Klanghelm VUMT

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Main Features (orange marked text describes features only available in VUMT deluxe)

- painstakingly modeled behavior of classic analog VU and PPM meters
- available meter types:
  - VU (3 different models to choose from)
  - RMS
    - incl. option to compensate the RMS scale (+3dB) according to AES-17, so a sine wave at 0dBFS equals 0dBFS RMS
    - optional frequency weighting (A, B, C and D curves)
  - PPM:
    - DIN (Type I)
    - Nordic (Type I)
    - BBC (Type IIa)
    - EBU (Type IIb)
- highly customizable needle ballistics incl. adjustable needle overshoot for the VU
- customizable hold needle
- customizable peak/clip LED
- single or dual needle display

- 8 different skins to choose from
- GUI resizing
- lots of options to show/hide various elements, including the option to show only the meters and hide all controls from the GUI

- global settings incl. customizable knob behavior and adjustable needle refresh rate

- preset menu incl. easy copy/paste presets from from instance to another and save as default

- gain staging made easy with separate trim controls for left/right channel
- mid-side (sum-diff) matrix with separate trim controls for mid and side
- monitor section
- polarity reverse
- individual mute controls per channel

- some useful track-utilities, such as:
  - high-pass and low-pass filters (can be set individually to 6, 12 or 24 dB steepness)
  - a single dynamic EQ band (HPF, LPF or BPF), which can be used to remove resonances, simple de-essing, to control the low end of a signal …
  - a mono maker which reduces the stereo width of a signal below a certain frequency

- dedicated standalone app, which..
  - automatically saves its settings on close and restores them on relaunch
  - can load/save states
  - can be set always-on-top

orange marked features only available in *VUMT deluxe*.
klanghelm.com/VUMT.php

There's an upgrade path to VUMT deluxe for users of the standard VUMT version. See klanghelm.com/VUMT.php for details

Installation

Windows:

Plugins - VST and AAX (32- and 64-bit)
- download and unzip the installer from the user area
- run VUMT-installer.exe and follow the instructions

Troubleshooting:
If you get an error message before or during the installation process, it is very likely due to a false positive from your active virus scanner. In this case either add VUMT-installer.exe to your whitelist or temporarily disable the scanning during the install process.

Standalone Version
- download and unzip the VUMT-Standalone-win.zip from the user area
- copy VUMT.exe from the „Standalone“ folder of the unpacked zip into your desired location on your system

