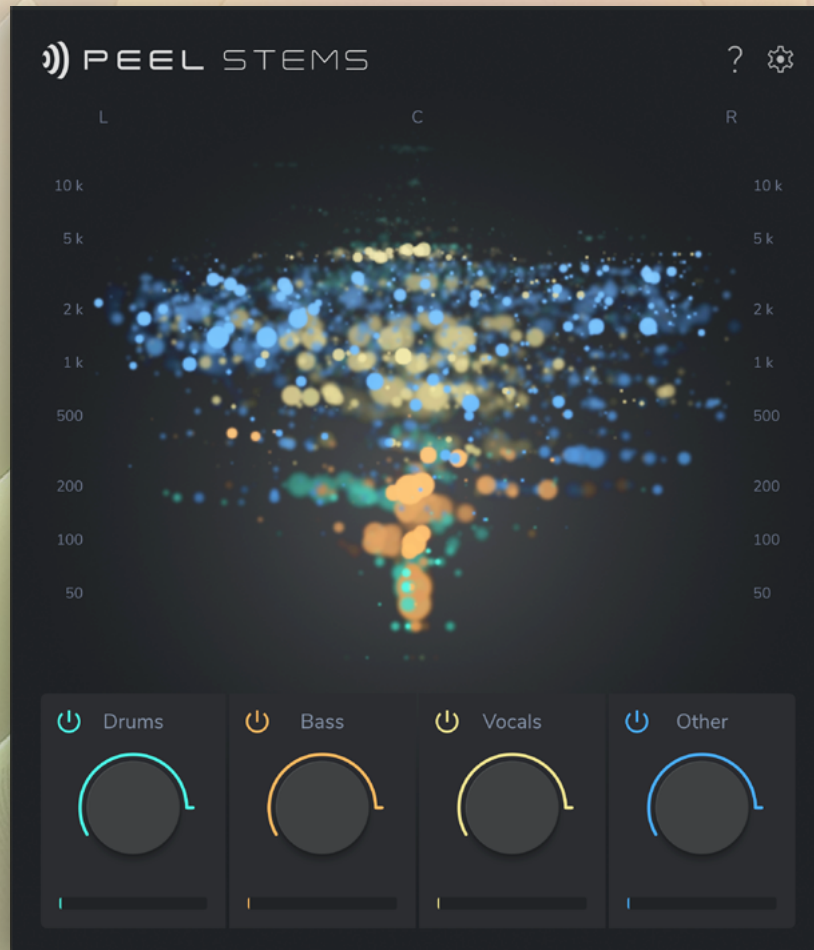


PEEL STEMS



User Manual

Version 2.0 / May 2026



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Introduction

PEEL STEMS splits mixed audio into four separate stems in real-time and provides controls for isolation and volume adjustment. With PEEL STEMS, you can isolate instruments or rebalance mixes at the turn of a knob.

In addition, the unique Soundfield Display visualizes audio, showing each stem in its own color. This lets you instantly see a stem's position in the frequency spectrum and stereo field, making PEEL STEMS a great mixing tool.

But there's more: You can process the audio using the Focus EQ. This spectral processing tool lets you select specific parts of the signal for soloing, muting, or routing to external processing. Use it to refine your separated audio even further: you can isolate individual elements such as a snare drum within a stem and send them to external effects. This opens up new creative possibilities for working with your audio!

Key Features

- Real-time stem separation of mixed audio into Drums, Bass, Vocals and Other
- Adjustable stem volume and separation precision
- Focus EQ spectral processing filter
- Visually identify individual elements within a mix
- Mute unwanted instruments
- Rebalance mixes
- Route filtered audio to external processing
- See your entire mix visually to help identify mix issues
- VST3/AU/AAX formats

New in Version 2.0

- Updated user interface
- Improved separation quality
- Almost 50% better processing latency on Silicon Macs and Windows (245 ms instead of 483 ms @ 44.1 kHz)
- Latency on Intel Macs reduced to 385.8 ms @ 44.1 kHz

