

LVC-Meter

LVC-Audio



Contents

License Agreement	4
Resources and Technology Credits	4
Welcome, Thanks, and Contact Information	6
Introduction.....	6
Initial Setup and Requirements.....	6
Windows (VST, VST3, and AAX Formats):.....	6
System Requirements:.....	6
Installation:	7
OSX (AU, VST, VST3, and AAX formats):	7
System Requirements:.....	7
Installation:	7
User Interface.....	8
Button and Selector Features:	8
Knob Control Text Entry:.....	8
Knob Control Scrolling and Dragging:	8
Knob Control Reset and A->B Features:.....	9
Knob Control Drop-Down Menu and Alternate Settings:.....	9
Slider Controls:.....	9
Undo/Redo:.....	10
A/B Plugin Comparison:.....	10
Messaging:	10
About Box:	11
Save as Default:.....	11
Reset Default:	11
Edit Config File:.....	11
Username & Email:.....	11
VU meters and Waveform History.....	12
VU and Peak Program True Peak Meters:	12
Loudness Output Meter:.....	12
VU Text:	13
Waveform History, Spectrum Analyzer, and Stereo Vectorscope:	13
ISP Indicator and MAXIMUM TRUE PEAK (MAX TP) Control:.....	13
Spectrum Analyzer:	14

Stereo Vectorscope:.....	14
Meter Type:.....	15
EBU Display Values:.....	16
Main Interface	17
Module Controls	17
WIDTH:.....	17
BALANCE:.....	17
GAIN:	17
Colors/Option Menu	18
Color/Option Menu	18
Toggle Options	18
Set GUI Color:	18
Wave/FFT Background Color:.....	18
Waveform Color/Options.....	18
Spectrum Analyzer Color/Options.....	19
Vectorscope Color/Options	19
Presets.....	20
XML Configuration File.....	21
Location.....	21
Settings	21
Default Settings (default_setting):	21
Default Size (default_size – default = 1):.....	21
Framerate (display_fps – default = 50 on Windows, 80 on Mac):.....	21
Enable FloatDither (UseFloatDither – default = true) :.....	22

License Agreement

Copyright © 2020 by LVC-Audio

End User License Agreement (EULA)

This software is provided as a free plugin. This plugin can be used for personal or commercial purposes without limitations.

You are prohibited from redistributing this software in any form without expressed consent from LVC-Audio. You are also prohibited from reverse engineer this software, and prohibited by any attempts to circumvent the limitations of the free version of this software.

This software is provided 'as-is', without any express or implied warranty. LVC-Audio is not liable for any damages arising from the use of this software.

By using this software, you agree to the above terms.

Resources and Technology Credits

- **VST** and **VST3** are technologies and trademarks of Steinberg Media Technologies GmbH.
- **Audio Unit** is a technology and trademark of Apple Computers, Inc.
- **AAX** are technologies and trademarks of Avid, Inc.
- **iLok** is a technology and trademark of PACE Anti-Piracy, Inc.
- **WDL-OL (IPlug 1)**: Enhanced version of Cockos IPlug/WDL by Oli Larkin (<https://github.com/olilarkin/wdl-ol>).
- **IPlug-Youlean**: Modified version of WDL-OL with resizable GUI code and Cairo support (<https://youlean.co/> & <https://github.com/Youlean/IPlug-Youlean>)
- **Cairo Graphics Library**: Cairo is used within LVC-Meter for vector and text drawing routines (<https://www.cairographics.org/>)
- **Knobman** and **Skinman**: from g200kg (http://www.g200kg.com/index_e.html).
- **Affinity Designer**: from <https://affinity.serif.com/en-us/>
- **Ubuntu Font Family**: (<http://font.ubuntu.com/>).
- LVC-Meter uses portions of **fmath.hpp** and **Xbyak** for fast math calculations. Both source codes Copyright © 2010, 2012, Mitsunari Shigeo under the BSD 3-Clause License. More information is

available at <http://homepage1.nifty.com/herumi/soft/fmath.html> and http://homepage1.nifty.com/herumi/soft/xbyak_e.html.

- LVC-Meter uses portions of **fmt** for formatting numerical values into strings. The code is distributed under the BSD license and Copyright © 2012-2016, Victor Zverovich. More information is available at <https://github.com/fmtlib/fmt>.
- LVC-Meter uses portions of the **pugixml** parser for reading/saving XML data. The code is distributed under the MIT license and Copyright © 2006-2016, by Arseny Kapoulkine. More information is available at <http://pugixml.org>
- DitherFloat code from Chris @ Airwindows - <https://www.airwindows.com/ditherfloat/>

Welcome, Thanks, and Contact Information

Thank you for installing and trying LVC-Meter. We hope you find this a useful tool in your audio chain, and we would like to hear your suggestions for future enhancements. Please feel free to contact LVC-Audio with any ideas, problems, suggestions, or comments at lvcaudio.com/contact/. Please visit lvcaudio.com for additional news about LVC-Meter and other plugins. Additionally, you are welcome to join the LVC-Audio newsletter for the latest updates, new plugins, and sales events. To sign up for the newsletter, visit <http://lvcaudio.com/newsletter/>.

