4KeQ Brown

Noztiluna Ai

MANUAL

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ABOUT ME
AlexB is a one-man company, so:

Hi ! I'm Alex :)

I have been a member of the Acustica Audio community since the 2007, and started Beta-Testing in 2009. I released my first commercial program libraries for Nebula Pro in 2009 because I wasn't satisfied by the sound of the plugins.

What I looked for was a good emulation of the console to improve my music - I have composed a lot of songs for Café del Mar in that years. My first Café del Mar recording was done with a Korg CR-4 only, then the following years I have moved to PC world and Nebula has been found as the plugin of my dreams.
Sincerely at the first test I wasn't satisfied at all by the sound. The libraries was very poorly sampled and the plugin was a little cloudy and flat.
After being in touch with Giancarlo (the genius behind Acustica Audio) and to have said him about my thoughts about what to improve in Nebula, he has promptly given me a new improved release of the plugin. We have continued for the whole afternoon and after some exchanges of test and new releases, finally Nebula became dynamic, open, deep and with life. Thank you Giancarlo !

So, pushed by this experience I've made some of the most highly sought after and rare hardware devices available for use in the digital world while maintaining virtually all of the analog character that makes recording a true art-form. Every sampled hardware piece has been refurbished and modified to improve the sonic characteristics, thanks to my 30+ years of experience in electronics and audio engineering. With hyper-realistic samplings of pristine mastering equalizers, top class consoles, the most sought after compressors, and the rarest vintage devices, I'm proving to the audio community that Acustica Audio sets the standard for the finest sound quality in the digital realm by facilitating a true analog experience with programs that make full use of the VVKT technology.

Please visit the website for more information: www.alexb.eu

Thank you !

AlexB... Audio Renaissance.

NOTICES

Please do not illegally share the program libraries, your financial support allow me to continue in developing. **Be aware: there isn't any authorized reseller of my programs.**

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Thank you

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1. Documentation, Installation and Support

1.1 - Introduction

Thank you for purchasing the AlexB library programs for Nebula.
Now you have one of the best professional high quality audio software. I have spent countless hours to develop these no-compromise programs to give you only the best sound and the most realistic “feel” as possible to the real hardware. I'm confident that this plugin will help you make better and more professional mixes (while enjoying yourself even more)... Because: Sound First !

If you have any trouble with the software please do not hesitate to contact me at:

support@alexb.eu

1.2 - Overview

Despite the digital revolution in the pro audio industry, many of today’s top albums are still mixed on analog consoles and with analog outboard gear. Mixing into an analog desk just sounds better. Everything sits better in the mix, there is more weight to the bottom, and the overall sound is more three dimensional.
Analog devices produce electrical artifacts that affect frequency response, add harmonics, cause signal clipping and increase noise. These artifacts, which audio engineers often consider the character of a particular device, result from a combination of factors such as component grade, technology type (i.e. vacuum tubes, ICs, transistors), power supply specifications, equipment casing and other variables.
Depending on the circuit characteristics, input signal frequency response varies. Some circuits cut frequencies, others boost them. This behaviour is part of the overall device character and should not be confused with user adjustable EQ.
Total harmonic distortion (THD) is based on the levels of the odd and even harmonics of an input signal, usually at a level much lower than the fundamental level. THD balance and decay are circuit dependent, and thus differ from device to device.
Cross-Talk and Noise are two elements which every designer tends to avoid to not affect the audio quality. Since in the analog world they can't be avoided, fortunately in digital domain with Volterra Technology I have reduced the noise at less of -120dBfs and completely avoided Cross-Talk during the sampling.
The result is an optimum full quality sound from a like-new working condition hardware.
I have recreated these non linearity characteristics into these programs by sampling the units in excellent condition. Your tracks will become more alive with the classic vibe of a real hardware and you may notice that your mixes may take on an almost magical quality with punch, glue, and dimension that you didn’t hear with your other algorithmically based plugins.

