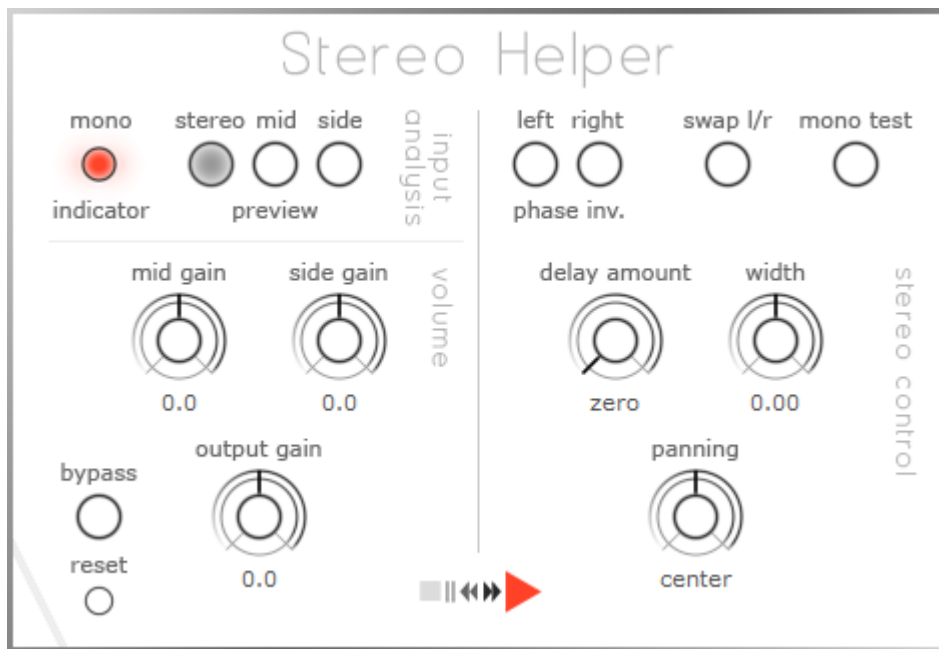


# stereo helper

## user guide

version 1.0



# introduction

can't get that stereo mix right? your tracks don't sound wide enough? you're afraid of mono compatibility? don't panic – stereo helper is here to assist you! the mixing engineer's little friend won't let you down and will take care of your everyday stereo processing tasks.

what stereo helper can do for you:

- preview mid or side channel of your stereo tracks
- add mid and side channel gain
- add depth to audio signals with a natural sounding delay effect
- indicate whether your input signals are mono
- control the stereo width
- check for mono compatibility
- panning, phase inversion, left/right swap

no fancy bullshit. just solid piece of software. efficiently implemented. useful.

## how to use stereo helper

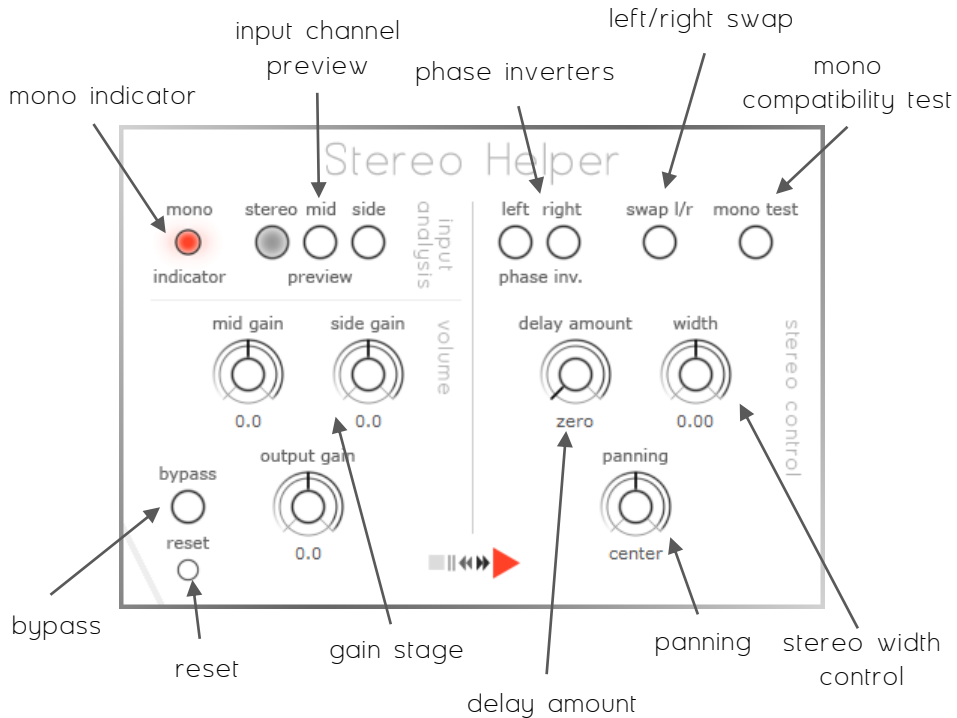
when loading a new instance of stereo helper in your host application all controls are set to their default values and incoming audio signals are routed unchanged to the output ports. you can always reset a knob to its default position with a double-click. if you want to reset all controls, just press the reset button.

