



SIGNALUMAUDIO

Bute Plugin Manual

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Installing the Plugin

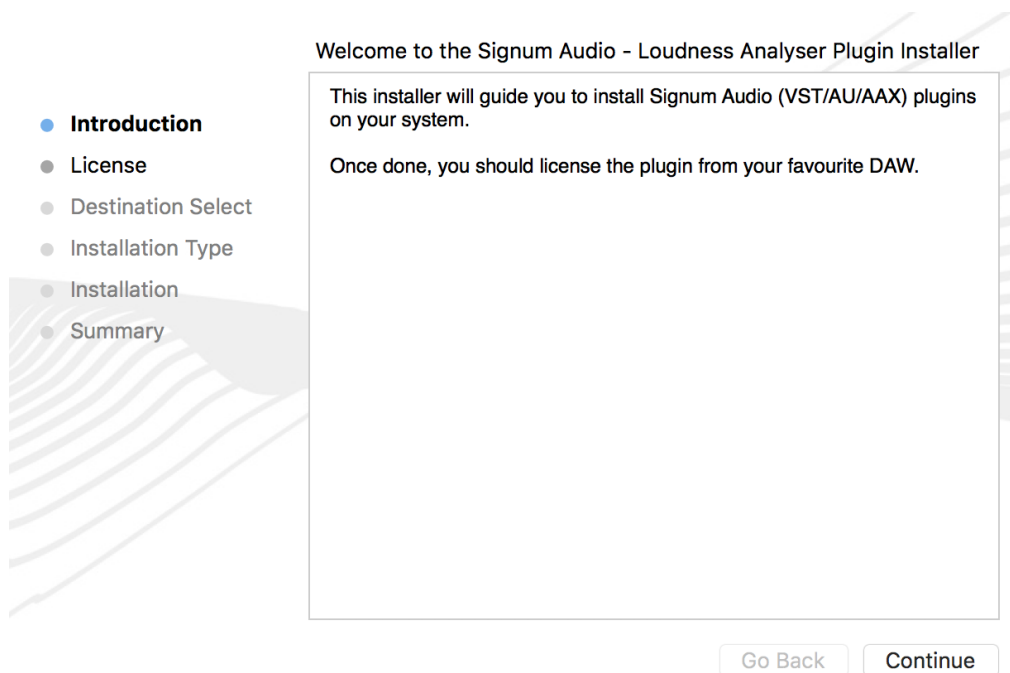
Our Bute Loudness Analyser and Bute Loudness Suite come as a plugin for all major DAWs in VST/VST3, AU and AAX format. They support a wide range of metering standards in multiple revisions. The Bute Loudness Suite is an expanded version of the Bute Loudness Analyser which includes an additional True Peak Brick Wall Limiter and Normaliser.

Mac OS x

Minimum Requirements:

- Mac OSx 10.9
- OpenGL 2.0
- Protools 12 HD (for AAX)

Step1: Run the installer as provided



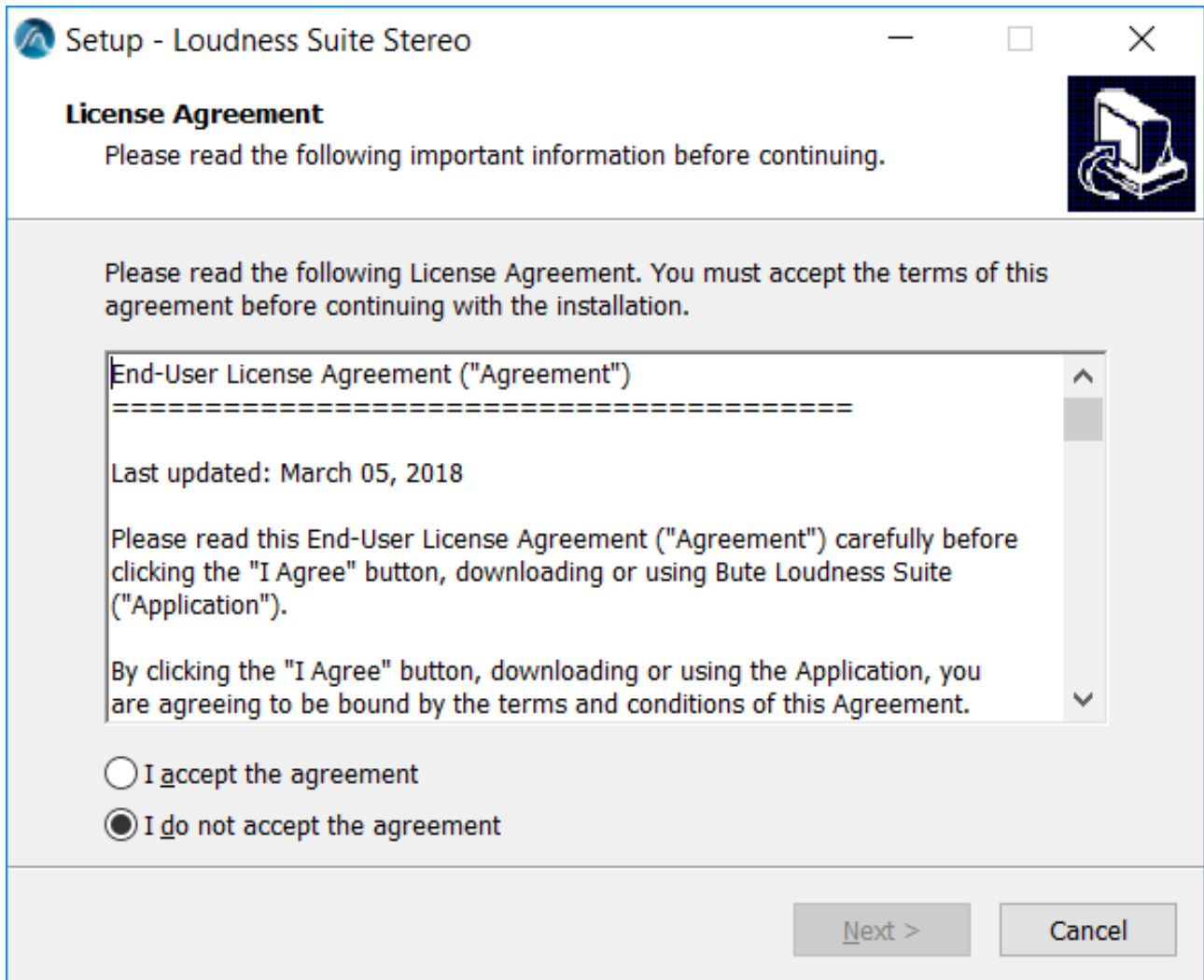
Step 2: The installer will run you through the following sections:

- License:** Read through the license agreement and accept if you agree.
- Destination Select:** Choose your destination, this should be a location in your system folder.
- Installation Type:** Choose which plugin formats you need. If you are using Pro Tools make sure you have AAX selected.
- Installation:** You will be asked for your password as the installer needs to install the plugins in your system folder.

Windows

Minimum Requirements:

- Windows 7 or above
- Protools 12 HD (for AAX)



You might get asked to confirm to run the installer depending on your security settings.

In this case a message saying 'Windows Protected your PC' will show up, please click on 'Run anyway'. The installer will then run you through the following screens:

License Agreement: Read through the license agreement and accept it if you agree with the license.

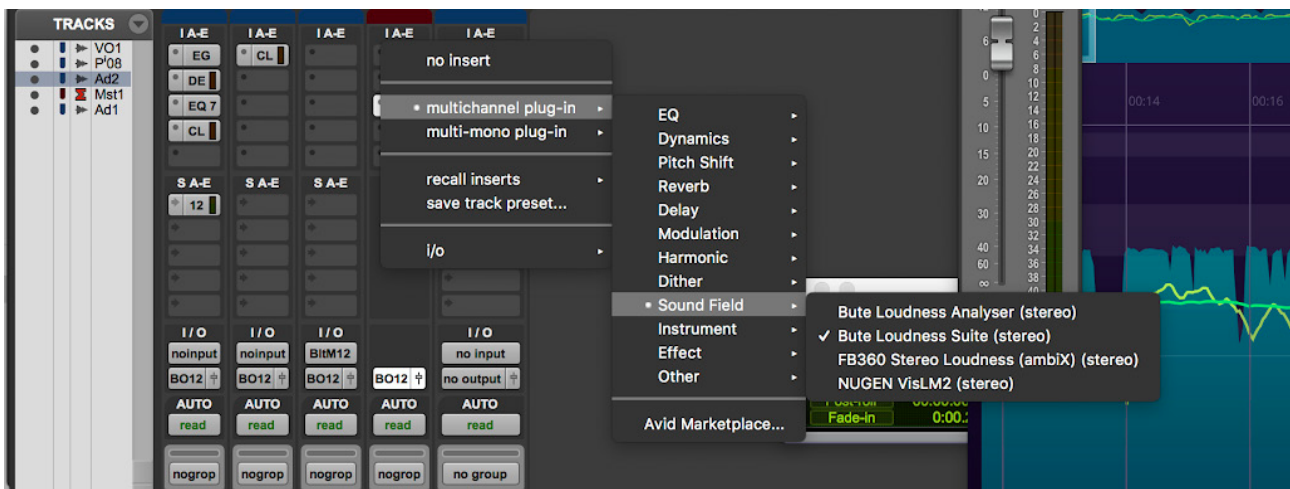
Select Components: You can choose between full installation or custom installation which allows you to select which plugins you want to install.

Plugin First Use

After installation, your plugin should appear automatically in the Plugin section of your favourite DAW.

In most DAWs, VST and AU hosts you should find our plugin under *Signum Audio > Bute Loudness Analyser/Suite*.

Pro Tools users will find it under the *Sound Field* section.



Stereo, Mono and Surround

If you purchased the Stereo version you will be able to use the plugin in mono or stereo mode. If you purchased the Surround version you will be able to use it for all different channel configurations including Atmos.

You can add the plugin on any track but you most likely want to insert it as the last plugin on the master (Master Fader Track), this will mean that you will be analysing/limiting the final output of your audio.

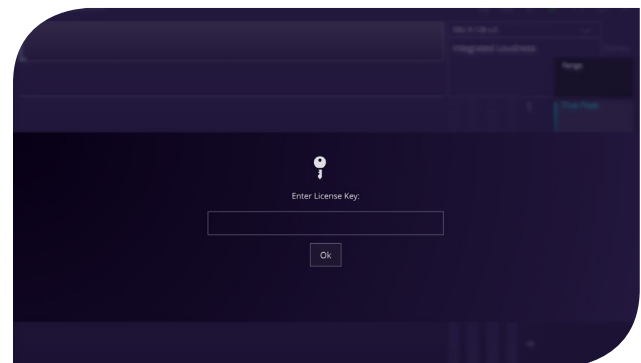


License Keys

On first run you will be asked for your **license key**. You should have received this by e-mail, or else you can find it under license keys in your user account on www.signumaudio.com.

Enter the license key as it has been sent to you (case sensitive) without any spaces.

