

Trinity Shaper

User Manual

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Chapter 1 Introduction

Overview

Trinity Shaper is the next-generation single/multi-band transient shaping plugin that offers you strong flexibility and a brand-new approach for dynamic processing.

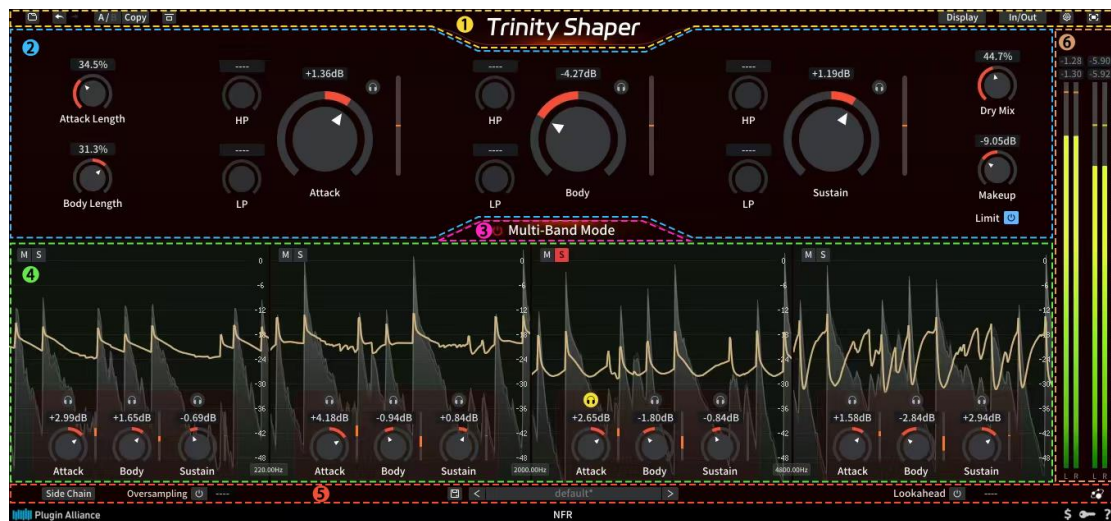
With precise controls over the characteristics of **Attack**, **Sustain**, and the newly unlocked **Body** stages, Trinity Shaper will be your invaluable weapon for reshaping a wide array of dynamics: enhancing the punch of a snare, reducing decay, or amplifying the room sounds. All can be completed with simple knob controls.

Furthermore, with the '**Focus**' filters and **multi-band mode**, Trinity Shaper acquired the capability to control the dynamics in fully customizable frequency ranges: tightening snare hits by boosting mids in transients, eliminating high-frequency clicks in bass, or applying fine-tunings to dynamics across the entire mix.

Trinity Shaper empowers you to elevate your dynamic processing to the next level.

Learn more details at: <https://www.threebodytech.com/products/trinityshaper/>

User Interface



- ① Top Bar
- ② Parameter Panel
- ③ Single/Multi-band Mode Switch
- ④ Waveform/Multi-Band Panel
- ⑤ Bottom Bar
- ⑥ Level Meter Panel

Specifications

Latency

Oversampling OFF

- Lookahead OFF: 0 latency in both single and multi-band modes.
- Lookahead ON: 110 sample points about 2.5ms at 44100 Hz sample rate.

2x Oversampling

- Lookahead OFF: 144 sample points, about 3.3ms at 44100 Hz sample rate.
- Lookahead ON: 255 sample points, about 7.4ms at 44100 Hz sample rate.

4x Oversampling

- Lookahead OFF: 216 sample points, about 4.9ms at 44100 Hz sample rate.
- Lookahead ON: 327 sample points, about 6.1ms at 44100 Hz sample rate.

8x Oversampling

- Lookahead OFF: 252 sample points, about 5.7ms at 44100 Hz sample rate.
- Lookahead ON: 363 sample points, about 8.2ms at 44100 Hz sample rate.

16x Oversampling

- Lookahead OFF: 270 sample points, about 6.1ms at 44100 Hz sample rate.
- Lookahead ON: 381 sample points, about 8.6ms at 44100 Hz sample rate.

Minimum System Requirements

- Intel or AMD CPU with SSE 4.1 support / Apple silicon chip
- macOS X 10.11 / Windows 8
- 4GB RAM and 100 MB disk space

Please note Logic Pro 9 is not supported. Please use Logic Pro X or higher versions.

Supported Plugin Formats

64-bit VST2, VST3, AAX and Audio Unit.

Contact

If you need technical support or want to report bugs, please contact us via email at support@threebodytech.com. We will respond as soon as possible. Any suggestions for our products are welcome!

For activation/licensing/subscription issues, please get support at support.plugin-alliance.com.

- **Three-Body Technology official website:** www.threebodytech.com
- **Facebook:** [@Three-Body Technology](https://www.facebook.com/ThreeBodyTechnology)
- **Twitter/X:** [@TbtechL](https://twitter.com/TbtechL)
- **Instagram:** [@threebodytech](https://www.instagram.com/threebodytech)

Chapter 2 Installation

Plugin Alliance Licensing System

Trinity Shaper uses Plugin Alliance's proprietary licensing system that is completely software based. No hardware license dongle, special drivers, or serial numbers are required to run Trinity Shaper. Everything is handled from within the software product. All of your licenses are stored in a single file located on your computer or USB flash drive. This file must be updated whenever you buy or start a trial for Trinity Shaper.

We offer both online and offline activation. We highly recommend using online activation. It is the fastest and easiest process. Activation requires you to have a current Plugin Alliance account. If you don't already have one, you can [create an account on Plugin Alliance's website](#) for free.

License Types

Plugin Alliance licensing system includes different types of licenses that come with related restrictions on their use.

A **full license** unlocks a plugin for an unlimited amount of time. You get a full license whenever you purchase Trinity Shaper. These licenses can be activated on up to 3 devices. If you want to use more devices, you can purchase additional licenses to add 3 more devices with each license.

A **trial license** allows you to try a product for 14 days. Trial licenses are free of charge and fully-functional, so you can use all the features of the plugin. A trial license can be activated on up to 99 devices, but it will only be active for 14 days after the first activation.

Lease licenses are licenses which are valid for a specific period of time. The duration of your validity period depends on the product you have purchased and is usually shown as a countdown value in the lower toolbar of the plugin. If you have extended this period, e.g. through a purchase, you may need to re-activate to refresh your license file. This will extend the activation period so you can continue using the plugin. Subscription licenses are Lease licenses. Subscription payments are handled automatically by Plugin Alliance's system. However, you will need to re-activate the plugin according to your subscription period.

You may also have an **NFR license** in your account. These licenses are given out with certain promotions. They may have an expiration date or be unlimited and they cannot be transferred.

Standalone Installers

Trinity Shaper have standalone installers available. You can find these installers on the product page on Three-Body Technology or Plugin Alliance websites, or on the [Manage Registered Plugins](#) page in your Plugin Alliance account. The same installer allows you to start a trial or use a full license that you have already purchased. We offer separate installers for each platform: Windows, MacOS.

After you have downloaded the installer for your platform, you can run it to select the plugin formats that you want to install (VST2, VST3, AAX, or AU). The format you need depends on the digital audio workstation (DAW) that you are using. If you are unsure of which format your DAW requires, refer to the DAW software documentation.

Plugin Alliance Installation Manager

Trinity Shaper is available to download via Plugin Alliance Installation Manager. In Plugin Alliance Installation Manager, you can select Trinity Shaper in the formats you need and install it directly on your computer-based audio workstation, or transfer to a dedicated offline machine.