Naming Conventions

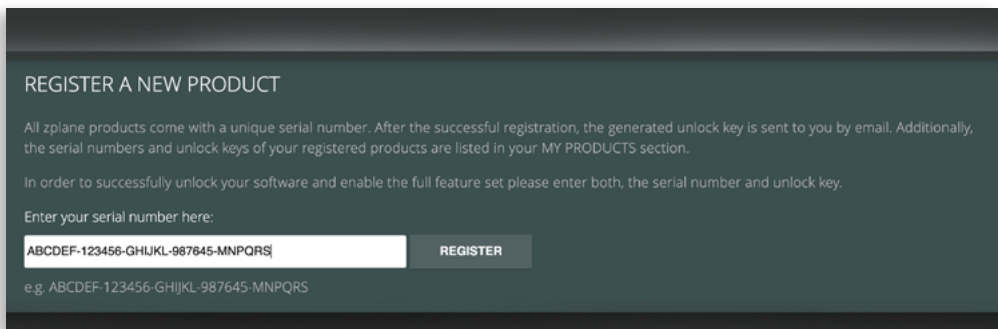
In this documentation, the names of on-screen buttons, sliders, and indicators are written in **bold font** within brackets, such as [*****] and [**Processing**].

Selectable menu options are written in **bold font** within quotation marks, such as "**Mute inverted output**" and "**InvOut**".

References to numbered pointers in images are written in **bold font** within parenthesis, such as **(1)** and **(2)**.

Installation & Activation

To download the PEEL STEMS installer, you must first **register the serial number** you've received when you purchased the product. [Log in to your account on the zplane website](#) (please [create a new account](#) if you do not already have one). Select the **[REGISTER]** tab and paste your serial number in as shown below:



Click **[REGISTER]** to confirm. PEEL STEMS uses both, a serial number and a **corresponding unlock key** for activation. So both are required. The unlock key is displayed immediately after successful registration.

The product installer, serial number and unlock key are always available in your user account in the **[MY PRODUCTS]** section. Here's a step-by-step description of the installation and activation procedure:

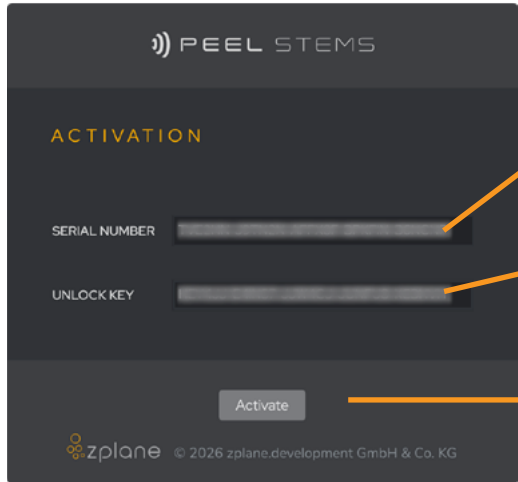
Windows

- Download the PEEL STEMS Windows Installer application **(.exe)**
- Double-click the file to launch the Installer and click **[Next]** in the installer window
- Read the End User License Agreement and click **[Next]**, if you agree. Otherwise, click **[CANCEL]** to abort the installation
- Follow the on-screen instructions to complete the installation, then close the installer

macOS

- Download the PEEL STEMS macOS Installer **(.pkg)**
- Double-click the file to launch the Installer and click **[Continue]** in the installer window
- Read the End User License Agreement and click **[Continue]** to open the confirmation dialog. If you agree, confirm by clicking on **[Agree]** otherwise click **[Disagree]** to abort the installation
- Follow the installer's on-screen instructions and click **[Close]** to quit when installation is complete

Activation



- After installation, **run your DAW** (make sure the DAW has scanned the new plugin)
- Create an audio track, **load PEEL STEMS and open the user interface**
- The **activation dialog** will appear. Enter your serial number **(1)** and unlock key **(2)** into the corresponding fields, then click on **[Activate]** **(3)**
- You are now ready to use PEEL STEMS!

This activation process is only required for a fresh installation, not when updating PEEL STEMS.