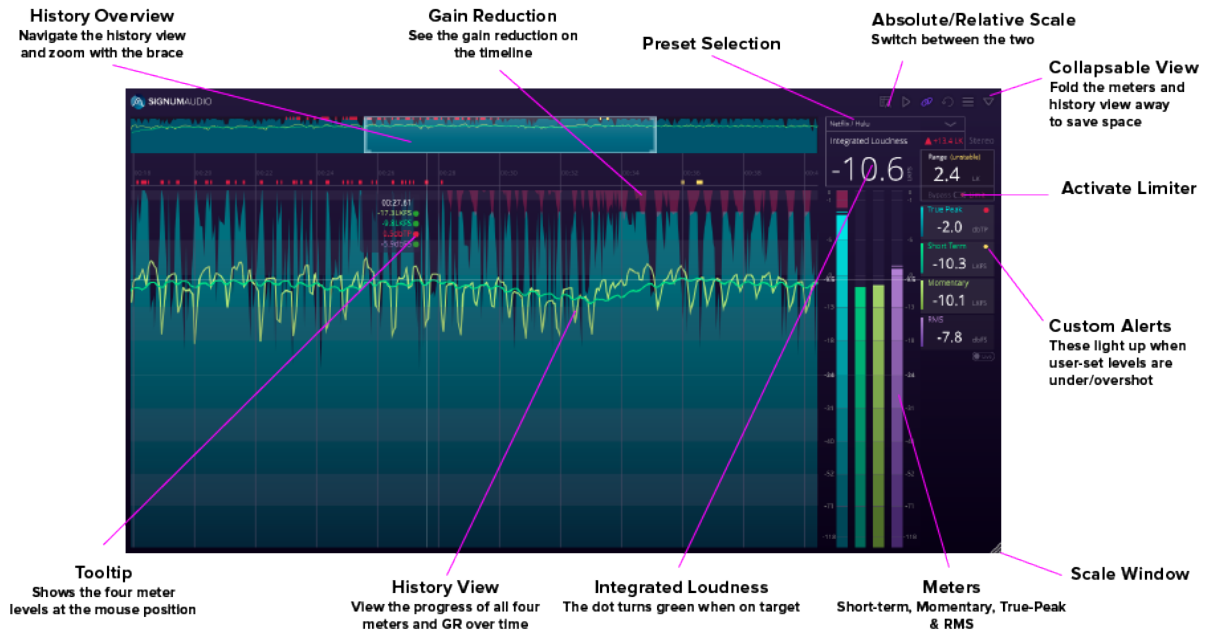
Please make sure you are connected to the internet.



If you are experiencing issues to get your copy licensed, please contact us by sending an email to support@signumaudio.com

Plugin Window

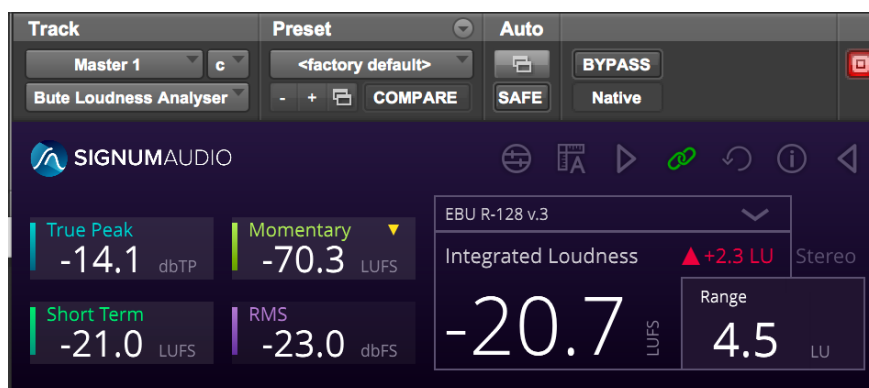
Plugin Window Overview



Collapsed / Expanded View

When the collapse icon  in the menu bar is clicked, the plugin window will resize and rearrange to a compact layout.

This mode displays all the current readings and indications, including warnings and standard compliance.



Resizable UI

When the view is expanded, you can resize the window at your own liking by dragging the bottom right corner.



Loudness Meter

At the top of the metering section you can find the reading for **Integrated Loudness**, the overall loudness in LUFS/ LKFS of the whole programme / track.

On top of the integrated loudness reading is the preset selection, which determines which standard is used for metering. Targets, units, and metering algorithm change depending on the selected preset.

On the top right of the Integrated Loudness section is a **Target Indication** for integrated loudness.

If the Target Indicator is a green this means that your programme complies with the selected preset. ● -0.2 LU

If the programme/audio track is out of target there would be an indication of whether it is too quiet ▼ -1.0 LU or too loud ▲ +0.6 LU . The number next to the arrow shows you how far off you are from the target.

Next to the **Integrated Loudness** section you can find the **Loudness Range**. This value is also measured over the whole length of your programme and gives an indication of its dynamics.

