THE Drum Compressor For Nebula Pro

Library Creator: Michael Angel, www.CDSoundmaster.com

Manual Index

Installation

For PC Users:

Use the included installer to select your NebulaTempRepository Folder to install the collection there. Or, you can simply copy all "n2p" files to your Nebula "Programs" folder and copy all "n2v" files to your "Vectors" folder.

For Mac Users:

Copy all "n2p" files to your Nebula "Programs" folder and copy all "n2v" files to your "Vectors" folder.

The Programs

"THE Drum Compressor For Nebula Pro" consists of a giant collection of over 800 programs: all sampled at 96kHz and tested to retain accuracy at 44.1kHz and 48kHz sample rates with the latest version of Nebula3 Pro.

You must be using an updated version of Nebula Pro Commercial for this collection.

Program Description:

"THE Drum Compressor For Nebula Pro" is installed to the "TDC" main category, which stands for "THE Drum compressor". Under this category, there is a sub-category that separates the drum compression programs by the instrument they are designated for:
SNR for Snare
KIK for Kick
RM for Rooms
TOM for Tom Toms
OH for Overheads
CYM for Cymbals
BUS for the Drum Bus
ALL/FAV is a small fun category of a few 'favorite' programs I created with some light-hearted names for your enjoyment!

Each of these sub-categories are used to select the program group that corresponds to the drum being processed.
So, logically, you can choose a Snare compressor program for your snare drum track. Load programs until you find the one that works best for your track. Repeat the same process for your kick, overheads, etc, and send them all to a bus group with a drum bus compressor!

The final sub-category defines the precise type of compression type to be used.
These are categorized by the following abbreviations:
TB = Tube
These are tube compressor programs that are separated into groups based upon the type of tube compressor being used, the division of processes, or naming based on the type of compression character. For instance,
"TB1" may include a group of snare tube compressors that are all the same voicing from the same tube compressor.
"TB2" may be a grouping of compressors that are named "smack" for the type of setting generated by the sound.
"TB3" might be a group of the instrument's tube opto limiter programs, etc.
In the case that there is a higher number than "9", then the TB number becomes "T10", "T11", etc.

In your main Nebula program window, when a program is loaded, you will see the title of the program in large letters. Beneath this, you will see "DSC" which is the program's description. This will describe a combination of the explanation of the program's title, the timing attributes (attack and release miliseconds), or both elements if they exist.

"FET" describes FET-Based compressor programs. If there are separate designations, there can be "FT1" meaning FET Group 1, and there can also be something like "FSC" which stands for "FET With Side Chain".

"VCA" stands for VCA compressors.

Programs labeled "PRL" are parallel compressor programs. These are special programs that have been edited to provide an extremely high quality response by combining some element of the original signal with the compressed signal. This can allow for more extreme compression settings to be blended in at a mix position that is suitable to provide deep compression while providing some of the original signal, thus sounding full and intense while retaining some of the natural sound of the original track. for some programs, the 'parallel' programs are used to make a cleaner compression effect while still controlling a lot of dynamics, and for others it is an opportunity to maintain the sound character of a particular compressor while mixing in a quality that could not occur in the original hardware. Very Cool!!! :-)

"CLN" programs are a selection of some favorite programs within the instrument group that are edited to remove the harmonic distortion character. This is useful if you want the sound of the compression without adding harmonics, and/or if you want to compress while using less cpu. This can be useful if your drum is driving more distortion than desired especially if the drum is a sample that has been previously processed before compressing.

"TSC" stands for Tube Side Chain
Any program that ends in "SC" stands for Side Chain.
For this collection, the side chain filter acts as a special filter that selects a frequency by which all frequencies will be adjusted. In this case, all frequencies above the selected frequency of the program will 'pass' through without being processed by the filter. This is a high pass filter. But, this does not remove these frequencies from your audio. Rather, these frequencies are removed from the compression process but remain in the original audio. Therefore, the compression in these programs will only respond to the frequencies that 'pass' through the compressor. This allows the character of the compressor to shape sound differently, usually in a more linear and polished manner, usually with less interesting side effects, meaning that a compressor that would normally be pumping and breathing, or sounding like "SMACK!" or "BLAM!" may sound more controlled and focused but still powerful.

The Snare programs are named by the timing designation of the program originally sampled. Since many engineers are accustomed to setting controls for snare compression based on attack and release time, we chose this designation specifically for snares. These programs will always be accompanied by a description.
For instance:
DC-1-20-50 is a Tube Drum Compressor with 20ms Attack and 50MS Release.
Snare category "FT1" will be a group of Snare FET Compressors. One of these programs may be named "DCF" for "Drum Compressor FET". After a few sessions of setup, you should find the process easy to select favorite programs. We highly recommend you taking the time to get to know the range of character in this collection.