The PEEL STEMS Interface

The PEEL STEMS interface is separated into two main parts: The **Soundfield Display (1)** at the top and the **Stem Controls (2)** at the bottom. The **[?]** and **[*]** icons **(3)** give you access to help and settings.

Soundfield Display

The Soundfield Display visualizes audio in real-time, so you can identify each Stem's placement in a mix. The audio is represented by glowing circles on an X/Y plane, with each stem having its own unique colour. This makes it instantly visible, where each stem is placed: The vertical position of a circle corresponds to an audible frequency while the horizontal position indicates its placement in the stereo panorama; the size of the circle indicates the energy or loudness of that frequency. Click and drag with the mouse in the display area, to create the **Focus EQ window** which we'll get to on the next page.



Stem Controls

PEEL STEMS separates audio into four Stems in real-time: "Drums", "Bass", "Vocals", and "Other" (which contains the remaining elements, eg. guitar, keyboards, brass, etc.).

Power Switch - Turns a Stem on or off. [Shift] + Click = Solo Stem / Second [Shift] + Click = All Stems on

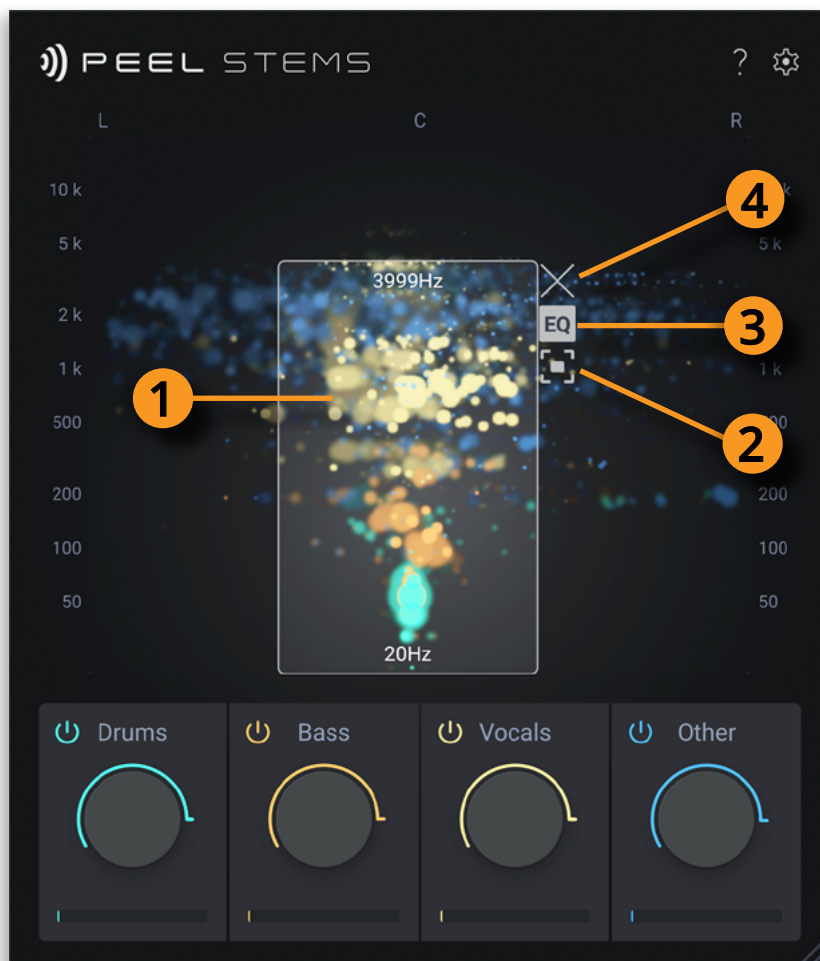
Volume Knob - Adjust selected Stem's volume. Range -120 - +6 dB.
Double-Click Knob = Reset to default (0 dB)

Isolation Fader - Fine-tunes separation strength. Range 0 - 100. Double-Click Fader = Reset to default (0)
This parameter effects the signal even when all Stems are active.

