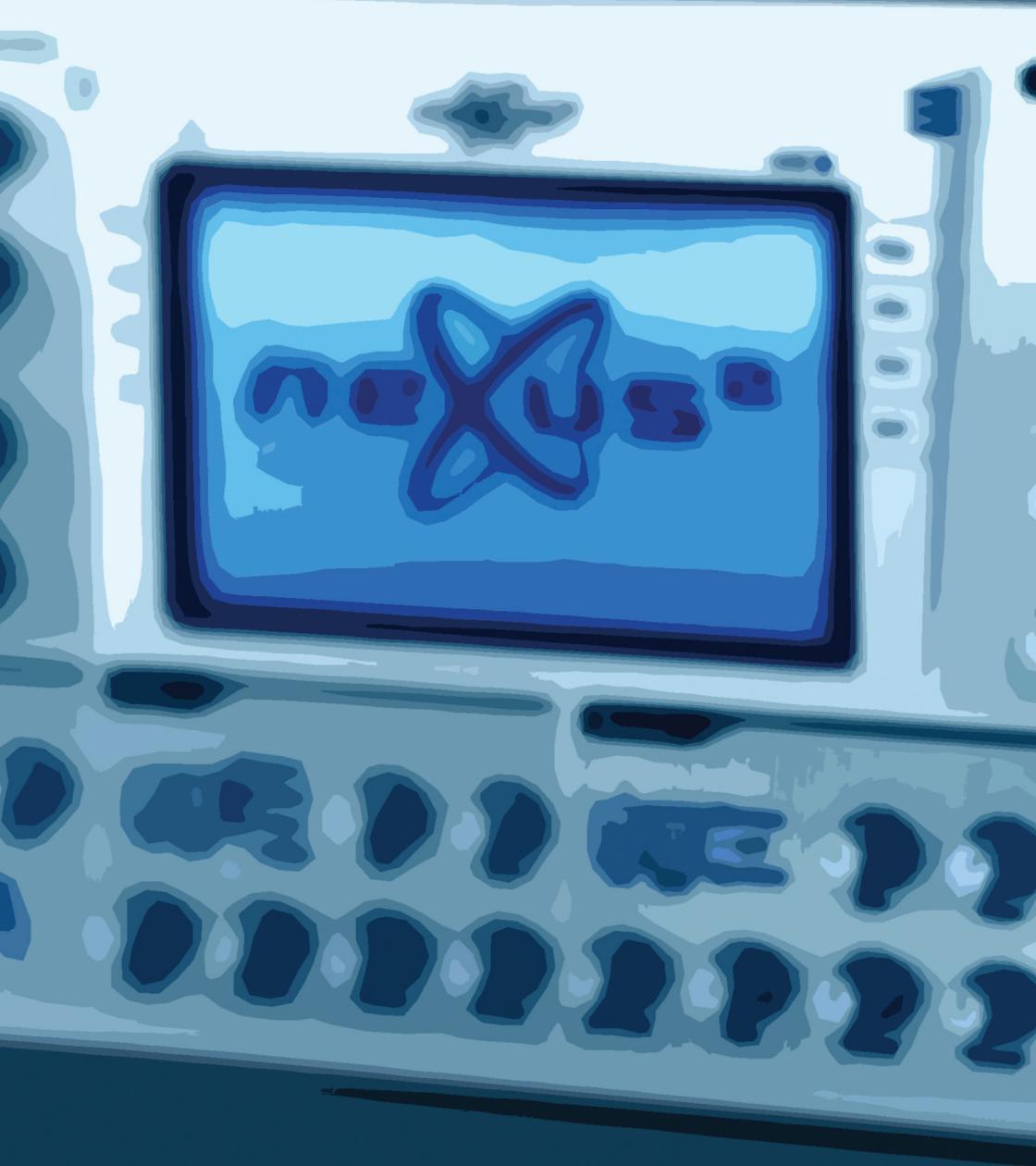


User Manual

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# INTRODUCTION

## INTRODUCTION

**W**elcome and thank you for purchasing NEXUS<sup>2</sup>. You are now the owner of a high-quality product that includes a professional and comprehensive sound library and an easy-to-use but powerful patch management system. The demands placed on your computer's CPU are surprisingly low.

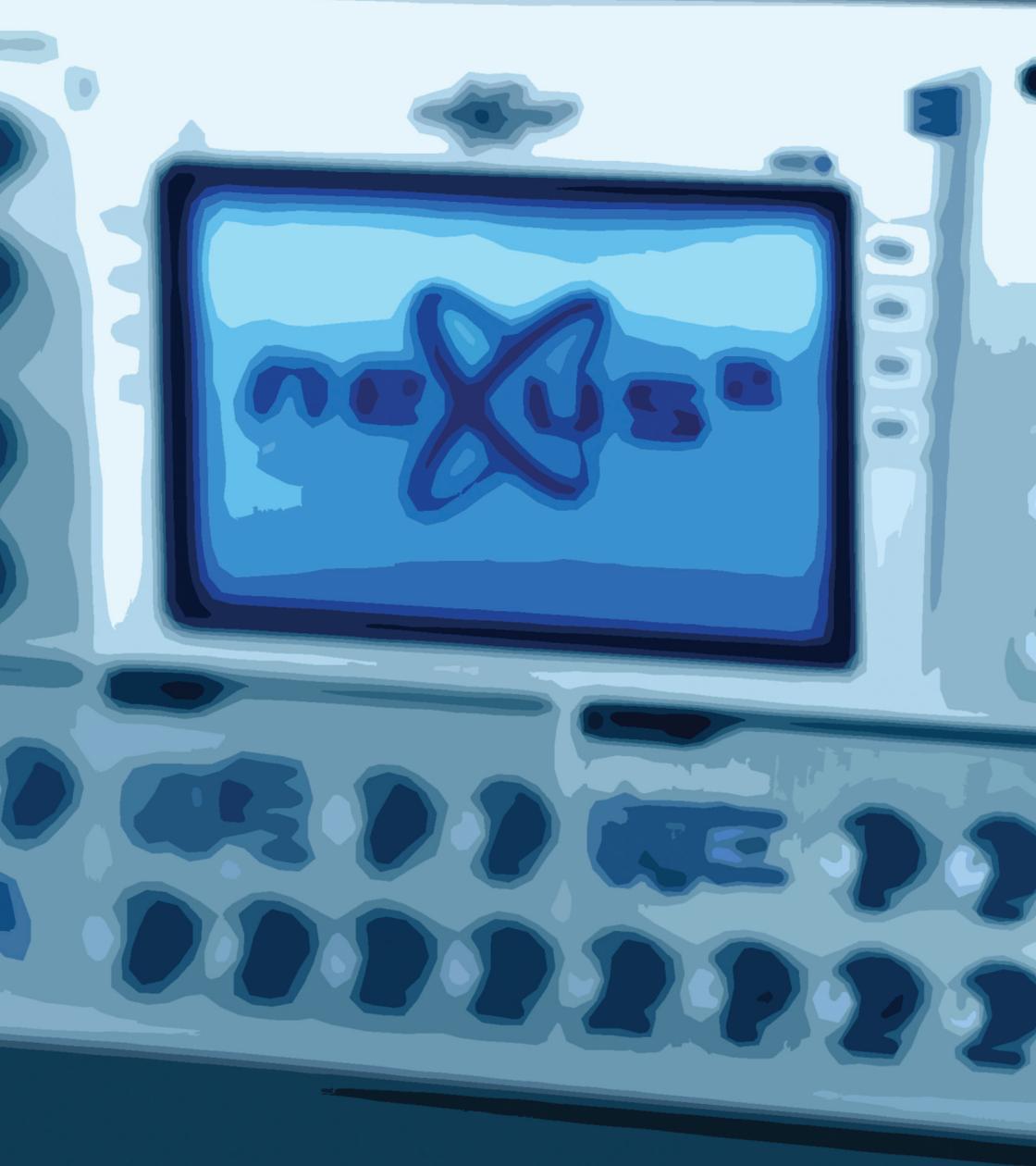
NEXUS<sup>2</sup> is a sample-ROM based synthesizer (often called a "rompler"). This means that NEXUS<sup>2</sup> accesses sampled waveforms from your hard disk to generate its sounds. Apart from the low demands on your CPU mentioned above, this method also has other benefits: It allowed us to sample several prohibitively expensive analog hardware devices and make these quality sounds available to you, the NEXUS<sup>2</sup> user. Furthermore, the complex sound architecture in NEXUS<sup>2</sup> gives you extensive control over the most important parameters to customize the sounds to suit your personal tastes.

The internal architecture lets you generate highly complex soundscapes, stacked sequences and/or extreme modulations – all with a depth and clarity you've never heard before.

Dive into the world of NEXUS<sup>2</sup> and experience a totally new dimension of sound.

Specifications and features:

- Over 4 gigabyte library of high quality multisamples
- Eight alias-free classic waveforms
- Over 890 factory presets covering all popular genres
- Four different filter types with flexible envelopes
- Two freely editable master effects
- Freely programmable 32-step arpeggiator with note transpose
- Freely programmable 32-step stereo trance gate
- Flexible delay with adjustable modulation
- Production-quality reverb (licensed from ArtsAcoustic)
- Can be upgraded via separately available expansions (27 already available)



# INSTALLATION

## INSTALLING NEXUS<sup>2</sup> ON A WINDOWS PC

To install NEXUS<sup>2</sup> on your Windows PC, please follow these simple steps:

1. **Insert the NEXUS<sup>2</sup> DVD into your DVD drive.**
2. **Double click the file “NEXUS<sup>2</sup> Setup.exe” from within the “Windows Setup” folder on the DVD and follow the on screen instructions.**
3. **Continue with “DOWNLOADING THE LICENSE” on page 8**

## MINIMUM PC SYSTEM REQUIREMENTS

- Pentium III @ 800MHz or better (or AMD equivalent)
- Minimum of 512Mb RAM (1Gb recommended)
- Hard drive space required: 4Gb
- Operation system: Windows XP/Vista
- Graphics (minimum resolution): 16-bit 800x600
- Host: Any application supporting the VSTi standard (e.g. Cubase, FL Studio, Sonar etc.) or Pro Tools 7.3 or better

## INSTALLING NEXUS<sup>2</sup> ON A MAC

To install NEXUS<sup>2</sup> on your Mac, please follow these simple steps:

1. Insert the NEXUS<sup>2</sup> DVD into your DVD drive.
2. Double click the file “NEXUS<sup>2</sup> Setup.dmg” from within the “OSX Setup” folder on the DVD and follow the on screen instructions.
3. Copy the folder “Nexus Content” from the DVD to any location on one of your hard drives, but make sure that the hard drive has enough space to fit the entire factory content (4 Gb) and please also make sure there is enough space left for expansions you might want to import in the future.
4. Continue with “DOWNLOADING THE LICENSE” on page 8.

