the highlighted component of the Synth 1 panel.

1.5.2 Elements

Elements are the knobs, sliders, buttons, etc. that can be directly manipulated using the mouse or midi control to alter a sound in real time. In the example below, the **Tune** knob is an element of the OSC1 component.

1.6 Legal

TAL NoiseMaker is open source and may be freely distributed. Do not make any modifications to this software or attempt to sell it.

The plugin uses the open source Jules' Utility Class Extensions (JUCE) framework. JUCE is a comprehensive C++ class library for developing cross-platform software.

TAL NoiseMaker's source code was released under the Gnu Public Licence, which means it can be freely copied and distributed, and costs nothing to use in open source applications.

The source code must be freely released if it is modified or used in any capacity. Please contact Patrick Kunz (pkstar@gmx.ch) if you want use parts of the source code in a commercial product.

2 Installation Guidelines

TAL NoiseMaker can be used with 32 and 64 bit Linux, Mac OSX, and Windows XP/Vista/7 VST hosts. It is also available as a 32 and 64 bit Mac Audio Units component. Before installation, ensure that you have the correct zip file for your host and operating system.

Note: If your VST host is open, you may need to re-scan the plugin directory or restart the application after installation.

2.1 Windows

2.1.1 TAL-NoiseMaker.zip (32 bit)

32 bit VST plugins are compatible with 32 bit and 64 bit Windows operating systems and are supported by most VST hosts.

To install TAL NoiseMaker:

1. Open TAL-NoiseMaker.zip.
2. Copy TAL-Noisemaker.dll into the VST plugin folder of your host. The default plugin folder for most VST hosts is C:\Program Files (x86)\VstPlugins\

2.1.2 TAL-NoiseMaker-x64.zip (64 bit)

64 bit VST plugins are only compatible with 64 bit Windows operating systems. Ensure your VST host supports 64 bit plugins before installing TAL NoiseMaker.

To install TAL NoiseMaker:

1. Open TAL-NoiseMaker.zip.
2. Copy TAL-Noisemaker.dll into the VST plugin folder of your host. The default 64 bit plugin folder for most VST hosts is C:\Program Files\Vstplugins\

2.2 Macintosh

2.2.1 TAL-NoiseMaker.vst.zip (32 bit)

To install TAL NoiseMaker:

1. Open TAL-NoiseMaker.vst.zip.
2. Copy the TAL-Noisemaker.vst folder into the VST plugin folder of your host. The default VST plugin folder for most hosts is /Library/Audio/Plug-Ins/VST/

2.2.2 TAL-NoiseMaker.component.zip (32 bit)

To install TAL NoiseMaker:

1. Open TAL-NoiseMaker.component.zip.
2. Copy the TAL-Noisemaker.component folder into the Audio Units plugin folder of your host. The default Audio Units plugin folder for most Audio Units hosts is /Library/Audio/Plug-Ins/Components/

2.2.3 TAL-NoiseMaker-x64.component.zip (64 bit)

To install TAL NoiseMaker:

1. Open TAL-NoiseMaker-x64.component.zip
2. Copy the TAL-Noisemaker-x64.component folder into the Audio Units plugin folder of your host. The default Audio Units plugin folder for most Audio Units hosts is /Library/Audio/Plug-Ins/Components/

3 Presets

3.1 Built-in Presets

3.1.1 Overview

TAL NoiseMaker includes 256 built-in presets. A basic single-oscillator saw wave *[Startup Juno Osc TAL]* is opened by default.

3.1.2 Preset Types

Built-in presets are arranged according to the type of sound they produce. Preset types include:

- Arpeggiated (ARP)
- Bass (BS)
- Chords (CH)
- Drums (DR)
- Special Effects (FX)
- Keyboards (KB)
- Leads (LD)
- Pads (PD)

Each preset name also indicates the preset's author. For example, preset #1 *[ARP 2050 Punk TAL]* was created by Togu Audio Line (TAL). Try out presets from different authors to get a feel for the tonal variety that NoiseMaker offers. Preset authors (as of version 3.21) include:

- Togu Audio Line – Patrick Kunz (TAL)
- Frank "Xenox" Neumann – Particular – Sound (FN)
- The Unshushable Coktor (TUC)
- Alexandra Sendy (AS)

3.1.3 Loading Built-in Presets

The procedure for loading built-in presets depends on your VST host. Below are the procedures for FL Studio, Ableton Live, Studio One, and Cockos REAPER.