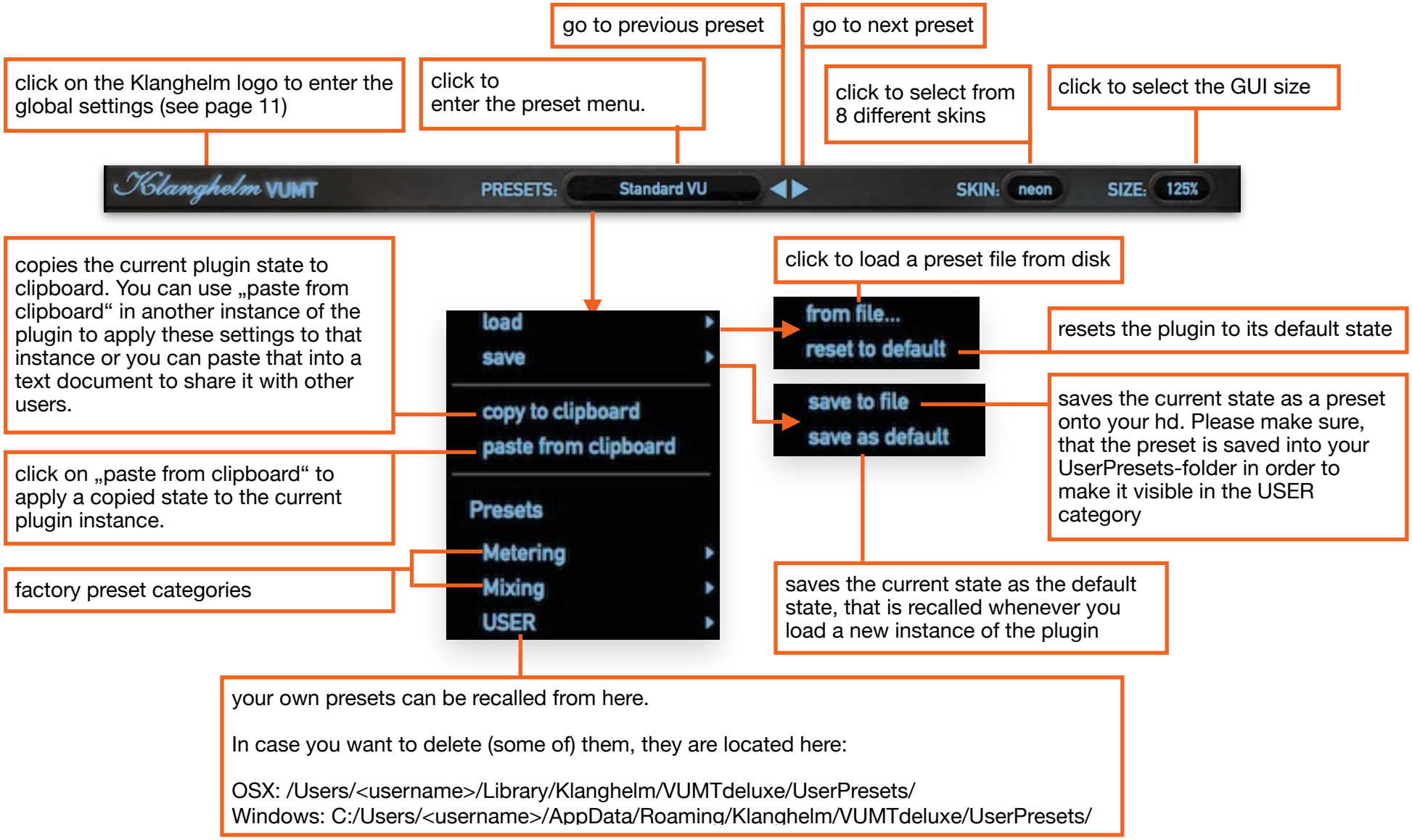
Apple OS X:

Plugins - AU, VST and AAX (32- and 64-bit)
- download and unzip the installer from the user area
- open the VUMT.dmg and run the installer

Troubleshooting:
- in case you’re getting a message, that the installer can’t be executed, because it is from an „unidentified developer“ or „not downloaded from the App store“, do the following:
- Go to System Preferences -> Security & Privacy
- In the General Tab of the Security & Privacy window click on the lock icon in the bottom left to be able to make changes.
- select "Anywhere" in the section "Allow applications downloaded from:“
- Now try to install VUMT again.

Standalone Version
- download and unzip the VUMT-Standalone-mac.zip from the user area
- copy VUMT.app from the unpacked zip into your /Applications folder

Top Bar & Preset System



When loading one of the factory presets, only the parameters, that are necessary for each preset are affected. Parameters such as SKIN and SIZE are excluded. The user presets on the other hand include ALL parameters including SKIN and SIZE.

