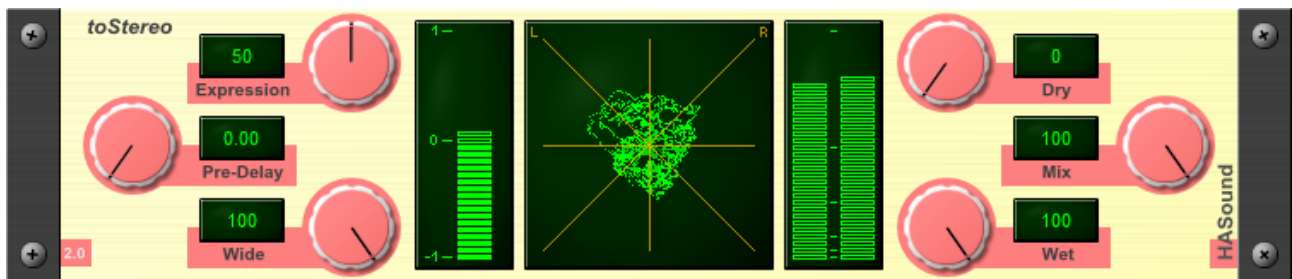


HASound toStereo

Pseudostereo

User manual



HASound

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Chapter 1 - Introduction

1.1 Welcome

Thank you for choosing HASound audio software. Please read this user manual before you start using our signal processor.

If after reading you still have questions, you can always ask for help at:
support@hasound.com

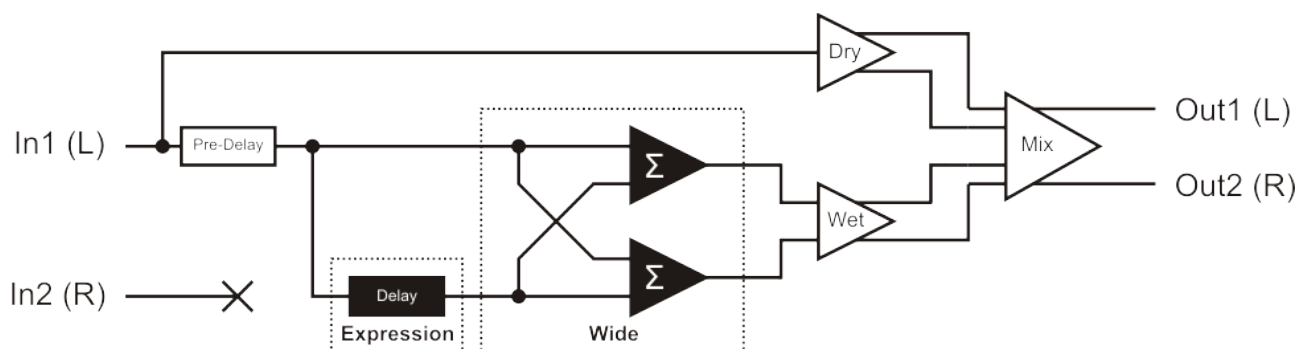
We also recommend to follow the HASound news and software updates using our RSS feed:

<http://www.hasound.com/rssfeed.php>

1.2 Product Overview

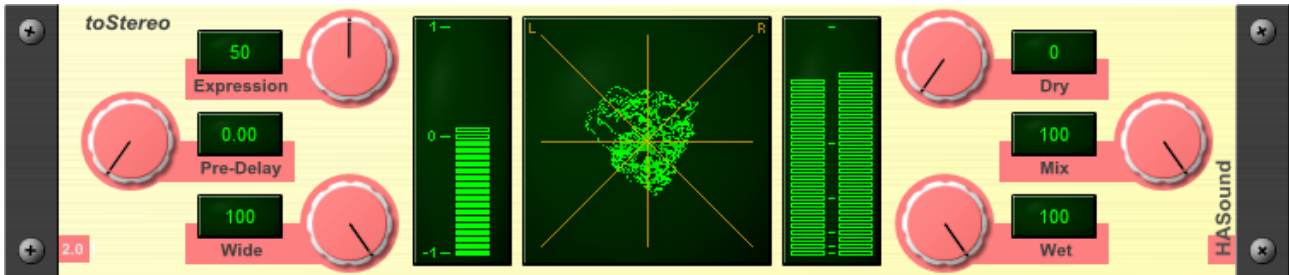
HASound toStereo is a simple mono to stereo audio signal converter. It helping you to breathe new life into your digital audios mono, flat and dull. You can fine-tune the stereo width.

toStereo Signal circuit:



Chapter 2 - Interface and Controls

2.1 Controllers



Pre-Delay controls delay of input signal in range 0 ms..1 ms.

Expression - Stereo achieved timeshift copy of the signal. The *Expression* parameter determines the amount of timeshift in range 0 ms..100 ms.

Wide knob can be used to compensate for the L/R imbalance. When *Wide* parameter is set to 0, the sum of the left and right channels into each output channel. When this parameter is set to 50, the first output channel contains the sum of the left channel and 50% right channel. Respectively the second output channel contains the sum of the right channel and 50% left channel. Well, if this parameter is set to 100, the first/second output channel contains left/right channel only.

Dry, Wet and Mix is a components of the output mixer.

2.2 Meters



The phase correlator indicates the phase relationship between channels in a stereo pair. The calculation of the correlation function gives a result in the range -1 .. 1.

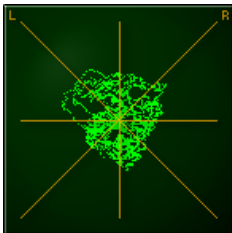
1 - L/R signals are identical (good mono)

0 - L/R signals are uncorrelated (good stereo)

-1 - L signal is the same as the right, but with an inverse phase

For well balanced stereo (mono compatibility) readings must be in range 1 .. 0

Vectorscope is used to measure the difference between channels of stereo audio signals. It indicates the phase and amplitude relationship between channels in a stereo pair.



A **vertical line** indicates a perfect mono signal (the left and right channels are the same).

A **horizontal line** indicates that the left channel is the same as the right, but with an inverse phase.

A **random but fairly round shape** indicates a well balanced stereo signal.



Is a simple PPM meter (peak programme meter).