# TAL-MOD

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# **TAL-Mod**

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# Introduction

The TAL-MOD is a virtual analog synth with a lot of possibilities that mixes analog sound, a modern full scalable and compact user interface that is fun to use and that make it easy to create new sounds.

Don't be scared because of the cables. It's not required to know something about modular synths. There are no multiplexers or other hard to understand components. The cables are just an easy way to route the modulations instead of combo boxes. This way you immediately see what's going on and where the modulations are connected.

The full stereo path and the oscillator model are able to create big stereo sounds without any FX but it's also possible to create great sounding classic analog sounds.

It's tested and works within the most common audio hosts as *Ableton Live*, *Cubase*, *Logic Pro*, *Garage Band*, *Reaper* and *DSP-Quattro*. No standalone version available. Try the unregistered demo version to be sure that the plugin works in your environment.

# The demo fades in a noise every minute.

Please use at your own risk. We take no responsibility for any damage caused by our VST, AU (Audio Unit) and AAX plug-ins.

# Installation

## **Windows**

# Requirements:

- SSE 2 compatible processor (Pentium II or higher is required or an AMD equivalent)
- Windows XP or higher.
- A VST 2.4 compatible host or Pro-Tools 3.6 or higher.

#### Installation:

- Download the file *install\_TAL-Mod.zip* and unzip it.
- Execute <code>install\_vst\_32.exe</code> if you want to install the 32 bit version of the plugin or <code>install\_vst\_64.exe</code> if you have a 64bit host (sequencer). Please read the manual of your sequencer to find out whether it needs 32 or 64 bit plugins. It's also possible to install both versions of the plugin.
- Step through the wizard and choose the path where you want to install the plugin. Please read the manual of your host to get more information where this directory is.

In hosts like Cubase, the plugin will show up after a restart. Some hosts need a plugin rescan. If you use Ableton Live and the plugin does not show up after a VST plugin rescan, try to disable and re-enable VST plugin support.

#### **Uninstall:**

Just delete the plugin \*.dll file to uninstall it.

# OS X

## Requirements:

- OSX 10.7 or higher.
- Intel Processor.
- AU (Audio Unit) or VST 2.4 compatible host or Pro-Tools 3.6 or higher...

#### Installation:

- Download the *TAL-Mod-installer.pkg*, unpack it and run the installer. The installer copies the plugin to the right directory. It installs all available versions by default (VST 32/64bit, AU 32/64bit, AAX 32/64bit).

## **Uninstall:**

Delete the plugin. It's located in following directories:

/Library/Audio/Plug-Ins/VST/ /Library/Audio/Plug-Ins/Components/

In hosts like Cubase, the plugin will show up after a restart. Some hosts need a plugin rescan. If you use Ableton Live and the plugin does not show up after a VST plugin rescan, try to disable and re-enable VST plugin support.

# Registration

You need to buy and register the plugin to disable the demo mode that fades in a noisy sound every minute.

The registration process is simple. You need to start the demo plug-in and copy paste the serial you got with an email after you bought the plugin.

Paste it with a click into the input field on the top right:



You maybe restart the host after the registration to make sure that also other TAL-Mod plug-in instances are registered.

# Menu

A click at the preset name on the top left opens the menu.



The menu contains following items:

# **Keep MIDI Mapping:**

This option allows it to keep the current MIDI mapping also when loading a preset with another mapping. Otherwise TAL-Mod always takes the MIDI mapping from the new preset if mappings are mapped. It always keeps the mapping for the controls that are not mapped in the new preset.

# Microtuning:

Allows to import standard microtuning \*.tune files. This allows detuning all 128 MIDI notes. There are programs available that can create a microtuning.

# **Cable Transparency:**

Allows setting the visibility / transparency of the cables.

## Change UI Colors...:

Allows you to set your own look and feel colors. There are some default schemes you can choose from.

# Show presets folder:

Opens the Microsoft Explorer or Apples Finder at the preset location. Paste other presets into that folder to add them. Create folders to organize the presets.

## Restore original plug-in size:

Restores the plug-in windows size to the default setting.

## Reduce plug-in size

Reduces the plug-in size. Helpful when the UI is too big to grab the resize corner on the bottom right.

