**OBLIVION SOUND LAB**

# OSL SIDE EFFECTS

**USER GUIDE**

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# OVERVIEW

[OSL Side Effects](#) is a versatile audio plugin that allows the stereo field to be manipulated in both subtle and creative ways.

It works by separating a stereo signal into Mid and Side channels which can be independently equalised, compressed, saturated, boosted, attenuated and panned using an intuitive processing chain. This makes it possible to alter the width of a mix in ways that would be impossible using conventional stereo processing techniques.

## WHAT IS MID/SIDE PROCESSING?

Mid/Side Processing is a technique for separating a stereo signal's centre and edges, and processing them independently. The Mid contains information shared by the stereo signal's left and right channels, while the Side contains information that differs between them.

Once encoded, the Mid channel can be manipulated without affecting the Side channel, and vice versa. This differs from conventional processing techniques which affect the entire stereo image.

The modified Mid and Side channels are then decoded to convert them back into a conventional left-right stereo signal.

# INSTALLATION

Visit the OSL Side Effects web page and download the latest installer for macOS or Windows. Unzip the file, launch the installer application and follow the setup instructions.

In addition to installing plugin files at the default locations for your system, OSL Side Effects uses the following directory to store presets and settings:

**Windows**
C:\ProgramData\Oblivion Sound Lab\OSL Side Effects

**macOS**
Macintosh HD/Library/Application Support/Oblivion Sound Lab/OSL Side Effects

To uninstall OSL Side Effects delete the plugin files and the OSL Side Effects directory.

# REGISTRATION

Before purchasing a license for OSL Side Effects we recommend downloading the free demo version to ensure that the plugin works on your system.

To register your copy of OSL Side Effects click the cog icon at the top right of the plugin to open the settings dialog. Click "Register" and enter the serial number you received when you purchased the plugin.

Until it is registered OSL Side Effects' output will be periodically muted.
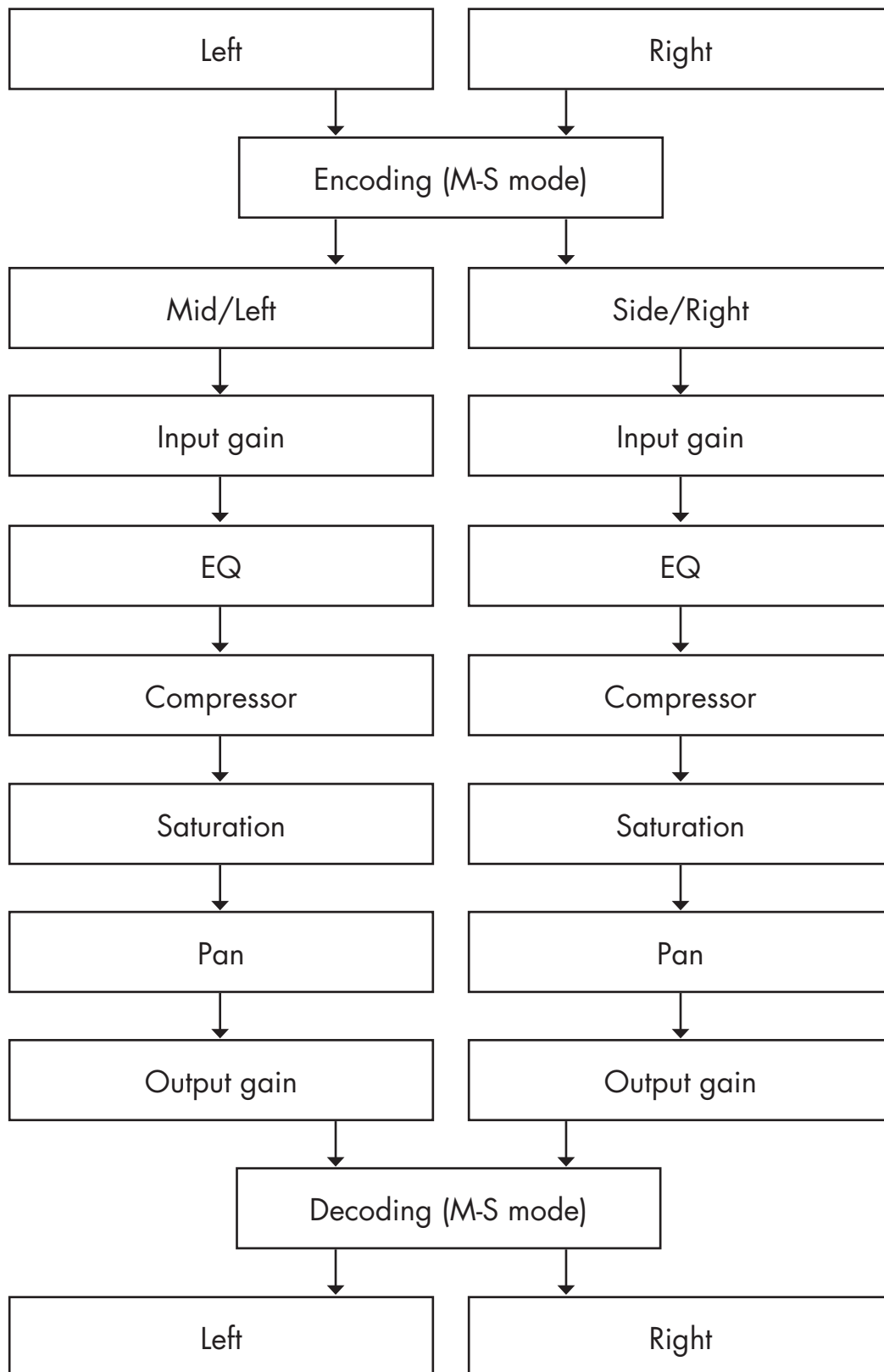
# INTERFACE



