TrackSpacer User Manual

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What Is TrackSpacer?

TrackSpacer is an audio plug-in (available in VST, AU, and RTAS formats) that creates space in the mix for an instrument, voice, or other audio by performing automatic ,multiband equalization on a channel. In real-time it analyzes the audio frequency content in a channel via sidechain, and applies an intelligent 32-band EQ to subtract those frequencies from the channel where TrackSpacer is inserted.
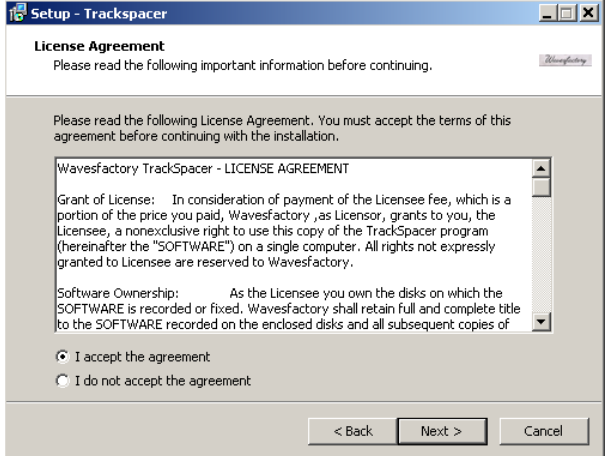
TrackSpacer is versatile and can be used in many different situations. But for illustration let's look at two common examples where it can solve complex EQ problems.

If the kick and bass are competing for space, insert TrackSpacer in the bass channel and have it listen to the kick. Then you can easily fine-tune TrackSpacer so that it only subtracts from the bass signal the frequencies that help define the core sound of the kick. The result is that both are heard more clearly.

If you need to create room for the vocal in a busy and dense mix, route all the competing instruments to a bus, insert TrackSpacer, and have it listen to the vocal. As the performer talks or sings TrackSpacer selectively subtracts the vocal's audio frequency energy from the bus signal. This gives the vocal a lift without a reduction in the overall volume level of the instruments.

Installing TrackSpacer

Run the TrackSpacer install program to install TrackSpacer to your computer.
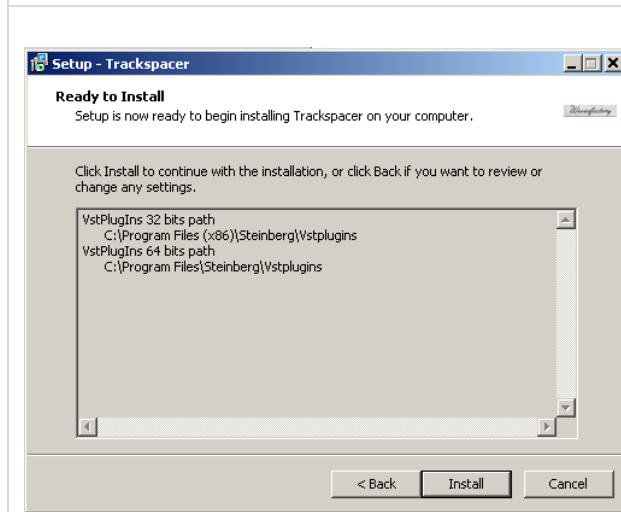
	1. Start the install program to display the TrackSpacer Setup Wizard. 2. Click **Next** to continue.
	3. Review the license agreement. 4. Click the radio button beside "I accept the agreement". 5. Click **Next** to continue.
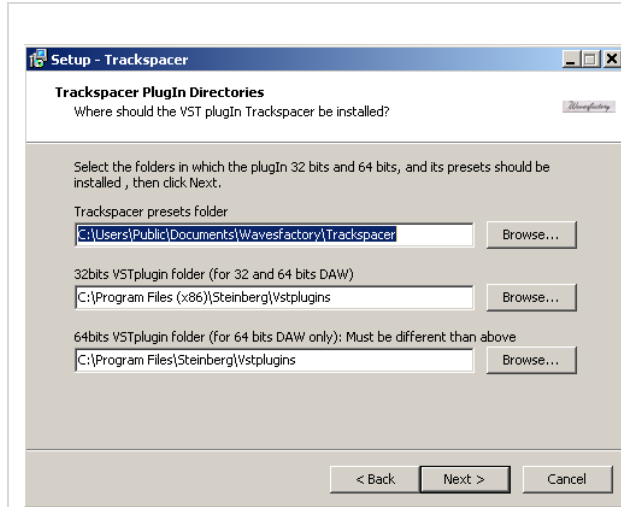
	6. Select the folder where you wish TrackSpacer to be installed. **Note**: Apple users will see the folder location for installing AU plug-ins. 7. Click **Next** to continue.
	8. Confirm that the installation destination folders are correct. 9. Click **Install** to install TrackSpacer.