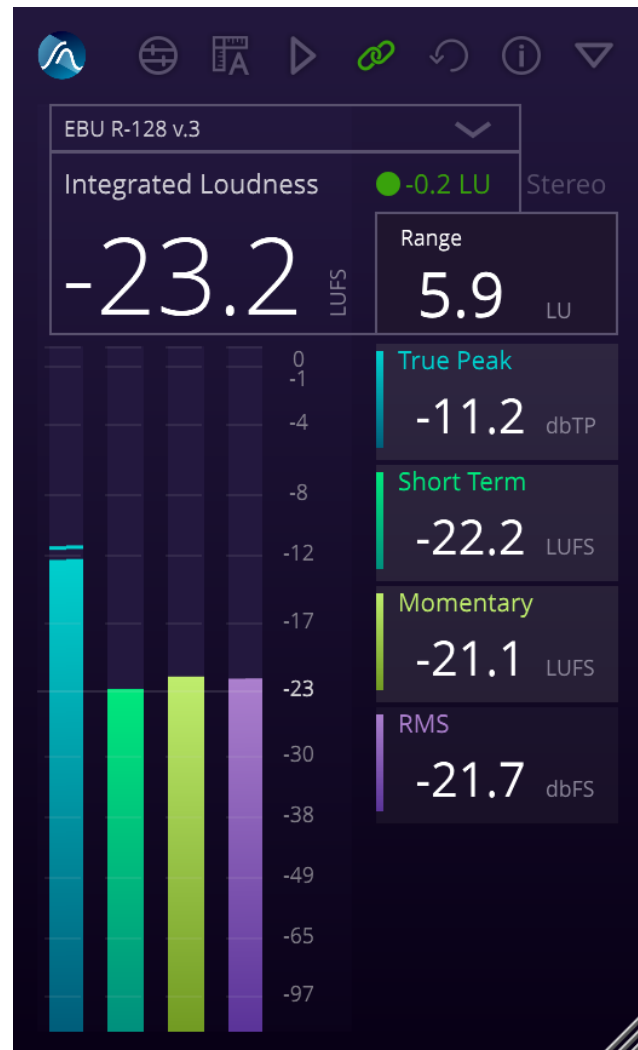
The Loudness **Range** is considered unstable if less than 1 minute has been metered. In this case an indication in yellow (**unstable**) will be shown next to **Range** label.

True Peak displays the true peak of the currently playing audio. It uses an upsampled signal to mimic analog output.

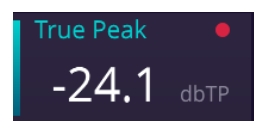
Short Term displays the short term loudness and uses a sliding rectangular time window of length 3s. The **Momentary** displays the momentary loudness and uses a sliding rectangular time window of length 0.4s.

RMS displays the Root-Mean Squared reading of the currently playing audio. The RMS window length can be adjusted in the Meter Settings page.

Hovering over the True Peak, Short Term, Momentary and RMS readings will highlight



the relevant graph in the history. Clicking the reading toggles the respective history graph on or off.



Warnings and non compliance of a reading are shown as yellow and red dots next to the label. The example shown here means that there were overshoots during metering.

Adjustable Vertical Scale

Bute allows to adjust the vertical scale by simply grabbing the scale and dragging it up or down. This will affect the display of Loudness meter as well as the history view. Depending on how you adjust the vertical scale, you will see more detail in different parts of the loudness spectrum. To facilitate mastering to the target value, the target is always visible and emphasised.

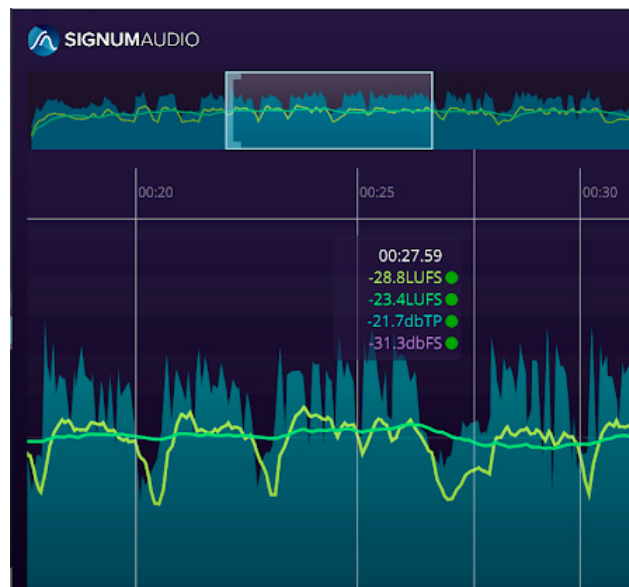
History View

The history section can be found when the plugin is expanded on the left side of the window.

In the history section you can see the history graphs of all selected the readings.

The colours of the graphs correspond to the colours of the meter bars and the meter readings.

The preview section on the top shows the whole history. You can move and zoom through the history by moving and resizing the the window in it.



A floating information box appears when hovering over the history section.

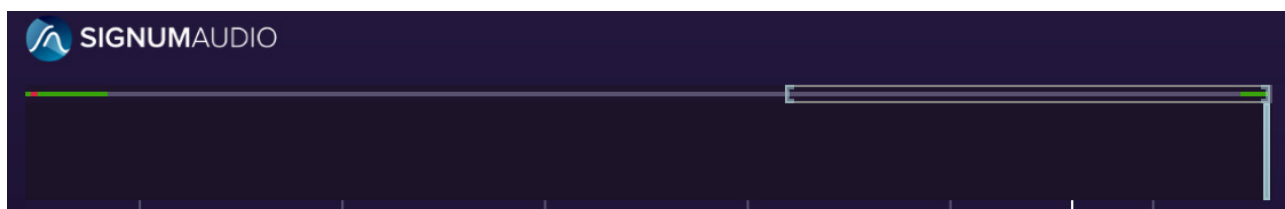


The information box contains the exact reading at particular time. From top to bottom: Time, Short Term Loudness, Momentary Loudness, True Peak and RMS.

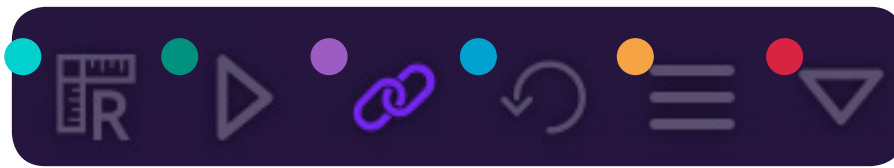
The history view also shows areas of concern on the timebar. Standard violations (like true peak overshoots) in red and warnings in yellow.

Hovering over it will give you more detailed information of the issue.

If your session is longer than 30 minutes, the history overview will be further separated using a topmost full overview. This allows for very long sessions or sessions that start at 10:00:00 as sometimes done in broadcasting. Re-metering and DAW sync will still be available.