Introduction

LVC-Meter is a free plugin that builds on the metering features found in many other paid LVC-Audio plugins. LVC-Meter includes a spectrum analyzer, stereo vectorscope, and a waveform history view. All of the meters utilize true-peak monitoring for determining intersample peak levels (i.e., “overs”). In addition, LVC-Meter functions in EBU mode, K-System metering, and standard dBFS mode.

LVC-Meter includes three simple but important controls: GAIN, BALANCE, and WIDTH. Both the GAIN and BALANCE controls have extra fine settings accessible by right-clicking on the knobs. These extra settings allow for precise gain and balance adjustment.

Additionally, LVC-Meter includes:

- Adjustable true-peak level for visualizing overs
- Resizable interface
- User configurable colors
- Configurable spectrum analyzer settings (e.g., window type, fft size, overlap)
- FloatDither: 32-bit dithering based on Chris’s work at Airwindows (<https://www.airwindows.com/ditherfloat/>)
- XML-based preset system for saving, importing, and exporting user presets

Initial Setup and Requirements

WINDOWS (VST, VST3, AND AAX FORMATS):

System Requirements: LVC-Meter requires Windows Vista or later, as 32-bit or 64-bit host, and a processor that supports SSE2 (AMD or Intel processor from around 2004 or later).

Installation: To install the software, download and unzip the latest file from the LVC-Audio website. Double-click the installer file to begin the process. The installer will prompt you for the installation location of the VST 32-bit folder, and VST 64-bit folder. The 64-bit plugin will include an “x_64” at the end of the filename. In most DAWs, this should help differentiate between the 32-bit and 64-bit plugins.

If VST3 and/or AAX plugin formats are installed, they will be installed within the default folder(s) for each format. In addition, the AAX plugin format requires the use of a registered iLok device.

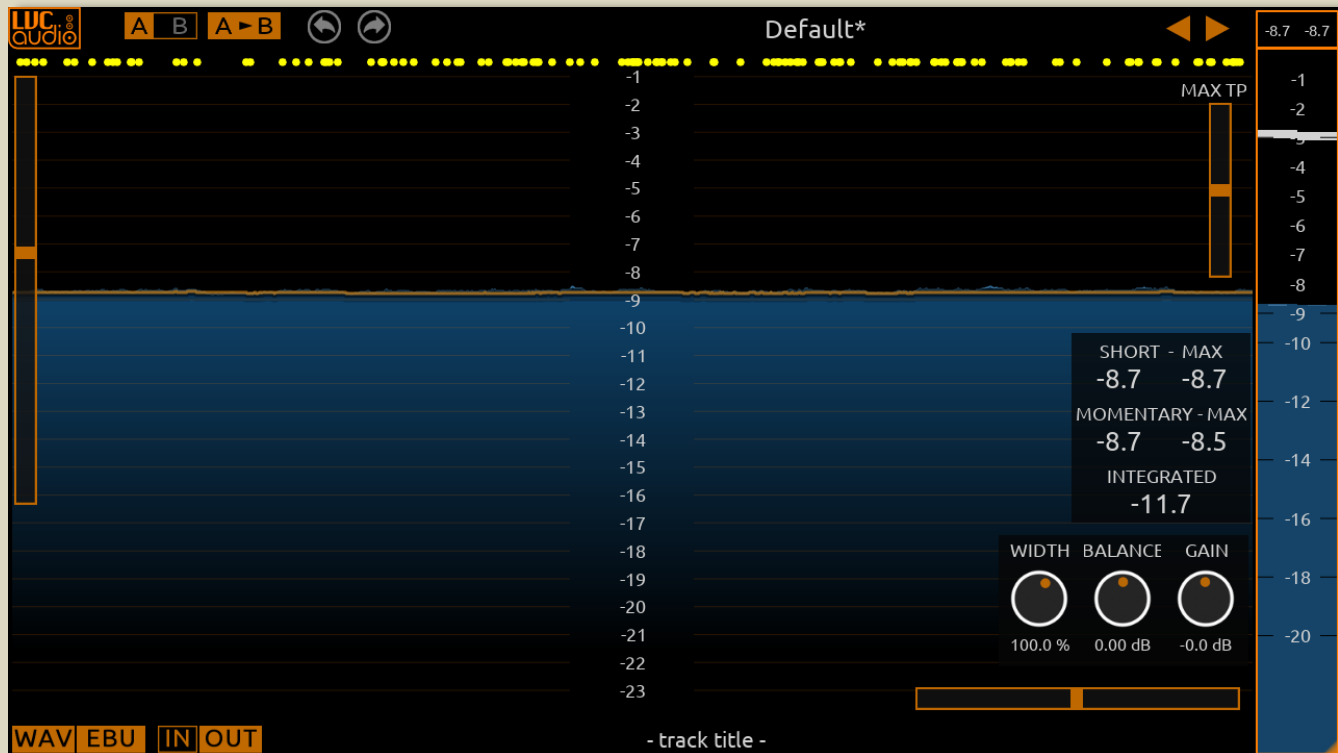
OSX (AU, VST, VST3, AND AAX FORMATS):

System Requirements: LVC-Meter requires OSX 10.8 or later, a 32-bit or 64-bit host, and an Intel Core2Duo (or better) processor.