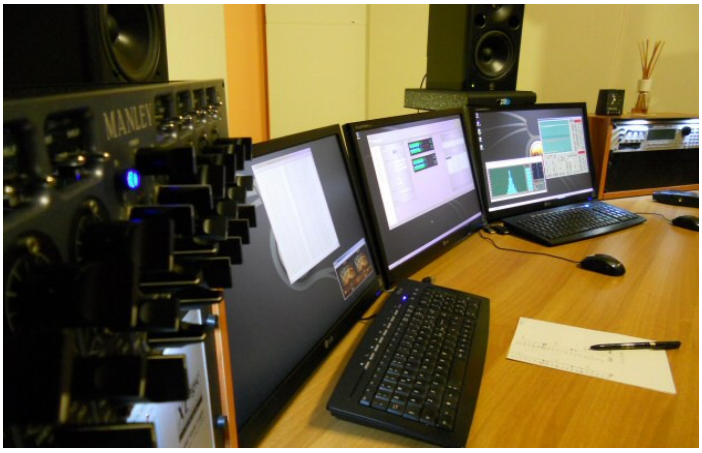
1.3 - Sampling Process

I believe that "Vectorial Volterra Kernels Technology" is the path of the future and will enable analog sound to be implanted into digital DAW environments with real harmonic content and analog vibe. In my creation of these Nebula Programs, I use only top notch modern and vintage gear, precisely sampled by using my own proprietary technique with custom converters I have built specifically for NAT3 which outperforms top notch commercial converters. Ultra filtered and stable AC supply, high end cables, with particular care to the connections, levels and impedance matching were used to translate the sonic qualities of this priceless devices into the Nebula software technology. Every captured sample is analyzed and carefully listened. Every volume change, gain change, frequency change is tested and accurately programmed without destructive digital processing for optimized sound and then compared to the original device. The result is a virtually indistinguishable digital replication of this landmark device.

The hardware is sampled without introduction of noise or aliasing. The thinking behind this process is to provide the full quality of the analog behavior, which means placing all emphasis on quality over cpu resources. The process is extremely efficient and optimized to be used on current computer technology with a forward thinking to the future of more powerful systems, but this will be a more cpu-intensive device than your typical software. Consider the value in having even one instance of the original unit in your hardware rack and choose to see the true value in having the best sound that technology has to offer.

The preset doesn't sound processed, harsh or digital as many plugins do, but instead it sounds like a natural extension of the original audio, gluing your tracks in the mix with an analog vibe.

Some plugins make your recordings sound like digital.
Some plugins are supposed to make your recordings sound like analog.
THIS plugin helps make recordings sound like MUSIC !



1.4 – Noztiluna Ai

Noztiluna AI represents the latest evolution in sampling and programming.
It utilizes a custom-built, proprietary AI-driven converter designed exclusively for high-definition hardware sampling.
Through machine learning, Noztiluna AI helps clean streaming samples and select the optimal filtering steps before the coding conversion process.
Drawing on my 15+ years of experience as a chief technician in electronics and telecommunications – where they used to call me “the doctor” (WHO?!) – I had access to advanced technology and the technical expertise necessary to develop a new sampling and programming method, complete with a custom template and build-up process.

1.5 - System Requirements

- Intel or AMD CPU based PC or MAC computer
- Free space on Hard Disk or better SDD (library size depending)
- Nebula3 v1.3.903 or Nebula4 with installed commercial license
- HD or SDD for Programs Backup

1.6 - Installation and file BACKUP

After downloading, unpack the files and **make a safe backup** of the library. I reccommend to use a Toshiba Canvio 2.5" HD as well to do a regular backup of your system with Acronis True Image.

Copy the files manually, *.N2P into \programs folder and *.N2V into \vectors folder.
Clean the \temp folder in the main root nebulatemprepository.