Meters

use this option on mono signals in hosts that don't differentiate between mono and stereo tracks

show readouts of the current meter values. left side of each meter: needle value (depends on the selected metering type),

enable a secondary (orange) hold-needle to show the current max value

show the instance label at the bottom of the GUI

Peak/Clip-LED as defined in the meter settings.
if the LED is lit red, you can click at the LED to manually reset the LED.

click to enter the meter settings (see page 10)

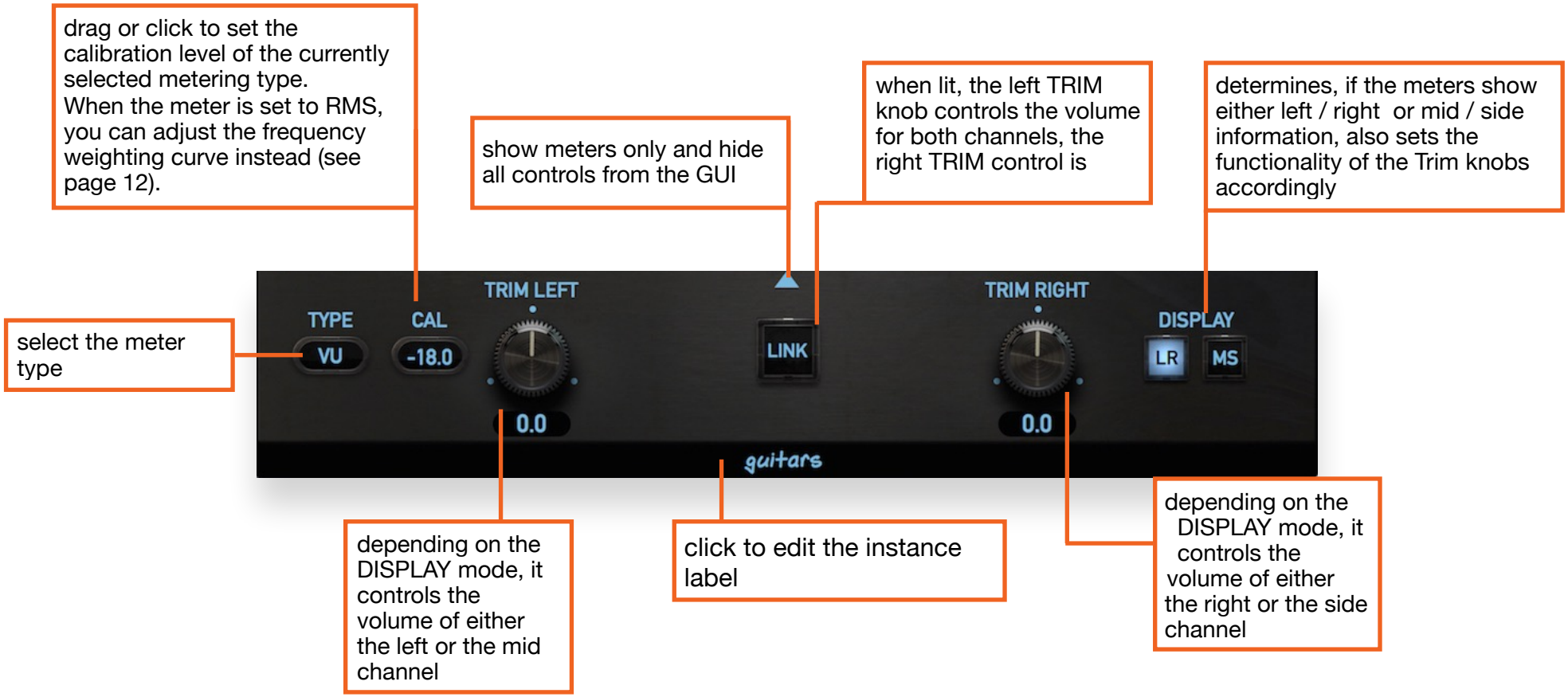
if the hold needle is enabled in the visibility settings, you can click on the meter to reset the hold needle