FL Studio

1. Select TAL NoiseMa... in the step sequencer window to view the interface.
2. Click on the Fruity Wrapper menu bar, then select **Presets**.
3. A list of built-in presets appears. Select the preset you wish to use.

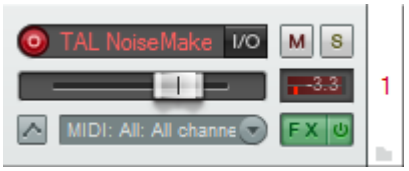
Ableton Live

1. Click the midi track NoiseMaker is assigned to. The device editor window appears in the bottom of the screen.
2. Click the drop-down menu.
3. A list of built-in presets appears. Select the preset you wish to use.

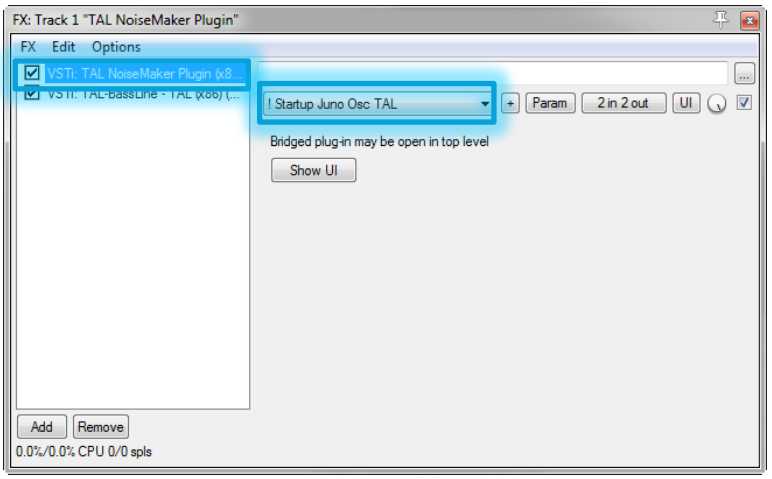
Studio One

1. Click ▼ on the Instrument panel and select TAL-NoiseMaker.
2. A drop-down menu appears on the lower-right. Select the preset you wish to use.

Cockos Reaper



1. Select FX on the virtual instrument track.
2. The FX: Track x window opens. Select VSTi: TAL NoiseMaker Plugin.



3. Click the drop-down menu.
4. A list of built-in presets appears. Select the preset you wish to use.

3.2 Saving and Loading Custom Presets

The **Load Preset** and **Save Preset** buttons are located on the bottom panel. Use these buttons to save custom presets that can be shared with other NoiseMaker users.

3.2.1 Saving Custom Presets

TAL NoiseMaker does not store user presets in a default folder. Choose a folder/path that will be easily recalled in the future.

To save a custom preset:

1. Click **Save Preset** on the bottom panel.
2. A window opens. Navigate to the directory you wish to save the file.
3. In the **File Name** text box, type a unique name for your preset.
4. Press Enter or click the **Save** button.

3.2.2 Loading Custom Presets

To load a custom preset:

1. Click **Load Preset** on the bottom panel.
2. A window opens. Navigate to the directory that contains custom NoiseMaker presets.
3. Click the *.NoiseMakerpreset file you wish to load.

4 TAL NoiseMaker in Detail

4.1 The Synth 1 Panel

4.1.1 Overview

The Synth 1 panel includes an LFO, two oscillators, a ring modulator, oscillator sync, portamento, and master volume, polyphony, and tuning controls.

4.1.2 OSC 1

Tune

The **Tune** knob adjusts oscillator frequency in increments of +/- 24 semitones.