Installation: To install LVC-Meter, click to unzip the Zip file. Double-click on the Package file to start the installation process. By default, LVC-Meter will be installed as Audio Units, VST, and VST3 Universal Binaries. Additionally, AAX will also be installed. The AAX version is in the Universal Binary format but may not work properly in Pro Tools version 10 or below. AAX should primarily be used within Pro Tools 11. In addition, the AAX plugin format requires the use of a registered iLok device.

Any of the plugin formats can be excluded from installation by unchecking the checkboxes during the installation process.

User Interface



Button and Selector Features: The main controls of LVC-Meter are adjusted by using various knobs and buttons. For buttons such as IN or OUT, clicking the button one time will enable the feature. Clicking a second time will disable the feature. Some buttons, such as WAV, contain more than two different settings (i.e., more than on and off). Clicking the button will either cycle through all choices or display a popup of the various options.

Knob Control Text Entry: For each of the knobs in LVC-Meter, the text value is displayed below. Manual entry of values can be entered by clicking on the text field and typing in the desired value. If a value is entered that is greater than the control's maximum value, the control will automatically be set to the maximum value. Conversely, values that are less than the control's minimum will be set to the control's minimum value. When entering a value on a control which ranges from negative to positive numbers (e.g., -6 to +6), a negative/minus must be used. For controls that have a maximum value of 0 (e.g. -44 to 0), the negative/minus sign can be omitted.

Knob Control Scrolling and Dragging: When hovering over a knob, the mouse wheel can be used to increase or decrease the value of the control. Scrolling produces larger changes in the knob's value. If finer control is needed, the Alt key can be held down while scrolling. When more subtle adjustment is needed, the Shift key can be held down for minute changes.

Similar to using the scroll wheel to adjust a knob, the control can be set by clicking and dragging the knob up and down. This produces larger changes in the control's value. For finer control, the Alt key

can be held down while dragging the control. Additionally, the Shift key can be held down for very small changes.

Please note: AAX plugins have slightly different key modifiers based on how typical Pro Tools plugins operate.

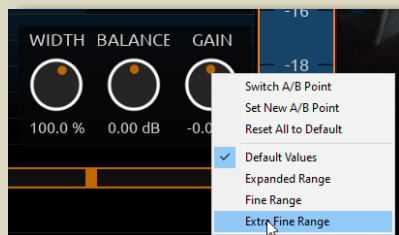
Knob Control Reset and A->B Features: Double-clicking (or clicking while holding the Control key) on any knob or slider will return the control to the default value. At the same time, the previous value of the control is stored. Double-clicking the control again will change the control from the default value back to the previous setting. Using this double-click feature, it is very easy to make A->B type comparisons on each of the controls.

Sometimes it might be desirable to compare two values that are not the default value. This can be accomplished by right-clicking on the control. Right-clicking on a control will set a new default value. After this is done, the knob can be readjusted. After double-clicking on the control, the control will be reset to the newly defined default value.

Each time right-click is used on a knob, a new default value will be established. If it is necessary to reset a knob to the factory default value, this can be accomplished by holding down the Shift key while right-clicking on a knob. The knobs default value will be reset to the factory default.

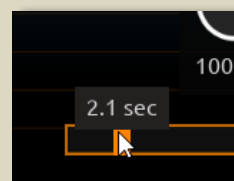
Please note: Knob A/B values are not saved and are separate for each instance of the plugin. When the plugin is closed or a saved session is reloaded, each knob's A and B values will be reset to the factory default values.

Knob Control Drop-Down Menu and Alternate Settings: Each knob control features a drop-down menu that can be used to compare two values, to reset the knob, or to set an alternate knob range. To access the drop-down menu, use the right mouse button to click on the knob. In some DAW software, the right-click button is not accessible by the plugin. It can also be accessed by holding the Control and Shift keys down while clicking the left mouse button. The first three items are the same features that are also accessible by using the mouse and keyboard modifiers (see Knob Control Reset and A->B Features).



For certain controls, alternate settings are also accessible. Alternate settings are different settings for the knob's default value, minimum value, maximum value, precision (i.e. number of decimal points), and scale (e.g., linear versus logarithmic). Selecting one of the items from the menu will change the settings of the control.

Slider Controls: For a slider control, the value of the control is displayed when adjusting the control and when the mouse is hovering over the control. The control is adjusted by clicking and dragging the control to change the values.



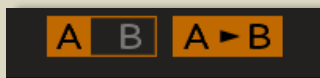
Also, clicking anywhere on the length/height of the slider will snap the control to that value.

For a finer adjustment, hold the shift key while dragging the control. To type in a value, double-click on the slider handle and enter the text value. Right-clicking will reset the control to the default value.