Menu



The menu is always visible on the top right corner of the plugin window.

- Absolute / Relative Scale:** Changes between absolute and relative scale.
- Play / Pause Button:** Plays and pauses the meter when DAW Sync is deactivated.
- DAW Sync:** When turned on, the meter synchronises to DAW transport.
- Reset:** Resets all metering, warnings and errors.
- Expand Menu:**

(Meter) Settings:

Here you can configure all metering and warning settings. In the Surround version of the plugin you can also change the channel layout.

Save Session:

Saves current session to a file.

Load Session:

Loads session from file.

Export CSV:

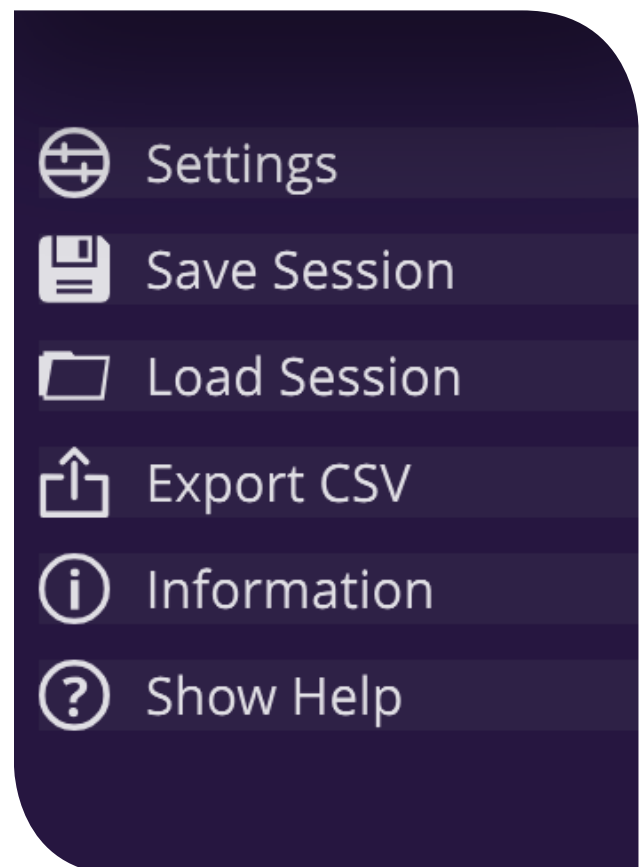
Exports CSV text file with all the readings from your session.

Information:

Displays information about your plugin version, updates, and your license. You can also deactivate your license from here.

Show Help:

Shows a walkthrough help within the plugin.



- Collapse / expand:** Collapses or expands the display. The collapsed display allows you to meter without using much space on your display.

Functionality

Meter Settings

In the **Meter Settings** (which you can access from the menu), you can set how the meter behaves.

We have compiled a long list of factory presets that tries to be as exhaustive as possible.



The factory presets have gating type, filter and units set, along with target integrated loudness (with upper and lower tolerance) true peak and short term limit.

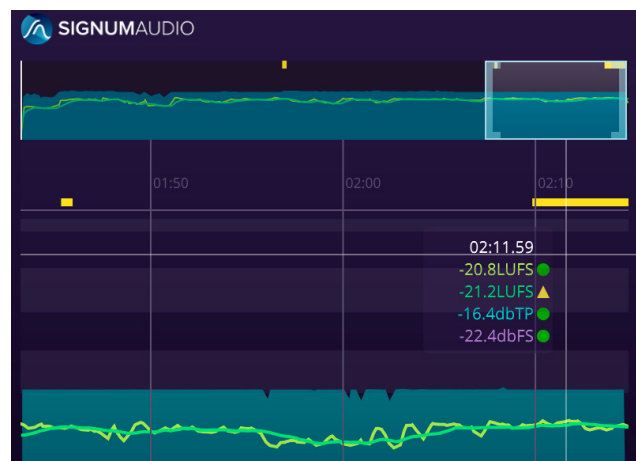
If you select the **User** presets, you can change these values to your specific needs. When you click save you will save this to your machine and you can access them later on.

Do not hesitate to contact us on: **support@signumaudio.com** if you would like to include your own preset in the plugin.

The **RMS Window Length** is ubiquitous and is not part of the preset.