Entering Your Serial Number

You will be prompted to enter a serial number the first time you insert TrackSpacer into a channel.

1. Copy and paste **the serial number** into the text field, then press the **Enter/Return** key.

2. Close TrackSpacer.

3. Relaunch TrackSpacer.

Demo Version Limitations

Please note that the demo version of TrackSpacer has the following limitations:

- MIDI automation of controls is disabled

- Control settings are not saved

- An audio watermark sounds at two-minute intervals

About Sidechaining

Sidechaining within a DAW refers to using the audio signal in one channel (the **send**) to trigger or control a virtual effect (VST, AU, RTAS etc.) that modifies the audio in a different channel (the **receive**).

Channel 1 Send	→		
Channel 2 Receive	⇒	VST Effect ⇒	Channel 2 Affected Audio
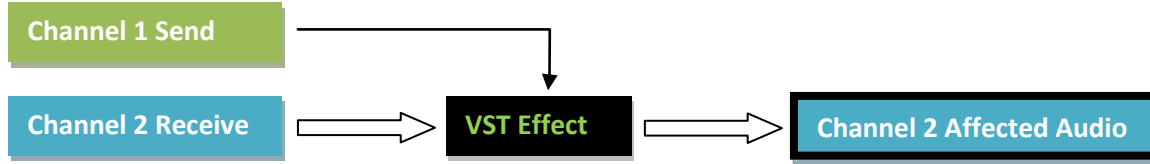
Two examples of sidechaining that you may be familiar both involve the use of a compressor:

- **Ducking** – using the presence of one signal to trigger a volume reduction of another signal. A classic ducking setup involves using a compressor on a rhythm guitar track, with the compression triggered by the presence of a lead vocal. This causes the guitar to "duck" out of the way of the vocal.
- **Gating** – using the presence of one signal to trigger a gate on another signal. A common dance and electronic music technique is to use the audio from a kick drum to open the gate on a bass track. This tightens up the mix by making the kick drum and bass attacks perfectly in sync.

Of course you can also use sidechain techniques with stem mixes so that an entire group of tracks can be ducked, gated, equalized, or otherwise affected in response to another signal.

Setting Up TrackSpacer

This section provides the steps for inserting TrackSpacer and setting up the sidechain.

1. Decide on two tracks or channels that you want TrackSpacer to analyze. The channel containing the audio to be equalized is called the **affected signal**. The channel that TrackSpacer uses for comparison is called the **control signal**.

2. Insert **TrackSpacer** as an effect on the channel you wish to EQ – the affected signal.

3. Setup the **sidechain**. Each DAW requires a different procedure. The most popular ones are covered below:

Pro Tools	1. In the **I/O section** of the control signal's channel strip, send the output to a **bus**.
	2. Open the **TrackSpacer GUI** window within the wrapper and set the **Key Chain Input** to the **send** from the **control signal bus**.
Logic	1. In the **Sends** field of the control signal's channel strip, select a **bus**.
	2. Open the **TrackSpacer GUI** window, then select the **control signal** (send) **bus** in the **Side Chain** menu.

