



SONIC SPREAD

1.0.0

USER MANUAL

TABLE OF CONTENTS



1.1 INTRODUCTION..... 3

1.2 KEY FEATURES 3

2.1 USER INTERFACE - MAIN CONTROLS..... 4

2.2 USER INTERFACE - ADDITIONAL CONTROLS 5

1.1 INTRODUCTION

Welcome to **Sonic Spread**, a **stereo utility plugin** designed to enhance your stereo imaging and provide precise control over **delay-based spatial effects**. **Sonic Spread** is perfect for sound designers, music producers, and audio engineers who seek to add depth, width, and dimension to their mixes.

This plugin excels at creating the **Haas effect**—a psychoacoustic phenomenon that enhances stereo imaging by introducing slight delays between the left and right channels. Additionally, **Sonic Spread** can emulate the classic **Duophonic** effect, popularized by **Capitol Records** in the 1960s. This effect simulates stereo sound from a mono source by splitting the signal into two channels, delaying one, and using frequency shaping. Specifically, bass frequencies are cut from one channel using a high-pass filter, while treble frequencies are cut from the other with a low-pass filter. This process creates an artificial stereo effect, which can be further enhanced with reverb and stereo echo.

1.2 KEY FEATURES

DELAY CONTROL

Independently adjust the delay for the left and right channels, creating a wider stereo image.

STEREO WIDTH CONTROL

Precisely control the stereo width to widen or narrow the stereo field, enhancing the spatial characteristics of your audio.

FREQUENCY SHAPING

Use high-pass and low-pass filters on both left and right channels for detailed tonal shaping.

VOLUME AND PAN ADJUSTMENTS

Separate controls for mid and side channels allow you to balance the stereo field and control panoramic placement.

DRY/WET MIX

Adjust the blend between processed (wet) and unprocessed (dry) signals for flexible effect intensity.

CLIPPING PROTECTION

Built-in soft and hard clipping prevents any peaks above 0dB, ensuring a clean and distortion-free output.

DUOPHONIC EFFECT CAPABILITIES

Simulate stereo sound from mono sources by desynchronizing two channels, with frequency shaping and optional reverb or stereo echo.

2.1 USER INTERFACE - MAIN CONTROLS



- Delay L (ms):** Adjusts the delay time for the left channel, from 0.0 ms to 40.0 ms.
- Delay R (ms):** Adjusts the delay time for the right channel, from 0.0 ms to 40.0 ms.
- Delay Width (%):** Adjusts the stereo spread between the left and right delays.
- Delay Mix (%):** Controls the mix between the dry (original) and wet (delayed) signals.
- Lowpass L (%):** Applies a low-pass filter to the left delayed signal.
- Lowpass R (%):** Applies a low-pass filter to the right delayed signal.
- Volume Mid (dB):** Adjusts the volume of the mid (center) signal.
- Volume Side (dB):** Adjusts the volume of the side (stereo) signal.
- Highpass L (%):** Applies a high-pass filter to the left delayed signal.
- Highpass R (%):** Applies a high-pass filter to the right delayed signal.
- Pan Mid:** Controls the panning of the mid signal.
- Pan Side:** Controls the panning of the side signal.

Main Width (%): Adjusts the overall stereo width.

Main Mix (%): Controls the mix between the original and processed signals.

Main Volume (dB): Sets the overall output level.

Clip 0dB (on/off): Engages clipping protection to prevent the output from exceeding 0 dB, which uses dual-stage clipping:

- **Soft Clipping**: Gradually limits the signal as it approaches the threshold, providing smooth distortion.
- **Hard Clipping**: Ensures that the signal does not exceed the threshold, providing absolute protection against digital clipping.
- **Soft Limiting**: Adds an additional layer of control, reducing peaks in a more musical manner, preserving the natural dynamics of the audio.

2.2 USER INTERFACE - ADDITIONAL CONTROLS

PRECISE MOVEMENTS

Holding down the 'Shift' key while adjusting a knob will enable you to make precise movements. Allowing for finer control over the audio processing parameters.

RESET KNOB

Right clicking a knob will reset its value. This action will restore the knob or fader to its default or initial position. Alt + click also works (MacOS: 'option' + click).

ADJUST VALUE

Double-clicking a knob allows you to adjust its value directly. This action provides a quick and intuitive way to fine-tune parameters with precision.

UNDO/REDO

Access Undo and Redo from the menu bar to easily correct or reapply changes. Undo reverses the last adjustment, preventing errors, while Redo restores it, essential for efficient workflow and precise edits.

GUI OPACITY

From the menu bar, users can adjust the GUI Opacity from 0% to 100%. This control allows for varying the transparency of the plugin interface, offering better visibility of underlying work areas or personal preference adjustments.

RESIZE

The interface can be resized from 70% to 200% of its original size via the menu bar. This feature accommodates different screen sizes and resolutions, ensuring Sonic Surge is accessible and comfortably usable on a wide range of devices and display settings.

PRESET MENU

Accessible from the menu bar, the Preset Menu provides a comprehensive interface for browsing, loading, and selecting factory presets, enhancing the ease of finding the right settings for any session. Additionally, users can Load/Save, and Copy/Paste presets.

CREATING WIDTH

Use the Delay Width and Main Width controls to enhance stereo spread without phase issues.

DUOPHONIC EFFECT

Simulate stereo from a mono source by splitting the signal, delaying one channel, and applying complementary frequency shaping. Add reverb or stereo echo for additional depth.

HAAS EFFECT PRECISION

Apply slight delays (a few milliseconds) to achieve the Haas effect, enhancing stereo perception without noticeable echoes.

CLIPPING PREVENTION

Enable Clip 0dB to safeguard against distortion at high output levels.