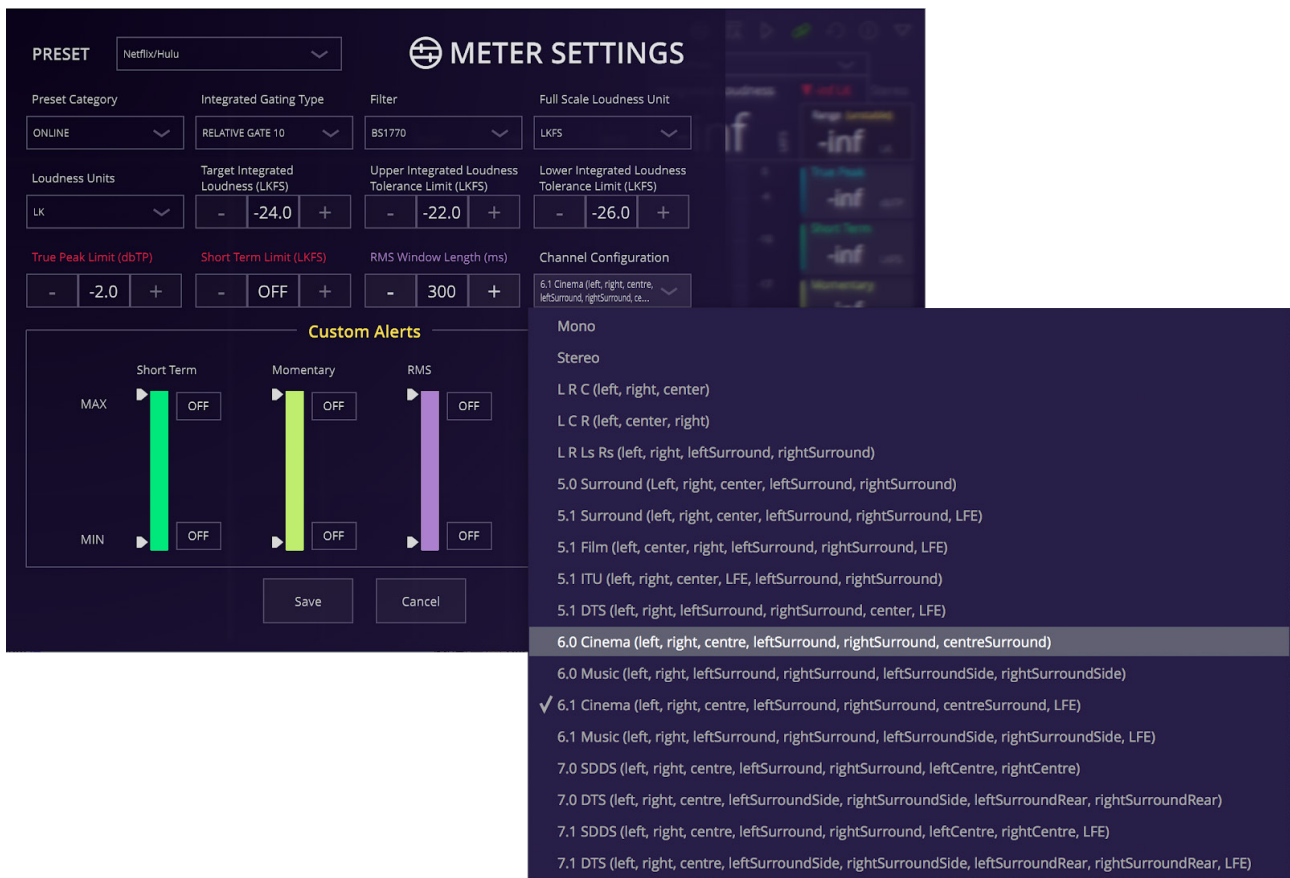
The **Custom Alert System** allows you to set maximum and minimum limits for Short Term, Momentary and RMS meters, it also allows for a maximum True Peak limit.

If a meter goes above/below the limits, a warning will be recorded. This is particularly useful if you want to visualise quiet and loud parts of your programme. The alerts can be customised for each preset individually.



Channel Configuration - Sound

If you are using the surround version of the plugin you can set the channel configuration from the **Meter Settings** window.



The current channel configuration can be seen on the right hand side of the **Integrated Loudness**, on top of the **Range**.

Make sure that the channel configuration matches the one in your DAW.