single or dual meter display

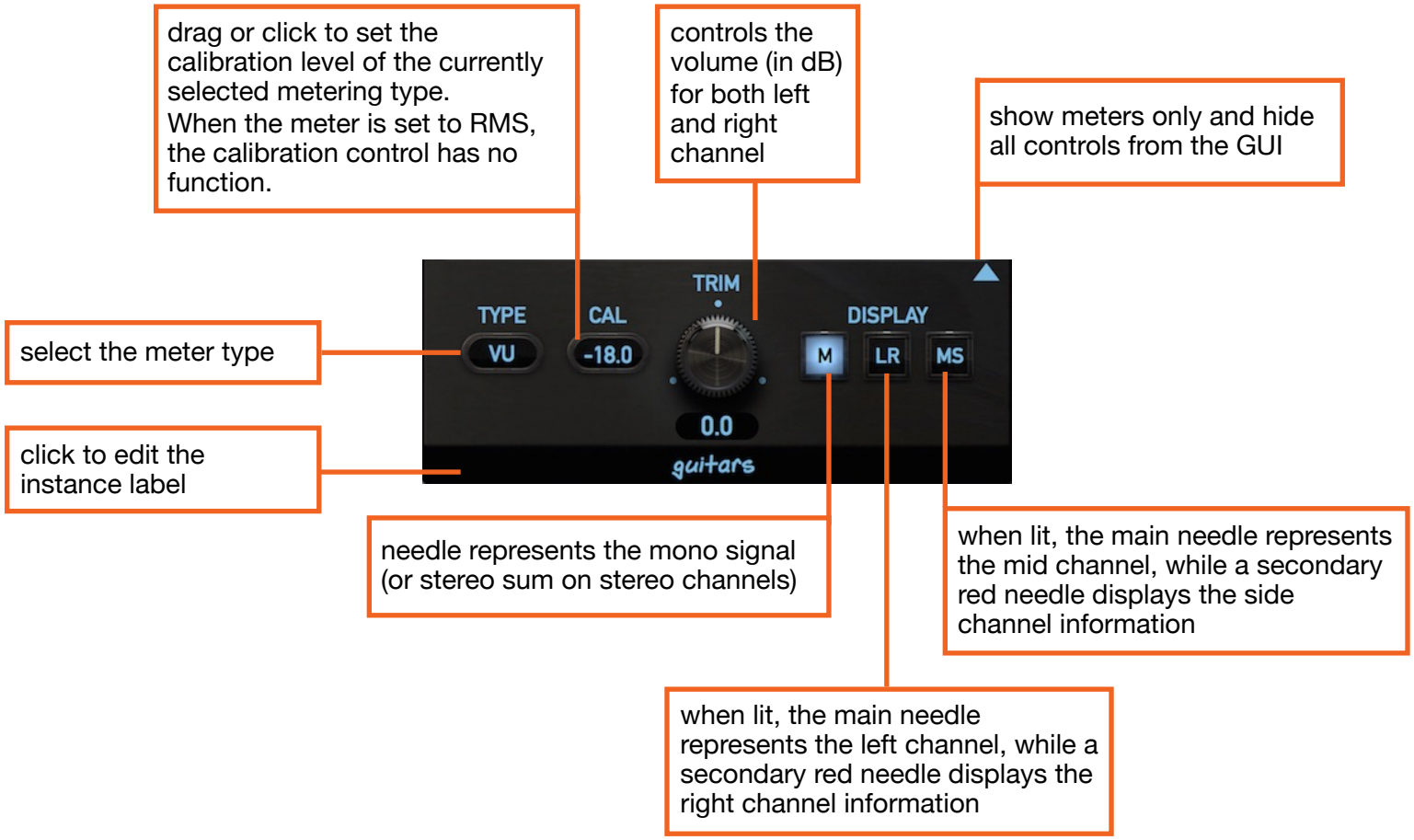
if meter values are enabled in the visibility settings, this is a readout for the current meter value.
click to reset the meter readouts.

if meter values are enabled in the visibility settings, this is a readout for the current peak (dBFS) value.
Click to reset the meter readouts.