## MINIMAL MAC SYSTEM REQUIREMENTS

- Mac G4 800MHz or better / Mac Intel 1.4 GHz or better
- Minimum of 512Mb RAM (1Gb recommended)
- Hard drive space required: 4Gb
- Operating system: OSX 10.4 / 10.5
- Graphics (minimum resolution): 16-bit 800x600
- Host: Any application with VSTi support (e.g. Cubase, Nuendo, Live), AU (AudioUnit) support (e.g. Logic, Garageband, Live) or RTAS support (Pro Tools 7.x & DP 5.x)

## DOWNLOADING THE LICENSE

NEXUS<sup>2</sup> requires a valid license to be present on the USB eLicenser in order to run. You have to download this license from the internet using the activation code you received via email when you ordered NEXUS<sup>2</sup>.

To download your license to a connected USB eLicenser, please follow these simple steps:

- 1. Download the “License Control Center” from <http://www.elicenser.net/>**
- 2. Install the “License Control Center”.**
- 3. In the “Wizards” menu, choose the option “License Download”.**
- 4. Follow the on-screen instructions.**
- 5. That’s it. The license has been stored on your USB eLicenser and the activation code has become invalid.**

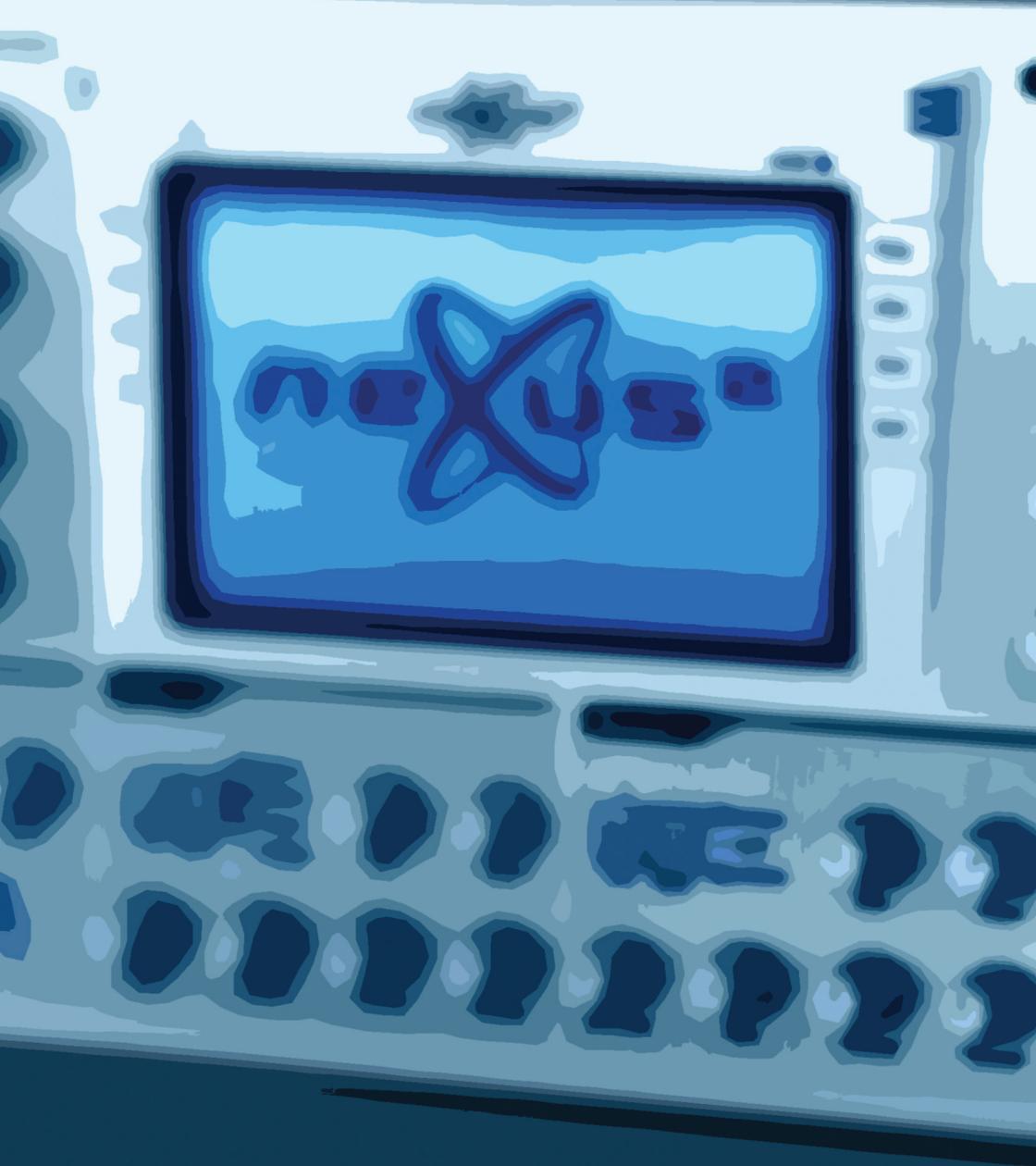
- Please note that you do NOT need to download the license on the same computer you plan to use NEXUS<sup>2</sup> on.
- You can use ANY Windows or Mac compatible computer to download the license.
- In case your music-computer isn’t connect to the internet, simply use another one to download the license to the USB eLicenser.
- The computer that downloads the license needs the “License Control Center” installed.
- You can download the latest version of the “License Control Center” from <http://www.elicense.net/>

## MANUAL INSTALLATION OF THE CONTENT

To install the NEXUS<sup>2</sup> content manually, please follow these simple steps:

1. **Insert the NEXUS<sup>2</sup> DVD into your DVD drive.**
2. **Copy the folder “Nexus Content” from the DVD to any location on one of your hard drives, but make sure that the hard drive has enough space to fit the entire factory content (4 Gb) and please also make sure there is enough space left for expansions you might want to import in the future.**





# QUICK START

## QUICK START

**W**ithin this section we will describe, step-by-step, how to load NEXUS<sup>2</sup> into your host application and how to open it within a Cubase or Logic project. If you use neither Cubase nor Logic, or if you have other host-related questions, please consult the manual that came with your specific host application.

Please make sure that NEXUS<sup>2</sup> has been installed correctly before starting your host application (see previous chapter).

### using NEXUS<sup>2</sup> in Steinberg Cubase or Nuendo

Cubase and Nuendo have so-called *Instrument Slots*. Open your VST instrument rack (in Cubase, the default shortcut for this is F11). Click on an empty slot and a list of all your VST instruments should appear. Select “NEXUS” from this list. An instance of NEXUS<sup>2</sup> will be loaded and its name will appear in the selected instrument slot.



Now, create a MIDI track and route this track's MIDI output to the instance of NEXUS<sup>2</sup> you loaded earlier.

If your system has been configured correctly, you should now be able to hear a sound when playing a key on your MIDI keyboard (the patch “Saw Init” is loaded by default).

To select a different preset, open NEXUS<sup>2</sup> (click on the “e” button within the instrument rack). You’ll now be able to see the NEXUS<sup>2</sup> preset browser (Library). Double-clicking a preset name in the column to the right will load that particular preset.

Alternatively, you can use the cursor keys to select a preset. The up/down keys scroll through the presets in the currently selected category. Use the right cursor key to load the currently highlighted preset.

## QUICK START

### using NEXUS in Apple Logic 8

Create a new song and then create a “Software Instrument” track. When the newly created track is selected, you will see the track inspector on the left hand side.

Click on the gray button under the letters “I/O” but above the button labeled “Out 1-2”. A big list of instruments and plug-ins will appear. In this list, select “AU Instruments -> reFX -> Nexus -> Stereo”.



To select a different preset, open NEXUS<sup>2</sup> (click once on the same button you used to load NEXUS<sup>2</sup> in the inspector). You'll now be able to see the NEXUS<sup>2</sup> preset browser (Library). Double-clicking a preset name in the column to the right will load that particular preset.

## QUICK START

### general information

Because NEXUS<sup>2</sup> receives on all 16 MIDI channels simultaneously, there is no need to set its MIDI input channel manually. If you'd like to add a second NEXUS<sup>2</sup> sound (or more), simply load another instance of NEXUS<sup>2</sup> in your host and select another preset.

NEXUS<sup>2</sup> is delivered with over 800 factory presets from all musical genres. We recommend that you audition them first to gain an impression of the power and versatility that NEXUS<sup>2</sup> has to offer.

