
VELVET

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1. Welcome to Velvet

Velvet is a cutting-edge sibilance management tool that intelligently splits audio into sibilant and tonal channels, applies adaptive shaping for precise control, dynamic equalization, and features industry-standard mouth noise reduction technology.

You can think of Velvet as a supercharged De-Esser - just as simple to use as a typical one, but powered by a far more advanced and intelligent approach to minimizing and repairing sibilance in vocals, dialogue, and other audio sources.

Velvet automatically splits the input signal into two parallel audio paths: one for detected sibilance and one for the tonal content. The two paths are then recombined, with an optional mouth de-clicking stage to further clean up the signal.

Velvet includes advanced shaping tools for precise control—its Sibilance Channel offers a 6-band dynamic EQ with both positive and negative gain, while the Tonal path uses adaptive shaping to lift or tame the rest of the signal to taste. The built-in mouth de-clicking technology is industry standard for removing unwanted mouth noises.

The layout is designed to guide you through each stage of the sibilance-taming process in a clear, logical order. Start by learning the sibilance and dialing in the Sibilance controls to fit your needs. Next, shape the Tonal Channel, and finally, clean up any remaining clicks that may be contributing to the issue. The Sibilance Channel meter displays only the detected sibilance, separate from the Tonal Channel, while the Tonal meter reflects the impact of the adaptive shaping. The mouth de-clicking stage also includes a real-time counter, showing exactly how many clicks are being repaired in your audio.

This document describes all features in detail, starting with the Overview.

Document conventions

In this document the following formatting is used to highlight useful information:

Italics	Indicates paths to locations on your hard disk or other storage devices.
Bold	Highlights important names, concepts, and software interface elements.
[Brackets]	References keys on the computer keyboard.
►	Denotes a single step instruction.
→	Denotes the expected result when following instructions.

The following three icons denote special types of information:

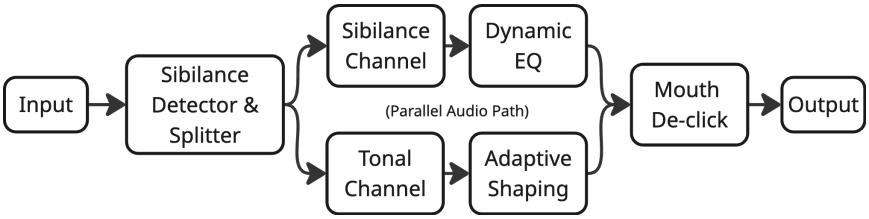
The **light bulb** icon indicates a useful tip, suggestion, or interesting fact.

The **information** icon highlights essential information in a given context.

The **warning** icon alerts you of potential risks and serious issues.

2. Overview

At the heart of Velvet is a unique dual-path processing engine. When audio enters the plugin, it's automatically split into two parallel channels: one for sibilant content and one for tonal content. This separation allows each part of the signal to be shaped independently, giving you far more precision and control than a traditional de-esser.



The Sibilance Channel isolates high-frequency sounds typically associated with sibilance - such as "s", "sh", and "z"—and allows you to shape them with a dedicated 6-band dynamic EQ. Meanwhile, the Tonal Channel retains the body and character of the voice, dialogue or instrument, and can be enhanced or softened using adaptive shaping tools.

After processing, the two channels are intelligently recombined to produce a clean, natural result. A final Mouth De-clicking stage can be used to remove residual vocal artifacts like lip smacks and tongue clicks, helping you achieve a polished and professional sound.

The Velvet interface is made up of three main areas: the Sibilance Channel at the top, the Tonal Channel at the bottom, and the Mouth De-click module on the right-hand side. Both the Sibilance and Tonal Channels process the input signal in parallel and include dedicated controls and metering for shaping the sound. The top header provides access to presets and global controls.