About "THE Drum Compressor For Nebula Pro"

"THE Drum Compressor For Nebula Pro" This Groundbreaking Milestone is CDSoundMaster's answer to the need for real, analog hardware compression.. It requires the lastest version of NebulaPro and is optimized to run in the "Reverb" version of NebulaPro. It has been sampled at 96kHz and will convert to any rate directly within the NebulaPro engine. When used at 96kHz, it uses the maximum sample size and length, and because it is sampled at this rate, loads very quickly and takes the largest amount of computer resources (unless using a higher rate than 96kHz). If used at 48kHz or 44.1kHz, the programs will take a little longer to load, but once loaded, use a smaller amount of computer resources. In fact, at lower rates the programs use the same resources as they would if sampled directly at the same lower rates. All programs have been tested for these three rates and remain extremely accurate.

"THE Drum Compressor For Nebula Pro" consists of a giant collection of over 800 programs: all sampled at 96kHz and tested to retain accuracy at 44.1kHz and 48kHz sample rates with the latest version of Nebula3 Pro.

With "THE Drum Compressor", you get:
True analog hardware
Real VCA's
Real Opto-Cell Tube Compression
Real Opto-Cell Tube Limiting
Real Tube Compressors in multiple modes and multiple sonic characteristics
Real FET Compression
The Sound of Op-Amps, Transformers, Tubes, VCA's, harmonic drive and spectral revoicing.
Hundreds of meticulously edited programs created for ideal settings for
Snare, Kick, Toms, Overheads, Cymbals, Rooms, and even the Drum Bus!
'New York Style' "PRL" Parallel compression
Various Mix/Blend dry/wet "PRL" settings
Side Chain filtering of high pass for different character, from big and responsive to loud and gripping.
All of the sounds you want from a drum compressor, from fast, punchy console bus compression and classic vca's, to colored warm circuits and fuzzy drive.
Drum programs that glue the bus together, 'smack', 'pump', 'breath', add 'punch', tighten and articulate, and bring focus to the drum bus.
Harmonic Distortion, and clean 'favorite' programs.
Wet/Dry "Mix" programs for incredible diversity and complex results.
Low EQ Side Chain Filtering to reduce pumping and breathing on specialized programs.
Program presets edited from the input, output, drive, threshold, ratio, release, attack, program rate response, look-ahead, and more!
Program parameters are adjustable for maximum flexibility, ease-of-use, and fine-tune control.

All of the programs in this collection are edited to get the maximum amount of compression character at -1dB. You can use them at any volume that is lower than -1dB. The lower your file's peak level is set, the less compression will occur.
With a traditional compressor, the threshold determines the volume at which compression begins. In Nebula, this value is actually partially determined by the actual amount of compressing that happens, so it is partly combined with the ratio factor as well.
So, for the sake of this collection, you should consider the amount of compression based on the loudest peak level. If you are familiar with how you set your rms levels then you will be familiar with your average peaks or peak hold as well. I have also provided the free "LEVEL" utility set for loading level dB adjustment for long signal chains.

The attack and release time of the programs are contained in the program description. Disregard the fader label "attack/Release" labels. The "attack" and "release" faders do not adjust anything. This is set up in each individual program.

All programs have been edited for the specific sonic character the program represents. These have been tested extensively with a range of different drums over many weeks, so that you can load them until you choose the sound desired. But, if you wish to change parameters, you can edit whatever you wish for any program! Every program has a targeted attack and release, but allows for changes to be made to threshold depth, ratio, make-up gain, and harmonic distortion drive. You may find that only small changes to presets are best.

We highly recommend you experiment with placing a snare program on your snare track, a kick program on your kick track, overheads, room, etc., and send these to a bus group to blend together with a Drum bus program on the group bus.

We will cover all details about compressors, inside Nebula Pro compression, specific settings for "THE Drum Compressor", recommended use, and more, in the manual.

Over the past couple of years, Acustica Audio has developed a more robust sound engine to support more comprehensive technology for compression. We have been honored to be a part of initial and ongoing beta testing of the program dependent character of the engine, along with the envelope follower, and other processes that exist under the hood. The result of today's VVKT Nebula Pro engine is an excellent sounding program for compression, still with some limitations, but with a wonderful feature-set.