Undo/Redo: At the top of the plugin interface are the Undo and Redo buttons. The Undo button looks like an arrow that points to the left, and the Redo button looks like an arrow that points to the right.



Clicking the Undo button will undo the last user change to the plugin. The undo history holds up to 100 different user changes. Conversely, clicking the Redo button will reapply the last changed setting. If the Undo or Redo buttons are grey, it means that no Undo or Redo is possible.



A/B Plugin Comparison: The A/B Comparison buttons also appear on the bottom of the plugin interface. The buttons provide a quick and easy method to compare two different plugin configurations. These configurations are the “A” state, and “B” state.

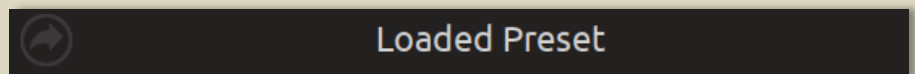
Clicking the A button will save the current plugin configuration to the A state, and then load the B state plugin settings. The button will change to indicate the letter B. Clicking the button again will save the current plugin state and reload the A state. Any number of controls can be changed, as they are automatically saved before the plugin switches to the other plugin state.

The Copy-to button (appearing as an A->B in the picture), copies the current plugin state to the other plugin state. For example, if the plugin is in the A state and the A->B button is pressed, the current plugin state will be copied to the B state. If the plugin is switched to the B state after pressing the Copy-to button, the settings will appear to remain the same because the A and B states are identical.

Please note: When a preset is loaded from the LVC-Audio Preset Menu, it will be loaded and saved into the current state. The other plugin state should not be affected. This may not be the case when saving and loading settings from the DAW (i.e., both plugin states may be copied over with the loaded settings).

Messaging: During certain times, LVC-Meter will display information at the top of the plugin.

Typically, messages relate to saving and loading presets or alternate knob settings. The message will appear for a few seconds before disappearing.





About Box: Clicking on the LVC-Audio logo at the top of the plugin will display the About Box. The About Box displays basic information, including the plugin name, plugin version, DAW, plugin format, architecture (32- or 64-bit), and registration information (if applicable). Furthermore, a button at the bottom of the About box provides a link that will check for the latest version of the plugin. This loads the LVC-Meter plugin page in your default web browser. To close the About box, click the Close button, or anywhere within the plugin's GUI.

Save as Default: When this button is clicked, the current settings of the plugin are saved as the default settings. When another instance of the plugin is opened, the settings will be recalled. This is useful for customizing colors and/or metering options. Clicking this button will not adversely affect any presets or saved plugin states.

Reset Default: When this button is clicked, the factory default settings will be restored. This overwrites any customized settings.

Edit Config File: This will open the configuration XML file in the system's default application. See the XML Configuration File section for more information.

Username & Email: Since LVC-Meter is a free plugin, these fields will display Free Version. No registration information is required.

VU meters and Waveform History

LVC-Meter continually shows output meter levels. Additionally, information related to EBU metering is displayed as text values. More information about this display can be found under **Meter Type**.

VU and Peak Program True Peak Meters: The output meters function as True Peak meter. This means that that output is oversampled in order to estimate peaks that may exist after analog conversion. The amount of oversampling is dependent on the input frequency (either 2x or 4x).

The output meter bar is dependent on the METER TYPE settings. In DBFS mode, the output VU responds similarly to traditional VU meters, but with a quicker rise time (near instantaneous integration time, and 300ms to decrease -20 dB). The dash meter responds more closely to a Peak Program Meter (PPM), with a slower rise and fall (5ms integration time, and 3 seconds to decrease -20 dB). The dash meter is always indicated in a slightly darker color. All meters are calibrated as 0dBFS, meaning that any signal that maximizes the meters represents digital clipping.

When the METER TYPE is set to EBU, the meter changes to show momentary loudness based on EBU specifications. The input meter functions similar to the output meter; however, the input meter does not show true peak levels.



Loudness Output Meter: An additional feature of the input and output meters is a loudness indicator. This is the smaller rectangular area within the output VU bar. This indicates the relative loudness of the output. The top of the area is determined by the peak output level. The bottom of the area is determined by the RMS value of the output. The peak output is determined using a meter that has a fast attack time, with a long decay time (i.e., near instantaneous attack time, with a 2.5 second decay time). The bottom RMS point of the meter uses a 500 millisecond time for both attack and release.

The height of the bar relates to the dynamic range of the material. When the output levels approach 0 dBFS and there is heavy saturation and/or clipping, the loudness meter will be shorter (i.e. representing little difference between the peak of the audio and the RMS value). Audio with more dynamic characteristics will have a relatively broader loudness meter. Although this can be useful in determining the overall level of dynamic range, the meter is less accurate at lower audio levels.