OSL Side Effects' graphical user interface (GUI) has been designed to put all of the plugins' controls within easy reach.

**Control bar:** A bar along at the top of the plugin includes menus for browsing and saving presets and modifying global settings. Clicking on the plugin name opens a popup menu containing links to this user guide and our website, and a control for resetting the GUI scale.

**Modules:** OSL Side Effects' has discrete processing modules for controlling the mid/side and stereo signal. You can access the MID EQ, SIDE EQ and COMPRESSORS modules by clicking the relevant tab. The METERS panel includes a range of stereo visualisation meters. The GLOBAL controls, located below the METERS panel, allow you to adjust each channel's input and output gain, panning and saturation. Each of these modules is explained in detail later in this user guide.

**GUI scaling:** OSL Side Effects' GUI can be scaled up or down by dragging the handle in the plugin's lower right corner. Your chosen scale will be recalled the next time you use the plugin.

# SIGNAL FLOW

| Left | Right |
|------|-------|

Encoding (M-S mode)

| Mid/Left | Side/Right |
|----------|------------|

| Input gain | Input gain |
|------------|------------|

| EQ | EQ |
|----|----|

| Compressor | Compressor |
|------------|------------|

| Saturation | Saturation |
|------------|------------|

| Pan | Pan |
|-----|-----|

| Output gain | Output gain |
|-------------|-------------|

Decoding (M-S mode)

| Left | Right |
|------|-------|

# PRESET MANAGEMENT

Clicking within the preset browser will open a menu that lets you browse the contents of the preset directory.
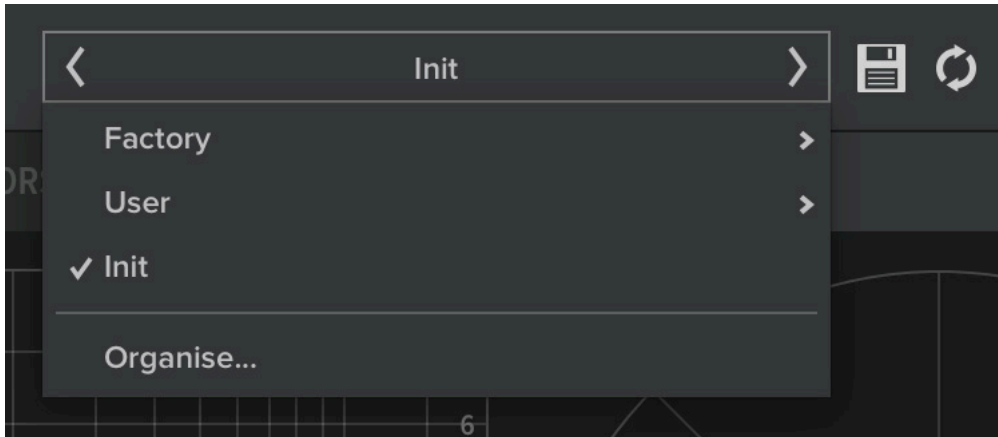


Clicking a preset's name in the menu will load it.

Clicking the arrows on either side of the preset browser will load the next or previous preset.

To save a preset, click the disk icon beside the preset browser. A dialog will open which lets you specify a name for your new preset, and choose which folder it should be saved in.

You can open the preset directory in Explorer/Finder by clicking "Organise…" in either the preset browser menu or save patch dialog. This is helpful if you need to delete presets, create new sub-directories for your presets, or reorganise the preset directory.