# **Default Preset**

There is a preset with the name "default" in the presets root folder. TAL-Mod loads this preset when you create a new instance of the plug-in. You maybe create your own default preset that also contains your default MIDI mappings.

# **Oscillators**

TAL-Mod has three oscillators. OSC I and OSC II have additional features and can produce up to 7 voices each that can be spread in the stereo signal. Only OSC I and OSC II do have a hard sync option.



#### HS:

Hard syncs the oscillator to OSC III. The SINE waveform can't be synced.

#### **WAVEFORM:**

Defines the basic waveform for the oscillator. It's possible to choose between SAW, PULSE, TRIANGLE and SINE.

#### PW:

Modulates the pulse width of the pulse oscillator. It does not affect the other waveforms.

#### **VOLUME:**

Is the main volume of the oscillator.

#### TUNE:

The oscillator tuning in +- 24 halftones.

## **FINE TUNE:**

The oscillator tuning +-1 halftones without any steps.

#### PAN:

The stereo panorama of this oscillator.

#### INV:

Inverses the oscillator output waveform.

# PHASE:

The oscillator phase for hard sync and when the note starts if TRIG is enabled.

#### TRIG:

Resets the phase of the oscillator each time a new note starts.

#### **VOICES:**

Adds up to 6 oscillators with the given waveform. The phase of the additional oscillators will be spread equal. The additional voices also hard sync when enabled.

#### **DETUNE:**

Detunes the additional oscillators to the main oscillator for a bigger and fuller sound.

#### MIX:

The volume of the additional oscillators. It also reduces the volume of the main oscillator.

#### STEREO:

Stereo spread of the additional oscillators. This is only active for an odd number of VOICES (3, 5, 7). Otherwise a symmetrical spread would not be possible.

# **Ring Modulation**

Oscillator 2 supports RM (ring modulation). The RM knob adjusts the how many of the RM is mixed to the oscillator. RM always happens between OSC I and OSC II.

## FM

Oscillator 1 supports built in FM (frequency modulation). The FM knob adjusts the FM amount where the OSC 2 frequency is used for the modulation. The modulation always happens with a sine with the frequency of OSC 2. There is already a frequency offset included for easy handling.

#### Filter

TAL-Mod has two filters that can have different filter types. With common parameters:

# **Filter Types:**

LP 4 Pole (24dB), LP 3 Pole (18dB), LP 2 Pole (12 dB), LP 1 Pole (6dB), HP 3 Pole (18dB), HP 2 Pole (12dB), BP 4 Pole (2 \* 12dB), Notch 2 Pole (12 dB), All Pass

#### **SATURATION:**

Defines the input volume for the filter and its non-linear components. This is also useful to reduce the resonance peak.

#### **Cutoff:**

The cutoff frequency of the filter. Up to more than 30 kHz.

#### Resonance:

Filter feedback value.

#### ADSR:

ADSR modulation intensity +-1.

#### **KEYB:**

Key Follow for the filter cutoff.

**CUTOFF LINK:** Controls the cutoff of filter I and filter II (-+1). The value will be added or removed from the current cutoff frequency of the filter. The offset of the two cutoff frequencies stays the same in the log scaled spectrum.

**TRIG:** Resets the filter to zero when a new note starts. This could be useful when the exactly same note start (attack) is needed for a filtered bass sound (together with OSC trigger). Disable this for an analog behavior where every note starts a bit different or if you want to use self-oscillation (to avoid the build-up time when a new note starts, especially at low cutoff frequencies).

**BALANCE:** The knob between the sound sources (OSC I, OSC II...). The button is only active in parallel mode. It adjusts the balance / mix between the two filter outputs.





# Serial Filter mode

The filter runs in SERIAL mode when PARALLEL is disabled. In this case FILTER I is processed and the result filtered by FILTER II. This is especially useful when Low Pass is combined with another filter type or for creating a 48 dB Low Pass filter. The filter section outputs the dry signal if an oscillator isn't selected.

## Parallel Filter mode

The PARALLEL mode allows a lot of routing possibilities. Each oscillator can be configured to be filtered with FILTER I or/and FILTER II. The output of the two filters will be summed together. The balance knob in the middle adjusts the mix between the two filters.