To begin, download the Installation Manager for your system (MacOS or Windows) from the [Installation Manager page on Plugin Alliance's website](#). Then extract the zip file and drag the resulting app to your Applications folder (MacOS) or Program Files folder (Windows).

If you want to install Trinity Shaper on an offline computer, you can still use the Installation Manager. See the instructions below.

Online Installation

If your audio workstation has an internet connection, use Plugin Alliance Installation Manager on that computer and select the *Download/Install* installation type in the sidebar.

You can type "Trinity" in the search bar to find TBTECH Trinity Shaper and filter the plugin formats that you want to install (64-bit VST2, VST3, AAX, or AU). This will also determine which formats are downloaded and installed.

Select TBTECH Trinity Shaper and click the *Download & Install* button at the bottom right. When the download is complete, click the *Install* button and Trinity Shaper will be available to use in any DAW that supports the formats you selected.

Offline Installation on a Computer

To install Trinity Shaper on a computer without an internet connection, you will first need access to an internet-connected computer to download and create an installation package. On the online computer, run Plugin Alliance Installation Manager and select the *Download/Export* option in the sidebar. The platform options will appear: Mac or Windows 64-bit. Select the platform of your offline device.

You can type "Trinity" in the search bar to find TBTECH Trinity Shaper and filter the plugin formats that you want to install (64-bit VST2, VST3, AAX, or AU). This will also determine which formats are downloaded and installed.

Select TBTECH Trinity Shaper and click the *Download & Export* button at the bottom right. When the download is complete, click the *Save As* button to choose a removable drive on which to save the install package. It will be named *Installer.pabundle* by default, but you can rename it to keep multiple packages organized. Also be sure to copy Plugin Alliance Installation Manager app to your removable drive, as you will also need that app to install the package.

With a copy of Plugin Alliance Installation Manager app and your installer package, take the removable drive to your offline computer. Copy the Installation Manager to your Applications folder (MacOS) or Program Files folder (Windows), then run it. In the sidebar, select the *Import/Install* option, then click the *Import* button on the lower right and select the install package. The Installation Manager will verify the package and an *Install* button will appear if the file is loaded and ready to go. Click the button to install Trinity Shaper on your offline device.

Chapter 3 Activation

After you have installed Trinity Shaper, start your digital audio workstation (DAW) software. Most DAWs will wait until you instantiate a new plugin in a session before starting the activation process. In Pro Tools, a new plugin will produce the activation window during the plugin scan at startup. Pro Tools will incorrectly report that a plugin is invalid if you don't complete the activation process at startup.



Figure 1: Trinity Shaper Window Before Activation

Click on the *Activation Required* text in the Trinity Shaper window to open the activation window. You will see a drop-down menu that lets you choose which device to activate. Your options will be your computer or any connected USB drives (see USB Activation below). Selecting *Activate all my licenses* will activate your system on all the available, valid licenses in your Plugin Alliance account. If there were any problems with the activation, a message will describe the reason (such as not having enough available machines on the license).

Because all Plugin Alliance plugins use the same license file, there is no need to reactivate the same plugin in different DAWs. For example, if you activate Trinity Shaper in Pro Tools, it will also be active in Logic, as long as you are logged in to the same user account on the same computer or using the same USB flash drive.

In addition, if you log in to a different Plugin Alliance account when activating Trinity Shaper, this will replace your license file. Only the plugins that are active in this new account can be used.

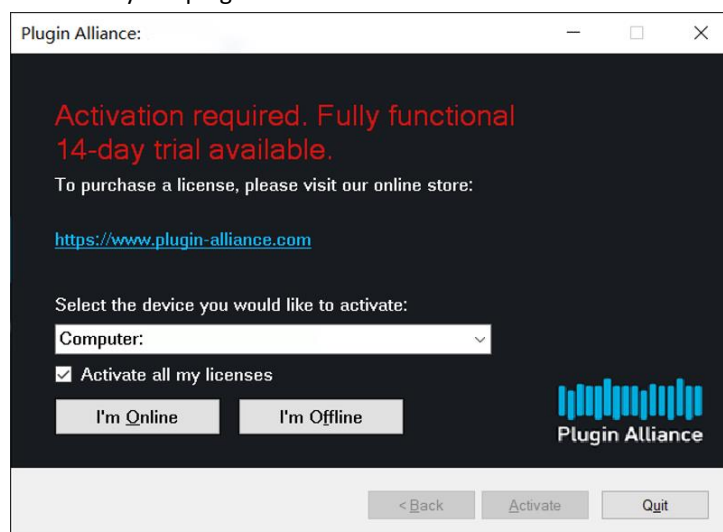


Figure 2: Activation Window

Online Activation

If you chose *I'm online* in the activation window, you can enter your Plugin Alliance account email address and password to connect to the server and get the current version of your license file automatically. The account you use here is the same one that you use to log in to Plugin Alliance's website.

You can choose to save your log in by selecting the *Save password* checkbox (Fig. 3). Your log in details are encrypted for security and can be used to activate new Plugin Alliance products in the future without having to re-enter your log in data every time.

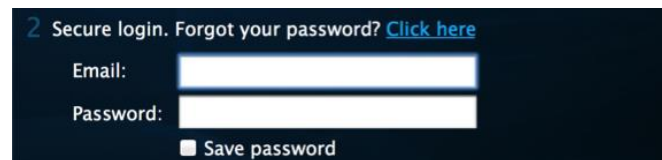


Figure 3: Saving your Log In Information

Trinity Shaper will be activated if you have a valid license; otherwise, if you have not started a trial before, you will have the option to start one. The 14-day trial period starts as soon as you activate the plugin.

First-time Offline Activation

If your audio computer is not online, the Trinity Shaper activation must be done manually via another computer with internet access. Then, you can copy your license file from the online computer to the offline one.

In this case, choose *I'm offline* in the activation window. Choose *Save to file* and save the text file (Fig. 4), named *machine_id.txt* on a removable drive. Now take the drive to your online computer and connect it.

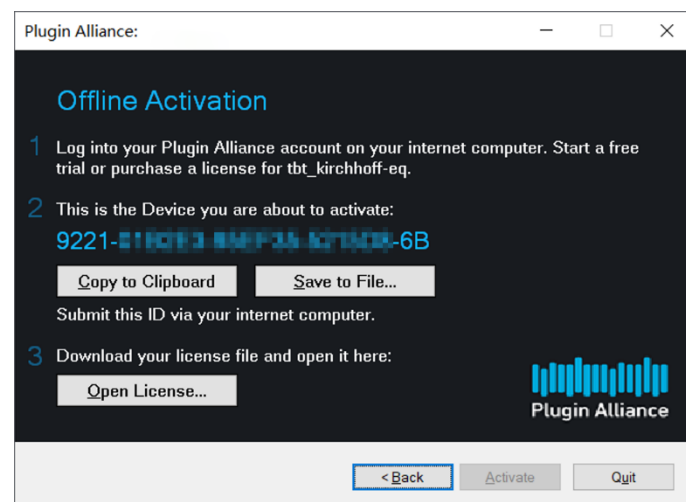


Figure 4: Offline Activation

Log in to your Plugin Alliance account and make sure you have an active license for Trinity Shaper. If you want to start a trial for Trinity Shaper for the first time, go to [Plugin Alliance's Create Offline License page](#), select Trinity Shaper, and click *Create License*. Visit [Plugin Alliance's Manage Devices page](#), upload the *machine_id.txt* file in the *Activate New Device* section (Fig. 5), and click *Activate*.

Download the license file from the *Download License File* section at the bottom of the Manage Devices page to your removable drive (Fig. 6). Take the drive back to your offline computer.