NOTE: The separation quality depends on the density of your audio material and the amount of frequency overlap between stems, which can lead to masking. For example, you may experience artifacts such as phasing in the drums at the beginning of a chorus, where multiple instruments enter simultaneously (if you require even higher quality separation, consider using an offline stem separation tool).

Focus Frame - the Spectral Filter

The **Focus Frame (1)** provides quick and intuitive access to PEEL STEMS' spectral filter. In the signal chain, the Focus filter is applied after stem separation. The size and position of the Frame determine the frequency range and stereo panorama position of the selected signal. The filter also splits the output into two separate streams: the audio inside the Focus Frame and the audio outside it. These two audio streams are then routed to the plugin's two independent outputs (allowing for separate real-time processing in the host application).

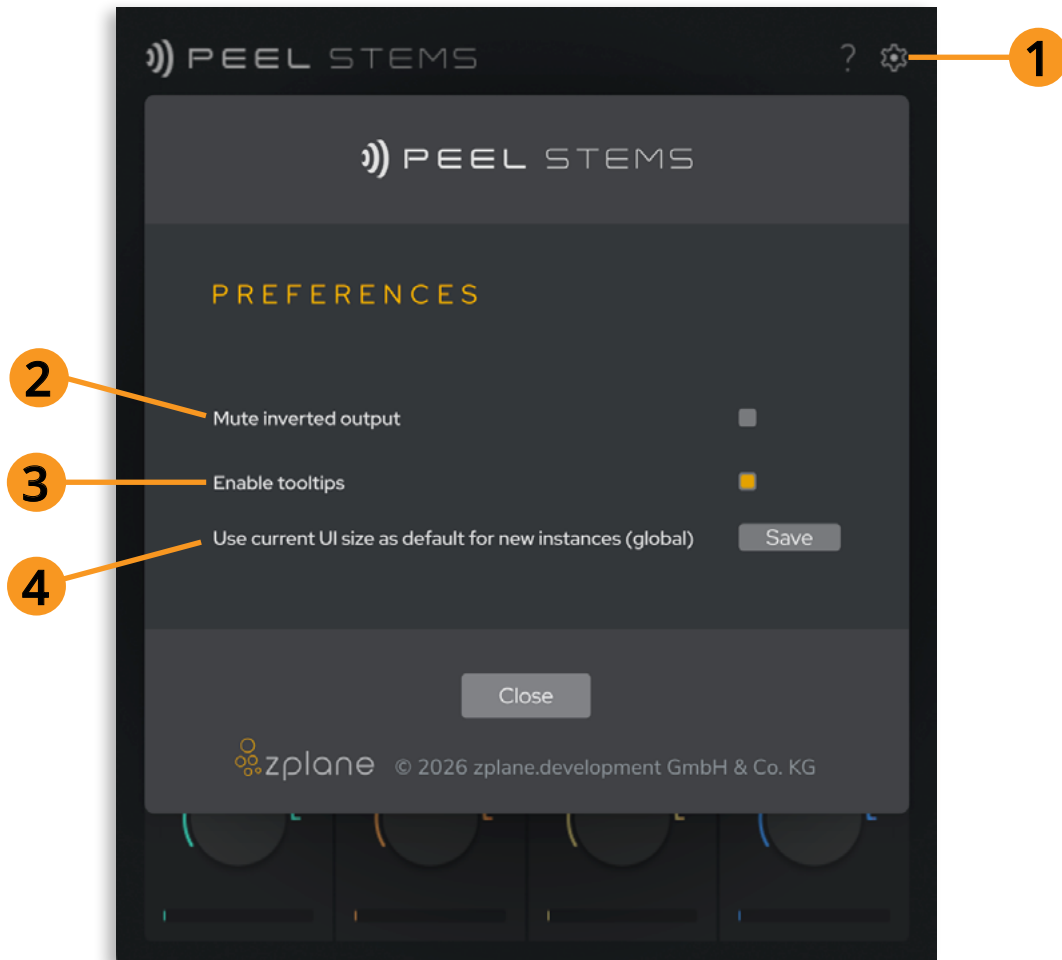


- Create Focus Frame:** Click and drag a rectangle across the Soundfield Display. The first corner is set when you press the mouse button; the opposite corner is set when you release it.
- Move Focus Frame:** Position the mouse inside or outside the Frame, then click & drag: You can move the Frame window around within the Soundfield Display.
Tip: This parameter can also be automated for really cool filter sweeps.
- Change Frame Size:** Hover over any edge or Frame corner, then click and drag to resize it. This will change the shape of the Focus Frame and adjusts the selected frequency range accordingly.
- Invert Output [↔] (2):** The **Invert Output (2)** button swaps the signals sent to the Plugin's two outputs: By default, the audio inside the Focus Frame is routed to the first stereo output, while the audio outside is routed to the second stereo output. When enabled, this routing is reversed. (See the [output routing section](#) for more details.)
- Bypass [EQ] (3):** To temporarily disable the Focus Frame filter without deleting it, click on the **[EQ] button (3)**. Click the **[EQ]** button again to re-enable it.
- Remove Frame [X] (4):** Click the **[X] button (4)** in the Frame's upper-right corner.

NOTE: If only the first stereo output is used in your DAW, the [↔] button provides a quick way to mute the audio inside the Focus Frame.

Settings Page

The Settings Page is opened via the gear **[*] button (1)** in the header. It provides access to the settings that affect the behavior of PEEL STEMS **(2)**. Installation & Activation are explained on page 5.



(2) Mute Inverted Output: Some DAWs cannot correctly handle PEEL STEMS' two stereo outputs, or may mix them together by default. When the outputs are summed, the original audio signal is reconstructed, which can make it seem as if PEEL STEMS is not working when using the Focus Frame. In this case, activate "Mute inverted output". By default, this parameter is set to off.

