mvMeter2

Manual



TBProAudio 2020

1 Introduction

Welcome to mvMeter2, a multivariable meter including RMS, EBUR128, VU and PPM measurement.

2 Features

mvMeter2 offers following features:

- behavior of classic analog VU and PPM meters
- multiple measurement modes: PEAK, RMS, EBU R128, VU and PPM
- multi channel metering: stereo, left, right, mid, side
- single and dual meter display
- adjustable reference level
- adjustable meter delay
- preset management
- adjustable pre-gain, gain matching
- instance label
- large and accurate live meters
- 64-bit internal processing
- 5 different meter themes
- GUI resizing up 400%, ready for 4k displays

3 Design

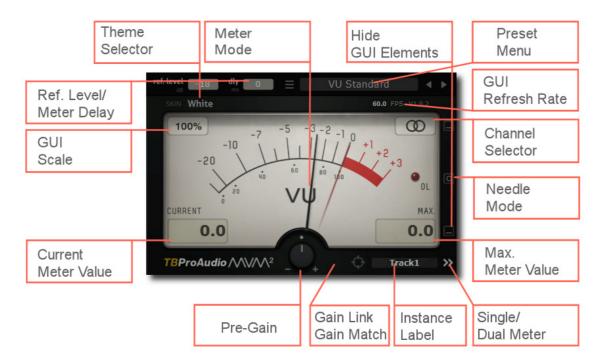
mvMeter2 combines multiple meters into one plugin framed by a classic VU/PPM meter design:

- RMS: 600ms integration time
- RMS+3dB: 600ms integration time, +3dB compensation according to AES-17
- EBU R128-2014: ML and SL loudness measurement
- Classic VU meter with dB and VU scale
- Classic PPM Meter with BBC and EBU scale
- Hold needle
- Current and max value readout
- Overload LED

4 Minimum System Requirements

- Windows XP SP3 or newer
- Mac OS X 10.9 or newer
- Win: 32/64 Bit VST, 32/64 Bit VST3, 32 Bit RTAS, 32/64 Bit AAX
- OS X: 32/64 Bit VST, 32/64 Bit VST3, 32/64 Bit AU, 32 Bit RTAS, 32/64 Bit AAX
- Tested with: Cockos Reaper, Steinberg Cubase/Nuendo/Wavelab 6/7/8/9/10, FL Studio 12.x/20.x, PT10/12/2018, Reason 9.5/10, Studio One, Ableton Live

5 Features



Theme Selector: White, Classic, Dark, Retro or Deluxe

GUI Scale: click to select the current GUI size, from 50% up to 400%

GUI Refresh Rate: set refresh rate from 1 to 100 FPS

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<u>Channel Selector:</u> click to select the channel mode. Single meter display: stereo, left, right, mid and side channel. Dual meter display: left/right, and mid/side channel.

Note for single meter display (stereo channel mode): Meter modes RMS, RMS +3, VU and PPM: channels are averaged. Meter modes Peak: channel max. Meter modes EBU ML, EBU SL: channels are summed (as described in EBUR128 spec)

Current Meter Value: readout of current meter value

Max. Meter Value: readout of max. meter value, click to reset value,

Meter Modes: Peak: RMS: 600ms integration time, -20/+3 scale RMS+3dB: 600ms integration time, +3dB compensation according to AES-17, -20/+3 scale EBU R128: ML and SL loudness measurement, -20/+3 scale Classic VU meter with dB and VU scale Classic PPM Meter with BBC and EBU scale

<u>Pre-Gain:</u> depending on the Channel Selector it controls the volume of the channel, click with right mouse button for numerical input. Double click resets value.

Gain Link: (dual screen only) sets both gain knobs together

<u>Gain Match:</u> matches the max. value with the reference value of corresponding meter mode by adjusting the pre gain value automatically. single needle mode: pre-gain is calculated based on the max. value dual needle mode: pre-gain is calculated based on the highest max. value of both channels and set to both pre-gain controls

Instance Label: click on the label to change the name of the plug-in instance.

Needle Mode: click to change the function of red needle, off, current or max. value.

<u>Hide/Show GUI Elements:</u> click to show/hide different controls like GUI scale, FPS, channel mode, current/max readouts, gain link/gain match button.

<u>Ref. Level:</u> sets the reference level in dB(FS) for the current meter mode. E.g. reference level for classic VU meter is -18dbFS

Delay: delays the meter activity so it is time-synced with other busses with different latencies.

Single/Dual meter display: enables either single or dual meter display.

<u>Preset menu:</u> click to enter the preset menu, displays current preset and click to select previous or next preset.

Presets:

Preset specification

(dbFS)	-43	-40	-38	-34	-32	-30	-20	-18	-17	-15	-11	-9	-6	0	1	2	3	Meter Mode	Reference Level dBFS
Peak							-20	-18									+3	Peak	0
RMS-20		-20						+2	+3									RMS +3dB	-20
RMS-14				-20				-4			+3							RMS +3dB	-14
RMS-12					-20			-6				+3						RMS +3dB	-12
EBUR128 ML	-20						+3	+5										EBU ML	-23
EBUR128 SL	-20						+3	+5										EBU SL	-23
VU Standard			-20					0		+3								VU	-18
PPM (lla - BBC)						1		4					7					PPM	-18
RMS Standard							-23	-21									0	RMS	0
RMS +3dB (AES-17)							-20	-18									3	RMS +3dB	0
	-	•	•																
Readout values for 1	Readout values for 1kHz sinus -18dBFS Peak																		

<u>Plugin info menu:</u> click on the "MWM2" logo to get more information about the plugin, call the online manual and change log.

6 Conclusion

So finally if you have any questions or suggestions just let us know. Enjoy our audio tools and visit us here: <u>http://www.tb-software.com/TBProAudio/index.html</u>

Your team from TBProAudio :-)