Figure 5: Device Activation Section

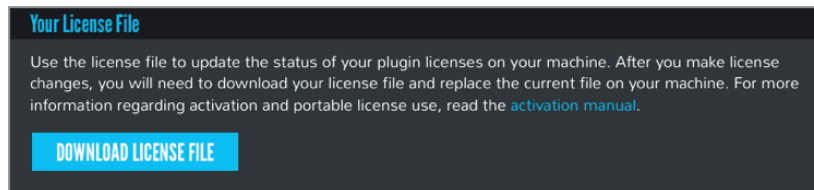


Figure 6: License File Download

In the Trinity Shaper activation window, click *Open license* and choose the *pa.license* file from your removable drive (Fig. 4). Finally, click *Activate* and Trinity Shaper will be available to start using.

Offline Activation for Existing Devices

Each offline computer only needs to be registered once in your Plugin Alliance account. To activate Trinity Shaper on a device that is already registered, you can begin on the online computer and skip copying the *machine_id.txt* file.

To activate one plugin, go to [Plugin Alliance's Manage Registered Plugins page](#) in your account. Select Trinity Shaper, and then select your computer in the drop-down menu under *Activate Existing Device* and click *Activate* (Fig. 7). Download the license file from the *Download License File* section at the bottom of the page and save it on a removable drive (Fig. 6). Take the drive to your offline computer.

To activate all your plugins at once, you can use the *Manage Devices* page instead (Fig. 7). Download the license file from the *Download License File* section at the bottom of the page and save it on a removable drive (Fig. 6). Take the drive back to your offline computer.

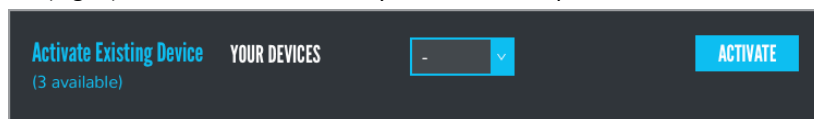


Figure 7: Activate an Existing Device

On the offline computer, open the Trinity Shaper activation window, click *I'm offline*, then *Open license* and choose the *pa.license* file from your removable drive (Fig. 4). Finally, click *Activate* and your plugins will be available to start using.

USB Activation

Trinity Shaper is portable when you activate it using an ordinary USB flash drive. With this flash drive, you can run Trinity Shaper on any computer without the need for the computer to be activated. This is especially useful for front-of-house engineers on tour, or engineers who travel to different studios frequently. We highly recommend activating a USB flash drive via an online computer.

Insert the flash drive and make sure that it is mounted in your file system. On an online computer with Trinity Shaper installed, open it in your DAW. Open the activation window by clicking the key icon at the bottom right if it's not open already. Select your flash drive in the drop-down menu under *Select the device you would like to activate*, then click *I'm online*. Enter your Plugin Alliance account email address and password. The account you use here is the same one that you use to log in to Plugin Alliance's website. Click *Activate* to connect to the server and save the current version of your license file to your flash drive. Now Trinity Shaper can be used on any computer just by plugging in this flash drive.

Some very old flash drives are unsupported and will not appear in your device drop-down. If your USB flash drive is among the unsupported models, please switch to a newer drive.

Deactivation

Each of your full license can be active on 3 devices at once. It is available to move your licenses from a machine you no longer use to a new one. You can also reclaim a license from a computer or flash drive that is lost or broken. All of your license data is stored on Plugin Alliance's servers, so no need to worry about losing a license on a crashed hard drive.

Log in to your Plugin Alliance account and go to [Manage Devices](#). In the *Activated Devices* section, find the name of the device that you want to reclaim, then click the *Deactivate* button. Trial licenses cannot be reclaimed, but they come with 99 available machines.

Since your license data is stored remotely, there is no need to deactivate a computer or flash drive when you reformat it. Plugin Alliance licensing system will recognize the same machine ID as long as there were no other hardware changes and reuse the existing activation for the device.

Due to the way Windows generates the machine ID, certain hardware modifications may change your computer's machine ID. If this happens, you can use the process above to deactivate the old machine ID, then activate the new one using online or offline activation as needed. You may also consider using USB Activation instead if this happens often on your Windows PC.

Please note that you cannot reclaim the same plugin license from more than seven different machines, but if the same machine is deactivated more than once, it will not be counted again. So if you frequently need to move your licenses to new computers, please consider using a flash drive as one of your three devices (see USB Activation).

Plugin Licensing Toolbar

Trinity Shaper have a Plugin Alliance toolbar (Fig. 8) below the user interface, giving you access to some basic plugin information, described below.



Figure 8: Plugin Licensing Toolbar

PA Logo

Clicking on the Plugin Alliance logo takes you to the Plugin Alliance website via your web browser if your computer is online.

License Type

The center of the toolbar shows the type of license you are running. Licenses with an expiration date will show the number of days until they expire.

\$ Icon

If you have a trial or financed license for Trinity Shaper, the dollar sign icon will take you to Plugin Alliance's website, where you can purchase a full license or make your next payment.

Key Icon

The key icon opens the activation window, allowing you to refresh your license file with device changes you made on Plugin Alliance's website, activate a newly purchased or extended trial, or activate a flash drive connected to your computer.

? Icon

The question mark icon contains a context menu that links to the product page and downloads section on Plugin Alliance's website.

Contact [Plugin Alliance Tech Support](#) for assistance regarding installation or activation problems and questions.

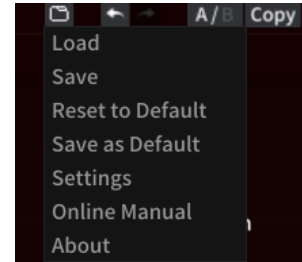
Chapter 4 General Controls and Displays

Top Bar

Save/Load/Initialize

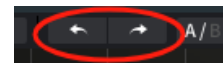
Click on the 'folder' button on the left side of top bar to save / load / initialize Trinity Shaper's plugin states.

- **Load:** Load a previously saved Trinity Shaper state (.tri file).
- **Save:** Save current Trinity Shaper state as a .tri file.
- **Reset to Default:** Reset current plugin state to default state.
- **Save as Default:** Save current plugin state as default state.
- **Settings:** Open settings menu.
- **Online Manual:** Open user manual online.
- **About:** Open About Us to find version information, credits, Three-Body Technology official website, etc.



Undo/Redo

Click to undo or redo the last operation in Trinity Shaper. Please note that changes in settings menu cannot be undo or redo.



A/B Switch

Click on the 'A/B' button to rapidly switch between two states. For example, if you have made a preset and feel that another way might also be applicable, you can switch between these two states quickly and listen to their differences.

Click on the 'Copy' button to synchronize current state to the other one. If you are in A state, clicking this button to copy A state to B, and vice versa.



Bypass

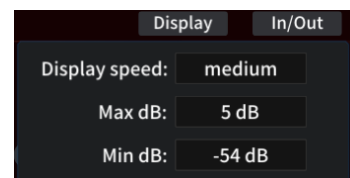
Click on the button on the right side of A/B and Copy buttons to enable / disable global bypass.



Waveform Display Settings

Click on the Display button located on the right side of top bar to open the waveform display settings. Below options are customizable in the menu:

- **Display speed**
- **Max dB**
- **Min dB**



Input / Output Settings

Click on the In/Out button located on the right side of top bar to open the input / output settings.

Use the knobs on the left to adjust input gain and pan, or manually enter the values in the boxes below; use the knobs on the right to adjust output gain and pan, or manually enter the values in the boxes below. Click on the below button in between to enable / disable phase invert.



Global Settings

Click on the 'gear' button on the right of In/Out button to open global settings menu.