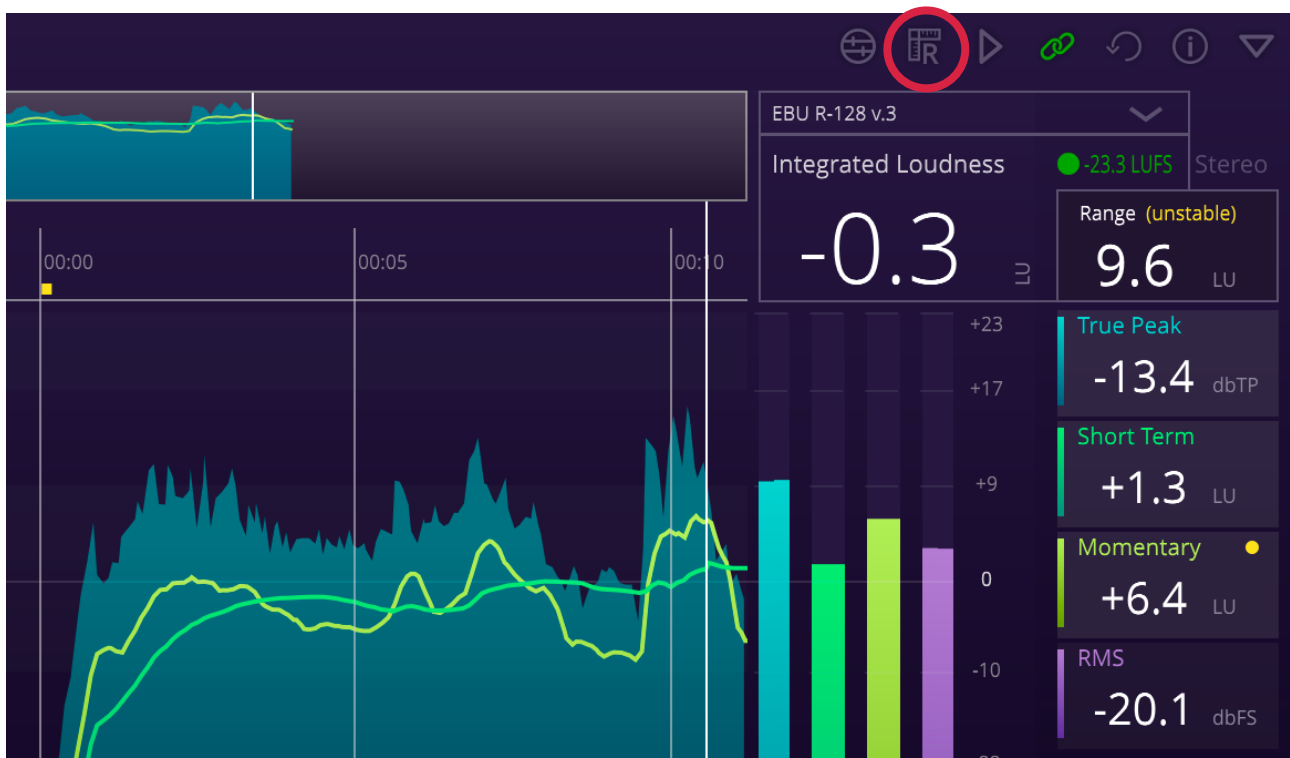
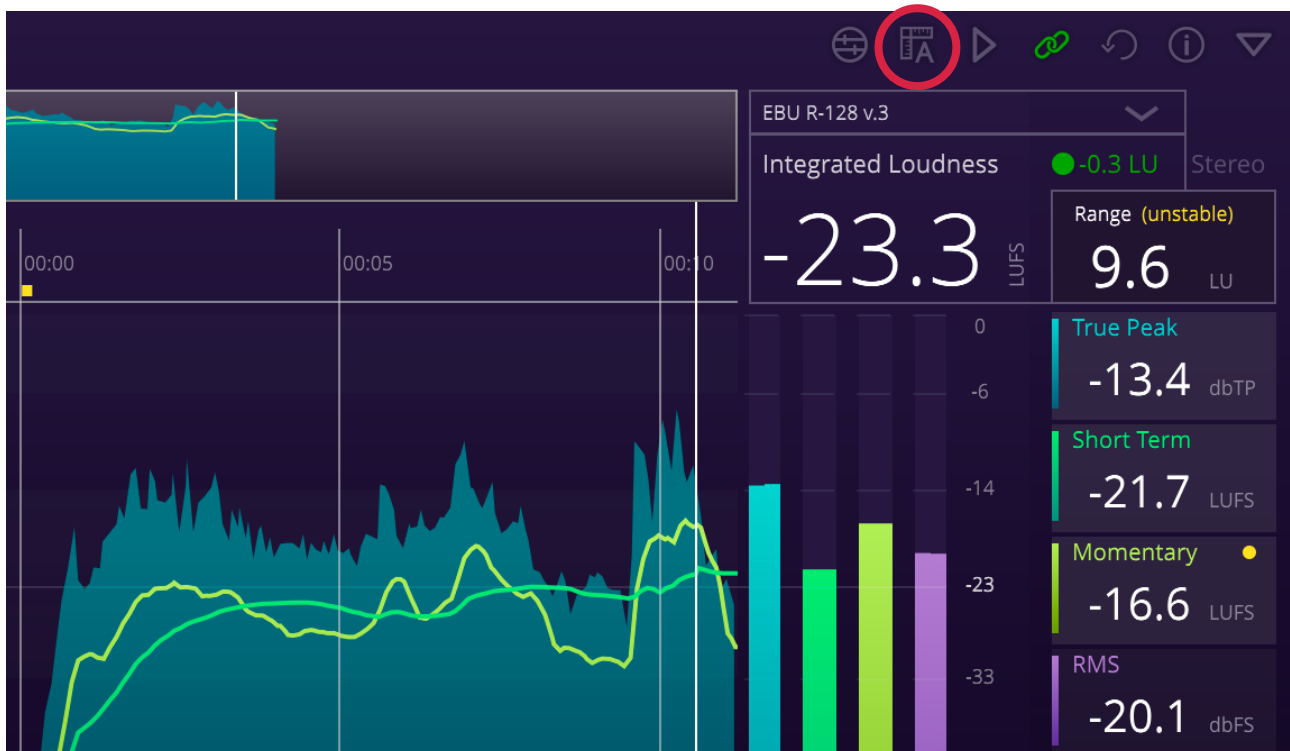
Bute Surround Version will allow you a choice up to the number of channels you have available in the channel you insert it in.



Absolute and Relative Scale

By clicking the scale  icon on the top right corner you can switch between absolute and relative scale. When the icon says **A** you are using an absolute scale using full scale loudness units. If the icon says **R** as on the image below, a scale relative to the target of the current preset is used.

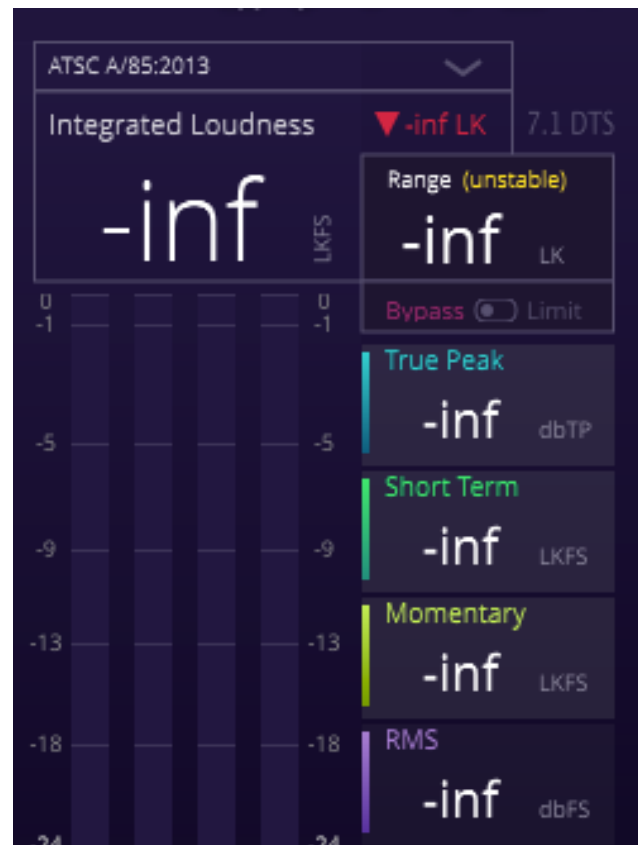
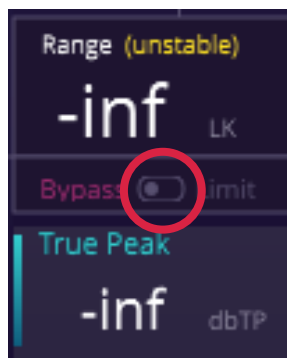
When the scale is set to **relative**, readings for Integrated, Short Term and Momentary Loudness use relative units. Since the target value does not apply to True peak and RMS, these are always relative to full scale and use dbTP and dbFS respectively.