After reorganising your presets, click the refresh icon to rescan the presets directory.

# SETTINGS

OSL Side Effects' settings menu can be accessed by clicking the cog icon at the top right of the plugin.
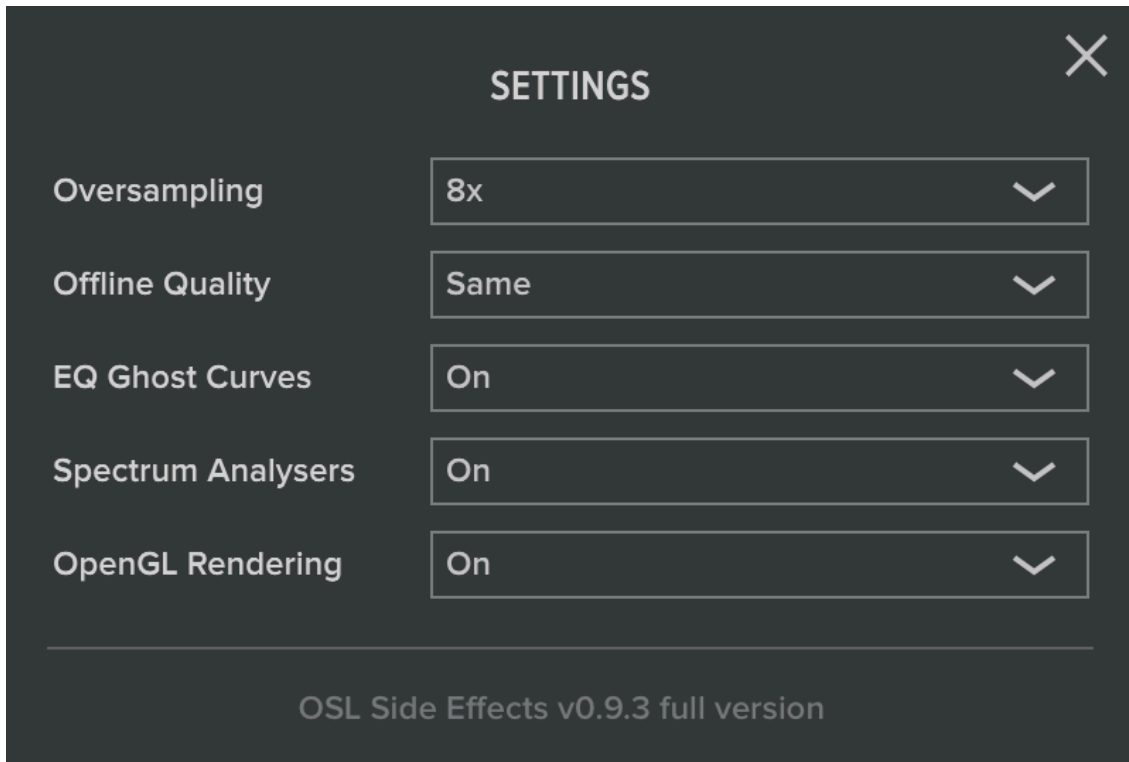


**Oversampling:** Choose how much the signal is oversampled by prior to saturation. Oversampling reduces aliasing artifacts caused by saturation, which can occur when distortion produces harmonics beyond the Nyquist limit. The default is 1x (off), but OSL Side Effects supports oversampling up to 16x, at the expense of CPU.

**Offline Quality:** Sets the quality at which audio is rendered in non-realtime mode. "Same" matches the chosen oversampling setting, while "Best" renders audio with maximum oversampling.

**EQ Ghost Curves:** Sets whether the opposite channel's magnitude curve is displayed on EQ graphs.

**Spectrum Analysers:** Sets whether spectrum analysers are displayed on EQ graphs.

**OpenGL Rendering:** Sets whether the plugin should use GPU accelerated OpenGL rendering for its user interface. OpenGL rendering can improve performance when animating Spectrum Analysers and the Goniometer, and is enabled by default.

# BYPASS

OSL Side Effects has a number of bypass buttons throughout its interface, which can be used to switch individual modules on or off, or bypass processing altogether.

Because OSL Side Effects' modules can consume CPU even if they are zeroed out, it is recommended to bypass any modules that are not required.

# MODE

In addition to the default Mid/Side mode, OSL Side Effects' can operate in Left/Right mode:
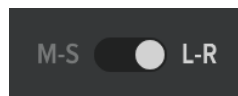
In this mode the original Left and Right stereo channels are fed through the plugin's effects chain, and can be processed independently.