Fine

The **Fine** knob adjusts oscillator frequency +/- 1 semitone.

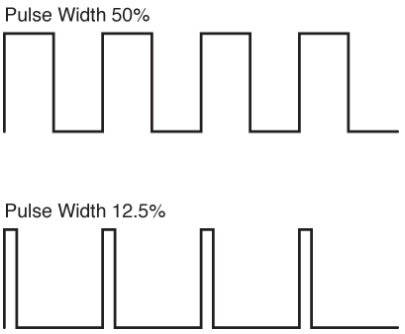
Note: Adjusting the fine tuning of OSC 1 and OSC 2 produces a fat, aggressive tone that stands out in a crowded mix. See preset ARP Danger Dance TUC for an example.

Phase

The **Phase** knob adjusts the phase of the selected oscillator type. This is audible only when using the same wave type for both oscillators.

PW (Pulse Width)

The **Pulse Width** knob adjusts the pulse width positively or negatively when the pulse waveform is selected. Setting a high or low pulse width greatly reduces the waveform's low frequencies. See the figure below for an example.



Select Waveform

Osc 1 may use Sawtooth, Pulse, or Noise waveforms. Click Saw and select a waveform type from the drop down menu.

4.1.3 OSC 2

Tune

The **Tune** knob adjusts oscillator frequency in increments of +/- 24 semitones.

Fine

The **Fine** knob adjusts oscillator frequency +/- 1 semitone.

Phase

The **Phase** knob adjusts the phase of the selected oscillator type. This is audible only when using the same wave type for both oscillators.

FM (Frequency Modulation)

FM modulates Osc 2's frequency up to 20x. At 20x, FM adds a tone approximately two octaves higher than the oscillator's actual pitch.

Select Waveform

Osc 2 may use Sawtooth, Pulse, Triangle, Sine, or Noise waveforms. Click

and select a waveform type from the drop down menu.

4.1.4 LFO 1

Rate

The **Rate** knob controls LFO modulation frequency (speed). By default, the LFO frequency is adjusted in hertz (Hz).

Sync

When **Sync** is selected (centre of button is red), the LFO frequency is adjusted in sync with your project's tempo.

Amount

The **Amount** knob controls the level of modulation. The LFO amount can be applied positively or negatively.

Destination

The **Destination** box applies the LFO to a specific element of the NoiseMaker preset. Click

to select the LFO destination. LFO 1 can modulate:

- Filter
- Osc 1
- Osc 2
- Osc 1 and Osc 2
- Pulse Width
- Frequency Modulation
- LFO 2 Rate

Wave Type

The **Wave Type** box contains six wave types that affect modulation rate and amount. Click and drag the mouse up/down to select the LFO wave type.

Phase

The LFO **Phase** knob adjusts the timing of the LFO in relation to the oscillators. When the **Phase** knob is at +/- 100%, a tempo-synced LFO will be audibly ahead/behind the oscillator.

Key Trig

The **Key Trig** box sets the LFO to retrigger itself each time a note is played. Click (centre of button is red) to enable Key Trig.

4.1.5 Master

OSC 1

The **OSC 1** knob controls the volume of OSC 1.

OSC 2

The **OSC 2** knob controls the volume of OSC 2.

Sub

The **Sub** knob controls the volume of the Sub Osc. The Sub Osc produces a sine wave that adds thickness and bass to complement Osc 1 and Osc 2. Select the preset *BS Clean Flat Bass TAL* and adjust the Sub knob for a clear example of the sub-oscillator's capabilities.

Volume

The **Volume** knob controls the master volume.

Ringmod

The **Ringmod** knob controls the amount of ring modulation applied to Osc 1 and Osc 2. At 100%, the input levels of Osc 1 and Osc 2 are multiplied such that the original frequencies disappear totally from the output, leaving only the sum and difference frequencies. Ring modulation is often used to simulate the sounds of tuned percussion instruments such as bells and chimes. As demonstrated in the *LD Ringing Lead TAL* preset, ring modulation can also be combined with Sync to add high-frequency "bite" to a sound.