### expansions

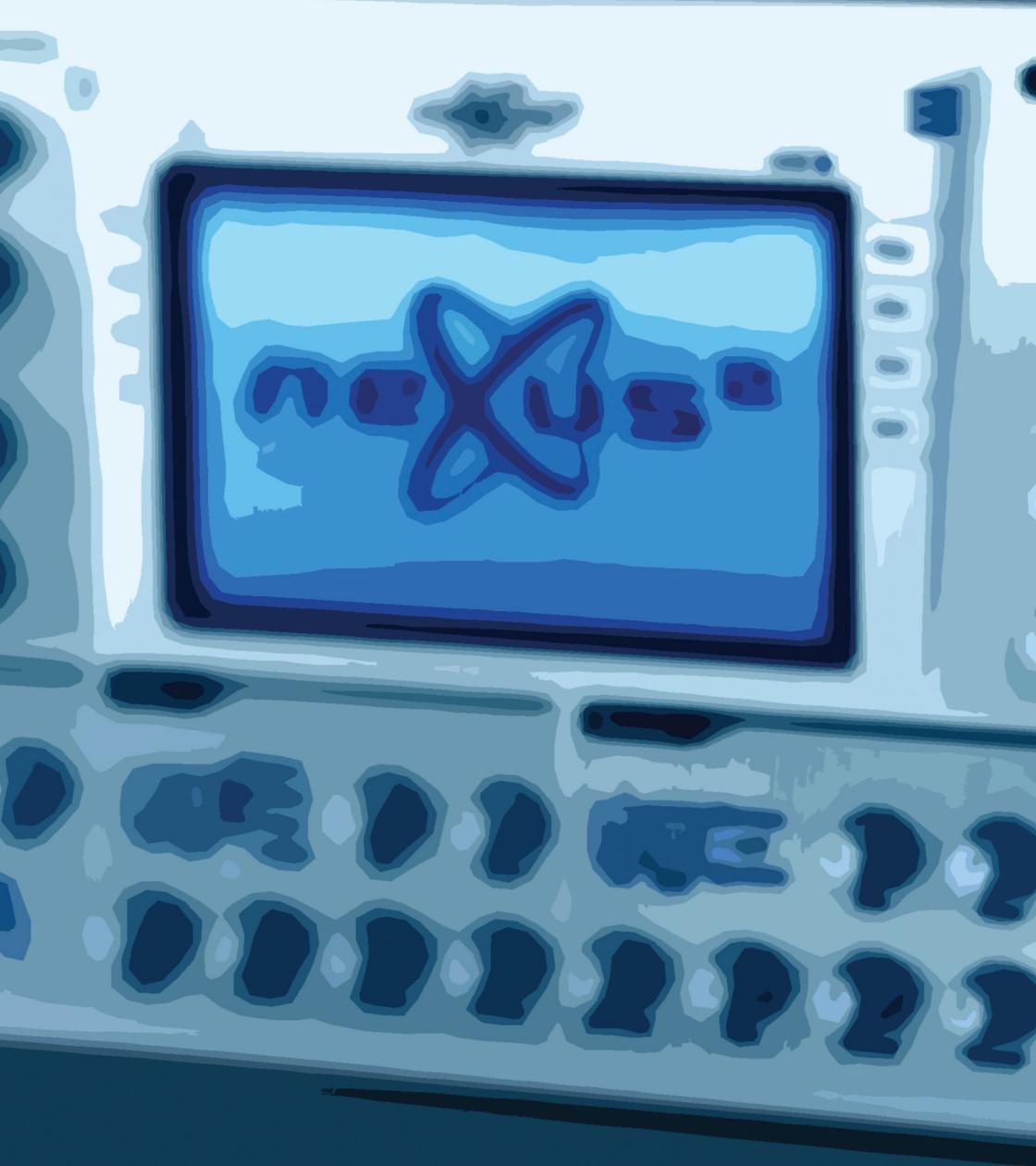
Your NEXUS<sup>2</sup> sound library can be expanded with additional presets (and their referenced samples). Each expansion holds a minimum of 128 new presets.

To learn how to import these expansions into NEXUS<sup>2</sup>, please read the section "importing data" on page 44.

### special features

NEXUS<sup>2</sup> parameters can be automated via MIDI continuous controller data. You'll find a list of the supported continuous controllers and their assignments in appendix A (at the end of this document).

NEXUS<sup>2</sup> is also able to interpret automation data sent from your sequencer. For further information about instrument automation, please refer to the manual that came with your host application.



# NEXUS REFERENCE

## BASIC FUNCTIONS

When NEXUS<sup>2</sup> is started for the very first time, it will appear with its white skin (see “gui-skin” on page 42). The central dot-matrix area displays the NEXUS<sup>2</sup> preset browser (“library”) by default.



The individual sections are (from top left to bottom right):

### filter modifier

Provides simultaneous control over basic filter parameters for all four layers.

### central display

Various functions (see “Central Display” on page 18).

### amp modifier

Provides simultaneous control over volume and pan parameters for all four layers.

### master filter

An extra filter applied to NEXUS<sup>2</sup>'s main output.

### delay

Master delay settings. Please refer to page 23 for more information.

### reverb

Master reverb settings. Please refer to page 24 for more information.

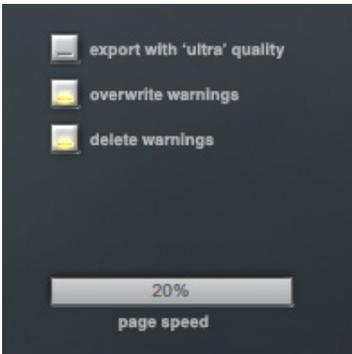
### output

Volume control and metering for NEXUS<sup>2</sup> main output.

## BASIC FUNCTIONS

### the Vengeance / reFX logos

If you click on these logos, the NEXUS<sup>2</sup> “rear panel” will appear, giving you access to several global settings and functions:



### export with “ultra” quality

If this option is selected, NEXUS<sup>2</sup> will always use the best possible audio quality while exporting. The default setting for this option is “off”. Currently only the Steinberg hosts such as Cubase & Nuendo support this feature.

### overwrite warnings

This option allows you to deactivate the warnings usually seen when attempting to overwrite data. The default setting for this option is “on”.

### delete warnings

This option deactivates warnings when attempting to delete categories, presets or patterns. The default setting for this option is “on”.

### page speed

Allows you to change the speed with which the mouse-wheel scrolls through lists.

Please note that not all hosts have mouse-wheel support for their plug-in windows. We’re working with these vendors to add this functionality in future releases of their host software.

## CENTRAL DISPLAY



The NEXUS<sup>2</sup> display has several distinct functions. These are selected using the eight buttons you'll find to either side of the display:

### library

Click on this button to show the preset browser. This is used for loading, saving, renaming, deleting and managing your presets.

### mod

Click on this button to access the modulation matrix, LFOs and their associated parameters.

### arp

Click on this button to access the freely editable arpeggiator.

### tg

Click on this button to access the NEXUS<sup>2</sup> "Trance Gate".

### freq

Click on this button to display the scope / FFT frequency analyzer.

### mix

Click on this button to access the Master Effects, Feature Matrix, Oscillator mixer and Master EQ.

### live

News, updates, expansions, skins and more - the whole world of NEXUS<sup>2</sup> is just one click away!

### sys

System settings for this particular instance of NEXUS<sup>2</sup>. These settings are stored with the current song/project i.e. they are not saved along with a preset itself.

NEXUS<sup>2</sup> is a pure ROM preset player. However, you can edit and change the presets to your heart's content. To use all control elements and fully understand them, you should know all about the basic structure of a NEXUS<sup>2</sup> preset ...

All sound starts out at the oscillator level. Up to four oscillators generate the raw sound, and each of these can be either a multisample or a classic waveform (sawtooth, square, sine etc.). A layer can contain all four, just one, or no oscillator at all. Which layers, and how many of them are used within a preset, can be seen in the Feature Matrix in the MIX section. Portamento and/or the arpeggiator can be switched on or off for each layer along with several other options.

Each layer is then sent through its own filter (cutoff is controlled by the filter envelope). Note that the filter section is very similar to the one available in the main page - the Master Filter. After passing through the filter stage, the signal reaches the amplitude section (controlled by an amplitude envelope). Next, the signal passes through up to two possible effect slots, each effect slot offering eight possible effects (see the "Master Effects").

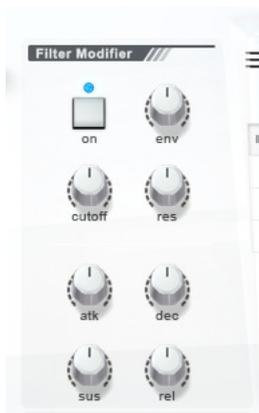
Each layer can optionally pass through a Trance Gate as well as a Layer Delay. If Layer Delay is switched on, the master delay effect (see "Delay") is automatically disabled - and vice versa. Only one of the two can be active per layer. The same rule applies to the Trance Gate and to the Arpeggiator. Master Effects are the exception to this rule, as these can be used in addition i.e. without affecting the availability of layer effects.

The mixed master-signal is then passed through a limiter so the internal level will never exceed 0dB.

The output-section amplifies the signal to the level desired.

## FILTER MODIFIER

The two modifier sections require some explanation: All modifier knobs have a neutral position by default (centered). If a knob is set to this position, it will have absolutely no effect on the underlying parameter, i.e. that parameter has precisely the same value as stored in the preset. Setting a modifier to a negative position (by turning the knob anticlockwise) lowers values proportionally for all four layers at the same time. Similarly, turning a modifier knob up i.e. above the neutral position, will increase all values proportionally for all four layers at the same time. Because these knobs work proportionally, the minimum and maximum positions will always set minimum or maximum values for all four layers, irrespective of the original values.



### on

Pressing this button switches the entire filter modifier section on or off. When switched off, the original sound is not affected. This switch can therefore be quite handy for A/B comparison while adjusting the filter modifier knobs.

### env

This knob determines the strength of the filter envelope modulation. The envelope amount set here is added to all filters in all layers.

### cutoff

This knob modifies the cutoff frequencies of all four layers simultaneously.

### res

This knob modifies the resonance parameters for all four layers simultaneously.

### atk, dec, sus, rel

These four knobs modify the corresponding filter envelope parameters of all four layers simultaneously. Again, you should remember that values are added or subtracted as percentages of the original values.

## AMP MODIFIER



The amp modifier knobs behave in exactly the same way as the filter modifiers. See the first paragraph about “Filter Modifier” on the previous page for a general explanation of how the modifier knobs work.

### on

Pressing this button switches the entire amp modifier section on or off. When switched off, the original amplitude settings are not affected. This switch can therefore be quite handy for A/B comparison while adjusting the amp modifier knobs.

### pan

This knob modifies the pan positions (left/right balance) of all layers.

### spike

This knob modifies the Spike value. Spike increases the amplitude during the first 3 milliseconds of a note, resulting in a noticeably more percussive/punchy sound.

### spread

The spread knob modifies the width of an alternating (“ping-pong”) panning of the signal. The pan position will switch between left and right for each note you play.

### atk, dec, sus, rel

These four knobs modify the corresponding amp envelope parameters of all four layers simultaneously. As is always the case for modifiers, values are added or subtracted as percentages of the original values.

## MASTER FILTER



The Master Filter is applied to the entire output signal and is typically used for filter-fades where the cutoff is slowly increased or decreased during intros or breaks.

### on

This button activates/deactivates the Master Filter. By default, the Master Filter is switched off.

### cutoff

Controls the cutoff frequency - the most important parameter in any filter.

### res

Adjusts the amount of resonance at the cutoff frequency. High values will often result in a “whistling” sound, depending on the “Type” and “Slope” settings.

### type

This button cycles through several different filter types:

- LP: Low pass filter
- HP: High pass filter
- BP: Band pass filter
- NTCH: Notch filter

You can also click directly on a filter-type name to select it.

