Haaze II

Stereo tool

Welcome!

This is the user manual for **Haaze**, a stereo widening audio plug-in effect available for iPad (AUv3) and Mac & Windows (AU/VST/AAX). It has been designed and developed by Klevgrand, a small studio in Stockholm, Sweden.

[Get the iOS version at the App Store](#)

[Get the AU / VST / AAX version at klevgrand.se](#)

LICENSING (DESKTOP ONLY)

Until unlocked, the plug-in will output 1 second of silence now and then. To unlock the full version, click the Demo label (bottom left corner) and type/paste your license key.

Basic concepts

Haaze is a 16 band stereo widening tool for controlling stereo width and spatially positioning an audio stream. It can utilize three different methods:

Haas
Adds a small delay to the left or right audio channel which will make the listener believe the sound arrives from the side that's reaching the ear first.

Pan
Alters the gain level on one of the audio channels. All 16 bands can be panned separately, so this method is quite similar to the common "split eq" function in various equalizers.

MS Stereo
Controls the output stereo width on each band, from full stereo to mono.
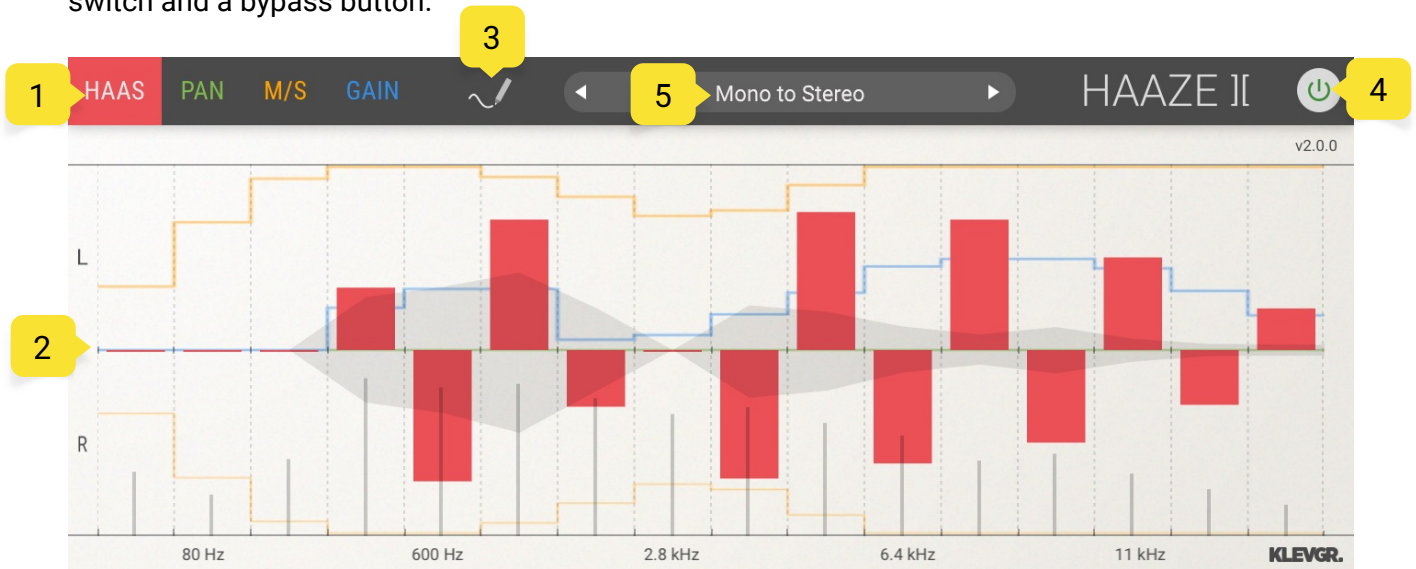
There's also a view for controlling the output gain of all bands separately.

INTERNAL PROCESSING ORDER

Input audio (mono/stereo) → HAAS → PAN → MS STEREO → GAIN → Output audio (stereo)

User Interface

The plugin UI consists of four tabs (buttons and tab view), a factory preset menu, an edit mode switch and a bypass button.

1. TAB BUTTONS (HAAS, PAN, M/S, GAIN)

Click the tab button to make one of the tabs show up.

2. THE TAB VIEWS

All tab views consist of 16 sliders. All of these sliders controls the 16 different bands. Depending on what tab is selected, different parameters are controlled.

When playing audio, there's two types of indicators. The bars (vu meters) shows each band's level, and the waveform reflects stereo width over the frequency spectrum.

Haas tab
This view controls the delay times on the left or right channel (depending on the direction of each slider). The times ranges from 0 to 40 ms. If a slider value is set above the middle line, the sound will perceived as if it comes from the left side (the right channel will be delayed by the amount indicated), if value is set below the middle line, the left channel will be delayed.

Pan tab
Pans each band to the left or right. If a slider value is set above the middle line, the signal will be panned to the left, and if it's set below it will be panned to the right.

M/S tab
Controls the final stereo width. A max (100% value) doesn't change the audio stream. A lower value will decrease the sides volume (0% will output a mono stream).

Gain tab
Sets the gain level on each band. Ranges from +10 dB to total silence where 0dB is in the middle of the view.

3. DRAW MODE

When selected the sliders can be changed continuously. When unselected, a pressed tab will remain changing even if the pointer is outside the area.

Hold the Shift key to reset a slider to its default value. (Desktop only)

4. BYPASS

Toggles Haaze on and off.

5. FACTORY PRESETS

Click to reveal a list of categorized factory presets. Click a preset to select it.

Specifications / System requirements

Mac	Windows	iOS
64 bit AU/VST/AAX plug-in	64 bit VST/AAX plug-in	AUv3 plug-in
macOS 10.9+ OpenGL	Windows 7+ with SP1 or higher	iPad Air 2 or better iOS 9.1+

KLEVGR.