Sync

The **Sync** button hard syncs Osc 1 and Osc 2 to the Sub Osc's frequency. In cases where Osc 1 and Osc 2 are detuned to different frequencies, they will play in tune, and may

give the impression of harmony or other unique timbres. Hard sync is possible even if the sub-oscillator volume is zero.

Note: Sync only affects Saw, Pulse, and Triangle oscillators.

Porta

The **Porta** knob controls the speed of portamento (a gradual slide) from one note to another. Click Off and select On to enable portamento. Select Auto to enable portamento only when two notes are played at the same time.

Voices

The **Voices** box controls the polyphony of a preset. Click mono and select the desired polyphony from the drop-down menu. NoiseMaker supports up to six-voice polyphony.

Tune

The **Tune** knob adjusts the pitch of all oscillators +/- 1 semitone.

Transpose

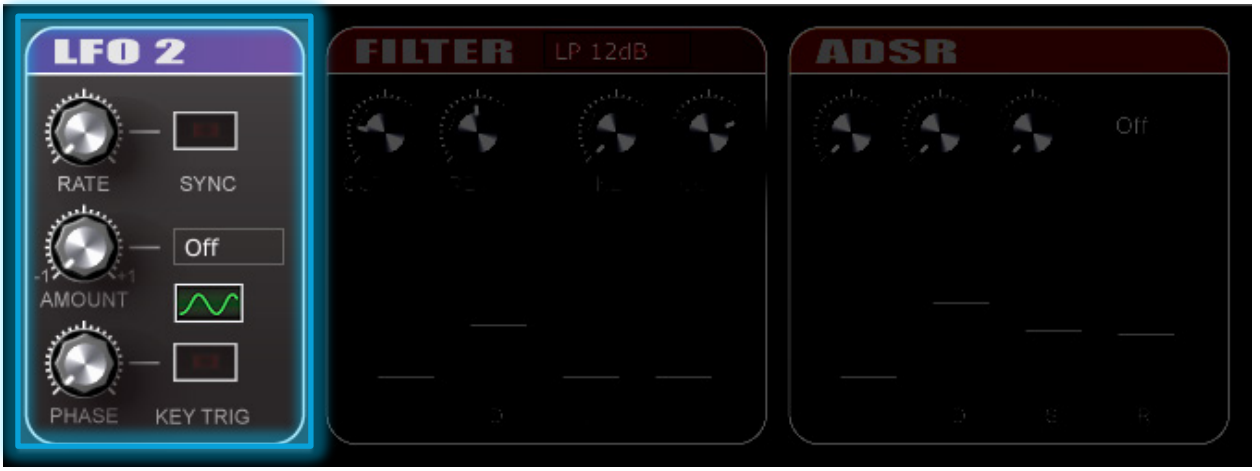
The **Transpose** knob transposes the pitch of all oscillators one/two octaves up or one octave down.

4.2 The Synth 2 Panel

4.2.1 Overview

The Synth 2 Panel includes an LFO, 11 Filter types, amplifier ADSR controls, and additional Attack/Decay controls that can modulate the Filter, Osc 1, Osc 2, PW, or FM.

4.2.2 LFO 2



Rate

The **Rate** knob controls LFO modulation frequency (speed). By default, the LFO frequency is adjusted in Hz.

Sync

When **Sync** is selected (centre of button is red), the LFO frequency is adjusted in sync with your project's tempo.

Amount

The **Amount** knob controls the level of modulation. The LFO amount can be applied positively or negatively.

Destination

The **Destination** box applies the LFO to a specific element of the NoiseMaker preset. Click

to select the LFO destination. LFO 2 can modulate:

- Filter
- Osc 1
- Osc 2
- Osc 1 and 2
- LFO 1 Rate
- Pan
- Volume

Wave Type

The **Wave Type** box contains six wave types that affect modulation rate and amount. Click and drag the mouse up/down to select the LFO wave type.