The True Peak Brickwall Limiter

The True Peak Brickwall Limiter can be activated by clicking the button circled in red below. You can switch this on and off during metering. We have used a novel approach to offer absolute transparency.

You can see realtime action of the limiter on the True Peak vertical meter. It is shown pushing the audio downwards.

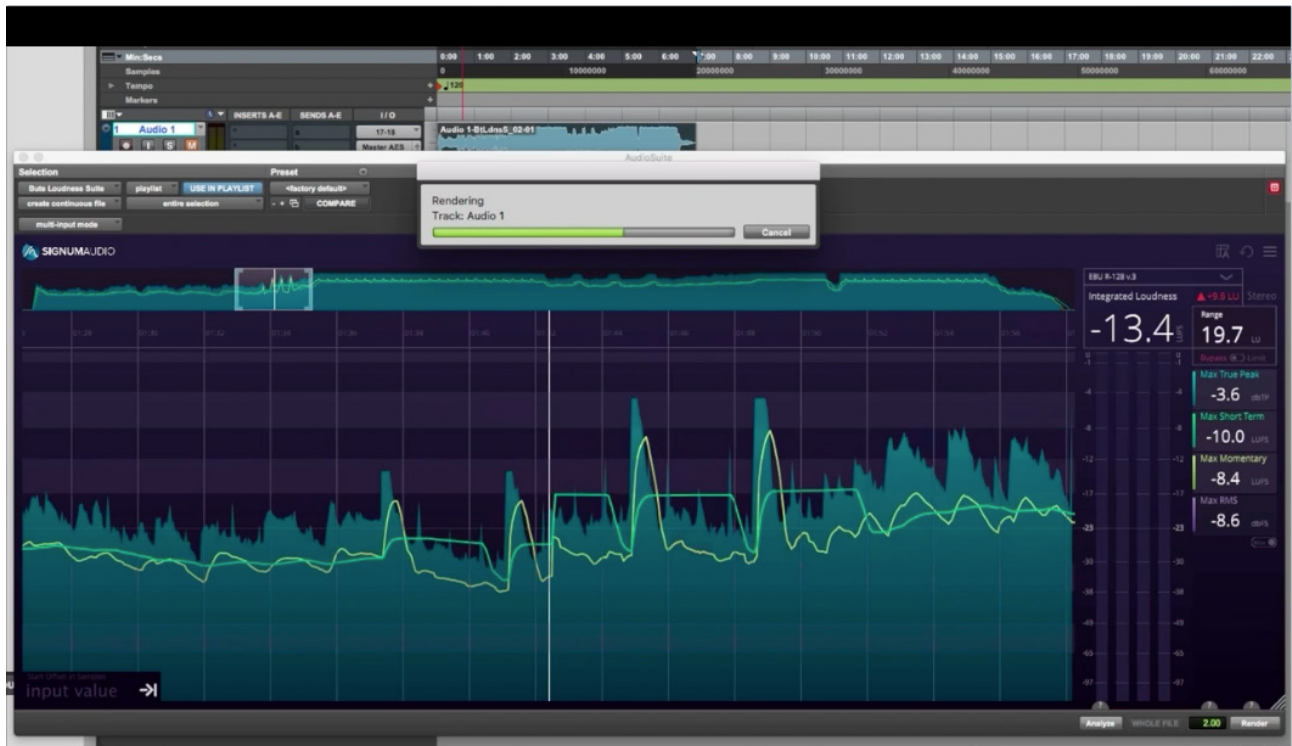


The maroon graph above the true peak graph shows you how much gain reduction is being applied by True Peak Brickwall Limiter. Results will vary depending on your chosen true peak target levels, which are influenced by the preset you have chosen or created.



The Normaliser

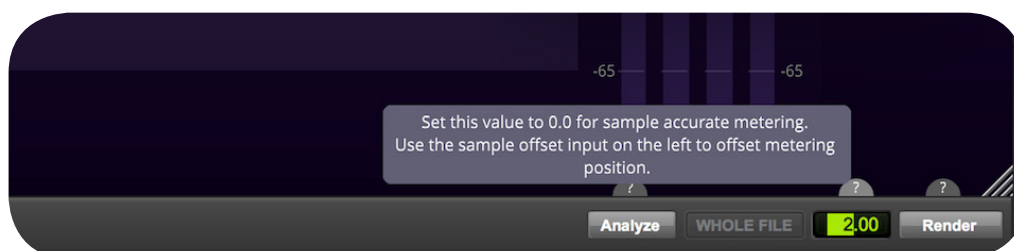
The Normaliser currently works exclusively with Pro Tools AudioSuite. To access it, click “AudioSuite” in the main menu > “Modulation” > “Bute Loudness Suite”.



Firstly, select the preset that you want to work with, then click **Render** at the bottom right of the plugin window.

The Normaliser function will then automatically alter your audio so it complies with the standard of your chosen preset.

You should set the Pre-roll (next to Render) to 0 yourself in order to avoid any latency issues when using the Normalisation function offline.



You can also input a sample offset value so that you can remeter a section if you want to fix just a part of your mix.

Known Issues

Surround Version Doesn't work with Ableton 9.