Cubase	1. Open the **TrackSpacer GUI** window, then click the **Activate Sidechain** button. 2. In the **Sends** field of the control signal's channel strip, select **Sends**, then **Side-chains**, then select the **insert** for the channel with TrackSpacer.
Ableton Live	1. Open the TrackSpacer GUI window, click the **down arrow button** beside the on/off button, then click **Sidechain**. 2. Click the **Audio From** menu and select the channel containing the **control signal**.
Reaper	1. From the control signal's channel strip, click and drag the **I/O** button to the **channel strip** of the **affected signal** (the channel strip with TrackSpacer inserted). The **Routing/Controls** window will display. 2. In the **Sends** section of the window, set the **Receive** channel using the second **Audio** drop down menu (to the right of **=>** symbol) to the channel with TrackSpacer.

Important Note:

On most DAWs, setting a channel output to a sidechain bus will cause the audio from that channel to not be audible. In order to hear the audio you must either **create a duplicate of the control signal channel with the output routed normally**, or enable a **master parent send** to the master output fader.

Overview of the TrackSpacer GUI

TrackSpacer is a powerful tool that is surprisingly simple to use. There are only four controls and an EQ display that shows the control signal and the EQ amount of the affected signal.

Note: the screenshot below was taken from TrackSpacer used in Reaper DAW, with the control and affected signals as channel 1 and channel 2.

Controls

- **Freeze button** – freezes the EQ at the current level based on the EQ Ratio, Low Pass, and High Pass settings

- **EQ ratio control** – sets the amount (ratio) that TrackSpacer subtracts

- **Low pass frequency control** – sets the low pass frequency

- **High pass frequency control** – sets the high pass frequency

EQ Display
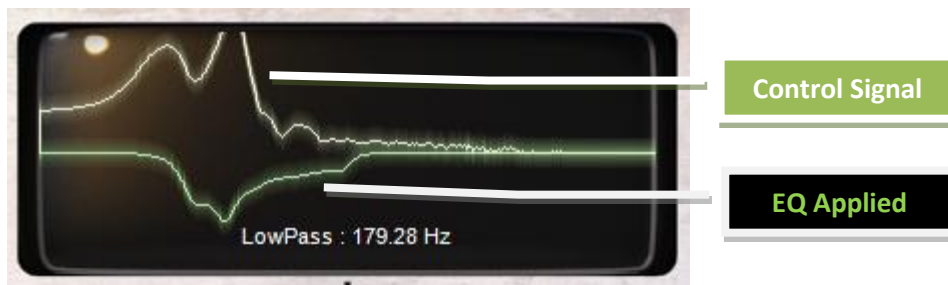
The EQ Display shows the traces of the **control signal spectral content** (upper trace – white) and the **spectral content of the frequencies subtracted** (EQ applied) to the **affected signal** (lower trace – green). TrackSpacer analyzes and subtracts frequencies in real time so the traces animate based on the audio signals.

The area below the audio signals indicates the **name** and **value** of any **control** that is being changed (or has the mouse cursor hovering over it).

Basic Usage of TrackSpacer

Basic usage involves adjusting TrackSpacer's controls and most importantly, listening carefully to the mix. The steps below are designed to get you started.

1. Ensure that the **sidechain** is setup correctly.

2. Start audio playback in the DAW. When you first insert TrackSpacer the audio controls will be at their default settings:

   - **EQ Ratio** – 25%

   - **Low Pass Frequency** – 20 Hz

   - **High Pass Frequency** – 20,000 Hz
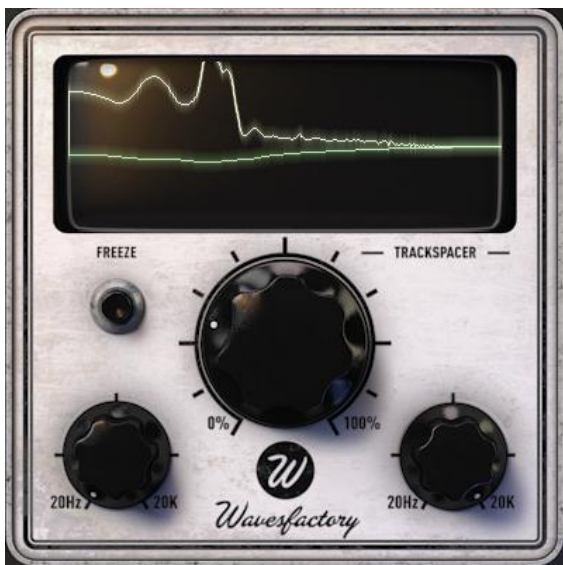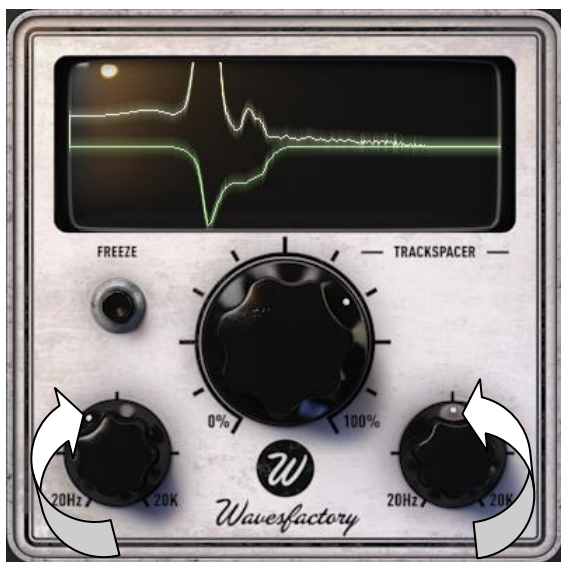
	3. Listen to the audio of the affected signal and watch the **EQ Display**. In the screenshot on the left you can see that the default settings need fine-tuning because they are not creating much space.
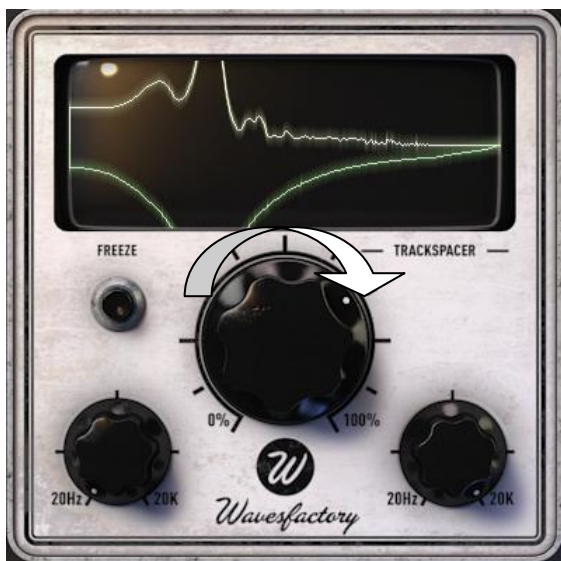
4. Increase the **EQ Ratio** to get a better perspective of the range of frequencies being subtracted from the affected signal.

   At this point you may only be able to hear the affected signal very faintly.

5. Adjust the **Low Pass Frequency** and **High Pass Frequency** controls until you can hear (and see) that TrackSpacer is subtracting enough of the affected signal to make room for the audio of the control signal.

   In the screenshot on the left the Low Pass and High Pass settings have been adjusted to narrow the range of frequencies that are subtracted.

   Note: Although there are many ways to use TrackSpacer, one effective method is to create a notch that subtracts only those frequencies that seem to be blurring or muddying the mix.

6. Fine tune TrackSpacer's controls until you find the sweet spot where both tracks are sitting nicely in the mix.

In the screenshot on the left you can see that TrackSpacer is subtracting a fairly narrow range of frequencies in response to a wider peak in the control signal.

Note: At any time you can click the **Freeze** button to freeze the **signal trace of the applied equalization**.

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