### slope

Selects the steepness of the chosen filter type. NEXUS<sup>2</sup> offers three slopes:

- 6db/Octave rolloff
- 12db/Octave rolloff
- 24db/Octave rolloff

You can also click directly on a filter-slope name to select it.

## DELAY

The delay in NEXUS<sup>2</sup> offers a variety of delay-types and a delay-time modulation to remove digital perfection from the feedbacks. So to avoid robotic delays, always remember to dial in a bit of 'mod' for that extra warmth.



### on

This button activates/deactivates the master delay effect. Whether or not this is active by default depends on the loaded preset.

### type

This button lets you select one of four different types of delay:

- mono: Simple mono delay
- stereo: Simple stereo delay
- cross: The left and right channels are swapped at each iteration.
- pngpg: "Ping-pong" delay. The delayed signal bounces between left and right channels - for extremely wide stereo effects.

You can also click directly on a delay-type name to select it.

### mix

Used to adjust the dry/wet ratio of the signal i.e. the amount of delay applied to the currently loaded preset.

### mod

Controls the amount that an integrated LFO modulates the Delay Time (see below), resulting in a slight pitch modulation of the delayed signal.

### time

This knob adjusts the delay time. The available values are standard note lengths (synchronized to your host application), triplets or dotted notes.

### f-back

This knob adjusts the amount of delay feedback, effectively the number of repetitions before the delay fades into silence.

### lo-cut

The amount of highpass filtering applied to the feedback signal.

### hi-cut

The amount of lowpass filtering applied to the feedback signal.

## REVERB



NEXUS<sup>2</sup> includes a professional quality reverb effect licensed from ArtsAcoustic. It is unsurpassed in the software sector - no other software synth has such a high quality reverb "built in". Now there's no need add external reverb effects to your synth sounds.

### on

Activates/deactivates the reverb. Whether or not reverb is active by default depends on the currently loaded.

### type

Use this button to select one of three reverb algorithms:

- room: small rooms / gated reverbs
- hall: larger halls
- arena: very wide, long and deep

You can also click directly on a reverb-type name to select it.

### mix

Used to adjust the dry/wet ratio of the signal i.e. the amount of reverb applied.

### mod

The MOD knob controls the amount of reverb time modulation, resulting in a softer and warmer sound.

### pre-dly

Adjusts the time it takes before the reverb signal appears, affecting the perceived size of the room.

### dec

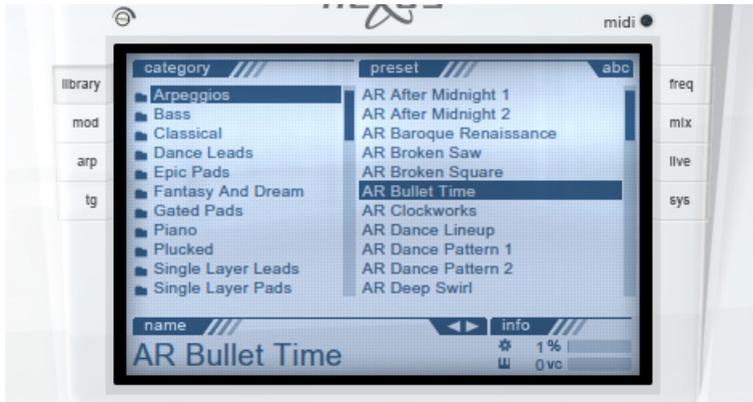
Adjusts the reverb signal's decay i.e. how long it takes to fade into silence.

### lo-cut

The amount of highpass filtering applied to the reverb signal.

### hi-cut

The amount of lowpass filtering applied to the reverb signal.



The library browser in NEXUS<sup>2</sup> is divided into two main parts. The column on the left displays a list of sound categories, these can be compared to folders. Highlighting a category here will display its contents in the right hand column.

There are three methods of loading presets:

1. Double-click on the preset name in the right column.
2. Using the previous/next button in the top-right corner of the preset-name.
3. Using the cursor-keys to select a preset and using right cursor-key to load.

The bottom of the library browser displays useful information about the currently loaded preset. Click on the right hand header (info by default) to display different types of info: It cycles through "info", "mem", "rating" and "author".

The rating system lets you rate individual presets while using NEXUS<sup>2</sup>. Your ratings are stored and can be used later as a search criterion. For example: You can display all presets that you've rated with five stars. By default, all presets are unrated and thus have zero stars.

Directly to the left of the "info" section are two small arrows pointing left/right. These are used to select the next or previous presets in the currently selected category and are useful for mouse only operation of NEXUS<sup>2</sup>. These arrows also allow speedy preset navigation in hosts that don't support the forwarding of key presses to VST instruments.



## LIBRARIAN

Right-clicking on a category will open a context menu in which you can (from top to bottom) delete, rename or create a new category.

You can also create a new “favorites” folder into which you can create links to your favorite presets. To do this, simply right-click on the desired preset and then select “add to favorites” from the context menu. It’s possible to have up to eight “favorites” folders, for example to sort different types of your favorite sounds.

The option “new search” creates a new “virtual” folder and the search function looks for all sounds that fit your criteria, then displays the results in this new folder. You can also search according to ratings. Simply enter “\*\*\*\*” (for instance) as your search criterion. This would find all presets that you’ve rated with at least three stars.

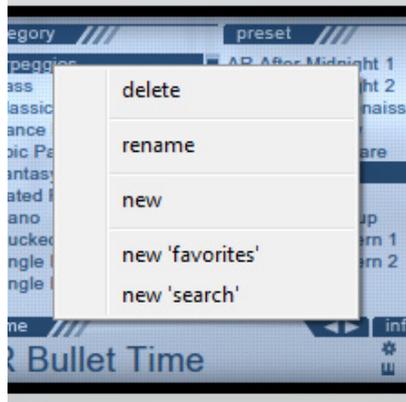
If you’d like to perform a “fuzzy” search, enter your search criteria in quotation marks. An example: With the search criterion “bass” (include the quotation marks!) you’ll also find presets that contain “brass” as part of their names.

Letters and ratings can be combined e.g. “bass \*\*\*\*” will find all presets that contain the letters “bass” (in that order) with a three-star rating or higher.

The search criterion “-” allows you to search for characters that must be at the beginning of each name. This effectively makes it possible to support sound categories as prefixes, such as “SY” for “synth” sounds or “BA” for bass sounds. If your search is shorter than three characters, this criterion is enabled automatically. A list of category-prefixes we used for the factory-content and the expansions can be found in the appendices-chapter of this manual.

If you’ve edited a preset and would like to save it, right-click on the name of the preset at the bottom of the NEXUS<sup>2</sup> library and a context menu will appear. Simply select “save preset” from this menu. If you’ve changed the preset name beforehand (by double-clicking on the name itself), a new preset is created and saved into the currently selected category.

Remember, if you’d like to save an edited preset into a different category, the destination category must be selected first.





## vib-source

The MIDI source used to control vibrato depth: modulation wheel, aftertouch, or both.

## vib-speed

This slider adjusts the vibrato speed i.e. the rate of an LFO dedicated to pitch modulation.

## vib-depth

Maximum vibrato depth. Data from the vibrato source (see vib-source above) is modulated with this amount.

## pb-range+

The amount (in semitones) that pitch is increased when the pitchbender is at its maximum position.

## pb-range-

The amount (in semitones) that pitch is lowered when the pitchbender is at its minimum position.

## vel-volume

This parameter is bipolar and can therefore be set to both positive and negative values (default is 0). When set to a positive value, notes played with a high velocity have a high volume and notes played with a low velocity have a lower volume. When set to a negative value this operation is reversed – high velocity notes are lower in volume and low velocity notes are higher in volume. The volume of notes in relation their velocity depends upon the value set here. Most presets have velocity information embedded into them, so changing this value in these presets simply accentuates any velocity differences.

## PORTAMENTO

### status

These four buttons select the type of portamento (gliding pitch between notes) as well as determining whether the sound will be polyphonic or monophonic:

- off: Polyphonic, no portamento.
- ply: Polyphonic, with portamento.
- trg: Monophonic, re-triggered envelopes.
- lgt: Monophonic, legato envelopes, legato portamento (i.e. portamento is only applied between “overlapping” notes).

### speed

Determines the portamento rate. The available values are standard note lengths (synchronized to your host application), triplets or dotted notes.

## MOD MATRIX

The right half of the MOD screen is used for the mod-matrix and editing the two LFOs. In the mod-matrix, click on the left row of fields to select from a list of modulation sources, and on the right row to select targets. The slider in-between adjusts modulation depth, which is bipolar i.e. values can be either positive or negative.

Available modulation sources are: Modwheel (MW+, -MW), Aftertouch (AT+, -AT), Pitch Bend (PB), Midi CC (control change), host-automation (an alternative to Midi CC) and the two LFOs.

Available modulation destinations are:

### filter modifier

- fltEnv – Filter Envelope
- fltCut – Filter Cutoff
- fltRes – Filter Resonance
- fltSat - Filter Saturation

### output

- volume – Output Volume\*

### amp modifier

- pan - Panning
- spread – Amplitude Spread
- spike – Amplitude Spike
- attack – Amplitude Attack
- decay – Amplitude Decay
- sustain – Amplitude Sustain
- release – Amplitude Release

### other

- rndPch – Random Pitch
- pitch - Pitch of all voices
- lfo1Spd - Speed of LFO1
- lfo2Spd - Speed of LFO2

### oscillators

- oscVol – Oscillator Volume
- oscPan - Oscillator Panning
- oscUp - Sub-Oscillator Volume

### arpeggiator

- arpgate – Arpeggiator Gate
- arpShf - Arpeggiator Shuffle

### trance gate

- tgMix – Trance Gate Mix
- tgCont – Trance Gate Contour
- tgWidth – Trance Gate Width
- tgShf - Trance Gate Shuffle

### master filter

- mstCut – Master Cutoff
- mstRes – Master Resonance

### delay

- dlyMix – Delay Mix
- dlyMod – Delay Modulation
- dlyFbk – Delay Feedback
- dlyLo – Delay Lo-Cut
- dlyHi – Delay Hi-Cut