(3) Enable Tooltips: Tooltips appear when you hover over controls in the PEEL STEMS user interface, providing brief explanations and usage tips. If you prefer not to see them, you can disable this option. By default, this parameter is set to on.

(4) Default Size: Set the plugin window to your preferred size and click "**Save**". The button label will change to "**Clear**". All future instances of PEEL STEMS will open with this default size. Click "**Clear**" to reset to factory default size.

Help Page

Click the **[?] button** in the upper-right corner of PEEL STEMS to open the Help Page. It provides access to this user guide and the zplane website.

Using PEEL STEMS

PEEL STEMS can be used for a variety of applications beyond separating mixed audio into discrete stems:

1. [Isolating or masking sounds](#) based on their frequency range and stereo position
2. [Applying processing to a selected portion of audio](#) based on its frequency range and stereo position
3. [Visualizing frequency and stereo content](#) during mixing.

Before diving into the details, it is important to understand how PEEL STEMS handles audio routing.

Input and Output Routing

PEEL STEMS is designed to be loaded as an **insert audio effect on a track in your DAW**.

However, unlike most insert effects which typically have one stereo in- and output, PEEL STEMS features one stereo input and **two stereo outputs**.

When using the Focus Frame EQ, PEEL STEMS can split the incoming audio into two separate streams: the signal inside the Focus Frame is sent to the first stereo output, while the signal outside the Focus Frame is sent to the second output. This allows you to process the two streams independently in your DAW.

To take full advantage of this feature, **your DAW must support accessing and routing two stereo outputs from a plugin**. Unfortunately, not all DAWs are created equal: some provide straightforward access to PEEL STEMS' two outputs, while others require more complex setup. A few DAWs do not support this at all—but a simple workaround is available.

The exact method for accessing PEEL STEMS' outputs depends on your DAW. The following pages provide setup examples for several popular DAWs. If your DAW is not listed, please consult its documentation or user forums to find out how - and if - your DAW can access and route PEEL STEMS' outputs.

If your DAW cannot access the separate outputs and instead sums them together, enable the Settings option ["Mute inverted output"](#).

NOTE: *The I/O handling is identical to that of our PEEL plugin, so all related tutorials also apply to PEEL STEMS.*

Routing in Ableton Live

Ableton Live has exceptional routing abilities and makes it easy to access PEEL STEMS' secondary output.