1. **Header**: Contains global controls including the Preset selector. For more information, refer to Header.
2. **Sibilance channel controls:** Sibilance Channel Controls: Automatically detects the amount of sibilance in the input signal. Includes an Amount control to scale EQ gain changes. For more details, see the Sibilance section

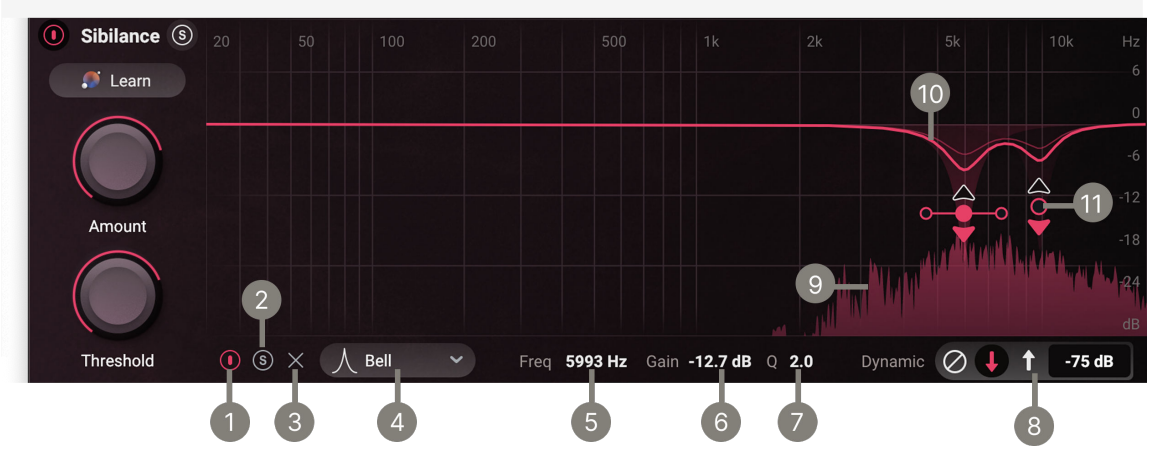
3. **Sibilance Channel EQ & Display:** Offers a 6-band parametric EQ for shaping sibilance. The Learn button automatically places two nodes as a starting point. Also shows spectral activity specific to the Sibilance Channel.
4. **Tonal Channel Controls & Display:** Provides shaping options using adaptive technology for the Tonal Channel content of the input audio. Also displays spectral activity for the tonal signal. For more details, see the Tonal section.
5. **Mouth De-click Controls:** Repairs mouth noises like clicks and lip smacks in vocal or dialogue recordings. Shows a real-time count of repaired clicks. For more details, see the Mouth De-click section.

3. Sibilance Channel Controls

The Sibilance Channel controls are located at the top of the plugin, just below the global header. They serve two main purposes: to adjust how much sibilance is detected in the signal, and to provide detailed control for managing that sibilance.

1. **Learn**: Runs a short analysis pass to detect sibilant content in the input audio. Once complete, it suggests starting values for EQ Gain, EQ Frequency, and Threshold.
2. **Amount:** Scales the gain range for all active EQ nodes from 0% to 200%, affecting both positive and negative gain. For example, an EQ node set to -4 dB will reach -8 dB if Amount is set to 200%. The composite gain curve in the EQ display updates in real time as this setting is adjusted.
3. **Threshold:** Controls how much sibilant content is routed into the Sibilance Channel. This control is automatically set when using the Learn function. The rest of the content routes to the Tonal Channel.
4. **Solo:** Isolates and auditions only the Sibilance Channel's audio processing. When enabled, it disables Global Delta, Tonal Channel Solo, and the Listen to Clicks Only option in the Mouth De-click module.
5. **Power:** Toggles the Sibilance Channel EQ processing on or off.