Phase

The LFO **Phase** knob adjusts the timing of the LFO in relation to the oscillators. When the **Phase** knob is at +/- 100%, a tempo-synced LFO will be audibly ahead/behind the oscillator.

Key Trig

The **Key Trig** box sets the LFO to retrigger itself each time a note is played. Click (centre of button is red) to enable Key Trig.

4.2.3 Filter

Filter Types

TAL NoiseMaker includes 11 filter types:

- Low pass 24 dB
- Low pass 18 dB
- Low pass 12dB
- Low pass 6 dB
- High pass 12 dB
- Band pass 12 dB
- Notch
- State-variable low pass 24 dB
- State-variable high pass 24 dB
- State-variable band pass 24 dB
- No feedback delay low pass 24 dB

Cutoff

The **Cutoff** knob controls the amount of frequencies that pass through the filter. In a standard low pass filter, cutoff determines the amount of high frequencies to be cut.

When using a high pass filter, the **Cutoff** knob controls the amount of low frequencies that pass through the filter.

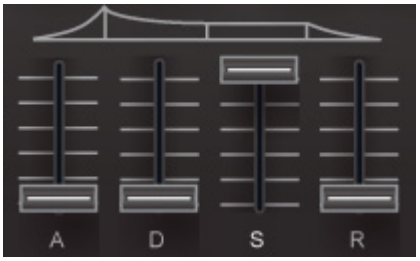
Reso

The **Reso** (resonance) knob intensifies the high frequencies of the filter. Turning the **Reso** knob to 100% (full right) causes the filter to self-oscillate.

Key

The **Key** knob controls the amount of keyboard tracking. Keyboard tracking raises the filter cutoff for higher notes on the scale. This is often used to split a sound into bass/lead sections on the keyboard.

Filter Envelope



The Filter Envelope sliders control the Attack (A), Decay (D), Sustain (S) and Release (R) of the filter.

Cont

The **Cont** (Contour) knob controls how much of the filter envelope is applied to filter Cutoff.

Note: The filter envelope is not audible when: a) the filter Cutoff is at 100%; or b) the Cont knob is at 0 (centred).

4.2.4 ADSR

The ADSR (Envelope) component includes an Amplitude Envelope controlled by four sliders and an Assignable Envelope controlled by three knobs.

Assignable Envelope
The Assignable Envelope can be assigned to:

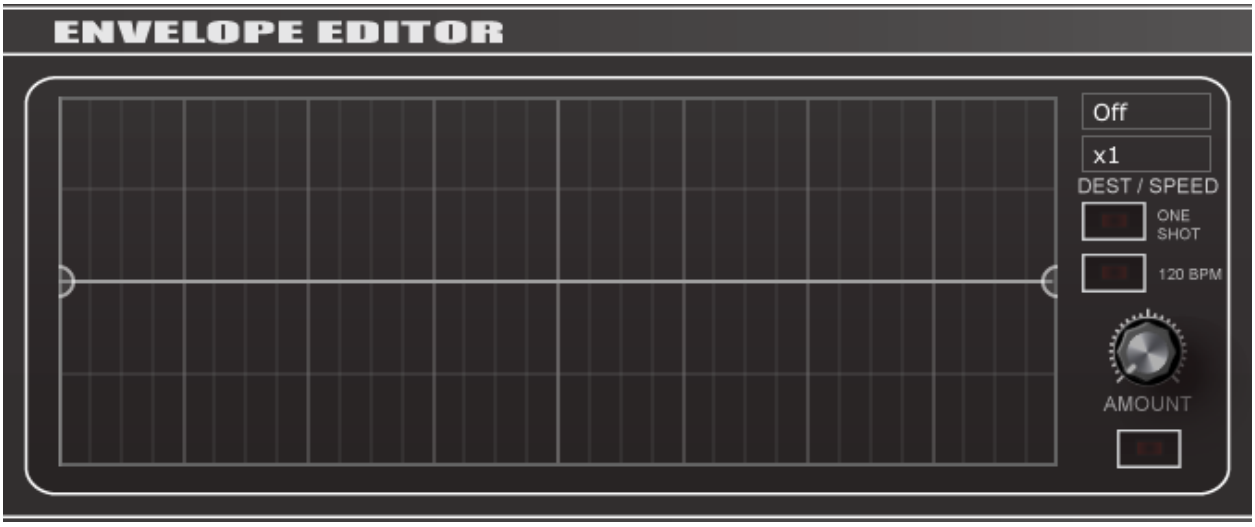
- Filter
- Osc 1
- Osc 2
- Osc 1 PW
- Osc 2 FM

Click Off and select a modulation destination from the drop-down menu.