When you insert PEEL STEMS on the first track in Ableton Live (1), the plugin's first output is routed to the track's output by default, while the second output has no destination. To access the second output, create a new audio track and assign PEEL STEMS's secondary output to the input of that track as shown (2).

Routing in Reaper

Insert PEEL STEMS on the track with audio (1). Now create a second track. Next, create a new send from the first track to the second track (2). In the send configuration, route channels "3/4" from the first track to the second track (3). This setup should look like this:



Routing in Pro Tools

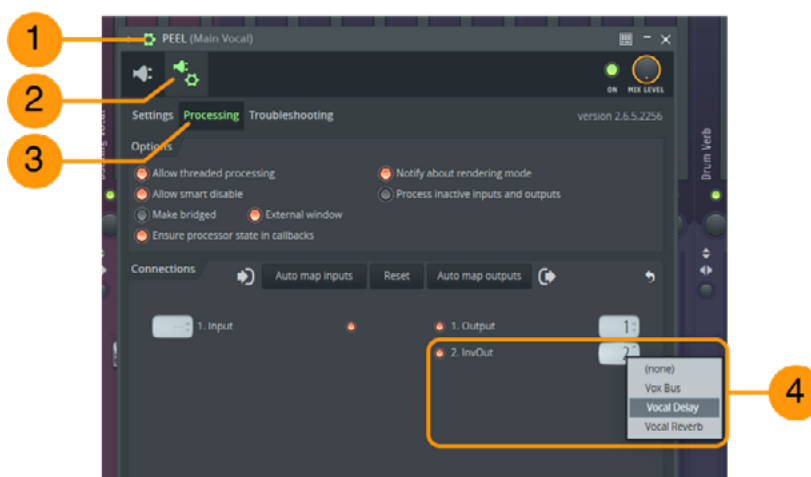
To access PEEL STEMS' secondary output, first insert PEEL STEMS on a track (1). Next, create a second audio track and select the PEEL STEMS "InvOut" from the Input menu for that track (2). Finally, enable input monitoring on the second track to hear the signal (3). The complete setup looks as follows:



Routing in FL Studio

By default, FL Studio **mixes PEEL STEMS' two stereo outputs together**. As a result, using the [Focus Frame](#) may appear to have no effect—you will not hear any isolation or masking. Depending on your intended use, there are two ways to proceed:

- If you only want to **isolate a sound**, enable the ["Mute inverted output" option](#) in PEEL STEMS' Settings.
- If you want to **process audio the two signals independently**, you need to reconfigure the InvOut routing. Follow the ["Using separate outputs with FL Studio 20" video](#) on the PEEL STEMS Help page. The final setup will look something like this:




Begin by clicking the [*] button at the top of the PEEL STEMS VST frame (1). Then click the second button in the header that appears (2). In the new window, open the [Processing] tab (3). In the lower-right section, locate the outputs labeled "1. Output" and "2. InvOut". Ensure that the second output is enabled and routed to a different mixer channel. You can right-click the routing area to bring up a list of channel names (4).

Using PEEL STEMS in Cubase, Logic Pro & Studio One

Unfortunately, these DAWs **don't allow any access to the plugin's secondary output**—you will only hear the first stereo output.

While this still allows for easy isolation or masking of sounds, this fact adds a couple of steps and requires two instances of the plugin. Here's the workaround:




- Load PEEL STEMS as an insert on the track you want to process (1).
- Set the Focus window up to your liking (2).
- Now duplicate this track, including the instance of PEEL STEMS you've just set up (3).
- Engage the Invert [] [Invert button](#) of the Focus Frame on one of the tracks (4).

You'll also find a video tutorial in the PEEL STEMS [Help Page](#)—the video uses Logic Pro as an example, but the same principle applies to Cubase and Studio One.

