F A S T LIMITER

Manual

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Introduction

FAST Limiter is an Artificial Intelligence (AI) powered true peak limiter plug-in that helps to add the right finishing touches to your audio tracks.

Like all plug-ins of the FAST family, FAST Limiter has been designed with a simple goal in mind: Get great results, FAST!

Feature Overview
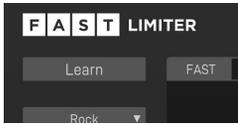
AI Powered Limiting

FAST Limiter uses AI technology to find the right limiter parameters for your audio material within seconds in order to get your tracks ready for publishing.
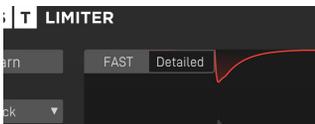
FAST View and Detailed View

The user interface has two view modes: FAST View provides the customised controls you need to keep in the creative flow while Detailed View provides deeper control over parameters.

Flavour Buttons

Three buttons allow you to choose between a Modern, Neutral or Aggressive limiting style.
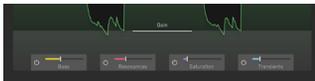
Style Modules

Four different Style Modules offer an easy way to tweak the spectral and temporal characteristics of your audio material at the touch of a button.
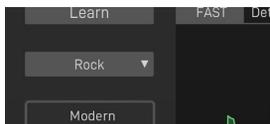
Profiles

Different profiles allow you to tell FAST Limiter what kind of genre the plug-in is dealing with. This ensures a good adaption of the processing to your audio material.

GUI Overview

Learn Section

Limiter Display

Learn Section

❶ Learn Button

Start the learning process.

❷ Profile Dropdown

Select a genre that best matches your audio material or choose a reference track.

❸ Flavour Buttons

❹ Quality Indicators

Check the publishing quality of your track. Hover on the indicator icons to show some hints regarding the final publishing checks.

Limiter Display

❶ FAST/Detailed

Switch GUI between FAST View and Detailed View.

❷ Waveform Display

Monitor the Limiter's impact on the signal.

❸ Gain

Control the input gain.

❹ Gain Reduction

Monitor the applied gain reduction.

❺ Meter

Monitor your input and output level and the applied gain reduction.

❻ Style Modules

Tweak the spectral and temporal characteristics of your audio material.

FAST and Detailed View

The user interface of FAST Limiter has two view modes: FAST View provides the customised controls you need, based on the content of your material. Detailed View provides deeper control over parameters, to adjust settings to your own taste.
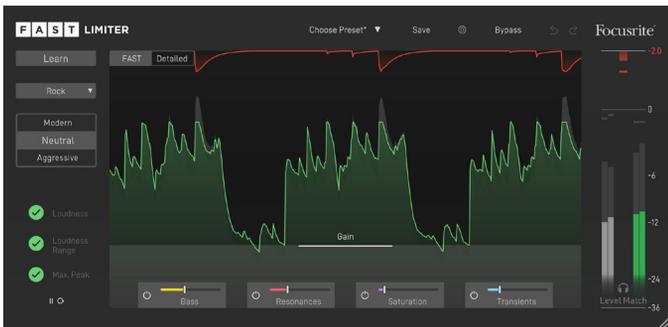
FAST View

Detailed View

FAST View is designed to give you optimised controls to keep in the creative zone. In this mode, you only see the controls you need, so you can make quick tweaks and keep moving throughout your music-making process.

This is the default View when opening the plug-in.

Detailed View is designed for users who want to have maximum freedom in making changes as they see fit. All parameters can be freely modified and allow you to fine tune the results to your personal taste.

You can easily switch between FAST and Detailed View by clicking on the two buttons in the upper left corner of the interactive equaliser display.

Learning and Automatic Parametrisation

The heart of FAST Limiter is its ability to automatically find the most suitable limiter parameters for your signal. Therefore, choosing a profile and starting the learning process will typically be the first thing you want to do when working with the plug-in.

