KAZROG

KClip
User Manual

KAZROG

KClip
Version 1.0.1

Shane McFee: Plugin Design, DSP Coding, GUI & Feature Design, R&D
Amanda McFee: Marketing & Support
Michael Spreitzer: QA Testing

Special thanks to: Ronnie Björnström, JJ Blair, Ola Englund, Ross Hogarth, Martin Koran, James Murphy, Fabian Prezja, Lucian Tu, and the beta team.

Contents

Introduction

Thank you for purchasing or trying out KClip. Our goal with this plugin is to create the ultimate mastering loudness maximization / clipper plugin in existence - with the intention of rivaling the common practice of clipping expensive analog to digital converter hardware in mastering studios.

If you feel there is anything we can do to make KClip even better, let us know at www.kazrog.com.

Requirements - Mac

- Intel-based Mac (Intel Core 2 Duo or faster recommended)
- Mac OS X 10.6 or higher
- Computer Audio Interface
- A DAW host application capable of running VST, AU, or AAX plugins.

Requirements - Windows

- Dual core or faster CPU from Intel or AMD
- Windows 7 or higher recommended
- Computer Audio Interface
- A DAW host application capable of running VST or AAX plugins.

Installation - Mac

Run the installer, and enter your admin password when prompted. If you are not an admin, you can still install the plugin to your user home folder. Optionally, run the factory presets installer.

Installation - Windows

VST: Check whether your DAW software is running in 32 or 64 bit mode, then download and run the matching installer for your DAW's bit mode. VST plugins may be located in a variety of different places on your hard drive, so choose the location that is right for your primary DAW.

AAX: The installer will automatically install both the 32 and 64 bit AAX versions of the plugin into the appropriate folder paths for Pro Tools 10.3.7 or higher.

User Interface (left to right)

1 - Gain knob
Adjusts the amount of gain boost (or reduction) to be applied to the incoming signal prior to clipping.

2 - Soften knob
Adjusts the percentage of the softness of the clipping curve. Set to 0%, it is hard clipping only. Set to 100%, it is soft clipping only. In between values adjust the amount of soft clipping that occurs prior to the hard edge. *See the diagram on page X to get a visual idea of what happens to a waveform during hard vs soft clipping.*

3 - Quality knob
Adjusts the amount of oversampling (0x = no oversampling, 8x = 8 times oversampling, 16x = 16 times oversampling.) This is set to 16x by default, for the best quality with the lowest aliasing noise.

4 - Output knob
Use this knob to adjust the output level of the final signal (set to -0.3 dB by default.) You may notice that as you turn up the input gain [1] that you may go into the red on your master bus. If you've used other clipper/maximizer plugins in the past, this behavior may seem confusing. However, this is what happens when an extremely effective, mastering grade oversampling algorithm is employed in a clipper: once your signal is clipped in the oversampled domain and brought back into your session sample rate, you're left with peaks that go over, known as intersample peaks or ISP. It's very important that you turn this knob down until you have little or no overages, before employing the next control, known as the Guard switch [5.]