1.7 - Nebula 4 installation

Skins for Nebula3 and Nebula4 have a cost but they are included in the libraries as **gift**.
The skins are developed to work together with my programs. The use of other unauthorized skins will result in the unavailability of technical support.

Copy the contents of the programs, properties, setups, skins and vectors folders into their respective folders in the main root nebulatemprepository.
Clean the \temp folder in the main root nebulatemprepository.

Run Nebula4 with the original XML configuration and click on “Setups”.
Select the programs you want to create and right click on it to choose between “Rebuild VST2 setups” or “Rebuild VST3 setups” or “Rebuild AAX setups”.
Rescan plugins in your DAW and you are ready to use them.

NOTE: do not change/add/remove anything parameter in the setup.

If you load the preset into Nebula 4 instead of using the setups, you must adjust some parameters in the Settings–Expert page, applying the values listed in the Setups–Tweaks section.

1.8 - Nebula 3 installation

Copy the files manually, *.N2P into \programs folder and *.N2V into \vectors folder.
Clean the \temp folder in the main root nebulatemprepository.

To install the skin

1 - copy the *.N2S file into the root skin folder
2 - run your DAW and open Nebula
3 - go into MAST Page
4 - set the Skin to ALEXB_N3
5 - click on save and reload Nebula

After installation it's recommended to clean the \nebulatemprepository\temp folder.

2. General Use

2.1 - Parameter Settings

Some parameters must to be set into Nebula to work correctly with AlexB Programs.

Nebula3

The best way is to make copy-and-paste of Nebula3.dll and Nebula3.xml (or whatever is the name of your installed Nebula plugin has) then rename both copies as AlexB-N3.dll and AlexB-N3.xml.
Now set the following parameters by editing the AlexB-N3.xml file:

<AHEADLENGTH> 6000 </AHEADLENGTH>
<RATECONVERSION> 4500000 </RATECONVERSION>
<OFREQD> 11 </OFREQD>
<SKINNAME> ALEXB_N3.N2S </SKINNAME>
<DSPBUFFER> 8192 </DSPBUFFER> (optional for better audio quality)

click on save and load the AlexB-N3 in your DAW.

Nebula4

Nebula4 doesn't require any special manual settings as they are already configured in the setups.

2.2 - Off Line Process

f your DAW isn't powerful or you want/need to freeze or export processed audio tracks I strongly recommend the Free NEBULASETUP2 by Zabukowski: http://zabukowski.com/software/

2.3 - Gain Staging

GUI's meters show the value in dBfs.
Take care with gain staging since the programs are close to the hardware, as reference 0dBVU on the hardware corresponds to -18dBFS on your DAW digital meter.
Normally the best sound is achieved with occasional maximum digital peaks to -10dBfs, i.e. kick or snare transients, pluck synth and other hits. On the mixbus the whole mix can hit an occasional maximum digital peaks between -8dBfs and -6dBfs. (imperative!)
When the signal is too high the sound will be congested and saturated/distorted in a bad way, too high peaks (and inter-sample peaks) overload Nebula which plays a BLIP as alert.

I recommend to mix with a good and precise VU Meter like this by Waves:
www.waves.com/plugins/vu-meter

It mimics the way our ears react to sound by giving you a more realistic representation of the way audio level changes are actually perceived.
In this way you can easily check the levels on every single track and for the whole mix by inserting the VUMeter as last instance on the mixbus and by setting the 0dBVU = -18dBfs on it (Headroom).

I suggest to deactivate or remove the VU Plugin when you export the mix to avoid any coloration.
Yes, some plugins color the sound even if they are analyzers and/or bypassed.

NOTE: *a console, limiter, equalizer, tape machine or compressor is not a guitar amp! If you drop the level back to where it would be using the real hardware, libraries can sound huge.*

Useful video about to use the VU Meter and Gain Staging:
www.youtube.com/watch?v=2DVz_T48M-Q
www.youtube.com/watch?v=ECRx4WF3pcc

Great book about audio recording engineering:
https://bobbyowsinski.com/recording-engineers-handbook/

Another great book about music production with my contribution about console:
www.routledge.com/Producing-Music-1st-Edition/Hepworth-Sawyer-Hodgson-Marrington/p/book/9780415789226

2.4 - Common Controls

All programs have some common controls which are detailed below.