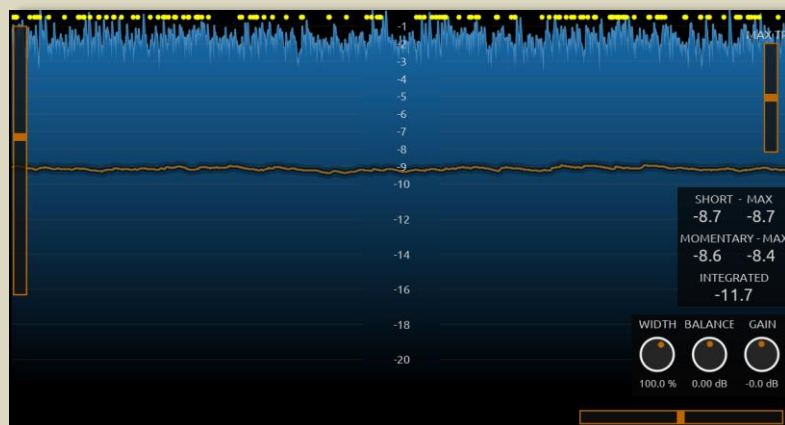
When the METER TYPE is set to one of the K-Meter options, the timing of the loudness meter is slowed down. This more accurately reflects loudness based on the K-Metering type. In EBU mode, the loudness meter changes to show the difference between momentary and short-term loudness, based on EBU/R128 standards.

Please note: The Loudness Output Meter will vary greatly depending on the dynamic nature of the source material. Naturally loud and compressed signals (e.g., distorted guitars), or heavily clipped signals, will have a limited dynamic range prior to any processing that is occurring with LVC-Meter.

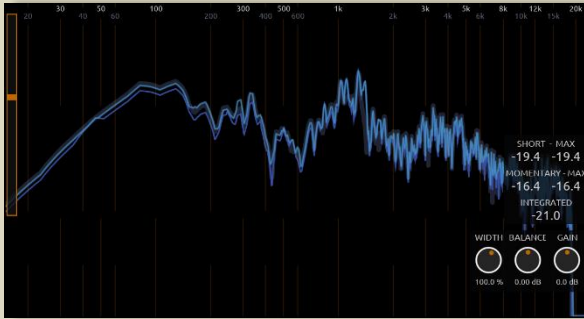
VU Text: Above the input and output meters are a text readout of the current levels in decibels. These numbers have an instantaneous integrations time, and a long decay time. The numbers will only display volume levels above -60dB. Signal levels below -60dB will not be displayed. Any signal that is above 0dBFS will be displayed in **red text**, indicating digital clipping. To reset the values, click on the numbers. This will automatically reset the numbers to the default -60dB value. Clicking the VU text will also reset the other VU meters within the plugin.

The VU text will display true-peak output levels. Certain metering plugins calculate true-peak levels using slightly different methods, and/or with different levels of significance (i.e., tenths, hundredths). There may be some difference between the VU displayed in LVC-Meter, and the VU values displayed in a subsequent plugin. This value is typically less than 1 or 2 hundredths of a dB.

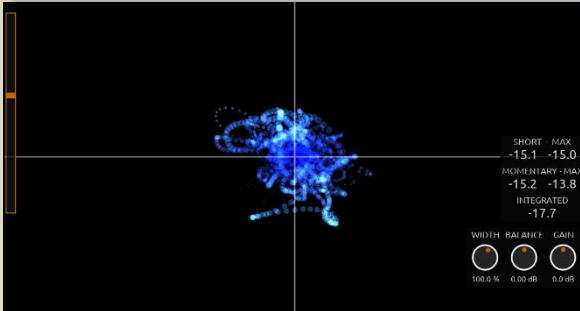
Waveform History, Spectrum Analyzer, and Stereo Vectorscope: The button at the bottom-left corner of the plugin controls the main view. By default, this will display output level and output loudness. At the bottom of the display is a slider to adjust the display time. On the left side of the control is a slider that controls the lowest value of the display. This also adjusts the vertical output meter scale. **Double-clicking anywhere within the waveform, spectrum, or stereo vectorscope view will temporarily pause the view.**



ISP Indicator and MAXIMUM TRUE PEAK (MAX TP) Control: When in the waveform view, true peak values greater than the set maximum level will be shown as dots on the top of the display. If a yellow dot is displayed, this indicates that the output of the plugin exceeded the maximum true peak level. This level is set by the MAX TP control.



Spectrum Analyzer: When in spectrum analyzer mode, the display will show the frequency spectrum of the output. This includes a solid thick line that indicates peak levels, and a solid thin line showing instantaneous level. The window type and size can be controlled via a right-click menu (see [Color/Options](#) section).



Stereo Vectorscope: The stereo vectorscope indicates information regarding the stereo field of the output signal. A “normal” output signal will be shown as an oval shape that is higher than it is wide.

When the signal is completely mono, it will be displayed as a vertical shape (Figure 1).

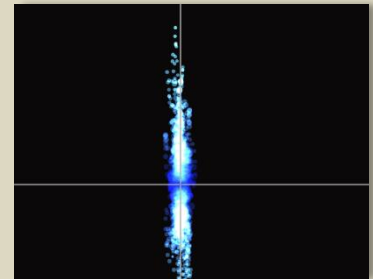


Figure 1 – Mono Signal

When the shape is tilted to one side or the other, the display will be rotated (Figure 2).

