

# TAL-DAC

## USER MANUAL



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# Introduction

TAL-DAC is not an ordinary bit crusher or sample rate reducer. The plug-in is based on the TAL-Sampler sound engine. It emulates a sample recorded on a low sample rate with reduced bit depth and up-samples it to the desired host sample rate.

It's possible to choose different algorithms for the up-sampling process to emulate the characteristics of different samplers. A low and high shelf EQ together with a AMP Drive in the reconstruction section allow it to approximate the sound character of different sampler AMP's. Also it is possible to emulate hot recorded signals using the input volume knob.

This plug-in can be used on a wide range of audio material, but it's especially useful and authentic on drum 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.

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

# Installation

## Windows

### Requirements:

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

### Installation:

- Download the file *install\_DAC.zip* and unzip it.
- Execute *install\_vst\_32.exe* if you want to install the 32 bit version of the plugin or *install\_vst\_64.exe* if you have a 64bit host (sequencer). It's also possible to copy the dll files directly into the hosts VST or Pro Tools folder. 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.**

## **TAL-DAC**

### **Uninstall:**

Just delete the plugin to uninstall it.

## TAL-DAC

### OS X

#### Requirements:

- OSX 10.7 or higher.
- Intel Processor.
- A host that supports AU (Audio Unit) or VST 2.4 plugins.

#### Installation:

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

#### Uninstall:

Just delete the plugin. Its located in following directories:

*/Library/Audio/Plug-Ins/VST/*  
or for Audio Units:  
*/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.**

# TAL-DAC

## Registration

Open the plug-in in your favorite host. Copy the serial you have received with an email into the registration input field on the bottom of the UI.



# TAL-DAC

## Menu

A click on the current preset name opens the pop up menu. The menu contains the current presets. The left and right arrows allow you to step through them or you can choose a specific preset directly in the menu. The preset system is file based. Windows and OSX presets are compatible.

The menu entry “Show Presets Folder...” opens the Finder or Explorer in the preset-location. You can copy new presets, delete presets or group them in folders.



## Features

The plugin has a Recording and a Reconstruction section.



### Volume (Recording)

Controls the input volume. It's possible to Clip the audio in this sections. The clip LED on the top left of the plug-in will show a red light if the audio clips. The plugin does soft clipping with 8x oversampling. It acts like an analog clipper.

### S-Rate

Controls the sample rate of the recording. This is the sample rate of the re-sampling.

### Quality

Controls the quality of the ADC filter section when up-sampling the incoming signal. A low quality results in aliasing.

### Bit Scale

Scales the sample volume before bit reductions. This allows it to simulate a low level recording and results in a bad resolution without losing dynamic parts.

### mu-Law enabled

Emulates a AM6070 mu law decoding. It encodes the recorded sample with a 12 bit resolution and decodes it again in the reconstruction section. The encoding increases the sample quality. The "D" button allows to encode the sample deltas if enabled.

### Bias:

Bias is only available when "D" (delta encoding mode) is enabled. It changes the scaling used for the delta encoded samples. It allows it to force the encoding with focus to lower frequencies.

### Bit Depth

With mu-Law disabled. We get the common Bits knob to control the bit depth.

### Mode

Set's the reconstruction mode. Available is:

HOLD: A sample hold mode that produces aliasing at high frequencies.

VARIABLE: Variable resampling with minimal aliasing.

LINEAR: A common linear interpolation mode.

SINC 8: A sinc 8 interpolation mode like it was used in the S1000

## **TAL-DAC**

### **Filter**

This section contains two very steep Butterworth reconstruction filters that can be used in serial mode. This is important for removing unwanted high frequencies from an up-sampled signal.

### **Jitter**

This parameter emulates clock jitter in the DAC sections. It's possible to operate in mono and stereo mode.

### **AMP Drive**

An all-round 8x oversampled AMP simulation. It contains non-linear components and a signal feedback path.

### **EQ Section**

Contains a 12dB low- and high-shelf filter with fixed frequencies.

### **Volume (Reconstruction)**

Controls the output volume of the processed signal.

### **Dry / Wet (Reconstruction)**

Mixes the Dry / Wet Signal with delay compensation.

## **MIDI Learn**

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

1. Enable MIDI LEARN
2. Move a U-NO-LX slider or push the button you want to control.
3. Move your hardware controller
4. Disable MIDI LEARN or do some more assignments.





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