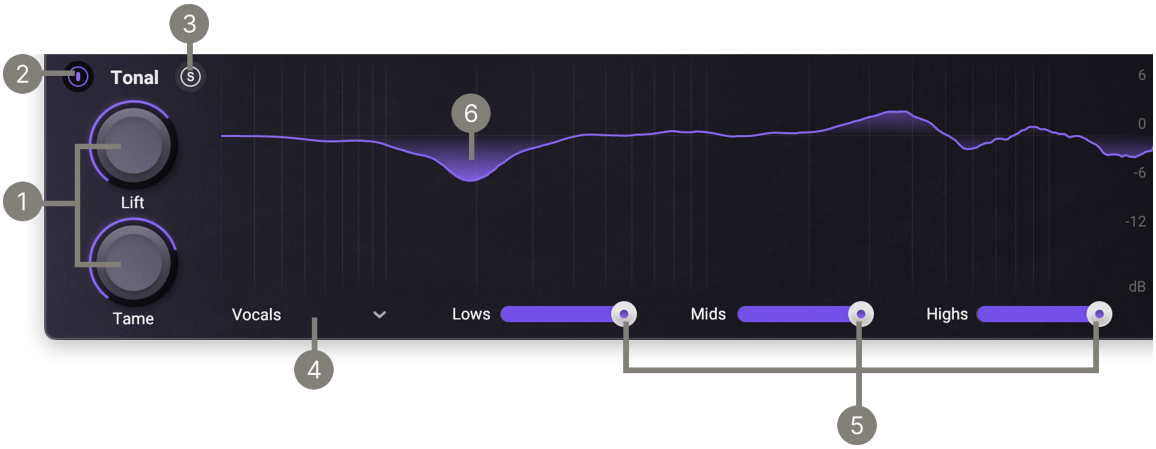
The Sibilance Channel contains a dynamic 6-band parametric equalizer for minimizing or enhancing any sibilant frequencies that are detected by threshold.



1. **Band Power**: Toggles individual EQ bands on or off.
2. **Band Solo:** Isolates and auditions a single band's processing.
3. **Remove Band**: Deletes the selected EQ band.
4. **Filter selection:** Choose from three types of filter bands:
   a. **Bell**: Smoothly boosts or cuts an adjustable region around a specific frequency. At larger gain adjustments (boost or cut), will change the overall color or texture of the sound.
   b. **High Shelf & Low Shelf:** Shelf filters for broad tonal shaping. Great for making larger adjustments to brightness or bass, similar to traditional analog EQs.
5. **Frequency:** Sets the center frequency of the EQ band.
6. **Gain:** Sets the boost or cut amount for the EQ band.
7. **Q:** Adjusts the bandwidth of the EQ band.
8. **Dynamic EQ Behavior**: Sets how the EQ band reacts to signal level. You can also switch modes using the Up/Down arrows on the EQ node itself. Choose from:
   a. **Up** (boosts dynamically)
   b. **Down** (cuts dynamically)
   c. **Static** (no dynamic behavior)
   d. **Threshold**: Sets the dB level at which a dynamic EQ band becomes active based on the incoming signal.
9. **Spectrum Metering**: Displays the frequency spectrum of sibilant audio.
10. **Composite EQ Curve**: Displays the combined filter response of all enabled bands.
11. **EQ Nodes:** Interactive EQ Band node where you can control Gain, Frequency, Bandwidth, and the Dynamics behavior of each band. When hovering over the spectrum you will see an icon for adding a node if 6 EQs nodes haven't been added already.

4. Tonal Channel Controls

The Tonal Channel controls are located at the bottom of the plugin, beneath the Sibilance Channel. They provide adaptive shaping tools for processing the parts of the signal that are not detected as sibilance.