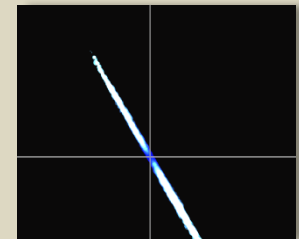


Figure 2 – Mono Signal with louder left side

When the signal is too wide, it will be shown as a wider shape with little vertical aspect (Figure 3).

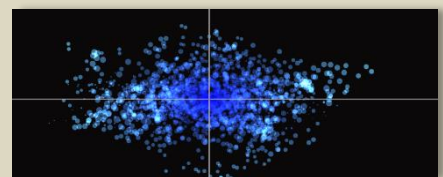


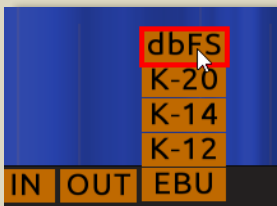
Figure 3 – Signal that is too wide

Below the display are a series of buttons that toggle various elements of the display. The buttons are:

- WAV/FFT/VEC/OFF – toggles the display between waveform, spectrum analyzer, stereo vectorscope, and off
- IN – toggles display of the input level when in waveform view
- OUT – toggles display of the output level when in waveform view
- dbFS, K-20, K-14, K-12, and EBU – toggles the meter type (see below)



Meter Type: The Meter Type button is located below the Waveform History view. This button determines the type of meter display for both the Waveform History view and the Output meter. In the default mode (DBFS), the meters will be displayed using the default LVC-Audio metering system as indicated in the VU and Peak Program Meters section.



The next three settings correspond to the K-20, K-14, and K-12 scale as suggested by Bob Katz in his paper, An Integrated Approach to Metering, Monitoring, and Levelling (see the full document at <http://www.aes.org/technical/documentDownloads.cfm?docID=65>). This system “remaps” the decibel scale based on 0 dBFS being +20 dB, +14 dB, or +12 dB, respectively. When the mode is switched, the scale of the VU meters and Waveform History view are reset to the appropriate setting; however, the Scale control can still be used to alter the view. In addition to the scale being changed, the meter’s ballistics are also changed to better indicate overall levels of perceived loudness.

The last setting is EBU mode. In this view, the input, output, and output loudness display will show the signal level based on Tech 3341 – Loudness Metering: ‘EBU MODE’ Metering to Supplement EBU R 128 Loudness Normalization (<https://tech.ebu.ch/docs/tech/tech3341.pdf>). This uses filtering and weighting to display short-term and momentary loudness. The meter uses an absolute scale (LUFS).



EBU Display Values: LVC-Meter displays information regarding Short-term loudness, Momentary loudness, and the Integrated loudness level. For Short-term and Momentary, a maximum value is also displayed.

Clicking on either of the three meter text areas (i.e., SHORT, MOMENTARY, or INTEGRATED) will reset the values.

Please note: Although LVC-Meter attempts to comply with all aspects of loudness normalization as specified through the European

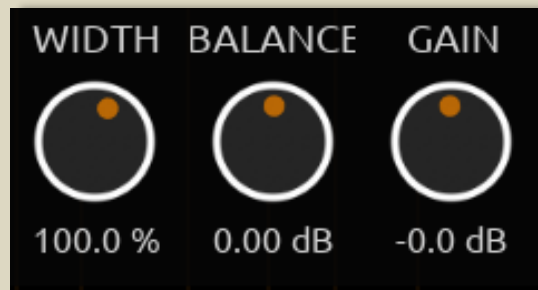
Broadcasting Union documentation, LVC-Meter does not take the place of a full-featured loudness metering plugin. It has not been thoroughly tested, and can vary slightly when compared to a dedicated metering plugin that complies with all standards associated with the EBU. When the output needs to adhere to strict loudness standards for broadcast, streaming, or other purposes, it may be useful to use a dedicated loudness metering plugin, such as Youlean Loudness Meter (<https://youlean.co>).

Although the levels of short-term, momentary, and integrated loudness may vary compared to another metering plugin, the true peak values of LVC-Meter are valid and accurate.

Main Interface

MODULE CONTROLS

LVC-Meter includes three main controls: Width, Balance, and Gain. These controls are always accessible in the bottom-right corner of the plugin



WIDTH: The WIDTH control functions as an overall control of the stereo field. At 100%, the signal is unaltered. When the control is set to values less than 100%, the stereo field is narrowed. At 0%, the signal is completely mono. Values greater than 100% increase the side-channel signals. The effect is that the stereo field is widened.