Input Gain

The Input Gain control sets the level at the input of the plugin.
The range is from -∞ dB to +6 dB.

Output Gain

The Output Gain control sets the level at the output of the plugin.
The range is from -∞ dB to +6 dB.

Bypass

This switch control sets the plugin operative or bypassed

Meters

Input and Output Meters display the levels at the input and output of the plugin in dBfs.
Compressors and Expander/Gate have a gain reduction meter also.

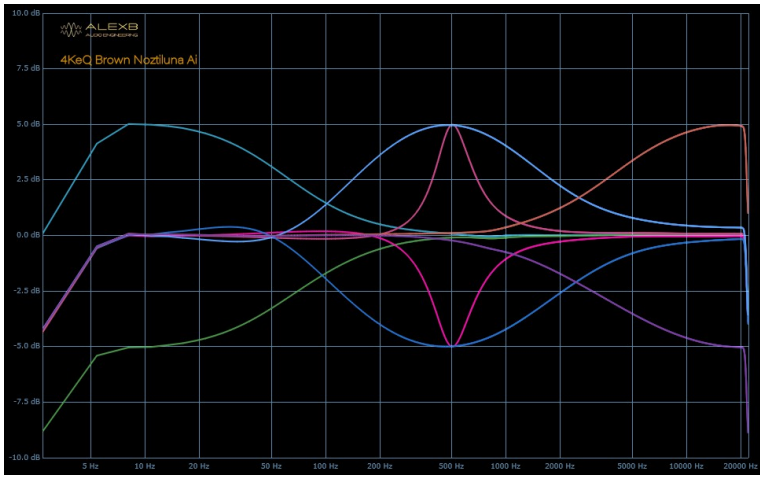
NOTE: *clicking on the controls while pressing "ctrl" on computer keyboard, the control returns to zero.*

3. 4KeQ Brown – Noztiluna Ai

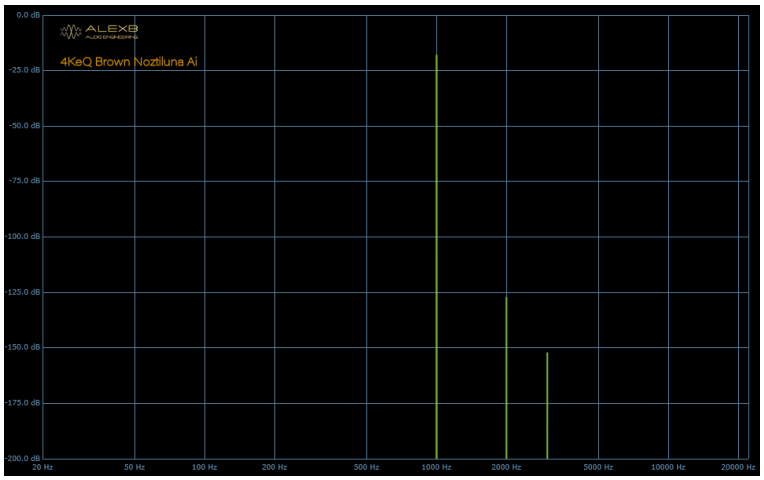
3.1 - About the original hardware

The legendary sonic signature of an early 80 s classic: the punchy Brown "02" was the original eQ fitted to all consoles prior to the summer of 1985, it has a unique character which sculpts the sound perfectly to fit in the mix. Great on Drums, Bass and electric guitars this eQ gives grittier sound when pushed.

The unit has been removed from the console, refurbished and supplied with a very low noise power supply.
Sampled using Noztiluna Ai proprietary technology to avoid any unwanted coloration and preserve the original vintage sound, energy, and punch.