The Nebula Pro Plug-In is one of the most significant audio technologies of our time. Nebula Pro's strong points easily outperform some of the most impressive audio software available. It emulates the natural big sound of analog eq, tape machines, tubes, consoles, and other complex analog hardware with amazing accuracy. It also has been capable of producing excellent results with compression for many years. There have been some limitations, though.

After many months of additional rigorous testing, we found that there are specific strengths of the engine to focus on and others to avoid. Since Nebula Pro is capable of such an absolute, accurate emulation of high end complex analog eq's and other devices, our goal with any new release, especially one of a new format, is to ensure that it is held to the same high standard.

For this reason, we have decided not release compressor program libraries for Nebula Pro that focus on a specific, individual hardware device. This has been challenging to avoid, as there has been a very strong call for specific devices that we have available to us. We will cover this much more in-depth in the final manual for this release.

We have decided, instead, to present you with something that we believe is even more exciting; compression based upon specific function and for specific instruments. This first release in our series of instrument compressors is "THE Drum Compressor", CDSoundMaster's definition of what the absolute ideal drum compressor should contain.

Instead of providing an emulation of a single device that has limitations and certain aspects that cannot be properly replicated, we are providing a collection of several compression technologies in a single massive collection, all focusing on the challenging task of remarkably analog-sounding drum compression. "THE Drum Compressor" only contains the character and aspects that Nebula Pro can deliver, while fine-tuning settings to create our original unique compression style.

Imagine the ultimate drum compressor that can deliver the absolute sound of VCA comps, Opto-Comps and Limiters, Tubes, Hybrid designs, harmonic drive, revoicing and re-tuned, all with presets that are targeted to exacting detail. Imagine that all obstacles to the sonic excellence are tested, filtered through, and eliminated. Imagine no more... "THE Drum Compressor" is finally here!

The emphasis of this collection is to deliver our representation of true analog processes as we perceive them, ideal to drum processing, giving the user the sound of actual VCA circuitry, real analog Tube compression, hybrid Tube/Solid State compression, Tube Opto-cell compression, Tube Opto-cell limiting, and FET-based compression. All programs in this collection are created from real analog hardware, edited with deep, extensive processing within the Nebula engine. Every individual program is the result of hundreds of samples, each one tuned, tested, and sampled over and over again, until the perfect characteristics of each setting were reached.

We believe that this collection crosses the barrier for truly amazing analog compression.

A few words about compression

Compression describes the audio process of reducing the overall level of audio by controlling the range of peaks and average program volume. By reducing the dynamic range of program material, the compressor allows the track to gain a better average level. In the analog days, this was not only useful but vital for many purposes. With the traditional 70's-80's analog studio, tracking to tape meant hitting levels hot enough to be loud enough above the noise floor, but stray peaks could overload the tape gain and lead to unwanted distortion only at bursts of loud signals. The compressor could be used to control these peaks and reduce them to a designated volume, thus allowing the average level of the track to hit the tape harder without going into distortion. In broadcast then and now, compression was used to maintain a consistent level of program signal, as lower levels could be hard to hear on small replay devices and the signal could sound weak if not consistent in average level.

As the type of compressors made become more diversified, more specific purposes were found. While the use was sometimes still meant to be hidden and utilitarian, the compressor had the tendancy to sound different depending on the material used on. So, this became more and more a part of a signature trademark sound of different engineers and producers. In the 'digital age', we have so much technical control over any level we desire, a well-trained engineer should be able to use a decent mic preamp and mic and never have to use a compressor to maintain dynamic control. But, we find that the character of compression has become a sonic signature that we don't want to part with. The different circuitry used gives such a character and richness to the signal path, we don't want to do without it!

Technically, the usual compressor has a set group of controls:
Threshold- the depth of volume that compression takes place. Threshold means at what amount of dB's will the compressor start to activate.
Ratio- what percentage of the signal will be processed with compression. A very low ratio adds only a very small amount of compression to whatever dynamic range of the program material is designated by the threshold. A high ratio will compress very heavily but still only the selected threshold depth of dynamic range.

Attack- the attack defines the speed at which the compressor responds to the first audio to enter the signal path.

Release- the release designates how long the circuit will wait to let go of the compression character defined.

This combination of basic controls makes up the complex interaction of a compressor. A basic software algorithm can put together these variables and make for a very basic sounding reference device. But, it is small subtle variables in the real world interaction of these events that really makes compression unique.

This becomes even more true when translating this interaction int the Nebula engine. There is an interaction between the actual threshold measured and the ratio, and the interaction between attack and release times can have a dramatic effect on all settings in between.

All compressor hardware designs approach this similar process using different techniques. It is this unique interaction of systematic circuit design that leads to such unique character.