Please not all the options inside the menu are global. When any changes were applied on an instance, the changes will reflect on all new Trinity Shaper instances created subsequently. For more details, please refer to Chapter 8.



Full Screen Mode

Click on the button at the right end of the top bar to enable / disable full screen mode. You can also use Esc on keyboard to exit full screen mode.



Waveform Display



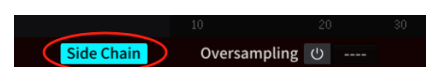
A real-time waveform display can be seen at the lower part of the GUI.

The gray waveform reflects the waveform of current input signal. The yellow curve represents the total gain reduction after the collaborative effect by Attack, Body and Sustain parameters.

Bottom Bar

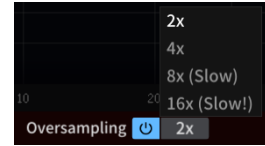
Side Chain Panel Display

Click Side Chain button on the bottom bar to display / hide Side Chain Panel.



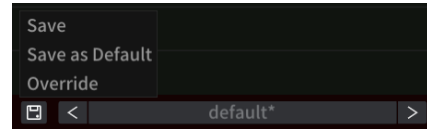
Oversampling

Click the Oversampling power button to enable / disable oversampling. When enabled, the oversampling rate can be selected from 2x, 4x, 8x and 16x.



Preset Selector

Preset selector is located at the middle of bottom bar. Factory presets and your custom presets saved in Trinity Shaper's preset folder can be selected and loaded here. The path of the preset folder, as well as the default saving path is as below:



- Windows:

C:\Users\your username\AppData\Roaming\ThreeBodyTech\TrinityShaper\presets

- macOS:

/Users/your username/Library/ThreeBodyTech/TrinityShaper/presets

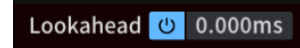
Click on the preset name to open a menu showing every loadable preset. Click on the arrows on the left or right to switch between presets in order.

Click on the 'disk' button on the left to open the save menu. Select Save to save the current state as a new preset. Select Save as Default to save the current state as the default state when opening Trinity Shaper. Select Override to replace the selected preset with current state.

When a new preset is selected, its name would be displayed in white on preset selector. The name will turn gray and marked with * when any change was made.

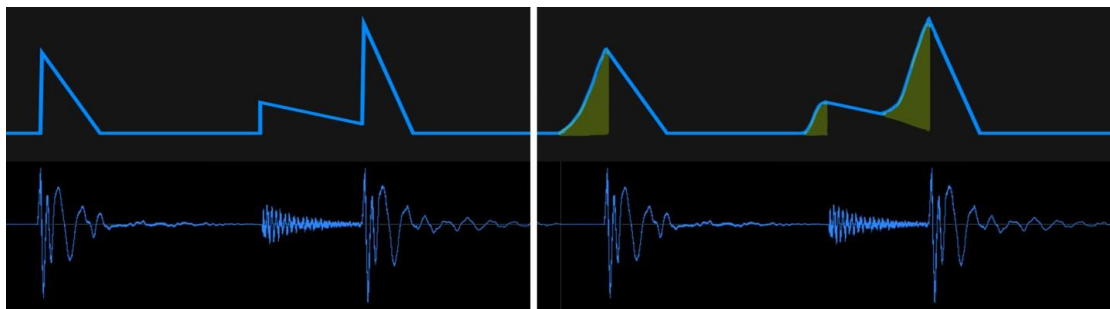
Lookahead

The Lookahead parameter can be enabled and adjusted at the right side of the bottom bar.



Transients always come with rapid volume changes, which require the boosts and reductions to react quickly enough. To avoid sudden changes in volume envelopes that might happen with rapid transients, Trinity Shaper features switchable Lookahead to allow advance detection of the signal, which can smooth the curve of transients effectively.

Lookahead sets how much advance time Trinity Shaper will use to anticipate peaks in the audio signal. When Lookahead is enabled, raising a bit of the value could help preserve signal transients, which results in more transparent gain reduction.



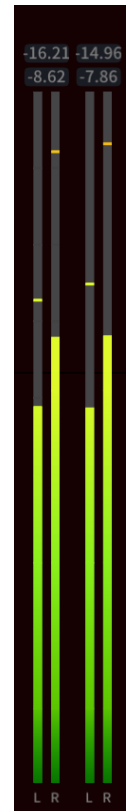
Lookahead OFF

Lookahead ON

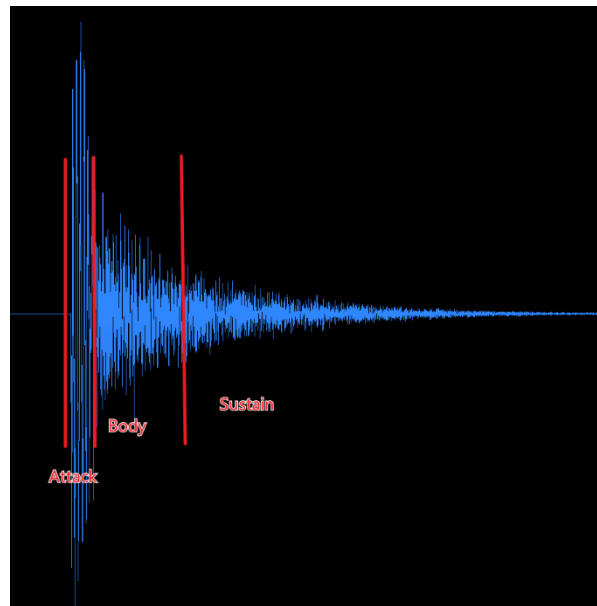
Without Lookahead, changes caused by transients can be seen in the volume envelopes. Those changes can be 'smoothed' when Lookahead is enabled.

Level Meter Panel

The level meters, located to the right of Waveform Panel, display input and output levels from left to right.



Chapter 5 Parameter Controls

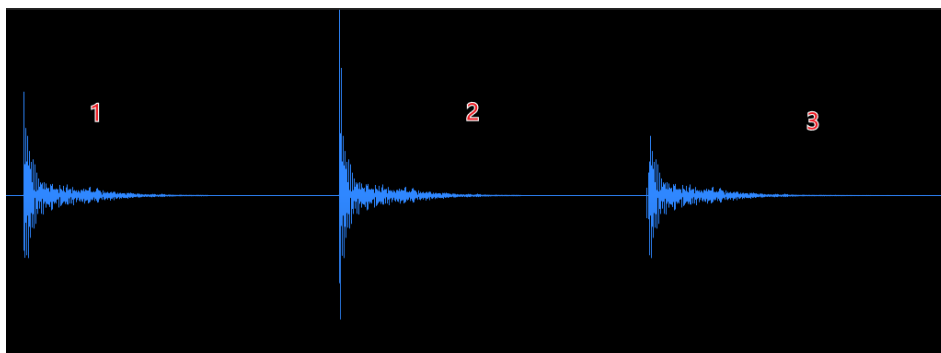


In Trinity Shaper, the audio content will be detected and divided into 3 stages: **Attack**, **Body**, and **Sustain**. The **Attack** stage processes transients, which is the first 1-10 ms of percussion; **Body** means the content between 20-50 ms after transients, which covers most of the 'decaying' part of percussion; **Sustain** stage processes everything left (the 'tail') in the sound.

Attack Stage

Attack

Adjusts the volume of transients - the first 1-10 ms of percussion. Boost transients by turning the knob to the right; reduce transients by turning the knob to the left.