The learning process will not only automatically set all limiter parameters, it will also set and activate the Style Modules that allow to tweak the spectral and temporal characteristics of your audio material.

Choose a Genre Profile ❶ that best matches your input signal. If you don't find a suitable profile, simply select "Universal". You can also set a music file from your hard drive as a target by clicking 'Reference Track' in the dropdown menu.

Start the playback in your DAW. Make sure to select a relatively loud segment of your track (e.g. the refrain).

Press the Learn button ❷ to start the learning process. Now, a progress bars inside the Learn button and a learning animation inside the Style Modules indicate the progress of the learning process.

Done! Once learning is completed, FAST Limiter sets well-balanced limiter parameters and activates the Style Modules. You can now see the gained input signal (light grey), the output signal (green) and the gain reduction curve (red) in the interactive Waveform Display❸.

If you want FAST Limiter to learn from a different section of your input signal, you can simply start the audio playback from there and click the Relearn button. Please note that you don't have to click the Relearn button when switching between Flavours or Genre Profiles.

Fine Tune Your Sound

Working in FAST View

❶ Adapt the Gain

You can use the Gain handle to set the amount of input gain. Moving the handle up will raise the level of the input signal and more peaks will be limited. This leads to an increased loudness and reduces the dynamics of the output signal. You will instantly see the impact on the waveform of the limited output signal in the Waveform Display.

❷ Choose a Flavour

You can use three Flavour buttons to quickly change the character of your limited sound. Once you settled on a Flavour you can further fine-tune the results using the Gain handle and the basic Style Modules in FAST View or the additional parameters available in Detailed View. Read the section Style Modules on page 10 for more details.

❸ Change Profiles

You can always change the selected Genre Profile , without needing to restart the learning process. Please note that manually made adaptions to parameters will not be adopted. Changing your profile will reset all parameters to their default value.

❹ Level Match

Enable to level-match the processed output with the dry input signal for an accurate A/B comparison. This helps to objectively compare the sound of the original signal and the processed signal without being (positively) biased by the louder level of the gained output signal.

Working in Detailed View

❶ Limit

Set the maximum signal level that is allowed to pass through the limiter. This is a hard limit for the gained signal (all values larger than this value are limited) and represents the highest possible true peak level of the output signal.

❷ Speed

Set the speed for the limiter. The speed parameter controls the temporal characteristics (attack & release) of the limiter.

fast
The gain reduction quickly returns to zero after the signal was limited. This setting preserves more transients and leads to a louder signal, but may cause audible distortion for heavily limited signals.

slow
The gain reduction returns slowly to zero after the signal was limited. This setting leads to smooth limiting results, but may not be perfectly suited for highly transient signals.

auto
In auto mode, FAST Limiter will automatically adapt to the characteristics of the input signal. Auto mode ensures that the limiting process does not create audible distortion even for more extreme gain settings. This mode can be used for any type of signal.

Style Modules

The four different Style Modules offer an easy way to tweak the spectral and temporal characteristics of your audio material. Each module comes with a main parameter to control its overall impact❶, an additional parameter to tweak the underlying processing (❷, only available in Detailed View) and a visualisation showing the current effect on the signal❸. All modules can be enabled and disabled ❹ or pinned to remain expanded❺.

Bass

Enhance the low end of your signal. This can be helpful if the bass feels muddy or weak.

Set a cut off frequency to only apply the bass enhancement below this frequency.

Resonances

Improve the spectral balance and tame resonances. This module is great for giving your track a final, subtle polish.

Set the frequency resolution for the resonance processing.

Saturation

Add saturation and increase the apparent loudness of your track without increasing peak level. This effect feels a bit like inflating the signal.

Choose a character for the saturation effect.

Transients

Tweak transient components and preserve the punch of your signal.

Select the sensitivity for the transient tweaking effect.