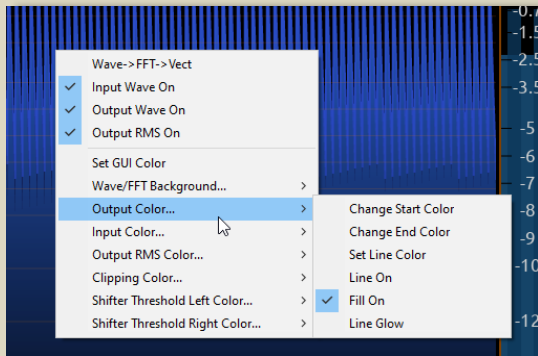
BALANCE: When the signal is recombined into left and right channels, the BALANCE control determines left and right balance. The BALANCE control has 4 different range settings. These are accessible by right-clicking on the knob.

GAIN: The GAIN control determines the overall output gain of the plugin. The GAIN control has 4 different range settings. These are accessible by right-clicking on the knob. The fine and extra-fine ranges are especially useful for adjusting the output signal while monitoring the true peak level.

Colors/Option Menu

The colors of the display of LVC-Meter are highly configurable. As presets and saved sessions are loaded/saved, the current color configuration is also loaded/saved. In addition, the colors can be configured and saved via the "Save as Default" button within the About box (see section [About Box](#)). To access the color configuration, right-click anywhere within the waveform view

COLOR/OPTION MENU



Right-clicking within the waveform, spectrum or vectorscope view will display the color/option menu. When the display is showing the waveform, the menu shows options associated with the various waveforms that are displayed. In the spectrum view, options are available for changing the colors, as well as altering aspects of the spectrum analyzer. The vectorscope options can also be configured by right-clicking when the vectorscope is displayed.

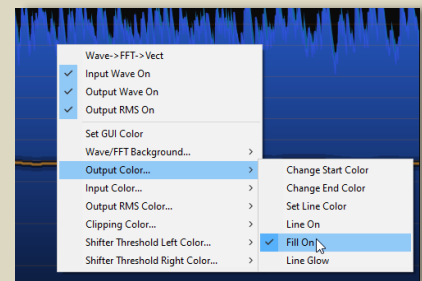
Toggle Options: At the top of the menu, various elements can be toggled on or off. The elements can also be toggled using the buttons just below the waveform display.

Set GUI Color: The default background color for LVC-Meter is deep gray color. Changing this color is possible by using this option. Please be aware that certain colors may make it difficult to see all of the buttons on the interface. Additionally, some settings (e.g., color blend method of the vectorscope) are dependent on the background color.

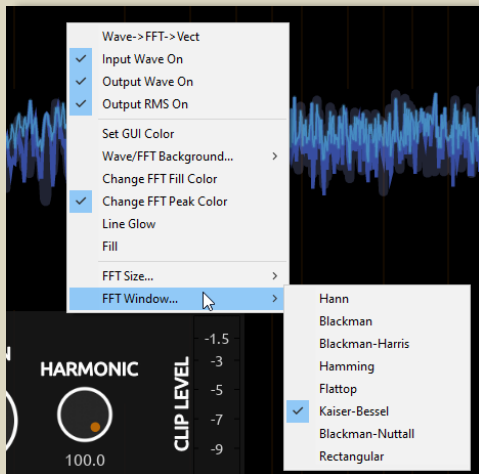
Wave/FFT Background Color: By default, the background setting is transparent. It can be changed by selecting the option under Background. To toggle the color on/off, use the Set Transparent option. The background color is the same for the waveform, spectrum analyzer, and vectorscope

Waveform Color/Options: Each element of the waveform display has various options to configure the display. Please remember that the element needs to be enabled for changes to be shown (e.g., changing the Input Color while the Input Wave is turned off will not make any difference on the display). The options are:

- **Change Start Color:** This is the main color of the control.
- **Change End Color:** Each element fades from the Start Color, to the End Color. This helps to view multiple overlapping elements. For input and output colors, the End Color represents the color at the bottom of the waveform display. For Reduce, the End Color represents the color at the top of the display.
- **Set Line Color:** This sets the solid line color for each element. This is not affected by the Start or End colors
- **Line On:** This toggles the solid line on or off for each element.



- Fill On: This toggles the fill on or off for each element.
- Line Glow: This toggles an additional line feature. To work, the Line On also needs to be toggled on. The Line Glow tends to highlight the line more; however, it is dependent on the other colors set for the control.

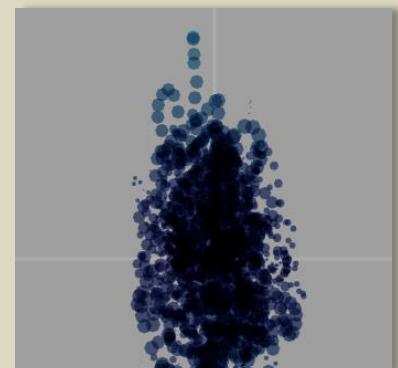
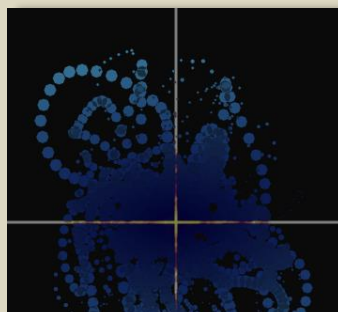
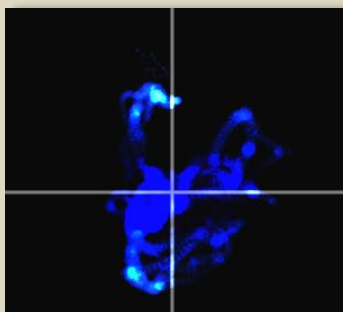
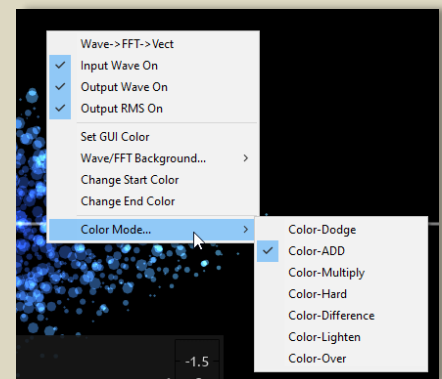