5 - Guard switch / Ceiling knob
After the Output knob in the signal chain, the guard switch (when enabled) applies a final stage of 100% hard clipping at the session sample rate with no oversampling, in order to catch any level overages that occur. This is common practice in other clipping plugins, however most lack the option to disable this feature, or to adjust the amount of gain going into it (as you can in KClip via the Output knob [4].) Once you have a good level set and you've enabled the guard, the Ceiling knob activates for adjustment of the final output level of the plugin post-Guard. This ensures that your master can **never** exceed the dB level of the Ceiling.
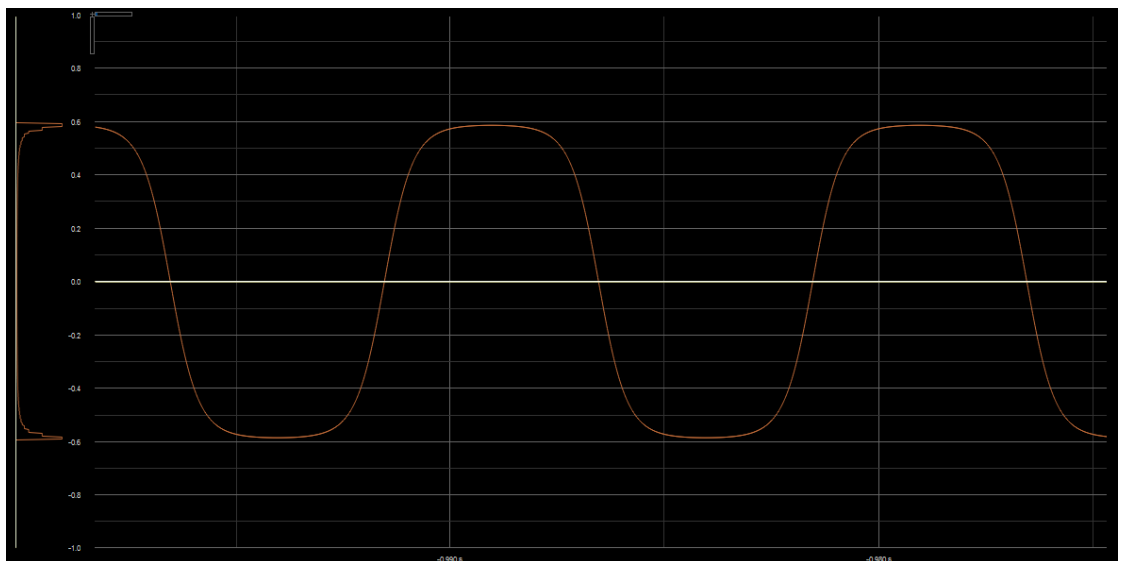
100 Hz Sine wave
Unprocessed
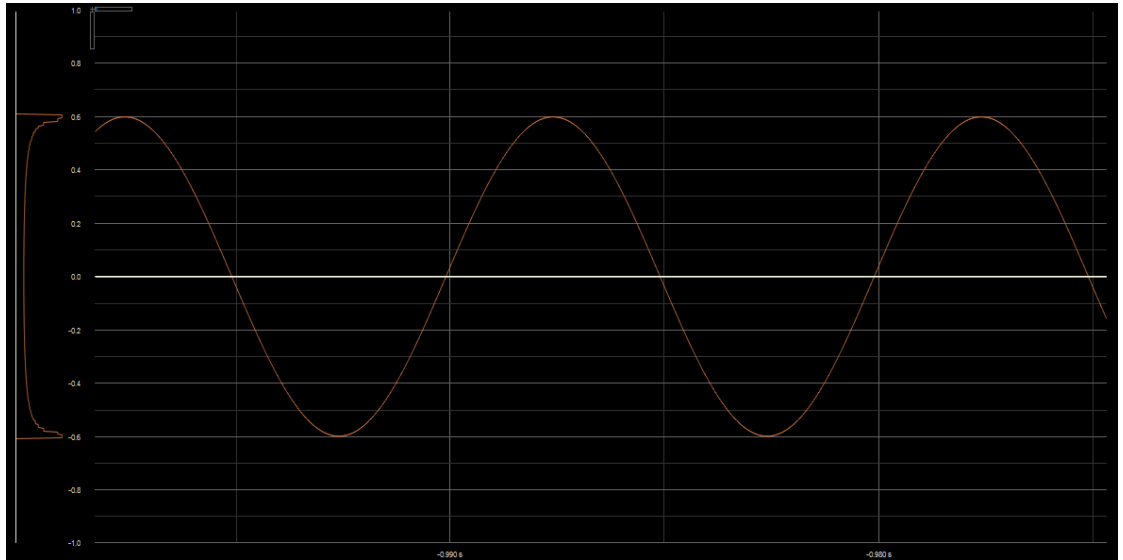
100 Hz Sine wave
KClip Gain +12dB
KClip Softness 0%
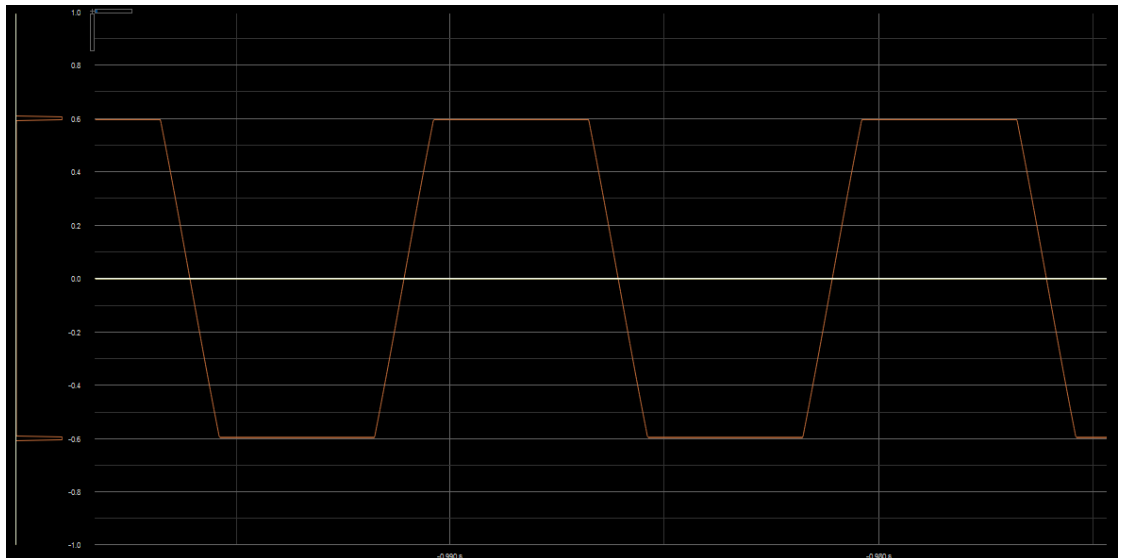
100 Hz Sine wave
KClip Gain +12dB
KClip Softness 100%

*Oscilloscope pictures
created using BlueCat
Oscilloscope Multi.