1. original input -> 2. Attack boosted -> 3. Attack reduced

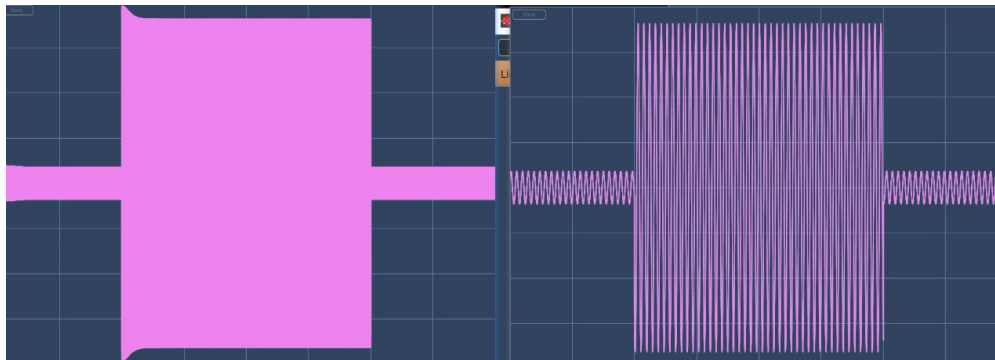
HP/LP

By applying **High Pass** and/or **Low Pass** filters, transient's boost or reduction can be processed only in a certain frequency range, so that you can 'focus' on this frequency range at the Attack stage.

Enable and set the frequency of the High Pass filter by turning HP knob to the right.

Enable and set the frequency of the Low Pass filter by turning LP knob to the left.

For example, set LP at 1000Hz and HP at 200Hz while Attack is at 3dB, then only the transient content between the frequency range of 200-1000Hz will be boosted for 3dB. The content at higher or lower frequencies will not be affected.



With HP filter applied, high frequency transients were increased (left), while low frequency transients remain unchanged (right).

Why do we need HP/LP?

Take snare sound for an example, sometimes we may want to boost the snare track to make it sound more aggressive. However, some snares were recorded with rich high frequencies while it lacks power in the low frequencies. If we boost the transients for full frequency range, it might overly emphasize the highs while the lows are still relatively weak. In this case, we can try applying the LP at 500Hz to boost the snare's low-frequency transients targetedly.

Attack Monitoring

Click the headphone button besides the Attack knob to monitor the transient content.

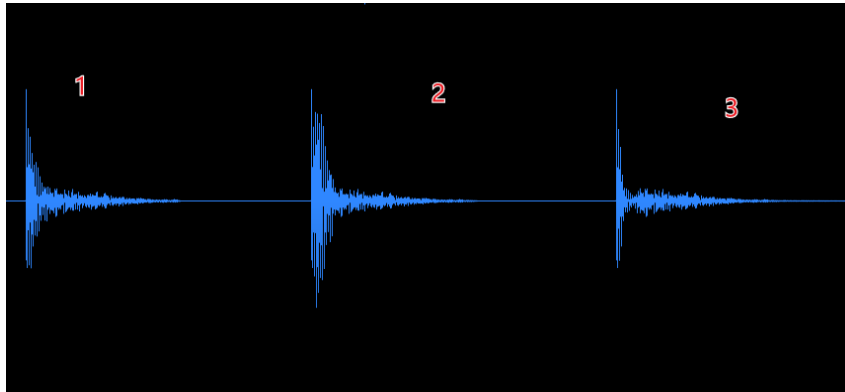
Gain Change Meter

The meter on the right side of Attack knob displays how much the transient content was increased or reduced between -24dB and +24dB in real-time.

Body Stage

Body

Adjusts the volume of 'bodies' - the content within 20-50ms after transients. Boost bodies by turning the knob to the right; reduce bodies by turning the knob to the left.



1. original input -> 2. Body boosted -> 3. Body reduced

Why do we need Body control?

The punch of percussion is not only from its instant power, but also determined by how long the power lasts. No matter how large the amplitude a transient brings to the signal, it might not sound punchy if its power does not last long enough.

By increasing the volume of Body stage, the content within 20-50ms after percussion's transients can be boosted swiftly, resulting in a more powerful sound. Oppositely, if we reduce the body, we can obtain an instant volume attenuation following the transient, a pumping feel that is similar to an over compressed effect. This effect can be slightly heard in many songs of various genres.

HP/LP

Similarly to Attack stage, by applying HP and/or LP, the boost/reduction in Body stage can be filtered targetedly, in order to 'focus' the boost/reduction on a determined frequency range.

Body Monitoring

Click the headphone button besides the Body knob to monitor the body content.

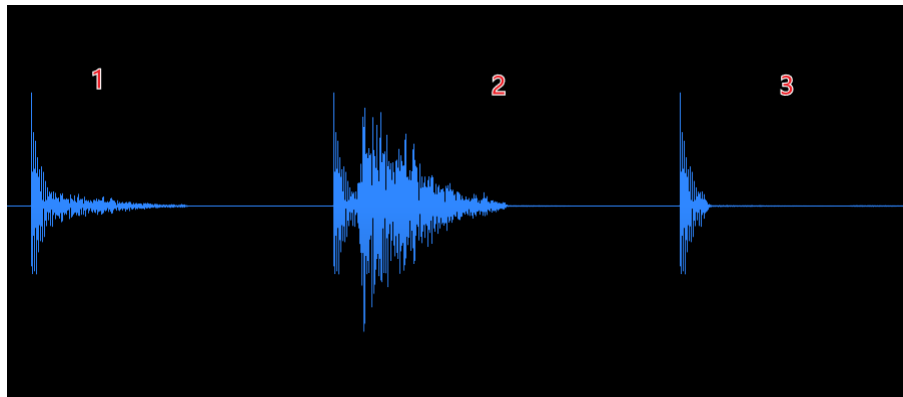
Gain Change Meter

The meter on the right side of Body knob displays how much the body content was increased or reduced between -24dB and +24dB in real-time.

Sustain Stage

Sustain

Adjusts the volume of 'sustain' - all content that is neither transient nor body. Boost sustain by turning the knob to the right; reduce sustain by turning the knob to the left.



1. original input -> 2. Sustain boosted -> 3. Sustain reduced

HP/LP

Similarly to Attack stage, by applying HP and/or LP, the boost/reduction in Sustain stage can be filtered targetedly, in order to 'focus' the boost/reduction on a determined frequency range.

Sustain Monitoring

Click the headphone button besides the Sustain knob to monitor the body content.

Gain Change Meter

The meter on the right side of Sustain knob displays how much the sustain content was increased or reduced between -24dB and +24dB in real-time.

Advanced Controls

Attack Length

For different instruments, their transient's lengths may vary. Apparently, the transient lengths of hi-hat and bass drum are different. Generally high frequency instruments have shorter transients than low frequency instruments.

By adjusting the Attack Length knob, the length of transients to be analyzed by the transient detecting algorithm can be customized based on the particular instrument that you are working on.

By default (0%), the duration to apply Attack stage's processing is about 10ms, which is the minimum value, and the length of 'transients' as generally considered. Turn the knob to the right to extend Attack stage's processing duration up to about 60ms (at 100%).



Body Length

For different instruments, their body's lengths may vary. Apparently, the body lengths of hi-hat and bass drum are different. Generally high frequency instruments have shorter bodies than low frequency instruments.

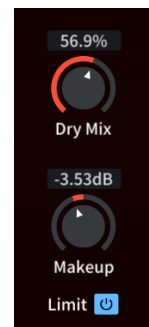
By adjusting the Body Length knob, the length of bodies to be analyzed by the body detecting algorithm can be customized based on the particular instrument that you are working on. The default value is a length that suits most cases.

By default (0%), the duration to apply Body stage's processing is about 50ms, which is the center value, and the length of 'bodies' as generally considered. Turn the knob to shorten (left) or extend (right) Body stage's processing duration between about 10ms (at -100%) to 120ms (at 100%).