The filter section outputs the dry signal if an oscillator isn't selected for Filter I or II.

# **Modulators**

TAL-Mod offers three envelopes and two LFO modulators.

## **ADSR**



All three ADSR envelopes contain a shape knob for the attack, decay and release part of the envelope. They turn the envelope curve from concave to convex or the opposite. Turn the shape knobs to the middle for linear ADSR's.

#### ADSR AMP:

The amplitude ADSR (Attack, Decay, Sustain, Release).

#### ADSR I / II:

The modulation ADSR (Attack, Decay, Sustain, Release).

## **LFO**

Two identical LFO's (Low Frequency Oscillator). They can produce SINE, TRIANGLE, SAW, SQUARE, Sample & Hold random and Noise waveforms. RATE is the LFO speed that can be synced to the host speed. TRIG triggers the LFO at any note on event to the given PHASE. DELAY is the delay time until the LFO drops in. UNI runs the LFO in UNIPOLAR mode. In this mode the LFO returns only positive values from 0 to 1.



# **MOD Envelope**

The mod envelope can be used to create special envelope or LFO curves. Click into the area to add new points, move points or control points (the small points that show up when a main point is selected) to create your own curve. Delete a point with a double click or drag it out of the view at the bottom border.



#### **Tempo Option**

Defines how long the whole envelope is. Relative to the host's Bpm.

# **FIX SPEED**

Sets the tempo fix to 120 Bpm. This is useful for drum envelopes or for effects that don't depend on the host tempo.

#### **ONE SHOT**

The envelope will be played only once without cycling. The modulation envelope acts as an LFO if this option is not enabled.

#### RESET

Deletes the envelope.

#### **SMOOTH**

Smooths the envelope curve. This can be especially useful in the step mode.

#### **TRIGGER**

Triggers the envelope on each note-on event. Enabled is default.

#### **UNIPOLAR**

Unipolar [0..1] is the default mode for the modulation envelope. Disable this to get modulation values in the range [-1..1].

#### STEP MODE

Switches to the step mode. In this mode the values of 16 steps can be defined instead of the spline. They are always in the range [-1..1].



# Sequencer

TAL-Mod offers two different modes. An arpeggiator and a sequencer mode.



The arpeggiator offers can choose between different modes: UP, DOWN, UP & DOWN and AS PLAYED. The user can choose how many octaves it should play.

#### TEMPO:

The tempo can be chosen free or it's possible to sync it to the host, but it can also be triggered to the note-on event.

#### SHUFFLE:

Shuffle adds some groove the sequence.

The sequencer supports S (SLIDE), P (PAUSE), Velocity (Slider in the middle).

The + and – buttons adjust the note offset in halftones. The number value on the velocity slider shows the note offset in halftones. It's possible to have up to 16 steps.

Slide does not work out of the box. You need to set the number of voices to 1 and enable portamento to make this work.

# Effects (FX)

The effect section offers some basic effects that can be added to a sound. The lock symbols on the top allow locking the effect section when changing presets. This is helpful when you want to listen to the presets without any effects or with a specific effect.



# **Routing Modulations**

Cables can be added with a click at connector (the round rings). Keep pressing the mouse button and drag the cable that shows up to another connector. Every gray target connector can be connected to a green modulation source.

A button shows up at the top of the gray connector and the cable stays when a connection was made successfully. A click at the button on the top of the connector shows a small window where the user can adjust the modulation amount in the range of +-1.

The CONTROL AMOUNT combo box allows it to define a modulation source that modulates the modulation intensity. Standard is +1 (no modulation, always 1). This makes it very easy to set up modulations with almost endless possibilities. And it's fun:)

Close the windows with a click into an empty area on the synth UI.



# **MIDI Learn**

Assign a midi controller to every control of the synth. Do following steps to make a successful assignment:

- 1. Enable MIDI LEARN (top right corner)
- 2. Click at a plug-in slider you want to control.
- 3. Move your hardware controller
- 4. Disable MIDI LEARN or do some more assignments.

# MIDI LEARN CLEAR

Deletes all midi learn assignments.





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