Isolating Sounds

PEEL STEMS can isolate or mask portions of audio within a mixed track. This is useful for tasks such as extracting a bassline from a loop or removing it to leave the remaining instruments intact. For this use case, you do not need to set up the secondary outputs. Instead, you can work with a single stereo output from PEEL STEMS.

In many cases, this means simply loading PEEL STEMS as an insert effect on a track and creating a Focus Frame. By default, you will hear only the audio inside the Focus Frame. To mask the selected area instead, enable the **Invert** [,] button.

If you do not hear any change after creating a Focus Frame, your DAW is likely summing both outputs. In this case, open the PEEL STEMS Settings and enable the "Mute inverted output" option.

Splitting Audio for Individual Processing

PEEL STEMS' secondary output becomes important when you want to process different parts of the signal independently. To do this, you must first configure your DAW to route both outputs of the plugin to separate tracks.

Setup examples for various DAWs can be found in the [Input and Output Routing section](#) (as well as workarounds for the DAWs that don't directly support this).

Once configured, PEEL STEMS' will send its main output to one track and the secondary "inverted" output to another. When you create a Focus Frame, the incoming audio is split in real-time:

- The audio inside the Focus Frame is sent to the first track
- The audio outside the frame is sent to the second track.

When working with drum loops, this is a great way to isolate a specific sound for dedicated processing, such as focusing on a snare drum and applying effects like as distortion and reverb.

By placing the Focus Frame around the snare, it is isolated and routed to the first track, while the remaining audio is sent to the second track.

You can now apply additional effects by inserting plugins on the first track and/or using effect sends to route the snare to global effects. In this example, the second track would remain unprocessed so that the rest of the drums stay unchanged. Of course, you can also apply separate separate processing to the second track if desired.

Visualizing Audio

The Soundfield Display in PEEL STEMS can also serve as a visual reference during mixing. Simply loading PEEL STEMS on your master track provides an overview of the entire mix. You can also insert it on individual tracks to see how they contribute to the overall sound.



In the example above, PEEL STEMS is inserted on the master and visualizes the mix: The reverb tail of the snare hit is clearly visible, along with its expansion in the stereo-field (green). The frequency overlap between the kick drum (green) and bass (orange) can also be seen, with both signals largely centered, indicating a “mono” placement. No vocals are present in this example; they would appear in yellow. The blue color represents the “Other” stem, in this case, pad synths, occupying the space from 500 Hz upwards, also pretty broad in the stereo-field.

Technical Specifications

Operating Systems	<ul style="list-style-type: none"> macOS 13+ Windows 10 & 11+
CPU Architecture	<ul style="list-style-type: none"> macOS: Intel & Apple Silicon 64-bit Windows: 64-bit
Audio Formats	<ul style="list-style-type: none"> 1-2 channels (I/O) 44.1 kHz - 192kHz sample rate
Plugin Formats	<ul style="list-style-type: none"> VST3 AU (macOS only) AAX
Audio Latency	<ul style="list-style-type: none"> 245.8 ms @44.1kHz (Intel Macs: 385.9 ms) 238.9 ms @48kHz (Intel Macs: 378.9 ms) 246.2 ms @88.2 kHz 238.6 ms @96kHz (Intel Macs: 378.9 ms)

Feedback & Support

Our website products.zplane.de always provides the latest information and news about our products. For the latest tips and tricks on using PEEL STEMS, follow us [Instagram](#) and [YouTube](#). Any issues you encounter may either be addressed in the FAQ section of the appropriate product or reported directly to us via post or email.

Before contacting us directly, please ensure you are using the latest version of the product.

Please also make sure that your issue is not covered in the manual, the forum, the FAQ or elsewhere on our website.

If you cannot find answers using the methods described above, and need to contact us directly, please provide the following details to enable us to help you as fast as possible:

- Your registration information (such as the name of your User Account or your login e-mail)
- Your system specifications (hardware, operating system, host software)
- The exact version number of the plugin
(displayed on the **Help [?]** & **Settings [*]** pages located at the upper-right of the PEEL STEMS interface)

Include a detailed description of your problem with a step-by-step description of what led up to it so we can try to reproduce the issue.

Please use the following contact methods:



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