Dry Mix

A convenient way to mix Trinity Shaper's output and the dry signal in a certain ratio. Mixing wet and dry signals is a commonly used skill called 'parallel processing', which keeps both the transient shaping and some naturalness of the dry signal at the same time.

50% could be a good start to try parallel processing. At 0%, you will get the pure wet signal. At 100%, you will get the pure dry signal with the entire processing bypassed.



Makeup

Output gain compensation. Since the output level will be boosted or reduced after the progressing, an extra gain compensation will be needed for the output signal. When Dry Mix is also applied, dry and wet signals will be mixed after Makeup processing.

Limit

Clipping will easily occur when boosting Attack (transient). As transient content is usually loud, boosting them will make them even louder.

To analog devices, it might not be a big problem because human ears are actually not so sensitive to distortions in transients. Sometimes people may even apply slight overdrive to transients on purpose.

That is why we don't see this button on analog transient shapers. However, it is essential for plugins, as digital hard clipping does not sound pleasant at all.

In order to avoid digital clippings being easily triggered, the 'Limit' switch takes its place in Trinity Shaper, and is enabled by default. A 'soft clipping' algorithm modeled from analog circuits is implemented, to ensure all the large transients clip near 0dB sound more natural than digital hard clippings.

Of course, if it does not feel like necessary, you can disable Limit for a purer sound.

Chapter 6 Multi-band Mode

Multi-Band Mode

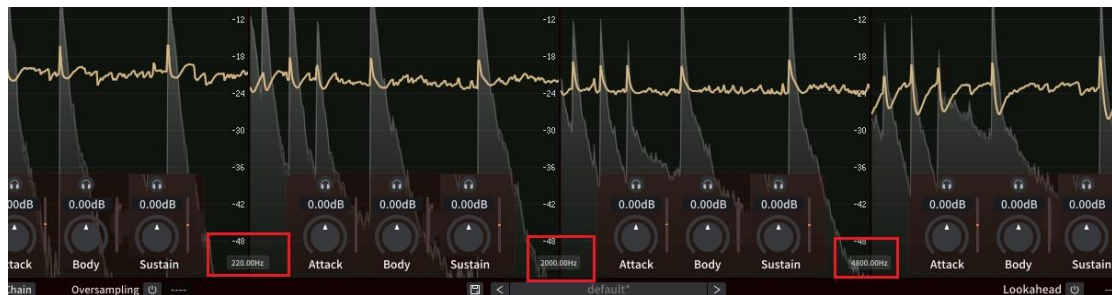
Trinity Shaper supports both **multi-band** and **single-band modes**. Click the power button of multi-band mode to switch between the 2 modes.

'Multi-band mode' sounds more advanced. Why do we need them both?

Single-band mode is able to achieve a more integrated and leveled boost or reduction on all frequencies. Multi-band mode excels more in processing complicated sounds, such as a drum bus or an entire mix. In short, single-band mode is recommended for single instrument tracks like snare or bass drum processing, while multi-band mode does a better job on processing groups or even the entire song.

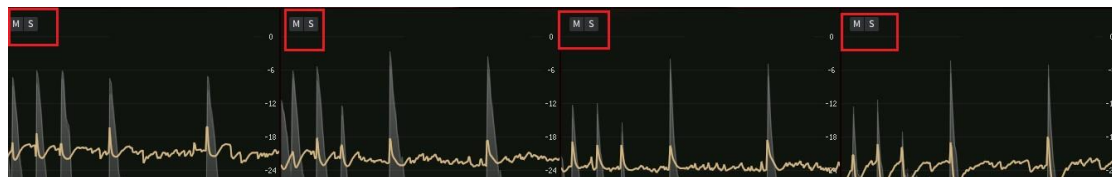
Please note when multi-band mode is enabled, HP/LP knobs of Attack, Body and Sustain stages will be disabled, since all 3 stages can be adjusted separately on different frequency ranges in multi-band mode.

Cross-Over Frequencies



When multi-band mode is enabled, the spectrum will be divided into 4 frequency ranges. Their cross-over frequencies can be adjusted between each 2 bands.

Band Mute / Solo



Click the M/S button on each multi-band panel to mute or solo (monitor) the corresponding band.

Parameter Controls



In multi-band mode, the Attack, Body and Sustain knob on the parameter panel are still available. Turning those knobs will apply the corresponding parameter on all bands.

For example, when multi-band mode is enabled, if we increase Attack for 3dB using the upper Attack knob, the boost will be applied to the Attack of every band at the same time. Same goes for Body and Sustain.

Of course, you can turn the knobs on each band to adjust Attack, Body and Sustain of each frequency range separately.

Please note if you modified an individual parameter on a band in addition to an adjustment on the 'global' parameter above, both their results will be applied together.

For example, if we adjust the global Attack to +6dB, when low frequency's Attack is -6dB and high frequency's Attack is +6dB, then the actual results we get are 0dB Attack at low frequency and +12dB Attack at high frequency.

Band Stage Monitoring

In multi-band mode, click the headphone button above the Attack, Body or Sustain knob of each band to monitor the corresponding stage of that band.

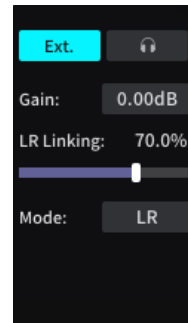


Chapter 7 Side Chain

Click the 'Side Chain' button on the bottom bar to open side chain panel.

Side Chain Settings

- **Ext.:** Enable / Disable external side chain.
- **Monitoring:** Click on the headphone button to enable / Disable external signal monitoring.
- **Gain:** Apply level control to external signal, when necessary.
- **Side chain stereo mode**
 - **LR:** Process left/right signal. 'LR linking' indicates the level to link left and right channel
 - **MS:** Process mid/side signal. 'MS linking' indicates the level to link mid and side channel.



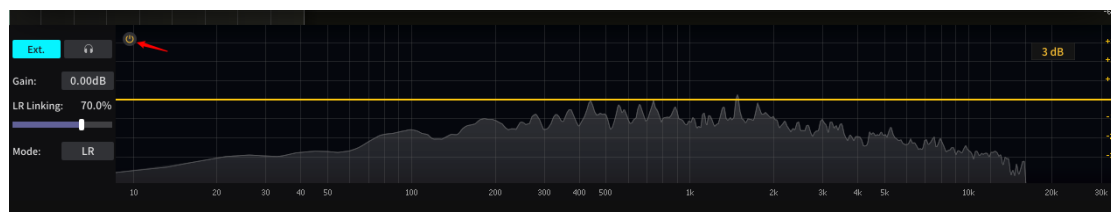
LR Linking / MS Linking

Imagine when we are listening to a song, when a crash on the left channel was hit while only left channel was reduced, we may feel the pan of the whole song moving to the right for a second, which cannot be correct. In this case the boost/reduction on two channels should be linked. Image another song with bass drum on left channel and snare on right channel. When the bass drum kicks in, only the left channel should be processed, in order to leave the space for the snare. In this case the two channels should not be linked. This is the purpose of LR Linking / MS Linking.

The value of linking can be adjusted according to the stereo content. When it is 0%, the boost/reduction on each channel does not relate to the other channel. When it is 100%, each channel will be processed with full boost/reduction of the other channel. By default, the value is set at a reasonable value of 70%. When side chain mode is LR, this value will be available as 'LR Linking'. When side chain mode is MS, this value will be available as 'MS Linking'.

Side Chain EQ

Click on the power button on the upper left corner of side chain panel's spectrum analyzer to enable / disable side chain EQ.