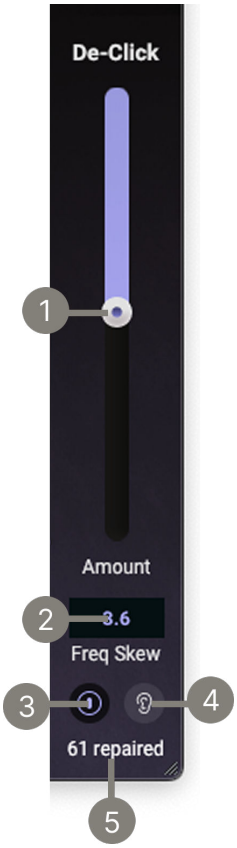


1. **Spectral Shaping Controls:** Lift and Tame are spectral-shaping controls designed to dynamically enhance or reduce specific parts of the frequency spectrum based on the selected target.
   a. **Lift**: Adds clarity and presence by boosting frequencies that fall outside the idealized spectral profile of the selected target. Rather than applying a broad gain, it selectively emphasizes the areas that help bring the audio closer to the target sound.
   b. **Tame**: Reduces resonances and harshness by cutting frequencies that deviate from the target profile. This results in a more controlled and focused sound, aligning the input more closely with the tonal characteristics of the target.
2. **Power**: Enables or disables Tonal Channel processing and any latency incurred.
3. **Solo:** Isolates and auditions only the Tonal Channel's audio processing. When enabled, it disables Global Delta, Sibilance Channel Solo, and the Listen to Clicks Only option in the Mouth De-click module.
4. **Target Selection**: Velvet includes 8 target profiles optimized for a range of vocal, dialogue, and instrumental sources.
   a. **Vocals:** General shaping for main or group vocals.
   b. **Vocals Low:** Optimized for low-register vocal performances.
   c. **Vocals High:** Optimized for high-register vocal performances.
   d. **Dialogue:** Suitable for spoken word, voiceover, and general dialogue content.
   e. **Dialogue Low:** For speakers with a low vocal register.
   f. **Dialogue High:** For speakers with a high vocal register.
   g. **Instrument:** A general-purpose profile for non-vocal instruments.
   h. **Cymbals:** Designed for percussion content in the cymbals family.

5. **Lows, Mids, Highs Amounts control how much processing is applied across the spectrum, you can scale the amount of tonal processing in three frequency areas:**
   a. **Low**: Roughly between 0-250Hz
   b. **Mid**: Roughly between 200Hz-5.5kHz
   c. **High**: Roughly between 1.5kHz-20kHz
6. **Difference Metering**: Displays the tonal changes that the Stabilizer processing is applying. This is similar to an EQ where frequency is measured from left to right and gain is up and down. Different from an EQ, Stabilizer will adapt its tonal corrections over time.

5. Mouth De-click Controls

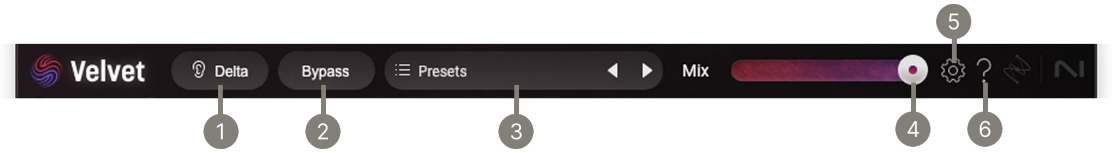
Mouth De-click detects and reduces mouth noises such as clicks and lip smacks.



1. **Amount**: Controls the sensitivity of click detection. Higher values detect more mouth clicks, while lower values reduce the amount of processing applied.
2. **Freq Skew**: Adjusts the frequency focus of click detection. Negative values target lower-frequency clicks, such as those found in vinyl recordings. Zero or positive values are optimized for detecting mouth clicks, which typically occur in the mid-frequency range.
3. **Power**: Enables or disables Mouth De-click processing and any latency incurred by the processing.
4. **Listen**: Solo that isolates only the detected clicks, allowing you to hear what the processor is removing. When enabled, it disables Global Delta, Sibilance Channel Solo, and Tonal Channel solo buttons.
5. **Click Counter**: Displays a real-time count of the clicks that have been removed from the audio. Will display +999 once counter surpasses 1000 clicks.

6. Header

The Header gives you access to presets, global functions, and the Options window.