The Assignable Envelope can be modified with the **A** (Attack) and **D** (Decay) knobs. The **Dest** knob controls the level of modulation that is sent to the assigned destination.

Amplitude Envelope
The Amplitude Envelope sliders control the Attack (A), Decay (D), Sustain (S) and Release (R) of all oscillators.

4.3 The Envelope Editor Panel



4.3.1 Overview

The Envelope Editor panel allows visual editing of the following elements:

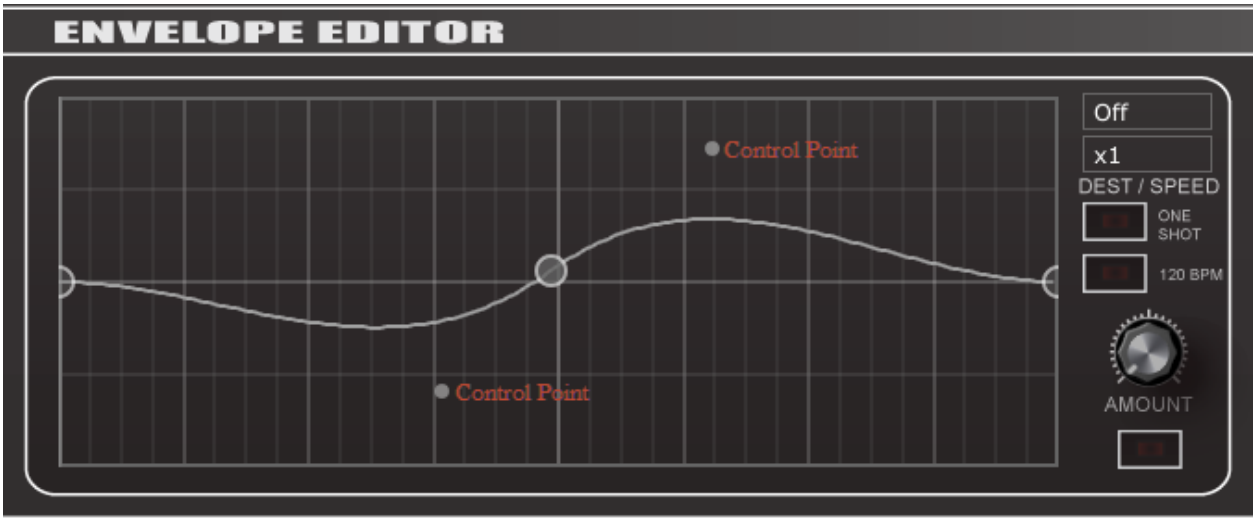
- Filter cutoff
- Osc 1 pitch
- Osc 2 pitch
- Osc 1 and Osc 2 pitch
- FM
- Ring modulation
- Track volume

Envelope points are placed on a "grid" that corresponds to the project's tempo. Click the **Speed** button x1 to adjust the grid speed from x1 (8 beats) to x16 (1/4 beat).

Built-in presets that illustrate the Envelope Editor's potential include:

- *ARP Super Sync TAL* (three-octave arpeggiator using Osc 1 at x8)
- *ARP Phasing Saws TAL* (arpeggiated filter using Filter at x4)
- *KB Drops TAL* (portamento attack using Osc2 at x32)
- *FX Cool Sci Fi Ramp TAL* (one-shot ramp filter using Filter at x4)

4.3.2 Drawing a Modulation Envelope



Click anywhere on the white line to add a new envelope point. Drag the envelope point to create your envelope shape. Every point has two control points (small dots) that also change the envelope shape.