stereo helper is lightweight. it causes no latency in the audio buffer and shouldn't consume much of your CPU power. you can use it on any audio track or group of audio tracks that require stereophonic treatment, without compromising the overall performance of your project.

a word of advice: whatever you do, don't let the stereo sound fool you. you may have added width and it sounds huge, but is the result mono compatible? or in other words: how will it sound if someone plays it back in a mono configuration (happens quite often)? that's what the

mono compatibility test is for. you should always check by pressing the mono test button. also, you should bypass the plug-in from time to time and compare the result to the dry signal. have you really improved the mix?

## controls



### mono indicator

the mono indicator lights up whenever the input signal is mono (whenever left and right channels of the incoming signal are identical). what is it good for? when you see that the red led is on, you know that you cannot use the side gain or width knob alone to increase the perceived stereo width. instead, you may try to add some extra stereo delay (see below).

note that silence is mono. that's why the mono indicator will light up on a silent track, too.

## input channel preview

you can quickly analyze the mid or side channel of the input signal by pushing the mid or side button here. when you do this, the stereo controls on the right-hand side are disabled. they are only enabled in stereo mode which is the default setting.

if you want to isolate the mid or side channel and discard the other, using these buttons is the easiest way.

## phase inverters

these buttons invert the polarity of the left and/or right channel. this is commonly (and misleadingly) termed phase inversion. you may need this feature if the polarity of your audio signal got twisted during recording or if you mix several slightly different copies of a signal coming from the same source (e.g. when mixing a multi-channel drum recording). if you correct a wrong polarity, you will immediately hear an improvement.

in combination with the delay and width controls you could also use one of the phase inverter buttons for a rather radical stereo widening effect. this, however, will usually not be mono compatible.

## left/right swap

as you might have guessed, this button swaps the left and right channel. spectacular!

## delay amount

use the delay to increase the stereo width of your audio signals. turning the knob to the right adds a filtered slap-back reverberation to the dry signals resulting in a deeper and wider sound. the delay is especially useful for tracks that don't have much side channel information. then you cannot increase width by turning up the side gain alone. pay attention to the mono indicator and analyze in mid/side mode and you'll quickly get an idea if the delay is the right tool for you.

the effect is designed to be subtle on most material. don't overuse it however on tracks with lot of transients and always compare to the dry signal by pressing the bypass button.

## stereo width control

this is what happens when you turn the width knob from left to right: in the leftmost position you can only hear the mid channel of stereo helper's output signals. going to the center position gradually brings back the side channel. in the center position (default) the control does nothing. if you turn it further to the right, the mid channel of the output signal is attenuated and in the rightmost position you can only hear the side channel.

using the stereo width control is almost the same as using the mid and side gain controls. the difference is that with the width control you can have much more attenuation (infinite) of the mid or side channel. on the other hand, you cannot set the amount of attenuation as precisely as with the gain controls.

## panning

from left to right, everybody knows panning. no explanation required.

## gain stage

separate controls of the mid, the side and the overall gain. each gain can go from -10 to +10 dB and is applied to the output signal.

## mono compatibility test

just try yourself: turn the width knob to the rightmost position and press the mono test button. this is what will be heard if someone plays your mix back in mono (like it's done in da club for example). you can hear... exactly... nothing.

a wide stereo sound can be nice. but if it's not mono compatible the result will only be nice with a limited number of playback configurations. that's why you should always check mono compatibility by using this little button. if it sounds ugly (or doesn't sound at all), you might go

back a few steps and reconfigure your signal chain. try to find a compromise between a wide open sound and mono compatibility.

## bypass

compare the results of your hard work to the original dry signal.

## reset

stereo helper's panic button resets each control to its default value.

# final words

## acknowledgements

stereo helper has been implemented as an iplug using the wonderful wdl-ol framework (<https://github.com/olilarkin/wdl-ol>).

## contact

for more music, sound and audio go this way: <http://pressplay-music.com/>

you can send feedback to [pplugs@pressplay-music.com](mailto:pplugs@pressplay-music.com). i'd love to hear from you! but note that i'm a one-man-show and coding is not my main concern. so don't expect miracles :)