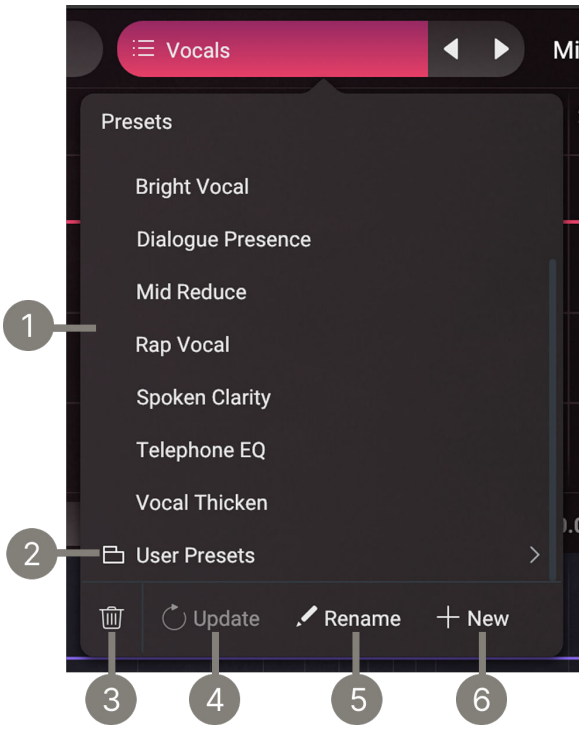
1. **Delta (global):** Toggles a listening mode that plays only the audio being affected by processing across all active modules. This allows you to hear exactly what is being added, removed, or changed - making it easier to fine-tune adjustments and understand the impact of your settings.
2. **Bypass**: Deactivates the processing of the plugin, letting you to hear the unaffected input signal.
3. **Preset selector**: Shows the name of the current preset. Clicking the name opens the drop-down menu that lets you browse and manage presets. By clicking on the left and right arrows you can load the previous or next preset in the list, respectively. For more information, refer to Presets.
4. **Mix:** Controls the balance between the processed (wet) signal and the original (dry) signal across the entire plugin. Slide toward Wet to hear more of the effect, or toward Dry to retain more of the original audio. Ideal for blending the overall impact of processing to taste.
5. **Options**: Opens the Options window that shows the software version and gives access to options including tooltips and usage data, as well as your license. For more information, refer to Options.
6. **Help (?)**: Opens the Velvet online manual in your web browser.

Presets

The Preset selector lets you browse and manage presets.

▶ To open the Preset selector, click the preset name in the Header.

The Preset selector consists of the following elements and controls:



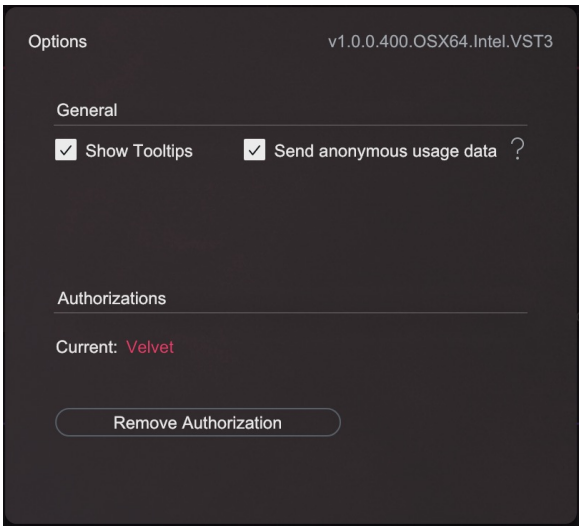
1. **Preset list**: Shows all presets, sorted by category. Clicking a category shows the presets in this category. Clicking a preset loads all of its settings.
2. **User Presets**: Shows all user presets. User presets are saved in the following user preset folders.
   - macOS: */Users/<user name>/Documents/iZotope/Velvet/Presets*
   - Windows: *Users\<user name>\Documents\iZotope\Velvet\Presets*
3. **Delete**: Deletes the selected user preset. If a factory preset is selected, this function is not available and grayed out.
4. **Update**: Saves any changes you have made to the selected user preset. If a factory preset is selected, or the preset's settings have not been changed, this function is not available and grayed out.
5. **Rename**: Renames the selected user preset. If a factory preset is selected, this function is not available and grayed out.
6. **New**: Saves a new user preset in the user preset folder.

Options

The Options window lets you check the plugin's software version and gives you access to options including tooltips and usage data, as well as your license.

▶ To open the Options window, click the Options button (cog wheel icon) in the Header.

The following options are available:



- **General**:
  - **Show tooltips**: Activates or deactivates the tooltips in the user interface. When activated, hovering over a control shows a brief description of its functionality.
  - **Send anonymous usage data**: Activates or deactivates anonymous usage data tracking. When activated, this information helps us improve the software.
- **License**:
  - **Current**: Shows the current license status of the plugin.
  - **Remove Authorization:** Removes the current product authorization, letting you authorize the plugin using another serial number.