Main GUI - Dual Meters Display



Main GUI - Single Meter Display



Main GUI - Meters Only Display Mode

click on the Klanghelm logo to enter the global settings (see page 10)

click to enter the preset menu. (see page 5)

is lit if one of the trim controls is not at unity

see page 6 for details

click to enter the meter settings (see page 10)

Peak/Clip-LED as defined in the meter settings.
if the LED is lit red, you can click at the LED to manually reset the LED.

single or dual meter display

if meter values are enabled in the visibility settings, this is a readout for the current meter value.

if meter values are enabled in the visibility settings, this is a readout for the current peak (dBFS) value.

click to hide all labels and comboboxes from the frame

click to make the controls visible

select the meter type

drag or click to set the calibration level of the currently selected metering type.
When the meter is set to RMS, you can adjust the weighting instead (see page 12).

select, wether the VU represents the
- mono sum (single meter only)
- stereo (main needle: left, red needle: right)

OR
- mid-side (main needle: mid, red needle side)

click to select the GUI size

click to select from 8 different skins

Meter Settings

choose from 3 different VU-meter implementations:

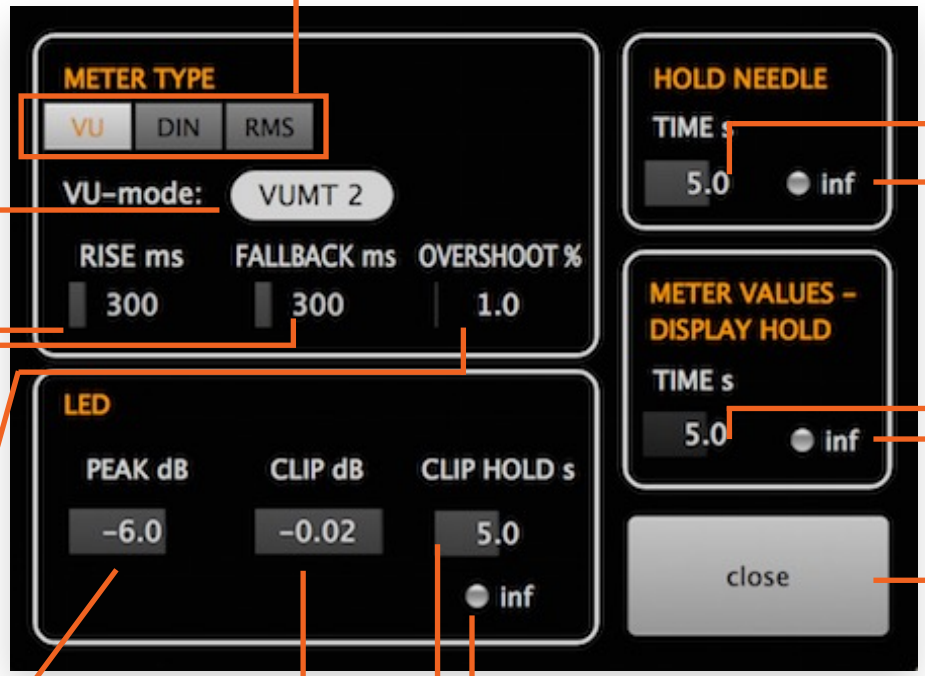
VU 1: the same behavior as VUMT version 1.x

ideal: an idealized (theoretical) VU model

VU 2: revised, best of both worlds model for VUMT 2 with separate control over Rise and Fall times

NOTE: all 3 modes are within VU specs, it's just a matter of personal preference which one you choose

Select the meter-type, you want to adjust the ballistics for. Changing the meter type here will also temporarily change the meter type in the plugin GUI, so you're immediately get visual feedback of the changes made here. When closing the meter settings the meter type reverts to the type, that has been selected before entering the meter settings.



adjusts the hold time of the optional orange hold-needle in sec.

This control is disabled when the „inf" box is ticked.

set the hold time of the secondary orange needle to infinity.

when ticked, the TIME control is disabled.

adjusts the hold time of the meter value readouts in sec.