# CHANNEL LINKING

Channel linking can be enabled or disabled by toggling the link button:

When linking is enabled, changes made to the Mid or Side channel are mirrored in the other channel, relative to the linked parameter's starting value.

# EQ

OSL Side Effects features two 4 band EQ modules, one each for the Mid and Side channels. They are accessed by clicking the Mid EQ or Side EQ button in the EQ/ Compressors tabbed navigation.



The EQ bands are colour coded, and their magnitude response is shown on the EQ graph. The white line shows the combined magnitude responses of all 4 bands. The grey line shows the magnitude response of the opposite channel. The frequency axis of the graph is logarithmically scaled.

A spectrum analyser is displayed behind the magnitude curves. The y-axis represents the amplitude of the post-EQ signal, between 0dB and -100dB.

You can choose a band's filter type by clicking its curve icon. The available types are high pass, low shelf, peak, high shelf and low pass.

Each band's frequency, Q and gain can be controlled using knobs, or by dragging the corresponding handle on the EQ graph.

**Frequency:** The frequency on which the band is centred, in Hz.

**Q:** The width of the band being treated.

**Gain:** Boosts or attenuates the band by up to 12dB.

# COMPRESSOR

OSL Side Effects features two compressors, one each for the Mid and Side channels. They are accessed by clicking the Compressors button in the tabbed EQ/Compressors navigation.



Five knobs control each compressor's settings:

**Threshold:** How loud the signal must be before compression is applied.

**Ratio:** How much compression to apply. The lowest ratio of 1:1 means no compression, and at higher values progressively more gain reduction is applied. For example a ratio of 2:1 means that for every 1dB increase in input volume, the output will only increase by 0.5dB.

**Attack:** The time it takes for the signal to be fully compressed once it exceeds the threshold, in milliseconds.

**Release:** The time it takes for the signal to return to an uncompressed state once it falls below the threshold, in milliseconds.

**Knee:** Controls how soft or hard the transition at the threshold is. At higher values the transition point ("knee") will be softer, and the signal will move more smoothly in and out of compression.

**Makeup:** How much gain should be applied to the compressed signal, to compensate for the attenuation caused by compression.

**Mix:** Controls how much of the wet (compressed) signal is mixed with the dry (uncompressed) signal. Parallel compression is achieved by setting Mix to a value below 100%.

The transfer curve of each compressor is plotted on a graph above the knobs. Level meters show the gain reduction for each channel.

# GLOBAL

This section of the interface contains several general purpose controls, each of which operates on either the Mid or Side channel.
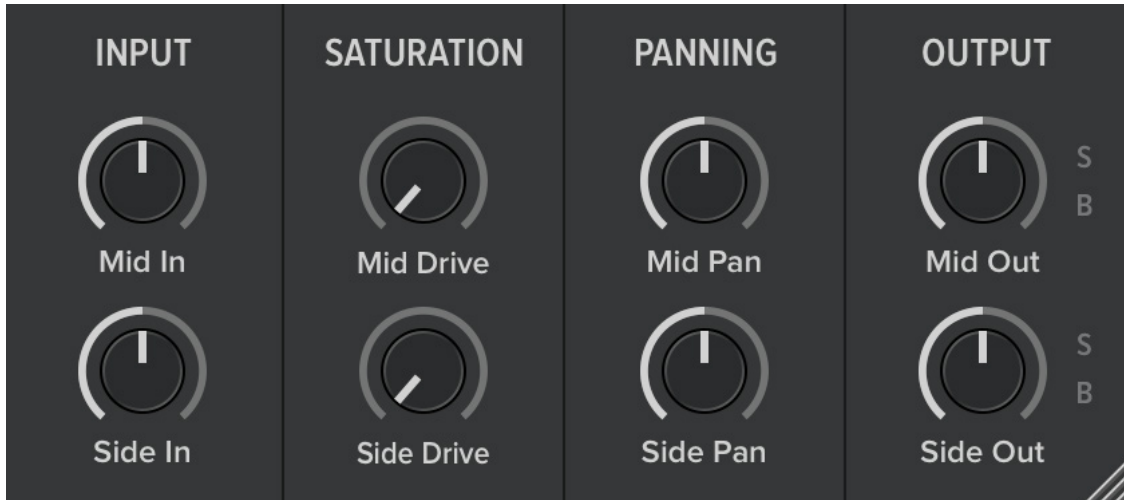


**In Gain:** Controls the level of the incoming audio signal.

**Drive:** Applies a tape style saturation effect to the signal. A pre-emphasis EQ drives high frequency content into saturation sooner than low frequency content, and a complimentary de-emphasis EQ smoothes out the frequency spectrum in a pleasing way. The saturation stage occurs after the EQ and Compressor stages.