Side chain EQ is an 8-band parametric EQ with basic controls of Kirchhoff-EQ by Three-Body Technology. To learn more about Kirchhoff-EQ, please visit <https://www.threebodytech.com/products/kirchhoffeq>.

Controls

Double-click or Ctrl/Command + left-click to create an EQ band, or drag from total frequency response curve (yellow by default) to create an EQ band.

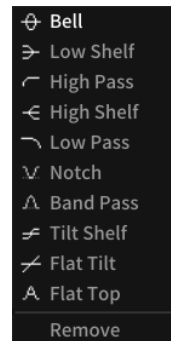
Left-click on an EQ band to select it. Ctrl/Command + left-click to select or deselect multiple bands. You can also drag across to select multiple EQ bands. Under default setting, Ctrl/Command + right-click to delete an EQ band.

Right-click an EQ band to change its filter type or remove it. If multiple EQ bands including the one you clicked on are being selected, the change will be applied to all of them.

Click on the dB value at the upper right corner of spectrum panel to select a display volume range from 3/6/12/18/22/30 dB.

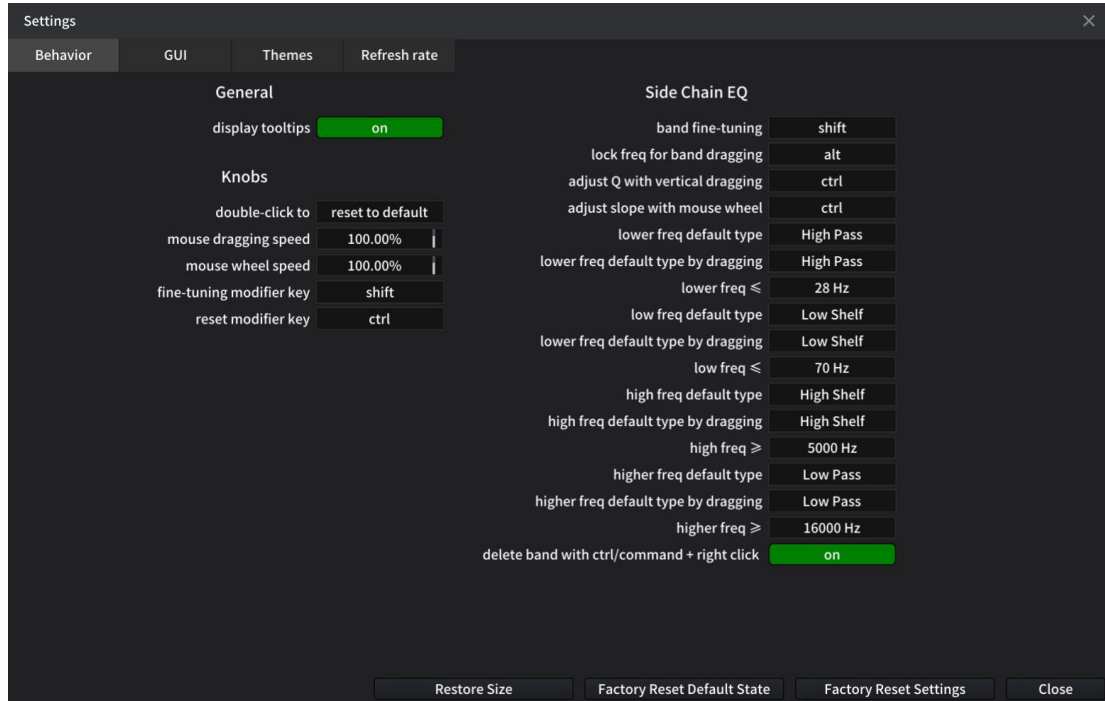
Filter Types

- **Bell:** Bell-like type, the shape can be adjusted by Q and slope.
- **Low Shelf:** Increase/decrease low frequency, the shape can be adjusted by slope.
- **High Pass:** Passes only high frequency and filter out all low frequency. The shape can be adjusted by slope.
- **High Shelf:** Just like Low Shelf but adjusts high frequency.
- **Low Pass:** Just like High Pass but inversed.
- **Notch:** Only rejects around a frequency, the shape can be adjusted by slope.
- **Band Pass:** Inversed Notch, only passes around a frequency.
- **Tilt Shelf:** Increase low frequency and decrease high frequency or vice versa, the shape can be adjusted by slope.
- **Flat Tilt:** Change whole spectrum in a straight line.
- **Flat Top:** A bell-like type with 'flat' top. The shape can be adjusted by slope.



Chapter 8 Settings

Behavior Settings



General

- **display tooltips**

Knobs

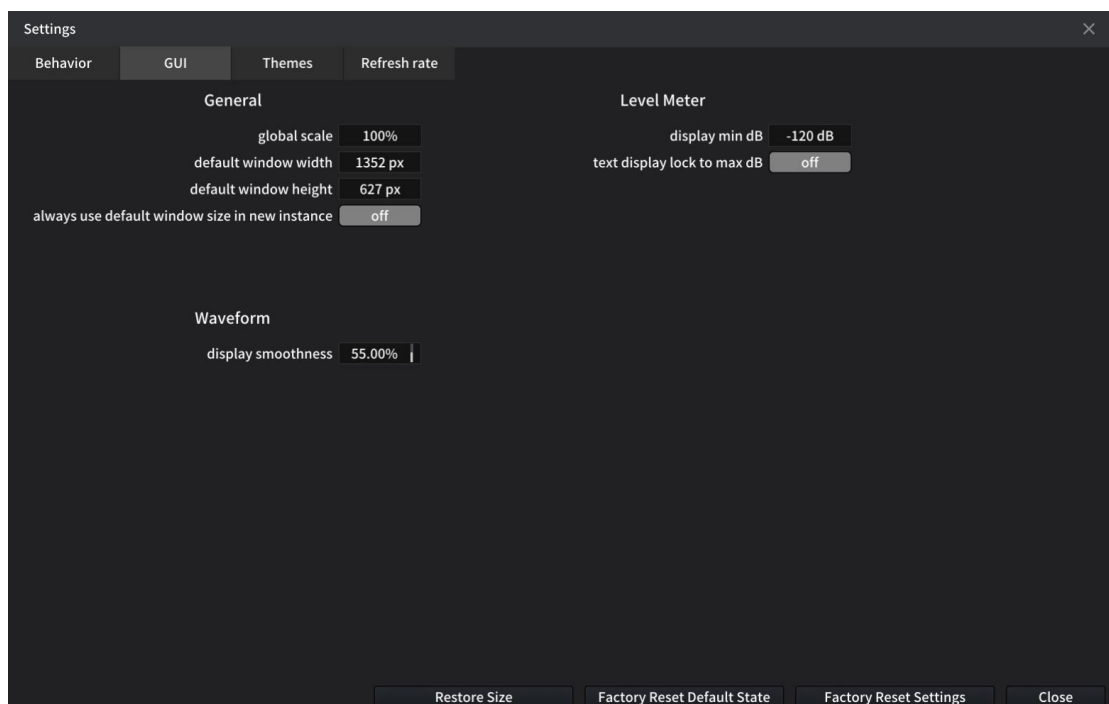
- **double-click to:** Defines this behavior as reset to default or manually input value.
- **mouse dragging speed:** Adjust the speed of mouse dragging behavior on knobs.
- **mouse wheel speed:** Adjust the speed of mouse wheel behavior on knobs.
- **fine-tuning modifier key:** Define modifier key for fine-tuning on knobs and sliders.
- **reset modifier key:** Define modifier key resetting knobs and sliders.