4KeQ Brown-NAi frequency response (@ 0dBVU)



4KeQ Brown-NAi THD (@ 0dBVU)

3.2 - Session Setup

4KeQ Brown reproduces the characteristic sound of Vintage Logic eQualizer, this kind of equalizers are used in countless records in the world. To faithfully reproduce this analog sound in the DAW, we recommend using the 4KeQ Brown in all tracks where you need to shape the sound.

Fine Tuning:

You have to respect the correct gain staging (pag.13)

To emulate the original unit sound you can use one or more presets by setting the “INSTANCES” control in this way (be aware that it works in continuous counterclockwise mode):

The 4KeQ Brown consists of four separate preset, one for each frequency band. The number of instances used depends on how many frequency bands you are processing simultaneously. Here’s how to configure the "instances" for different setups:

Using One Band:

Insert the preset for the desired frequency band.

Set the “Instances” control to 0 for this preset.

Using Two Bands:

Insert the preset for the two desired frequency bands.

Set the “Instances” control to 2 for each preset.

Using Three Bands:

Insert the preset for the three frequency bands.

Set the “Instances” control to 3 for each preset.

Using Four Bands:
Insert all four preset for the frequency bands.
Set the “Instances” control to 4 for each preset.

These configurations ensures that all bands interact correctly, replicating the behavior of the hardware equalizer.

By adjusting the “Instances” control appropriately for the number of bands in use, you ensure that the Presets work together harmoniously, emulating the true functionality of the hardware equalizer.

If you set the INSTANCES control over the 0-4 range values, then the display will show "ERROR".

Filter preset doesn't need “instance” control when stacked with other presets.

ByPass
Click on the AlexB logo to toggle the bypass on and off.

TRICK: Knob fine-tuning is possible with the use of the mouse wheel.
Ultra-fine tuning can be achieved by holding Shift + mouse wheel.

NOTE: Use only the presets you need. Stacking unnecessary presets is the wrong way to emulate the sampled hardware.
Also, don't oversample the program to avoid audio quality loss.
Remember: every digital processing introduces quantization errors/noise, which degrade the sound. A smart use of digital processing keeps the sound alive
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There's lots of magical thinking about digital audio. The only time there isn't any degradation is a file copy. Everything else measurably degrades the audio. So does all analog signal processing only more so. It's always a question of "Is the enhancement from the signal processing worth the degradation?" Too many people only listen for the former while not paying attention to the latter.

There are plenty of "you can't hear it" excuses offered but the truth is that sometimes you can and others you can't depending on the program material. It's also unique to each listener.

(qtd. Bob Olhsson)

3.3 - Program list:
Nebula4 setups:

4K eQ Brown LF
4K eQ Brown 200-2500Hz
4K eQ Brown 600-7000Hz
4K eQ Brown HF
4K eQ Brown Filters

Nebula 3:
The 4KeQ Brown library include the following programs displayed into menu “4K” → “EQ” and subgrouped into 44.1kHz, 48kHz, 88.2kHz and 96kHz.

Brown Low Shelf
Brown Low Bell
Brown 200-2500Hz
Brown 600-7000Hz
Brown High Shelf
Brown High Bell
Brown Filters

Brown Filters:
High Pass Filter from 20 to 350Hz 18dB/oct and Low Pass Filter from 3 to 20kHz 12dB/oct.

Brown Low Shelf/Bell :
Shelf & Bell filters from 30 to 450Hz +/- 15dB variable, bell fixed Q 1.3

Brown 200-2500Hz :
Bell variable from 200Hz to 2500Hz +/-15dB variable, variable Q from 0.5 to 2,5

Brown 600-7000Hz :
Bell variable from 600Hz to 7000Hz +/-15dB variable, variable Q from 0.5 to 2,5

Brown High Shelf/Bell :
Shelf & Bell filters from 1.5k to 16kHz +/- 15dB, bell fixed Q 1.3

END