Double click or drag a point to the bottom to delete it.

Note: The envelope grid corresponds to the project tempo. Placing envelope points on the grid will ensure a tempo-synced envelope.

4.3.3 Envelope Editor Settings

The **Dest** button (Off) selects what the envelope modulates.

The **Speed** button controls the speed/depth of the envelope.

By default, envelopes are looped and tempo-synced. Click the **One Shot** button to disable the envelope loop. Also, you can click the **120 bpm** button to disable tempo-sync and set the envelope speed to 120bpm. This is useful for testing your envelope before pressing play on your sequencer.

The **Amount** button controls the amount of modulation.

Click the unnamed button ( ) at the bottom of the panel to reset the envelope editor.

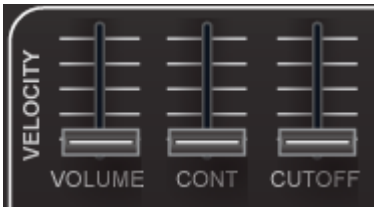
4.4 The Control Panel

4.4.1 Overview

The Control Panel includes sliders for Velocity sensitivity and Pitch Wheel control, as well as multiple effects such as:

- High pass filter
- Detune
- Vintage Noise
- Filter Drive
- Chorus
- Reverb
- Osc Crush
- Delay

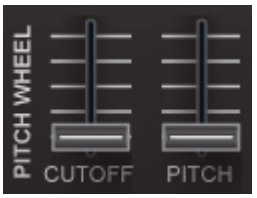
4.4.2 Velocity



These sliders control the velocity sensitivity of Note Volume, Filter Contour, and Filter Cutoff.

Use the **Volume**, **Cont**, and **Cutoff** sliders to adjust the amount of velocity sensitivity.

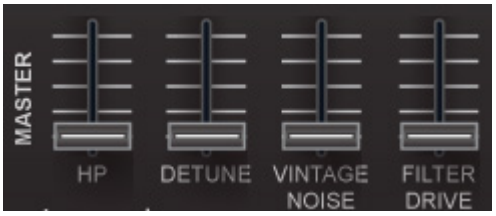
4.4.3 Pitch Wheel



Within TAL NoiseMaker, the Pitch Wheel can be assigned to filter cutoff, master pitch, or a combination of the two. As shown in the figure below, the Pitch Wheel is found on the left side of most MIDI controllers.

Use the **Cutoff** and **Pitch** sliders to adjust the amount of Pitch Wheel modulation.

4.4.4 Master



Master includes four effects, each controlled by a single slider.

HP

The **HP** slider controls the cutoff of a single-pole high pass filter. Move the slider upwards to remove low frequencies from the overall sound signature.

Detune

The **Detune** slider controls the level of a subtle detune effect for all oscillators.

Vintage Noise

The **Vintage Noise** slider controls the volume of an independent noise oscillator. Vintage noise is especially useful for creating drum/percussion sounds.

Filter Drive

The **Filter Drive** slider adds overdrive/distortion to the Synth 2 panel's Filter. The sound characteristics of Filter Drive vary depending on the amount applied and current filter settings.

4.4.5 Chorus

Chorus includes two modes that emulate a classic Roland Juno Chorus effect combined with detune and phase adjustment.

Click (centre of button is red) above I or II to enable/disable the Chorus effect.

Note: Chorus I and Chorus II can be applied simultaneously.

4.4.6 Reverb

Reverb simulates a plate reverb with full control over wet/dry, reverb size, and pre-delay. Reverb also includes simple high pass and low pass filters that control which frequencies of the overall sound pass through the effect.

Wet

The **Wet** knob controls the amount of effect added to the overall sound. At 100%, the original tones are removed from the preset. This can cause a noticable lag when **Pre Del** is also used.

Size

The **Size** knob controls the size of the "room" used by the reverb effect. Size also affects the decay of the reverb.

Pre Del

The **Pre Del** knob controls the time between a note-on and the application of reverb.