Side Chain EQ

- **band fine-tuning:** Defines modifier key for this behavior.
- **lock freq for band dragging:** Defines modifier key for this behavior.
- **adjust Q with vertical dragging:** Defines modifier key for this behavior.
- **adjust slope with mouse wheel:** Defines modifier key for this behavior.
- **lower freq default type:** Defines default filter type of EQ band created by double-click in 'lower frequency range'.
- **lower freq default type by dragging:** Defines default filter type of EQ band created by dragging in 'lower frequency range'.
- **lower freq ≤:** Defines maximum frequency of 'lower frequency range'.
- **low freq default type:** Defines default filter type of EQ band created by double-click in 'low frequency range'.
- **low freq default type by dragging:** Defines default filter type of EQ band created by dragging in 'low frequency range'.
- **low freq ≤:** Defines maximum frequency of 'low frequency range'. The minimum frequency is the maximum frequency of 'lower frequency range'.

- **high freq default type:** Defines default filter type of EQ band created by double-click in 'high frequency range'.
- **high freq default type by dragging:** Defines default filter type of EQ band created by dragging in 'high frequency range'.
- **high freq \geq :** Defines minimum frequency of 'high frequency range'. The maximum frequency is the minimum frequency of 'higher frequency range'.
- **higher freq default type:** Defines default filter type of EQ band created by double-click in 'higher frequency range'.
- **higher freq default type by dragging:** Defines default filter type of EQ band created by dragging in 'higher frequency range'.
- **higher freq \geq :** Defines minimum frequency of 'higher frequency range'.
- **delete band with ctrl/command + right click:** Disable / enable the modifier key of Ctrl/Command + right-click to remove an EQ band.

GUI Settings



General

- **global scale:** Adjusts global display scale.
- **default window width**
- **default window height**
- **always use default window size in new instance**

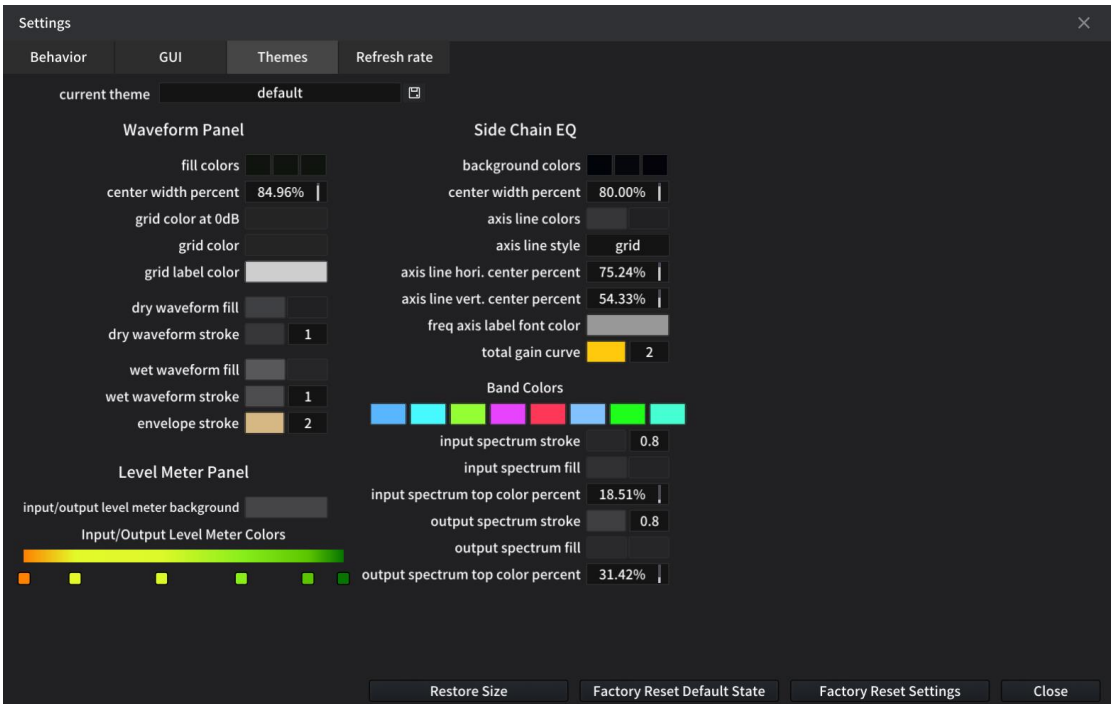
Waveform

- **display smoothness**

Level meter

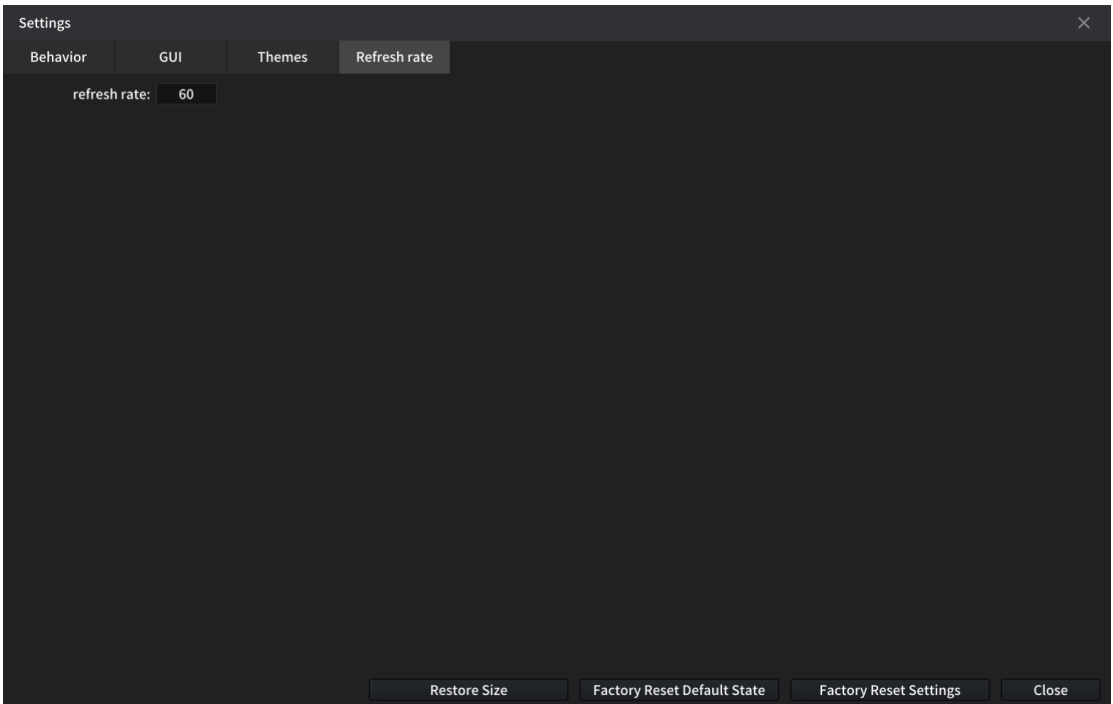
- **display min dB**
- **text display lock to max dB**

Theme Settings



Trinity Shaper provides flexible customization settings for every panel on the GUI. You can customize the visuals and save them as your own themes. Most changes in themes settings will be applied to current interface in real-time.

Refresh Rate



- **refresh rate:** Global OpenGL refresh rate. The higher the refresh rate, the smoother the display and the higher the resource utilization. Being a global setting, the changes on refresh rate will be applied to all instances.

Chapter 9 Credits

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Dear Users
Our friends and family

Thanks for the measurement software @Plugindoctor

Trinity Shaper User Manual

written by

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Three-Body Technology

www.threebodytech.com