This control is disabled when the „inf" box is ticked.

set the hold time of the meter value readouts to infinity.

when ticked, the TIME control is disabled.

rise time of the needle depending on the selected meter-type (in ms)

fall time of the needle depending on the selected meter-type (in ms)

Needle overshoot in %. Only adjustable when VU is selected

sets the threshold of the yellow peak LED in dBFS. The LED gradually turns orange the closer the peak level gets to the set CLIP level.

sets the threshold of the red clip LED in dBFS.

adjusts the clip hold time of the red clip LED in sec.

This control is disabled when the „inf" box is ticked.

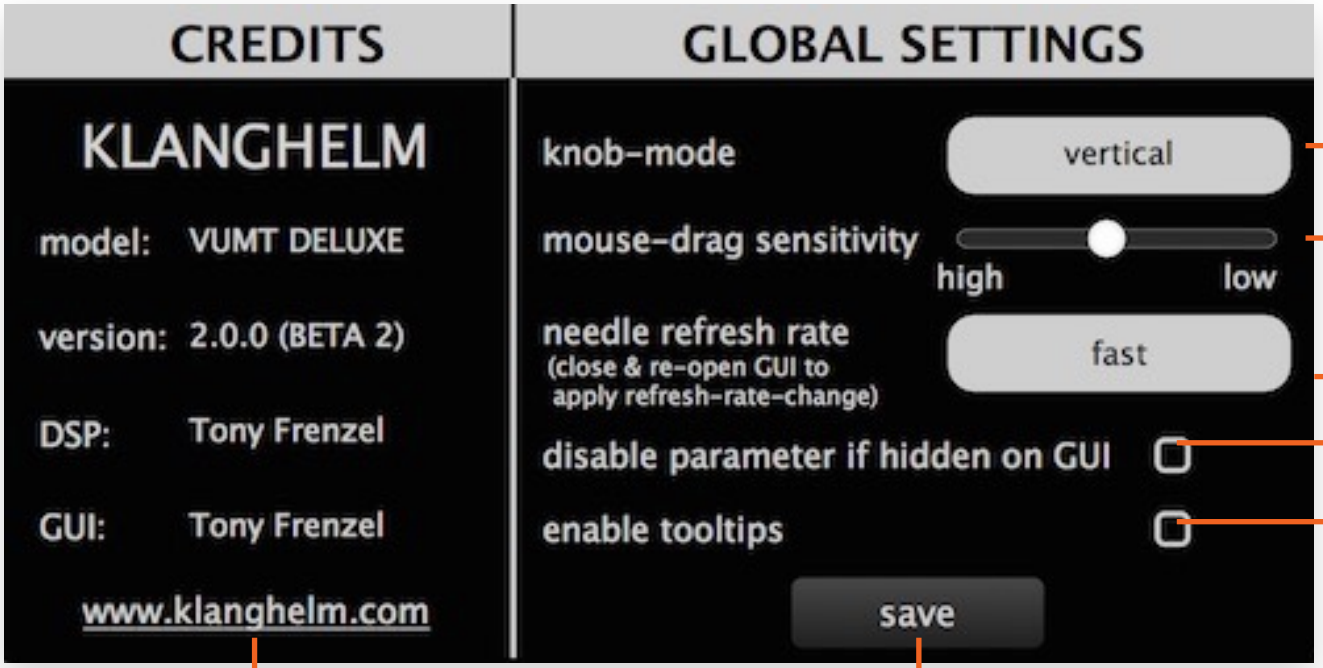
set the hold time of the red clip LED to infinity.

when ticked, the CLIP HOLD time control is disabled.

closes the meter settings.