## MOD MATRIX

### reverb

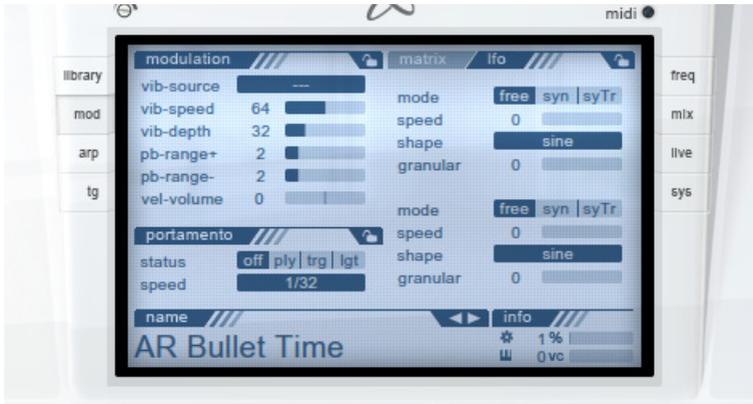
- revMix – Reverb Mix
- revMod – Reverb Modulation
- revDec – Reverb Decay
- revLo – Reverb Lo-Cut
- revHi – Reverb Hi-Cut

### master effects

- fxDry – Effects Dry Level
- fxWet – Effects Wet Level
- chSpd - Chorus speed
- flSpd - Flanger speed
- flDpt - Flanger depth
- flFbk - Flanger feedback
- phSpd - Phaser speed
- degRt - Degrader rate
- degBit - Degrader bits
- degDst - Degrader distortion
- disFrq - Distortion frequency
- disDrv - Distortion drive
- disGn - Distortion gain
- apFlt - Analog phaser pre-filter
- apLow - Analog phaser lower
- apFbk - Analog phaser feedback
- stWdt - stereo enhancer width
- stGn - stereo enhancer gain
- rmDpt - ringmod-depth
- rmFrq - ringmod-frequency
- rmPhs - ringmod-phase offset
- rmTmb - ringmod-timbre

Random Pitch is the only other non self-explanatory modulation destination you can choose here. This parameter affects how much each note is randomized in pitch. Some presets (pianos etc.) use this feature very subtly so that each note sounds unique. This helps them appear more natural and less “digital”. Using this feature on a normal synthesizer sound can produce some interesting and unique results.

\*Although the slider for “volume” could actually be set to a positive value, this will always have a negative impact on the sound itself as this parameter can only be affected negatively. This is because you cannot get any louder than the volume knob itself, only softer.



The two global LFOs are accessible by clicking on the “lfo”-tab. These two LFOs can be used as modulation sources in the mod-matrix. Their speed can be modulated from the mod-matrix as well, so prepare for some weird effects.

### mode

Selects the sync- and trigger-mode

- free: the speed is set as a numerical value and does not sync to the host.
- syn: the speed is synced to the host.
- syTr: the speed is synced to the host and the LFO is re-started whenever a midi-note is received and no midi-notes are held down.

### speed

Sets the speed of the LFO. In “free”-mode this is a numerical value between 0 and 127. In “sync”-mode the speed can be set to standard note length, including triplets and dotted notes.

### shape

Here you can set the shape of the LFO:

- sine: sine waveform
- tri: triangle waveform
- saw: sawtooth (falling) waveform
- ramp: a ramp (rising) waveform
- sqr: square waveform
- chaos: a new random value is generated every cycle.

### granular

This value makes the LFO-waveform less precise, more granular or coarse. It limits the resolution of the internal calculations to create more digital versions of the shapes, e.g. instead of a smooth ramp you will hear bigger steps, less often.

## ARPEGGIATOR



### mode

Selects how the arpeggiator plays back any notes you play on your keyboard:

- up: lowest to highest note.
- down: highest to lowest note.
- alter: lowest to highest and back.
- order: same order as keys played.
- random: random key held down.
- poly: all notes are played simultaneously with the ryhtm-pattern of the arpeggiator.

### octaves

Determines the range of the arpeggio i.e. arpeggios can be transposed (in octaves) after each iteration.

### speed

Arpeggio rate. Available values are standard note lengths (synchronized to your host application), triplets or dotted notes.

### gate

This value determines how long notes are held by the arpeggiator.

For legato portamento within an arpeggio, you must set the gate to 127 and make sure that notes in the step sequencer are contiguous.

### length

Here you can change the length of the arpeggio-pattern. The pattern-display zooms accordingly.

## ARPEGGIATOR

### filter

Defines how the notes are filtered by the arpeggiator each time a new step is reached:

- none: notes are not filtered
- lowest: only the lowest note passes
- highest: only the highest note passes
- first: only the first note held passes
- last: only the last note held passes
- fixed C0-C4: a fixed note is played

### strum

Only when the mode is set to “poly” will this have any effect. The chords you play will spread out the notes in time. The higher the value, the looser and slower the strum.

### shuffle

Also called ‘swing’ by some, delays every second note in a 1/16th-speed pattern by this amount. This is a global parameter that affects ALL arpeggiators, even the ones played by the individual layers.

### editing patterns

Notes can be entered at any position with a simple left-mouse-click. Each note can be adjusted in length: Simply left-click on the right edge of a note and drag it to the desired length. You can also hold down ALT and use the left mouse-button to adjust the notes’ velocity. Notes can be transposed up and down (+/- four octaves max.) – try entering notes anywhere in the grid.

The small box under each set note is used to display and adjust the semi-tone transpose of the respective note. A right click deletes existing notes.

### arp-librarian

In the top right hand corner of this page you can toggle between the full view and a reduced one. The extra parameters are replaced with a small browser with which you can manage arpeggio presets. This works in a similar way to the library browser described earlier. Simply double-click on a preset to load it.

### saving presets

Right-clicking on the currently loaded arpeggio preset name brings up a menu similar to when you save other presets. This works in exactly the same way. To rename the currently selected arpeggio preset, simply double-click on its name and make your changes.



## TRANCE GATE



### mode

Selects whether the Trance Gate works in mono or stereo mode. If you switch it to stereo, a thin line appears in the center of the pattern editor, effectively separating the left (top) and right (bottom) channels.

### speed

Should you want to change the speed in which the pattern is played back, you can do it here.

### length

Determines the total length of the trance gate pattern. The pattern-display zooms accordingly.

### mix

This slider determines the dry/wet mix i.e. the relative levels of non-gated and gated signal.

### contour

If you find that the resulting sound is too “choppy” for your taste, you can adjust its smoothness by increasing the value of contour (actually the attack and release times of an envelope). Higher values make the Trance Gate softer.

### width

This slider determines the stereo width of the trance gate.

### delay

This delays the ‘wet’ level of the trance gate, so first you’ll only hear the ungated signal and as soon as the delay-time has elapsed, the gated one.

### fadein

Lets the gated signal fade-in over the designated amount of time.

## TRANCE GATE

### editing patterns

The bottom half of this screen controls/displays the currently selected Trance Gate pattern. The blocks can be switched on or off by simply clicking on the steps in the grid ("filled" boxes are on, "empty" boxes are off). A left-click sets a box, a right-click clears it.

### tg-librarian

In the top right hand corner of this page you can toggle between the full view and a reduced one. The extra parameters are replaced with a small browser with which you can manage trance gate presets. This works in a similar way to the library browser described earlier. Simply double-click on a preset to load it.

### saving presets

Right-clicking on the currently loaded Trance Gate preset name brings up a menu similar to when you save other presets. This works in exactly the same way. To rename the currently selected Trance Gate preset, simply double-click on its name and make your changes.



## FREQUENCY ANALYZER



### freeze

This button freezes the current waveform display, in effect, taking a snapshot of the current frequencies being output by NEXUS<sup>2</sup>.

### clear

Lets you delete the current display and start from scratch.

### filled

Changes the waveform appearance. Switches between solid and line display.

### scope / FFT

This button switches the display mode between waveform (Scope) and "Fast Fourier Transform" i.e. frequency analysis.

### L+R

This button switches the display mode to show both channels (L+R), Left only (L) or Right only (R).

### zoom x / zoom y

Use these sliders to change the horizontal and vertical zoom factors of the display. Zoom X controls the vertical zoom and Zoom Y controls the horizontal zoom. Only Zoom Y (vertical) is available in FFT mode.



The left column of this page is used for controlling the two master effects. You can toggle between the two effect slots by clicking on their title. The two-arrow-symbol swaps the two effect slots with each other.

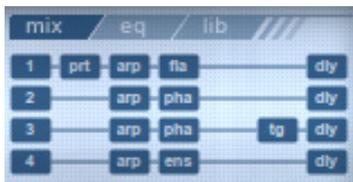
The type option lets you select one of eight different effect types:

- **chorus:** Generally thickens and widens the sound by adding time-modulated, very short delays to the original signal.
- **flanger:** A very popular effect similar to chorus except that a portion of the delayed signal is mixed back into its own input (feedback), causing complex resonance.
- **phaser:** The classic phase-cancellation effect, the sound of which is comparable to a LFO-modulated notch filter.
- **ensemble:** A more complex variation of the chorus effect. The ensemble effect sounds more dense because it uses more delay and more modulation.
- **degrader:** Reduces the samplerate and or bit-depth of the signal. Can also add additional distortion.
- **distortion:** Adds non-linear distortion around a selectable frequency. Very good to simulate electric guitars.
- **analog phaser:** A much more advanced and smoother sounding version than the standard phaser. When the speed is set to "0", the lower-freq value sets the LFO-phase directly.
- **stereo enhancer:** Widens or narrows the stereo-field. You can set affected the frequency range.

## MIX

### feature matrix

At the top right of the MIX screen is the Feature Matrix. It shows the structure i.e. the signal flow of the currently selected preset. The numbers to the left (1-4) show the used layers. The 6 slots on the lines show you which modules/effects are activated for each layer. You can activate/deactivate single elements by clicking on them. However, these modules/effects cannot be changed - only enabled or disabled as they're embedded into the preset itself. You can toggle the entire layer on/off by clicking on their respective numbers.



The abbreviations stand for the following:

- **prt**: Portamento is active for this layer.
- **arp**: Arpeggiator is active for this layer.
- **chr, fla, pha, ens, deg, dst, aph, sth**: The same effects as the master effect (see previous page), but used as individual layer effects.
- **tg**: The Trance Gate is active for this layer.
- **dly**: Layer delay. As soon as the master delay is activated, all layer delay settings of a preset are automatically deactivated. Only one delay can be active at a time (either layer or master delay) for obvious reasons.

### oscillator matrix

Here you can adjust the volume, panning, transpose and detune parameter for each of the four available oscillators. You can also toggle the oscillators on/off by clicking on their respective numbers.

osc	vol	pan	trs	det
1			0	0
2			+12	0
3			-12	0
4			0	0

When there are two volume-sliders for one oscillator (see the third slot in this example) then that oscillator uses a slave-oscillator to play the same sound, but pitched one octave higher than the master. The volume of that slave-oscillator can be adjusted with that second slider.

