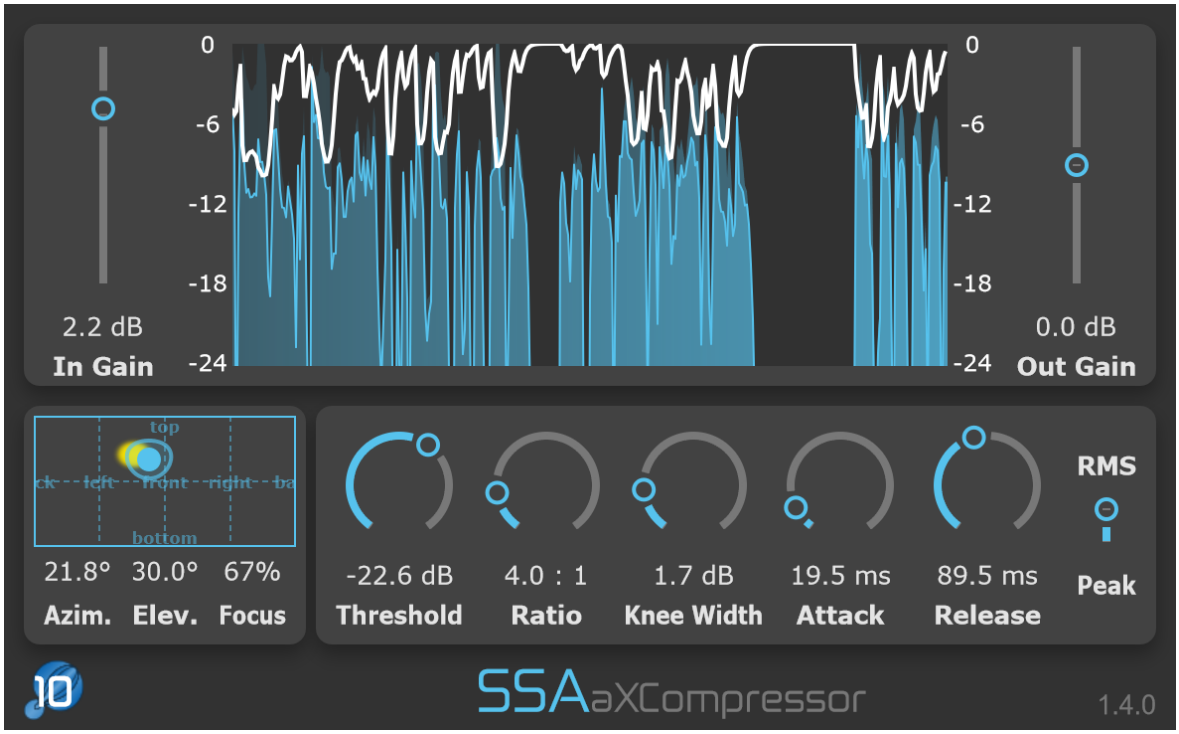
aXCompressor

a1Compressor/a3Compressor/aXCompressor

Ambisonic compression plugin

v. 1.4.0

User Manual



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Requirements

To use the **aXCompressor** you must have a program or DAW capable of handling plugins with the required number of audio channels without applying any additional processing.

Installation

1. Download the .zip file from your account on https://www.ssa-plugins.com
2. Unzip the folder and run the installer to place the contents in the default VST3/AU/AAX folder on your computer.
3. Open your DAW and rescan for new plugins
4. Add the plugin to a new track that can handle multichannel audio. For example, in Pro Tools | Ultimate this will require you to create an Ambisonic track/buss.
5. If required, make sure your computer is connected to the internet, enter the serial number emailed to you to activate the plugin.

To uninstall simply delete the plugin files from your computer. On Windows you can uninstall from Add/Remove Programs.

Plugin Summary

The **aXCompressor** is a compressor that can be used on any AmbiX-format (SN3D/ACN) Ambisonic signal.

The compression is applied to the full Ambisonic scene. The gain reduction applied is driven by a virtual microphone that be pointed in any direction and with variable focus. The focus can go from omnidirectional to higher-order cardioid directivity (depending on the order of the signal).

Parameters

The **aXCompressor** has the following parameters:

- **In Gain**: Adjust the gain of the input signal.
- **Azimuth**: The azimuthal direction you want the virtual microphone to point. Positive angles are in an anti-clockwise direction, meaning +90 degrees is to the left and -90 degrees is to the right.
- **Elevation**: The elevation angle of the virtual microphone to be pointer. Zero is on the horizontal, +90 degrees is directly up and -90 degrees is directly down.
- **Focus**: The focus controls the directivity of the virtual microphone that is used to drive the de-esser. A focus of 0% leads omnidirectional directivity, meaning all audio in the sound field is used to drive the de-esser. Increasing the focus increases the rejection of sounds away from the direction the virtual microphone is pointed. The maximum narrowness of the 100% focus is dependent on the order at which the plugin is operating (shown in the bottom left corner). First-order allows up to cardioid directivity. Higher orders allow for narrower directivity and better rejection of sound sources away from the virtual microphone direction.
    - **Note that the maximum directivity depends on the order of the incoming signal, not the maximum order of the plugin**. A first-order Ambisonic input signal will have a maximum of first-order directivity/focus, even if the plugin is capable of third or tenth order.
- **Threshold**: Set the level threshold at which the compressor begins to act.

- **Ratio**: Adjust how much compression is applied to signals above the threshold. A ratio of 1 means no compression while higher ratios lead to stronger compression.
- **Knee Width**: Adjust how wide the knee is for the compression curve. Larger values lead to longer transitions between the uncompressed and compressed functions.
- **Attack**: The time in milliseconds (ms) for the compressor to become fully effect once a signal goes above the threshold.
- **Release**: The time in milliseconds (ms) for the compressor to fully switch off once a signal goes below the threshold.
- **Level Detection**: Selects whether the average or peak signal levels are used to trigger the compressor.
- **Out Gain**: Adjust the gain of the output signal after processing.

Usage Notes

The azimuth, elevation and focus can be controlled either by entering values in the corresponding text boxes or by dragging on the sound-field display. Use ctrl + drag up/down to modify the focus with your mouse.

Automatic Order Detection - The **aXCompressor** automatically selects order to match that of the input signal by estimating the signal order. This helps to keep the CPU use as low as possible while allowing the encoding order to be changed earlier in the signal chain without having to change parameters on the **aXCompressor**.

The displayed range of the gain reduction can be adjusted by right-clicking on the display area and selecting from the dropdown menu.

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