These meter settings are saved per instance. You can use the preset menu and save these as default, so these settings are applied to every new

Global Settings



Sets the mouse drag behavior when moving a knob on the GUI

Sets the mouse drag sensitivity when moving a knob on the GUI

When set to „fast“ the behavior of the needles is the most fluid and realistic. To save CPU cycles, you can select a „medium“ or „slow“ refresh rate.. To apply changes to the refresh-rate, you need to close and re-open the GUI

Use this option to automatically bypass all audio affecting functions, that aren't currently visible on the GUI. For instance, when the bottom panel is hidden, the filters, dynamic eq and mono maker are disabled, regardless of their settings.

when ticked, an explanation is shown, when hovering over a control

Click on the hyperlink to visit the Klanghelm website

Click to save the global settings and close the menu.

The global settings are saved to:

OSX: /Users/<username>/Library/Klanghelm/VUMT/settings.xml

Windows: C:/Users/<username>/AppData/Roaming/Klanghelm/VUMT/settings.xml

If running into issues, simply delete this file and the factory default global settings will be used again.

Standalone Application

What to expect?

The Standalone App automatically saves its settings when closing the app and recalls them on its next launch.
You can save and recall individual states via the options menu.
Furthermore there is an „always-on-top“ option accessible via the options menu.

If you’re running into issues when relaunching the app, delete the „audioSetup.xml“ and the „standaloneState.xml“ and restart the application.

These files are located here:

OSX: /Users/<username>/Library/Klanghelm/VUMT

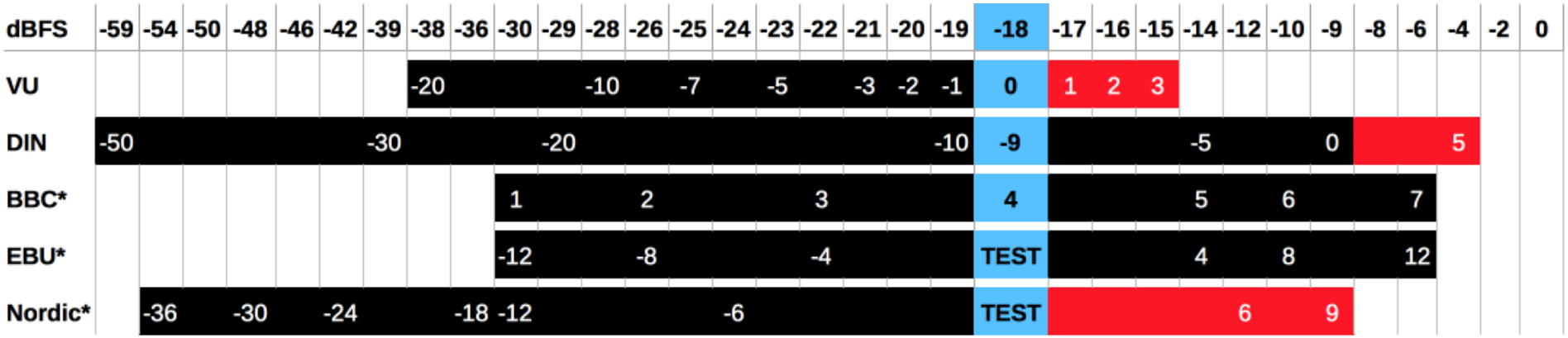
Windows: C:/Users/<username>/AppData/Roaming/Klanghelm/VUMT

How to make it work in conjunction with a media player?

The VUMT standalone needs a physical input to display levels, so you need to use a virtual audio cable such as the free one from jackaudio.org.
There's a good tutorial in the download, how to connect the output of an audio application (iTunes or Windows Media Player for example) with the input of another program (VUMT in this case).

Appendix: Meter Scales - Reading and Calibration

The chart below compares the different metering scale available in VUMT deluxe. In this case the calibration control in VUMT deluxe is set to „-18“ (the most common default setting).
Now, when feeding a -18dBFS sine wave at 1kHz into the meter you get these readouts:



***available in VUMT deluxe only**

Credits

Code and GUI: Tony Frenzel

Manual: Tony Frenzel

Special thanks to the beta testers.

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