**output-eq**

Here you'll find a fully fledged, freely adjustable, four band parametric equalizer:

**freq**

Frequency the eq-band affects.

**gain**

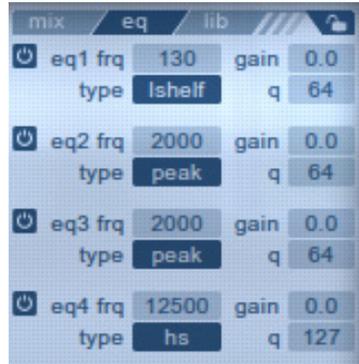
Cut (negative values) or boost (positive values) for each band.

**type**

One of eight selectable eq-band-types. Every type allows the signal to be shaped a different way.

**q**

Defines the steepness of each band.

**fx librarian**

In the top right hand corner of this page you can toggle between the mix view, the output-eq view and the FX-browser. This works exactly like the other preset browsers described previously. Simply double-click on a preset to load it.

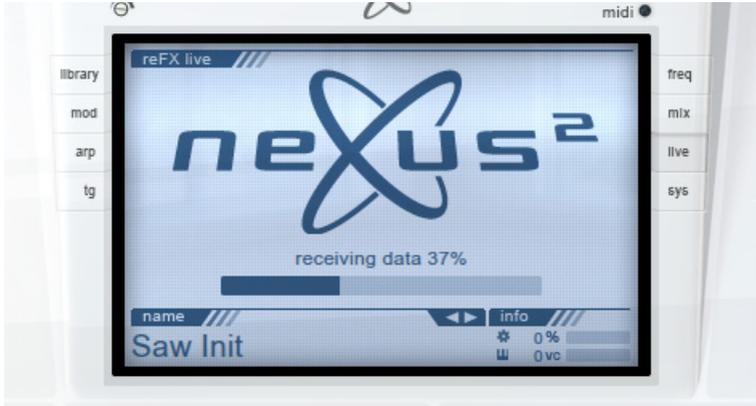
**saving presets**

Right-clicking on the FX slot name brings up a context-menu similar to the other preset browsers. You can save the currently visible FX slot (FX preset) or both slots (XFX preset) only. To rename the currently selected FX slot, simply double-click on its name and make your changes.



The browser displays the FX names with a category prefix. You don't need to edit them manually. The prefix is added automatically during save and removed during load.

## reFX LIVE



Open this page for information about the latest NEXUS<sup>2</sup> developments as well as new expansions and skins (see “gui-skin” on page 42).

A left click on the information will start your standard web browser, taking you directly to the appropriate web-page.

A right click in this area offers a context menu allowing you to “refresh” the page.

The page is automatically refreshed once per minute.

On each launch of NEXUS<sup>2</sup>, the reFX Live system checks for NEXUS<sup>2</sup> updates, which can be automatically saved to your desktop. This way you’ll never miss a NEXUS<sup>2</sup> update and you will always be using the latest version.



The following settings only affect the currently active instance of NEXUS<sup>2</sup> within the current project. They're not stored per preset but are instead saved inside the project file of your host application (when saved).

### mst tuning

Fine-tunes NEXUS<sup>2</sup> globally (in steps of 1Hz). Standard tuning for the root key A is 440Hz.

### transpose

This slider lets you transpose the incoming midi data of NEXUS<sup>2</sup> up or down in octave steps. Especially owners of smaller MIDI keyboards without transpose buttons will welcome this feature, which effectively increases the range of their keyboard.

### vel-curve

Velocity Curve determines how NEXUS<sup>2</sup> interprets velocity data when playing notes on your keyboard. Adjustable from -10 (very soft) to +10 (very hard).

### voices

This slider lets you limit the maximum number of voices that NEXUS<sup>2</sup> can play back simultaneously. Especially older and slower computers can benefit from a lower value. By default the slider is set to 32 voices and can be increased up to 128 voices. Please remember, though, that the more voices that sound and play simultaneously, the more strain this puts on your CPU. The default of 32 voices should be adequate for most users.

## SYSTEM

### **arpvelsrc**

Arpeggiator velocity source. Establishes whether the first note or the most recently played note determines the velocity of the arpeggio.

### **outgain**

Output gain. Should you find that the output level of NEXUS<sup>2</sup> is generally too loud or too soft, you can change the output gain from -3 to +3 db..

### **quality**

Quality setting for the interpolation algorithm. Especially older or slower systems will benefit from the "low" setting. Otherwise, we recommend keeping the default "high" setting. The third option, "ultra", should only be necessary if you're listening on high-end audio monitors.

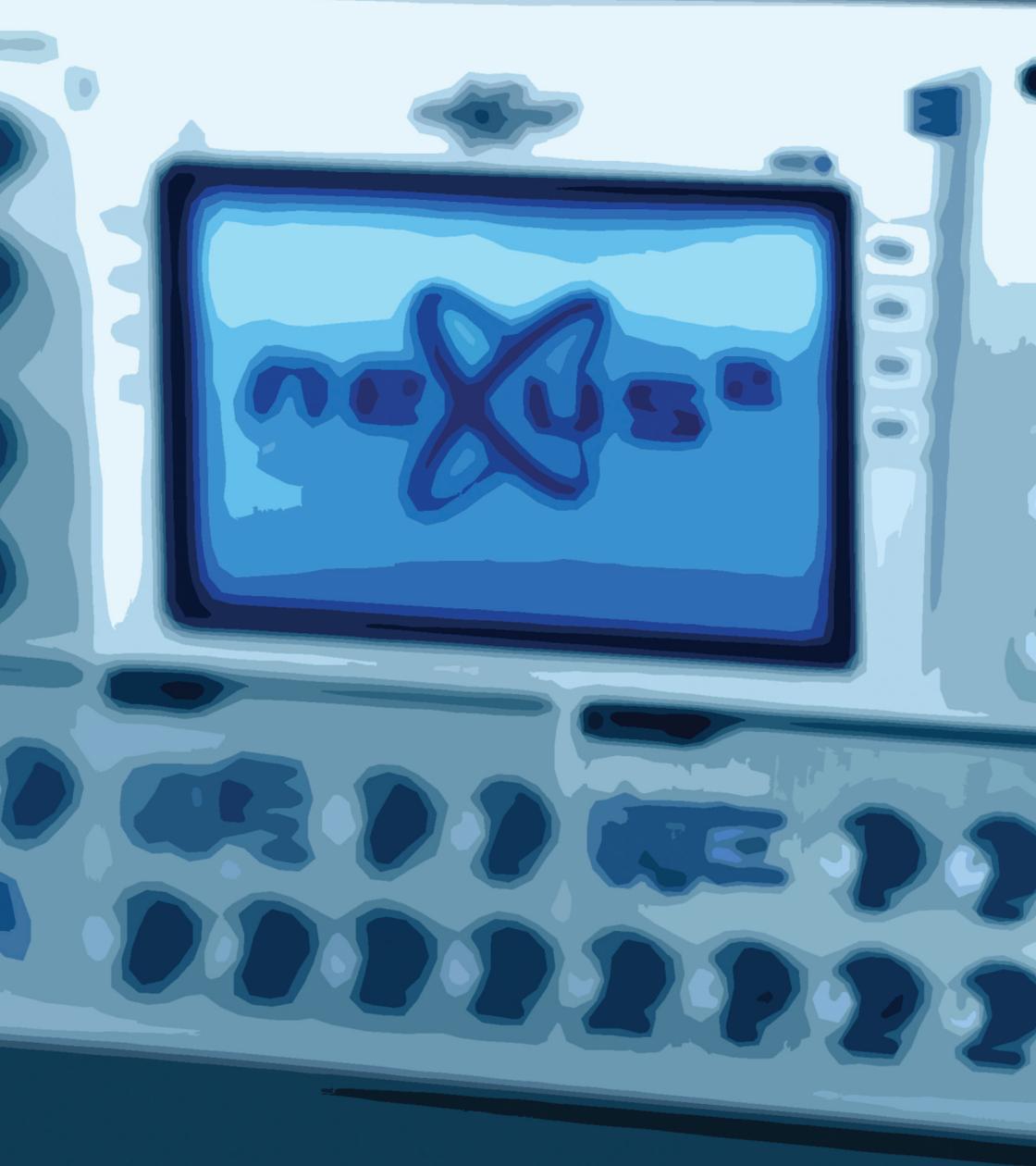
### **gui-skin**

NEXUS<sup>2</sup> allows you to change the overall appearance of the plug-in (the GUI). You can even change the current skin while NEXUS<sup>2</sup> is open - it doesn't need to be reloaded.

Please read the "import data"-section to learn how to import skins.

### **expansions**

The right hand column displays all currently installed expansions. To learn how to import newly purchased expansions, please read "import data"-section on page 44.



## EXPANSIONS & SKINS

## EXPANSIONS & SKINS

### importing data

There are two ways to import data into NEXUS<sup>2</sup>:

The first way is to copy the data you wish to import onto the desktop. Then simply click on the button labeled “desktop”, which you can find in the system-page of NEXUS<sup>2</sup>. All licenses, skins and expansions that are found on the desktop will be imported automatically.

The second way is to click on the button labeled “import data” on the system-page of NEXUS<sup>2</sup>. A file-selector will open. You can navigate this file selector to any location you like and select several files to be imported.

No matter which of the two ways you choose, there are several things to consider before importing.

- 1. You can only import skins and expansions for which you have licenses.**
- 2. Licenses have to be imported the same way as skins and expansions.**
- 3. You can select as many licenses, skins and expansions in the file-selector as you like. They are all imported automatically in the right order.**
- 4. It is recommended to leave the license-files exactly the way they were delivered via email: in ZIP-format. It is NOT necessary to unpack them. The files contained within the ZIP-archive are NOT readable by ANY other application.**
- 5. The import process can take some time depending on the speed of your computer. During the import process NEXUS<sup>2</sup> displays a small progress bar. This should update as the import process is working.**

## EXPANSIONS & SKINS

### expansions

Your NEXUS<sup>2</sup> sound library can be expanded with additional presets (and their referenced samples). Each expansion holds a minimum of 128 new presets.

There are 27 expansions already available for purchase on reFX.com and more are released in regular intervals.