Output Monitoring
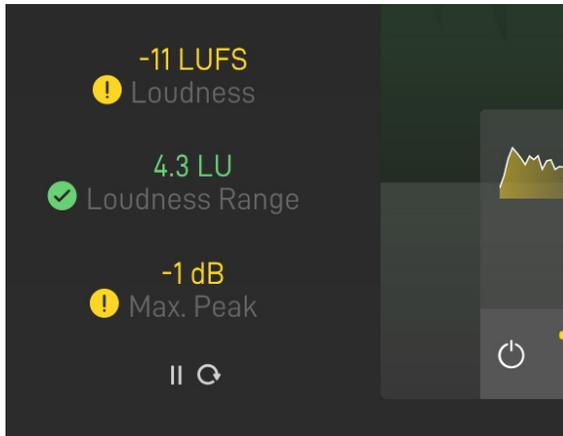
❶ Loudness

Integrated loudness of the observed output signal in LUFS.

❷ Loudness Range

Loudness variation between the loudest and quietest sections of your track.

❸ Max. Peak

Maximum true peak value of the observed output signal.

❹ Pause / Play Icon

Start or pause the loudness measurement.

❺ Restart Icon

Restart the measurement of loudness and peak. Restarting the measurement can be helpful if you have made significant changes to your mix. For the

most precise results on a whole track, restart the measurement at the beginning of your track and let it run through until the end.

❻ Quality Indicators

FAST Limiter constantly monitors the loudness, and peak level of your track. The large quality indicators in FAST View and the small quality indicators next to the actual measurement values in Detailed View indicate if your track is ready for publishing.

✅ This value is looking good for publishing. Everything is good to go!

⚠️ There could be a potential issue with your track. Hover over the icon to learn more about the potential issue.

◠ FAST Limiter has not yet collected enough information about your track. Continue the playback and wait until the measurement becomes valid.

Per default, FAST Limiter assumes that you are publishing your tracks to a streaming platform like Spotify, YouTube or Apple Music and therefore uses a reference loudness level of -14 LUFS. If you want to select an alternative publishing target (CD or broadcasting), you can switch the reference loudness on the settings page (see 13).

Global Control Section
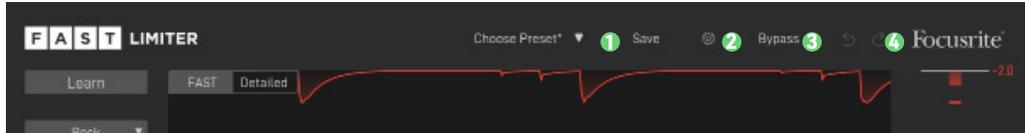
❶ Save and Load Presets

To save a preset (all parameter values), click the Save button in the Control Section. To load a saved preset, choose the respective preset name from the preset dropdown.

If you want to delete a preset or change its name, please go to the preset folder with your local file explorer. You can also easily share your presets among different workstations. All presets are saved with the file extension *.spr to the following folders:

OSX: ~/Library/Audio/Presets/Focusrite/FASTLimiter

Win: Documents\Focusrite\FASTLimiter\Presets\

❷ Settings

Click the small cog wheel to access the settings page of FAST Limiter (e.g. to restart the Guide Tour or to check your subscription status).