Spectrum Analyzer Color/Options: For the Spectrum Analyzer, there are two color options: Fill Color and Peak Color. The Fill Color corresponds to the momentary color of the analyzer. The Peak Color is the solid line that has a slight “hold” feature to better indicate peak frequency values.

In addition to the color options, the Spectrum Analyzer FFT size and window type can be configured. Just like other spectrum analyzers, the FFT size is a tradeoff between speed and accuracy. Low values have less latency, but also have a coarser frequency display. Higher numbers are able to show a more detail but respond much slower to the signal. The default value of 4096 was chosen as a balance between these two factors.

The FFT window can also be changed. Each window type has various trade-offs with discerning close frequencies, lowering the noise floor, and show relatively accurate amplitude levels. Typically, the differences are subtle when looking at the audible spectrum.

Vectorscope Color/Options: The vectorscope control also has some options that affect the display. Right-clicking the display will show various color options. This control how the various “circles” are drawn within the display. This includes options to change the start color and end color. There is also an option to change the Color Mode. The Color Mode determines how the display mixes overlapping colors, and is highly dependent on the start/end colors and the color of the GUI background.



Presets

To be added

XML Configuration File

LVC-Meter saves several internal settings within an XML file. This file can be edited with a standard text editor program. The file is generated during the first startup of the plugin. If needed, the file can be deleted and a new XML file will be generated with factory settings as the plugin loads.

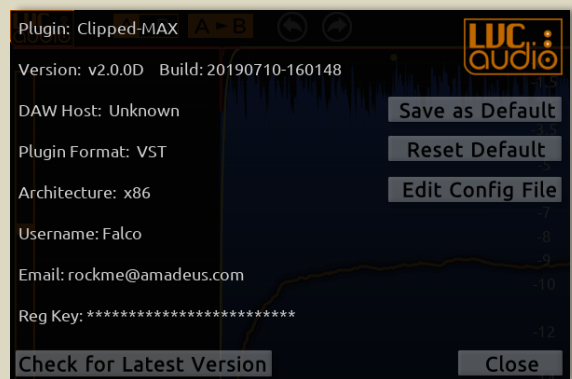
LOCATION

On a Windows computer, the file is located within the C:\Users\[username]\AppData\Roaming\LVC-Audio folder.

On a Mac, the file is located within the [username]/Music/LVC-Audio folder.

For both platforms, the file is called LVC-Meter_v2_CONFIG.xml

Clicking the button within the About box dialog will open the file with the default system application for viewing XML files.



SETTINGS

Default Settings (default_setting): The first XML element is the default setting. This is the default position of all knobs, controls, colors, etc. To set/reset the default settings click the buttons within the About Box. More information regarding this can be found previously within this manual. It is best to use these controls instead of manually editing the XML file.

Default Size (default_size – default = 1): This setting determines the default size of the plugin interface. A setting of 1 corresponds to a 1280 X 720 interface. This can be adjusted between 0.75 and 1.35. A setting of 0.85 would be 75% size (i.e., 960 X 540). For AAX plugin formats, this configuration is disabled due to difficulty resizing the plugin on initial opening.

Framerate (display_fps – default = 50 on Windows, 80 on Mac): This setting determines the framerate of the plugin interface. It can be set between 20 and 200. At lower settings, the plugin display uses less system's resources, but the display is not as smooth. At higher rates, the display is smoother, but more resources are needed.

Enable FloatDither (UseFloatDither – default = true) : With some DAWs, audio is sent to the LVC-Meter as 32-bit floating point data. Although the plugin will internally process this as 64-bit, the input signal is controlled by the DAW. With FloatDither enabled, dither targeted for 32-bit data is added to the output of the signal if 32-bit data is detected. If the DAW sends 64-bit information, the dither is bypassed.

Using FloatDither adds noise to the output, but at an extremely low level. The dither is especially useful with long chains of plugins where the audio is repeatedly processed. You can debate about the utility of FloatDither on your favorite audio forum, or you can just enable/disable the setting within the XML Config File.

LVC-Meter will only enable this dither when 32-bit audio is detected, and the input isn't silence.