**Pan:** An unusual feature of OSL Side Effects is the ability to position the Mid and Side channels within the stereo field. Turning the Pan knob to the left moves the signal toward the left speaker, and turning it to the right moves the signal toward the right speaker.
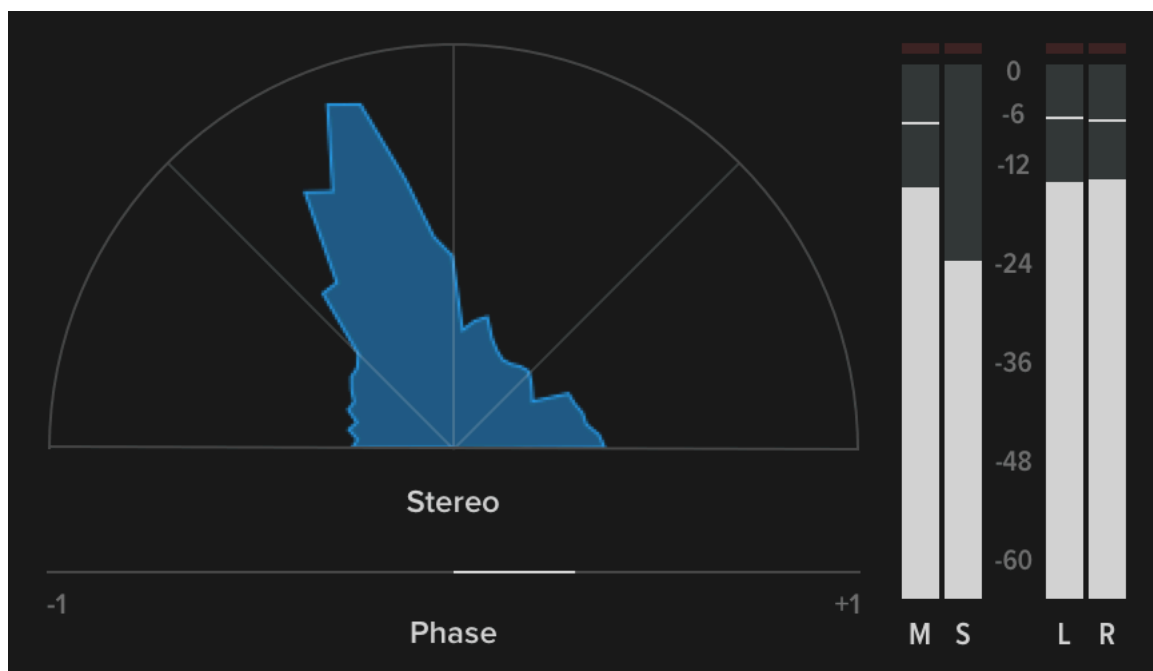
**Out Gain:** Controls the level of the outgoing signal.

**S:** Solo the Mid or Side channel.

**B:** Bypass all effects on the Mid or Side channel.

# METERS

OSL Side Effects' stereo visualisation meters let you to see how the plugin's modules are affecting the stereo field.



**Goniometer:** This meter shows where the signal's samples are positioned within the stereo field. Mono signals produce a thin vertical line on the meter, with the angle of the line indicating its panning: a line angled towards the top right is panned right, while a line angled toward the top left is panned left. A vertical line indicates a centred (dual mono) signal. Wide stereo signals are displayed as an area of solid colour. A shape that is taller than it is wide suggests good mono-compatibility.

**Phase:** The phase correlation meter is useful for determining a stereo signal's mono-compatibility. A reading of +1 indicates a fully correlated (dual mono) signal, while a reading of zero indicates a wide stereo signal. Readings between zero and -1 indicates that the left and right channels are out of phase with one another, and that some component of your signal will be lost when it is played on a monophonic system.

**Meters:** Level meters show the Mid/Side and Left/Right output levels.

# SUPPORT & CREDITS

## INSTALL PATHS

### Windows
VST3: C:\Program Files\Common Files\VST3\
Data: C:\ProgramData\Oblivion Sound Lab\OSL Side Effects

### macOS
AU: Macintosh HD/Library/Audio/Plug-Ins/Components/
VST3: Macintosh HD/Library/Audio/Plug-Ins/VST3/
Data: Macintosh HD/Library/Application Support/Oblivion Sound Lab/OSL Side Effects

## CREDITS

Coding, Design, Presets: Jonathan Nicol

## LICENSE

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## CONTACT

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