HP

The **HP** knob controls the amount of high frequencies that pass through the reverb. At 100%, all high frequencies are uneffected.

LP

The **LP** knob controls the amount of low frequencies that pass through the reverb. At 100%, all low frequencies are unaffected.

Note: The reverb effect is inaudible when HP and LP are at 100%.

4.4.7 Osc Crush

Osc Crush produces distortion by reducing the resolution or bandwidth of TAL NoiseMaker. The resulting noise may produce a warm or harsh sound depending on the amount of reduction.

Click and drag the **Bits** knob from right to left to apply Osc Crush to all oscillators.

4.4.8 Delay

Delay records NoiseMaker's input and then plays it back after a period of time. The delayed signal is played back multiple times to create the sound of a repeating, decaying echo. Delay provides full control over tempo sync, left/right ping pong, and adjustable wet/dry, rate, and feedback.

Wet

The **Wet** knob controls the amount of delay added to the overall sound. At 100%, the original tones are removed from the preset.

Delay

The **Delay** knob controls the speed/rate of the delay. By default, the rate is calculated in milliseconds (ms).

Sync

When **Sync** is selected (centre of button is red), the **Delay** knob controls the delay speed/rate in sync with your project's tempo at 1/16, 1/8, 1/4, 1/2, 1/1, 2/1, and tripled/dotted notes.

x2 L/R

The **x2 L/R** buttons double the repeat speed and pan the delay left and right, producing an effect known as "ping pong".

Click (centre of button is red) to enable **x2 L** (top) or **x2 R** (bottom).

When **x2 L** is enabled, the delay will bounce from left to right. When **x2 R** is enabled, the delay will bounce from right to left. Enabling both will produce a doubling effect at twice the rate set by the **Delay** knob.

H Cut

The **H Cut** knob controls the amount of high frequencies that pass through the delay. At 100%, all high frequencies are uneffected.

L Cut

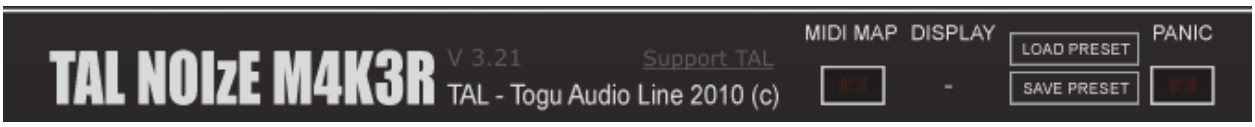
The **L Cut** knob controls the amount of low frequencies that pass through the delay. At 100%, all low frequencies are unaffected.

Feedb

The **Feedb** (feedback) knob controls the decay of the delay effect. At over 100%, the delay will repeate infinitely while increasing in volume.

Note: Setting delay feeback at more than 100% may cause clipping and damage your speakers.

4.5 The Bottom Panel



4.5.1 MIDI Map

Use MIDI Map to quickly map TAL NoiseMaker elements to knobs, sliders, or buttons on your MIDI controller.

To map controls using MIDI map:

1. Click (centre of button is red) to turn on MIDI map.
2. Click and drag up/down the control you wish to assign.
3. Manipulate the knob/slider/button on your MIDI controller.
4. Repeat steps 2 and 3 to map more controls.

Note: MIDI Map is not compatible with FL Studio.

4.5.2 Display

The **Display** element shows parameter values related to the knob/slider you are manipulating. Display values are numeric (for example, 0.25 = 25%) unless the knob/slider is synced to tempo. In this case, Display will show the note value (for example 1/2 or 1/8 dotted).

4.5.3 Load and Save Presets

Use the **Load Preset** and **Save Preset** buttons to save and recall custom presets. Built in presets are accessed through your VST host. See Section 3, Presets, for more information.

4.5.4 PANIC

When the note-off message for a played note is not received by the VST host, the note will sound on endlessly. This can potentially damage the speakers or other components of your sound system. Clicking the **Panic** button (centre of button is red) will send a note-off command to all keys and stop any notes that are still playing.

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