### available expansions

- Analog
- Bass
- Bigtone Signature 1
- Bigtone Signature 2
- Crank
- Dance Drums
- Dance Orchestra
- Dance Vol.1
- Dance Vol.2 (included in NEXUS<sup>2</sup>)
- Dance Vol.3
- Guitars
- HandsUp Bass
- Hardstyle
- House Vol.1
- Minimal House
- Minimal House 2
- NuElectro
- Perpetual Motion
- Peter Siedlaczek's Total Piano
- Pop
- Psytrance
- Rauschwerk
- SID
- Store'n'Forward
- Stratosphere
- Vocoder

### to be released soon

- Crank 2
- Vintage Drums

## EXPANSIONS & SKINS

### skins

NEXUS<sup>2</sup> allows you to change the overall appearance of the plug-in (the GUI). You can even change the current skin while NEXUS<sup>2</sup> is open - it doesn't need to be reloaded. Each loaded NEXUS<sup>2</sup> instance within a song remembers which skin it used, so you can use different skins for different tracks (e.g. Cobalt for Bass, Black for Drums etc.) and it will all be saved and restored with your song.

NEXUS<sup>2</sup> already includes four different skins ("White", "Black (good)", "Black (evil)" and "Cobalt") and there are three additional skins packs available on reFX.com, each containing three new skins.

### available skin packs

#### color

- "Bill Killed" - stark yellow
- "Killer Tomato" - dark red
- "Lime" - strong lime

#### precious metal

- "Gold"
- "Silver"
- "Bronze"

#### themed

- "C64" - just like the brown box
- "T-Bee" - silver with red display
- "Vengeance" - grayish purple



White



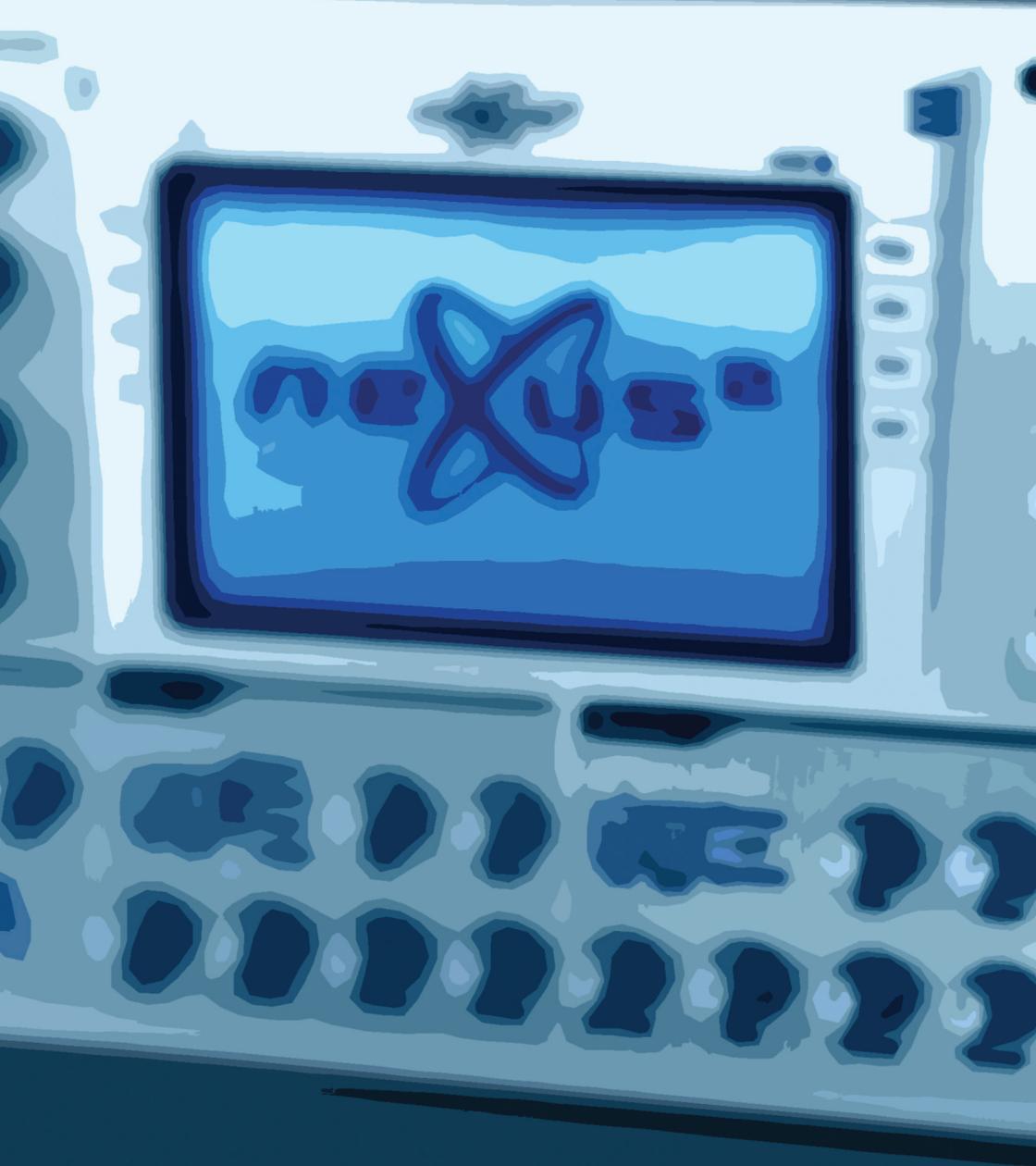
Black (good)



Black (evil)



Cobalt



## TIPS & TRICKS

## TIPS & TRICKS

**H**ere you will find some tips & tricks that help you get the most of your NEXUS<sup>2</sup> experience. Remember always to experiment and try new ways to accomplish your goals. It's very rewarding to find new, easier ways to do things you have done differently in the past. Sometimes it's just a small, but still important change that makes all the difference.

### saving a preset into another category

Do you want to save a preset that you've tweaked into another category? No problem, just follow these easy steps:

1. **Rename the preset by double-clicking on the preset name and entering your own description. \*This step is optional - you can in fact save the preset with its original file name if you wish to do so, but in most cases you'd probably like to distinguish between the old and the new presets with a different name.**
2. **Click on the category in the category list that you'd like to save your new preset into.**
3. **Right-click on the preset name and choose "save preset". Your preset will now be saved into the category that you selected, with its new name (if you chose one).**

### quickly resetting a knob back to its optimal value

Would you like to quickly reset a knob that you've changed the position of back to its default value, without having to reload the preset? That's easy, simply hold down the CTRL key and left click on the knob in question. Voila! Its back to its optimal position (centered).

This works for all sections, except for the "delay" and "reverb" sections which behave a little differently. Try this in these sections and you'll find that the knob actually jumps to a pre-defined value (the same for each preset). This is useful if you'd like to apply a quick "nice sounding" delay/reverb to a sound that doesn't already have one.

### **using locks to keep certain settings**

Have you wondered what these small padlock symbols in most sections mean? Once you've 'locked' an area, it will retain its current settings even when you load another preset. This is really helpful if you, for example, found the perfect arpeggio-pattern for your track, but want to experiment with different sound. You simply 'lock' the arp-section and proceed to load other presets. The arp-section will retain its settings (and thus the pattern).

### **'hidden' features**

All main sections (filter-modifier, amp-modifier, master filter, delay and reverb) have a small context-menu (try right-clicking on them) which allows you to 'lock' them (as mentioned in "Using locks to keep certain settings") and/or switch them off "global off".

### **importing expansions and skins real easy**

Just purchased the latest expansion and want to use it right away? Simply put the expansion and the license-file for it on the desktop and hit the "desktop" button on the sys-page. That's it. The license and expansion gets imported automatically and, once the import process finished, can be used right away. This also works with more than one expansion and also with skins. It was never easier.

## TIPS & TRICKS

### setting a knob to a precise value

Are the knobs not sensitive enough to set a particular value for a certain parameter? Just hold down the Shift key while making your changes and the knob values should update in increments of one, allowing you to set an exact value.

### moving the NEXUS<sup>2</sup> content folder

Has your hard disk filled up and now you don't have enough free space to import the latest super-fresh NEXUS<sup>2</sup> expansion? Or have you just bought a new, super-fast external hard disk and you'd like to move the NEXUS<sup>2</sup> content onto there? No problem, just follow these easy steps and it'll be safe in its new location in an instant.

- 1. Find the current location of the NEXUS<sup>2</sup> content folder. On Windows this is located in "C:/Program Files/VstPlugins/Nexus/Nexus Content" by default. On the Mac, you'll have manually chosen a location when you first installed NEXUS<sup>2</sup> - find this folder.**
- 2. Once you've located the "Nexus Content" folder, simply move it to its desired new location as you would with any other file/folder.**
- 3. Now open up your host application and load up an instance of NEXUS<sup>2</sup> which will now proceed to search for the new location of the "Nexus Content" folder automatically. This may take several minutes, depending on the amount of drives and their sizes.**

That's all there is to it! From now on, each time you use NEXUS<sup>2</sup>, your presets will be loaded from/saved to the new location.

### sharing NEXUS<sup>2</sup> presets

Have you made a fat lead sound super-fat? Or have you put together a Trance Gate rhythm that even some African tribes would be proud of? Would you like to share this newly created preset with your production partner or friends? That's easy, just follow these simple steps.

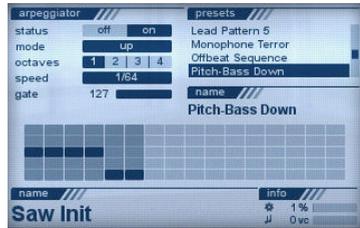
1. **Make sure that your friend has a fully licensed and working version of NEXUS<sup>2</sup>. The following steps won't work without it, nor will they work with the demo version (for obvious reasons).**
2. **Ensure that you've already saved your sound-, arp-, trance-gate or fx-preset. If not, then save it now with a name you'll remember.**
3. **Browse to your "Nexus Content" folder and you'll see, amongst others, four folders: "Arp Presets", "FX Presets", "Presets", and "TG Presets". The folder names are pretty self-explanatory (see below for info).**
4. **If you'd like to share a normal "sound" preset, then open up the folder named "Presets". Inside you'll find all of your current categories. Simply browse into the category that you saved your preset into and you'll find all of the presets that you'd normally see within the NEXUS<sup>2</sup> GUI.**
5. **Copy the preset(s) that you'd like to share into a temporary location which you'll be able to find later. e.g. the desktop.**
6. **Now you can share these files via e-mail, instant messaging or any other means without affecting your original preset files (these are just temporary copies - you can delete them when you're done).**

## TIPS & TRICKS

### tutorial 1: perfect pitch-bass

OK, so you're into hands-up/trance and you love the bass-line in the factory preset "Two Finger Madness 1", but would like it even more without the added kick drum? Don't fear, here we'll show you how to make the perfect "solo" Pitch-Bass with NEXUS<sup>2</sup> for use in your next production.

