4k-Crush Nebula Compressor

General Info

These programs are based on a pair of compressors which are essentially remakes (made by the same company) of the channel compressors found in the famous 4k mixing desks. Two units were sampled, in a stereo setup. Hard and soft knee modes were both captured and recreated for use with Nebula. The hard knee can be used as a limiter. There's also a special bonus 'variable knee' set of programs that allow you to transition between soft and hard knees (not possible with the hardware). As usual with my compressors, the attack and release were recreated as closely as possible, with the time settings then being extended beyond what the hardware allows.

Great for adding its own very particular crunch to kicks and snares and just about anything else! Up to well over 30dB of compression is possible with the hard knee mode, and around 28dB with the soft knee, but these are extremes that you'd normally never reach. There's also a 'pass-through' program that works like the typical Nebula preamp style programs, useful for getting some tone of the hardware without any compression. Lastly, there are skins for both Nebula 3 and 4, which allow you to switch between the various programs by clicking a button, which is very cool and handy (especially for switching between lite, full, and SHQ modes for rendering).

Installation

Just copy the .n2p files to your Nebula 'Programs' folder, and the .n2v files to the 'Vectors' folder. Be sure to install the correct set of programs, depending on whether you use N3 or N4, and are installing the skins or not. See the skin install guide contained in the skins .zip for info on how to install them.

Nebula Category Locations

This doesn't matter if you're using the 4k-Crush skins, as you should be, but if you use default nebula to load the programs, the compressors are found in the 'COM' category in Nebula, then in the 'CC4', 'CC5', 'CC8', and 'CC9' sub-categories, for the 44.1khz, 48khz, 88.2khz, and 96khz sets respectively. CC stands for 'Cupwise Compressors'. The pass-through programs are placed in the 'PRE', then 'CW4', 'CW5', 'CW8', and 'CW9' categories. I've been placing the pass-through programs from all of my libraries there, so that anyone who has several of my libraries will accumulate a nice collection of preamp style pass-through programs, all in the same place.

Lite, Standard, Full Harmonics, and SHQ

This time around there are 4 different quality options. All are perfectly safe to render with, but here are the differences:

- **Lite-** Uses much less CPU than the other options, due to having no harmonics and shortened impulse lengths. It's really good for using in your mix until you're ready to render, but you actually can render with this if you want the cleanest compression.
- **Standard-** Adds a couple orders of harmonic distortion. It uses more CPU than lite.
- **Full Harmonics-** This version has 6 orders of harmonic distortion, and can give you a more rich or 'saturated' sound if you have a higher input level (going over -18dBFS) and lots of compression (10dB or more). It uses more CPU than standard, but not nearly as much as SHQ, so you may or may not be able to run these versions live depending on your CPU. If you can't run them live, you should still be able to switch to them for rendering and they won't take nearly as long to render as SHQ.
- **SHQ-** For rendering only. Do not attempt to run these live while mixing. Has full harmonics, and also full lengths for all kerns. The difference is subtle to my ears and more noticeable with bassy inputs where you may hear a little more harmonic excitement with SHQ vs full harmonic programs. SHQ also provides the most accurate bass frequency response. Standard and Full Harmonic programs are just fine for rendering, so it's really up to you to decide if you like SHQ and want to use it. If you have the extra time to spare and want to render with them, go for it.

Controls

Attack- Variable from .2 to 250ms. The higher, slower settings are well beyond the max timings allowed with the hardware.

Release- Variable from .05 to 2 seconds. Settings below .1 seconds are faster than what is allowed by the hardware compressor.

Input- The input control can be useful for dialing in how much harmonic saturation you want, when using the Full Harmonics programs.

Thresh- Threshold control.

Ratio- Sets the compression ratio, from 1:1 to 10:1. The 10:1 setting allows for the hard knee to be used as a limiter.

Knee- Only found in the 'Variable Knee' programs. It transitions between soft and hard knees. At 0% you get full soft knee, at 100% you get full hard knee.

Ahead- It allows you to add a look-ahead of up to 1.5ms.

Hi-Pass- A high pass filter on the internal side-chain used for the detection.

MakeUp- Allows up to 25dB of gain after compression.

Wet- This is a typical Dry/Wet mixer control. The value is the % of wetness.

Trim- This is an input drive control only found in the pass-through program, which compensates with the opposite amount of output adjustment. For example, if you boost input by 6dB, the output is lowered by 6dB. This helps keep a somewhat steady level, allowing you to more easily hear the difference in effect you get by having different input drive levels.

Dist- Only in the pass-through program. Directly adjusts the level of the harmonics that the program creates.

General Usage Tips/Ideas:

- Don't forget about the 'wet' control. Try settings that squash the input as much as possible, with fastest attack and fast release times, adjust makeup gain to bring the level up to match the input as close as possible, then adjust the wet control downward to bring back in some dry signal. With some inputs this can provide a really nice effect.
- My favorite results with bass drums usually seem to come from mid-way positions on the 'knee' control, using the variable knee programs. This provides a blend of both hard and soft knees, which isn't possible with the hardware.
- **For the best results similar to the typical results you'd get when using the real hardware, you should try to aim for having your input signal at around -18dBFS RMS,** with peaks that can go above that, but you don't want anything getting very close to 0dB unless you actually want noticeable distortion.
- The saturated results you can get don't work well with every type of input, but you should use the 'full harmonics' programs if you actually are going for an intentional saturation heavy result. It can work ok with some things, usually sustained sounds without sharp transients, and a very narrow dynamic range already.