❸ Bypass

❹ Undo/Redo

Settings
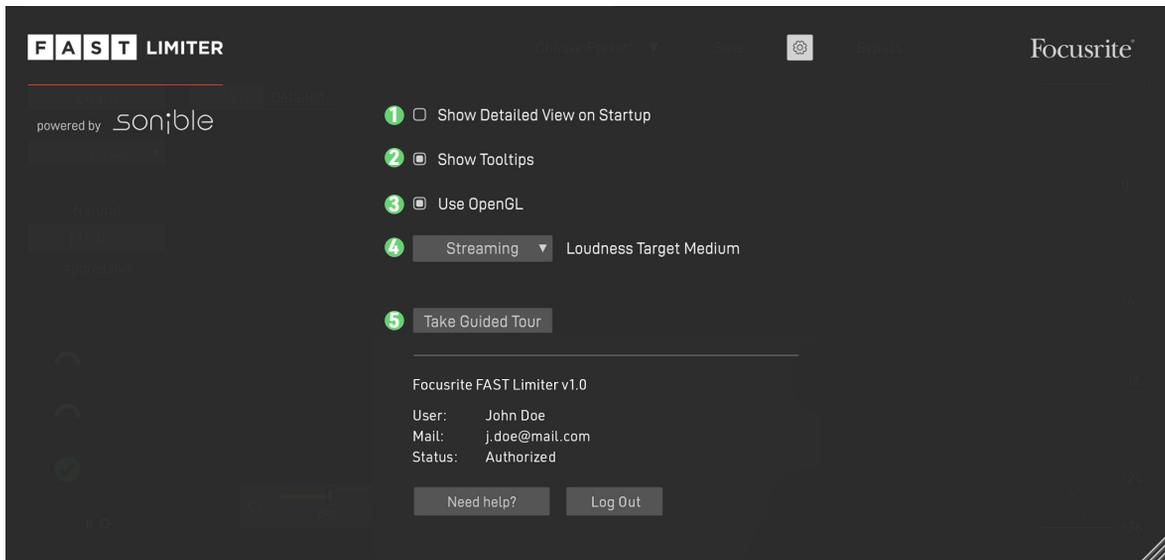
❶ Show Detailed View on Start-up (Global Setting)

If you prefer working in Detailed View, enable this setting. FAST Limiter will now start up in Detailed View by default.

❷ Show Tooltips (Global Setting)

Disable this option, if you want to hide tooltips.

❸ Use OpenGL (Global Setting)

If you are experiencing graphic problems (e.g. rendering problems), you can try to disable the OpenGL graphics acceleration.

❹ Loudness Target

Select a publishing target (Streaming, CD, Broadcasting). This target will be used for the quality indicators.

❺ Take Guided Tour

Click this button to restart the Guided Tour. Please note that all parameters will be reset to their default values when a new tour is started!
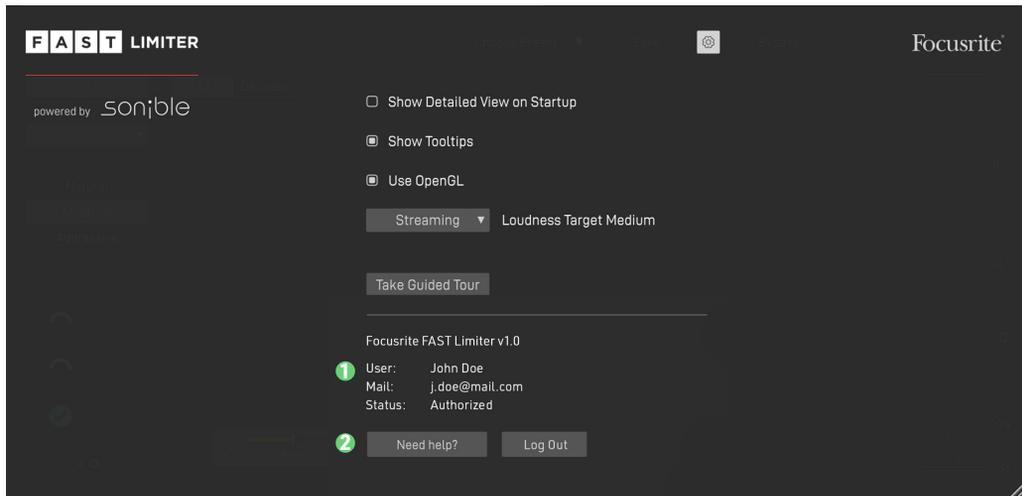
License Management

❶ License Information

This section shows the license information for your plug-in.

❷ Help Center

Visit the Help Center to e.g. manage your subscriptions or download new plug-ins and the latest updates.