About The Hardware

About "THE Drum Compressor" Hardware Devices. "THE Drum Compressor" collection is centered around a collection of vastly different hardware compressors that share one common quality; they are incredible for use with drums! There will be other specific instrument compressors in this series based on other designated instruments in the same manner. Because of the technology used, the deep editing process, and the elimination of certain character artifacts that differ from certain hardware settings, we are happy to share information about the types of devices used and the character of these different amazing hardware devices, but we will not discuss anything about any specific pieces of hardware in this collection. This collection represents our original sonic character, using a combination of the definite sound of certain hardware, combined with editing that makes it possible to fine-tune these traits into the ultimate, more usable, analog-sounding giant that is "THE Drum Compressor" !!! :-)

The VCA behavior designed for this collection is very high-end, and has a boutique quality, while simultaneously containing the definitive snappy, poppy, or more subtle, controlled character. VCA compression has long been chosen specifically for drums. It is a designation that proves that great engineering isn't always about using the rarest or most expensive technology, but much more about the engineering knowledge required to design a great sound. Cheap VCA devices can sound just plain lousy. But, a great VCA compressor, like the personality found here, can tune-in on the tonal quality of the instrument, but when used for anything more than a dB or two, it can always be heard. Once the sound engineer learns the unique sound of vca compression, they can usually pick it out of a crowd.

The Opto-Cell Tube Limiter has a unique, classic, vintage, classy, heavy, thick, richness to its tone. It is not always the right choice for the instrument or song, but when it is the right sound, there is nothing like it. It is sometimes described as a slower sounding compression, although the actual cell selected has some affect on whether that is true or not. In this case, we feel you are gaining the character of the ultimae opto-limiter sound for drums. This was not easy, and required literally hundreds of sampling tests to get the absolute perfect combination of threshold range and ratio. The quality passes through many era's of sonic excellence, and you may find it perfect for a bus on one song, and beautiful for a ride cymbal in another. Treat yourself to some time with this effect, as some qualities aren't as apparent on some drums as they are on others.

The Opto-Cell Tube Compressor shares the same qualities mentioned above, but is very reflective of the program material, and you will hear a very unique sound from the compressor as opposed to the limiter. The same device and signal chain are used for the limiter and the compressor, but they are handled very, very differently and the level-setting, sampling, and editing process are tirelessly programmed for the perfect response as compression rather than limiting. Not to be confused with brickwall limiting, while the tube opto-cell is in limiting mode, it will exhibit one quality on instruments and bus "glue" while the compressor will act as a track compressor and a unique bus effect as well. Again, this is not perfect on everything, but when it is the right choice, nothing in the world sounds better!

The FET-Based Compressor was a challenge to represent in all its glory, but we believe that you will be very pleased with what you can do with your drums with these programs! These tend to be fast, snappy, and responsive. The way I hear these programs would be described as taking the sound of your drum and raising its character up a notch. If the mic is picking up the ring of the head, you can tune-in exactly how the ringing sings along with the track. If you are trying to mic a snare for a strong 'pop' or 'wack' sound, the FET can jump in there and push the fast transients forward. Regardless of the track and the setting, we believe this is one of the world's finest representations of a very generalized FET sound, and you will find that you can return to these FET programs a thousand different times, and always find something new yet reliable to make you smile.

The "TUBE" compressor. Well, this gets into very general territory. There are multiple processes and sampling methods involved here. Tubes can make us think of anything from the slow glue opto-response mentioned above, or can be an aggressive 60's channel drive, or a super hi-fi clean sound. This group includes different types of tube voicing and weighting the response of compressors and limtiers to react to transients, harmonics, and spectral response of drums in unique ways that only the valve process can produce. Some tube devices included and used to drive the signal while compressing, and others are set to grab the brighter 'crack' of the drum while cleaning the return to release mode with a noise-cancelling side chain tube element found only in certan tube devices. Other tube program groups are centered around a tube-solid state hybrid signal chain that uses some solid state fet and vca processing while driving the tube chain into harmonic non-linearity, and others use the tube signal path strictly for ratio and threshold control.

All of these hardware devices are treated with a range of diverse sound never found just in hardware form, by widening their scope of sonic control with mix wet/dry signals, a completely flexible high pass filter for making a less audible side effect personality, and the unique interaction of Nebula programming from fine-tuning the input level as compared to the sample series, as well as overall levels compared to harmonics, and threshold and ratio tirelessly edited to match the most sought after compression responses we want for drums!

I truly hope that this collection adds to your enjoyment of Nebula.

Thanks and God Bless You.
Sincerely,
Michael Angel
CDSoundMaster.com