

# TAL-BassLine

<http://kunz.corrupt.ch/>  
 Togu Audio Line© 2008, Patrick Kunz  
 Tutorial Version 0.0.1



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## Introduction

This is a free virtual analog software synthesizer based on a robust core that supports all common sample rates. It's not allowed to sell this software or make any modifications.

Please use at your own risk. We take no responsibility for any damage caused of our VST-plug-ins.

### Tip:

**Pressing shift while moving controls allows precise fader adjustments!**

## Installation

### Windows

The plug-in is SSE optimized. At least a Pentium II or higher is required or an AMD equivalent. All hosts that are compatible with VST 2.3 or VST 2.4 plug-ins are supported.

Copy the *TAL-BassLine.dll* file into the VST plug-in folder of your host. Maybe a rescan of the plug-in directory or a restart of the host is required. This depends on the VST host.

### OS X

The plug-in is a Universal Binary and works for Intel and PPC Computers and needs a VST 2.3 or VST 2.4 compatible host like Cubase or Ableton Live.

Users of Pro Tools, Logic or Digital Performer need adapters if they want use this VST plug-in. Here is a list of available adapters:

- FX-Pansion VST to AU Adapter
- FX-Pansion VST to RTAS Adapter
- Audio Ease VST Wrapper (For Digital Performer)

The plug-in should work with all these adapters.

Copy the *TAL-BassLine.dll* file into the VST plug-in folder of your host or OS X (/Library/Sound/VST/). Maybe a rescan of the plug-in directory or a restart of the host is required. This depends on the VST host.

## TAL-BassLine

### VCO

Band limited *saw*, *pulse* and *square* waveforms are available and included in the VCO.



The *Range* parameter switches the octave of the *VCO* (16'/8'/4'/2'). The *Mod* parameter adjusts the modulation intensity of the *LFO*.

This *VCO* includes:

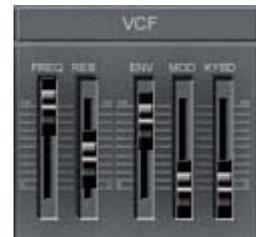
- 1 pulse oscillator (PW (pulse width) Modulation: Envelope, LFO, Manual)
- 1 saw oscillator
- 1 sub oscillator (square -1 oct., pulse -1 oct, square -2 oct., pulse -2 oct)
- 1 noise oscillator

The oscillator volumes can be adjusted in the *Source Mixer*.

## VCF

This is the filter section of the synthesizer. The filter is an 18dB low pass, ideal for bass sounds and acid lines. It includes some asymmetric and non linear components in the signal path for a special analog sounding output.

- **FREQ,** cutoff frequency
- **RES,** resonance intensity
- **ENV,** filter envelope intensity
- **MOD,** filter LFO modulation
- **KYBD,** filter key follow

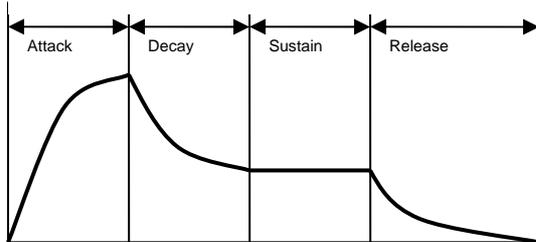


## ENV

The non-linear envelope can run in two different modes:

- VCA (two modes: Gate, Envelope)
- ENV (trigger mode, resets the envelope also for overlapping notes)

In *Gate* mode, the envelope only modulates the filter or the pulse width of the pulse oscillator. The *Envelope* mode affects also the amplitude.



The technical data of the ADSR:

- Attack (1.5 ms...4 s)
- Decay (2 ms...10 s)
- Sustain (0...100%)
- Release (2 ms...10 s)

### Tip:

**To get a smooth release in Gate-Mode add a bit release. That avoids that the filter closing is hearable, especially if the sound has a lot resonance.**

## MODULATION

The modulator includes a LFO with different waveforms. In sync mode, the LFO is triggered with the *Note On* event.

- Frequency: 0.1...30 Hz
- Waveform: sine, triangle, saw, square, random/S&H, noise



The special thing here is the noise waveform which allows the modulation of PW, filter frequency and VCO frequency with noise.

## MAIN CONTROLS

This panel includes sliders and pots for volume, *portamento*, *pitch* and *modulation wheel* adjustments. It also includes *Midi Learn*, *Unisono-Mode* and a *Panic kick button*.

- Volume (Controls the main volume)
- Portamento (Intensity and Mode: Auto and On)
- Unisono (Plays the VCO in unisono mode)
- Panic (Resets the synth if a note is hanging)
- Midi Learn (Assign your Midi Controls to the controls)
- VCO (pitch wheel to the VCO frequency intensity)
- VCF (pitch wheel to the filter frequency intensity)
- MOD (modulation wheel to VCO intensity)



**Tip:**

**Push the panic knob if the synthesizer has a hanging note.**

## MIDI LEARN

First make sure that the sequencer is stopped and *TAL-BaseLine* gets no Midi events. Then just click the *Midi Learn* (ML) button in the bottom left corner and do following:

1. Change a pot or slider value with the mouse
2. Move an extern hardware pot (The SW-controller should move now)
3. Disable *Midi Learn* or make the next mapping

**Midi learn applies the changes to the whole program bank of the actual TAL-BassLine instance.**

## ARPEGIATOR

This synthesizer includes a simple synced *arpeggiator* with different modes.

- Sync to 1/16, 1/8, 1/4, 1/16T, 1/8T, 1/4T
- Modes: Up, Down, Random (up, down), Normal (single octave)



## OTHER PARAMETERS

The *Velocity-Control* affects the filter envelope intensity and can be used for velocity-sensitive accent control.



- Velocity (Velocity to VCF envelope)
- Warm Filter Feedback (adjustment of the filter intern clipper band sigmoid). Damps the resonance and maybe adds some analogue sounding distortion to the sound.

## KEYS

The keys can be useful for checking the current sound if no extern keyboard is available or for trouble shooting.



That's all, have fun :)