First, we start with the arpeggiator (yes the arpeggiator!). What we need to do here is to create our own, new arpeggiator preset. Start by setting up the step sequencer in the "arp" section like in the picture, then save the preset. Name the preset Pitch-Bass Down, as that's what it's doing - bending down the notes. We'll come back to this and use it later.



Next, we need to find a suitable bass sound to use with our arpeggiator preset. "Trancebass 13" in the "Bass" category is ideal, so go ahead and load up this preset.

Now, your thinking, where is this tutorial going? Here's where it all comes together. Click back on the "arp" section and load up the arpeggiator preset that we saved earlier (Pitch-Bass Down).

You're probably playing some notes by now but it still doesn't sound very good does it? Here's the final step.

Click on the "mod" button and take a look in the "portamento" section. Set the status parameter to "lgt" (legato) and the speed parameter to 1/16. Now, play some keys on your midi keyboard/sequencer. Sounds fat doesn't it? All that's left to do now is to draw some notes into your sequencer like in the example.



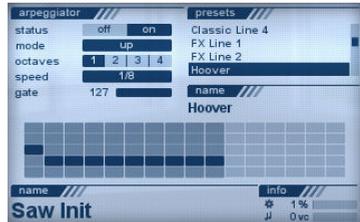
Add your favorite kick drum on each beat and you'll be rocking in your chair... That's all there is to it!

This trick works for any sound you apply these settings to, of course bass sounds work best. Try this technique out on any of the NEXUS<sup>2</sup> presets. Who knows, you might even come up with something better!

## tutorial 2: the NEXUS<sup>2</sup> hoover

Here we'll try and emulate the famous "Hoover" sound using NEXUS<sup>2</sup>.

First off, we'll start with the arpeggiator (been here before, right?). Create a new arpeggio pattern like in the picture and save it with a name of "Hoover".



Now, load up the preset "German Trumpet 1" from within the "Dance Leads" category and apply your newly created arpeggio pattern to it by double-clicking on the "Hoover" preset in the "arp" section.

Next, we need to look at the portamento settings in the "mod" section. Here, you should set the status to "lgt" (legato) and the speed to 1/4.

You're probably playing some notes by now and can hear that we're almost done. All that's left to do now is to increase the amp modifier's attack (atk) parameter a little. A setting of around 34 gives the sound an authentic "Rotterdam" feel.

There's no real playing technique to this sound. Simply press and hold a key and you should get the desired result.

Try applying your arpeggio preset and portamento settings to other NEXUS<sup>2</sup> sounds for an alternative result. You'll probably find that detuned or extremely wide sounds work best.

## TIPS & TRICKS

### tutorial 3: the “uplifter” effect

Here we'll show you how to create an uplifting pitch effect with NEXUS<sup>2</sup> - perfect to create tension in a track just before the break.

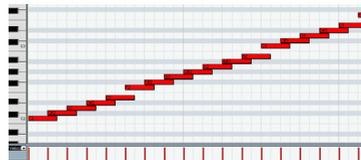
This one is really simple and can be applied to almost all NEXUS<sup>2</sup> sounds for different variations of the effect.

We'll use the preset “Dutch Style 2” from the “Dance Leads” category for this tutorial, so go ahead and load it up.

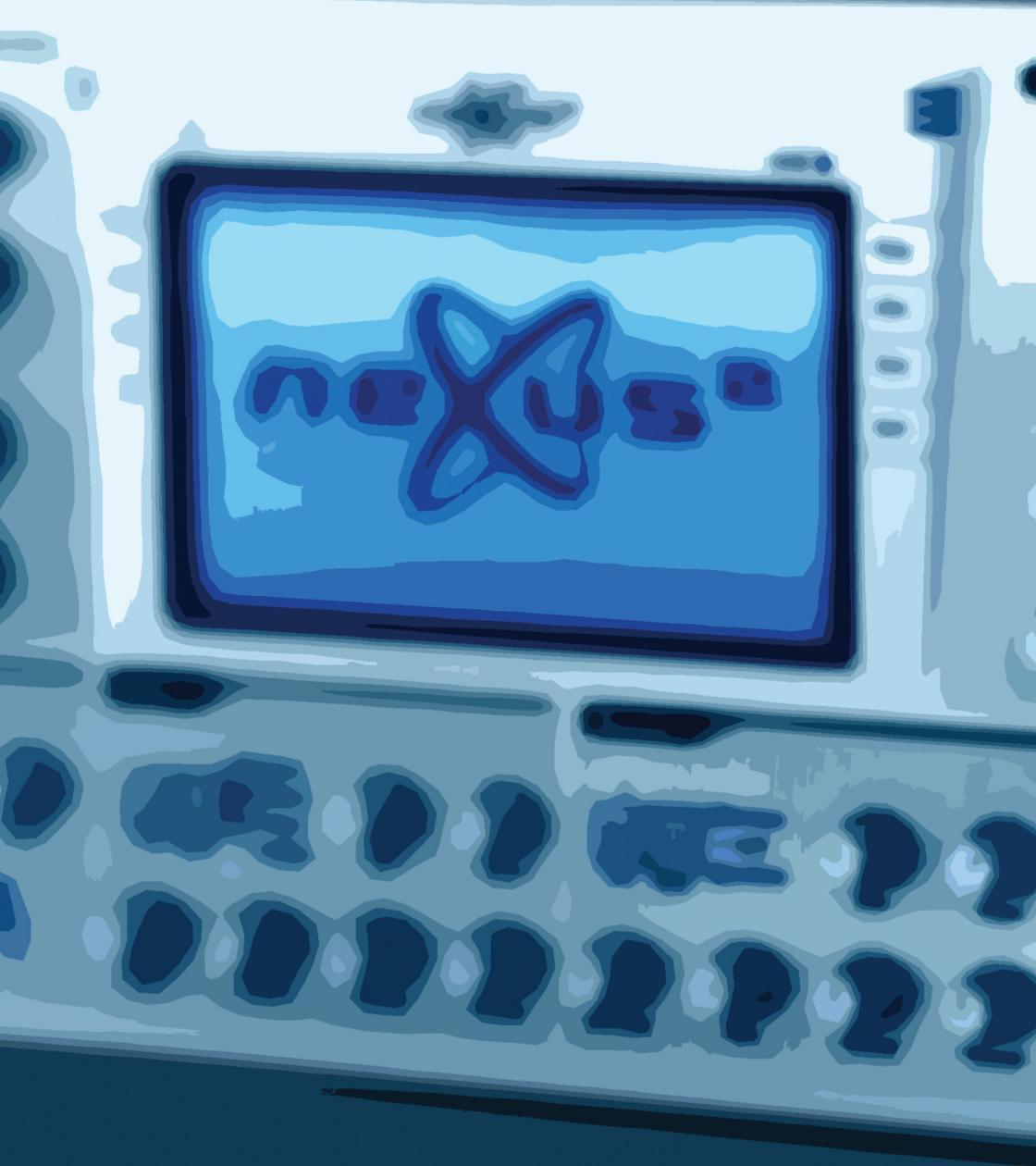
Now, we'll dive straight into the “mod” section and make some changes to the portamento settings. Set the status and speed parameters to the values shown in the picture.



You're probably still wondering how on earth this is going to work? Well, the finale happens in your sequencer. Draw some notes into the piano roll of your sequencer like in the picture. We've filled 32 bars in exactly the same way. The next note is always one semitone higher than the last.



Once you've input all the notes into your sequencer, go ahead and play it back. You should get that famous, rising pitch effect that you normally hear just before a track explodes. Go ahead, experiment and apply this technique to other sounds. You could also position the first note in the sequence one octave higher/lower or span the notes further apart to increase the effect's range.



# APPENDICES

## APPENDICES

### appendix A – MIDI implementation chart

Function		Txd	Rxd	Remarks
Basic Channel	Default:	x	1-16	Messages are always received on all channels
	Change:	x	1-16	
Mode	Default messages	x	Mode 1	OMNI Mode is always on
		x	x	
Note number	Sound range	x	0-127	
Velocity	Note On:	x	o	
	Note Off:	x	o	
Aftertouch	Key:	x	x	
	Channels:	x	o	
Pitchbend		x	o	
Control Change		o	o	
Program Change	Actual No.	x	x	
System Exclusive		x	x	
System Common	Song Pos:	x	x	
	Song Sel:	x	x	
	Tune:	x	x	
System Realtime	Clock:	x	x	
	Commands:	x	x	
Aux Messages	Local On/Off	x	x	
	All Sound Off	x	o	
	All Notes Off	x	o	
	Act. Sensing	x	x	
	Reset:	x	x	

**appendix B – MIDI continuous controller support**

In addition to the messages specified in the MIDI implementation chart on the previous page, the following MIDI continuous controller messages are recognized, affecting the parameters listed below. By sending MIDI-CC messages from your host application, you can change or even automate these parameters at any time.

CC#	Name
7	Volume
8	AMP Spread
10	AMP Pan
24	AMP Sustain
25	Delay Feedback
26	Delay Highcut
27	Reverb Decay
28	FLT Attack
29	FLT Decay
30	FLT Sustain
31	FLT Release
44	FLT Envelope
45	FLT Cutoff
46	FLT Resonance
71	Master Filter Resonance
72	AMP Release
73	AMP Attack
74	Master Filter Cutoff
75	AMP Decay
91	Reverb Mix
94	Delay Mix
120	All Sound Off
123	All Notes Off

## APPENDICES

### appendix C – category prefixes

This is a list of prefixes used by us to categorize the factory content and expansions:

Prefix	Category
AR	Arpeggio
AT	Atmosphere
BA	Bass
BR	Brass
CL	Classical Instrument
DL	Drumloop
DR	Drum
FX	FX Sound
GT	Guitar
LD	Lead
OR	Organ
PD	Pads
PL	Plucked
PN	Piano
SQ	Sequence
ST	Strings
SY	Synth
TG	Trancegate
VO	Vocal / Choir
WW	Woodwinds



