VST Lead2 Editor™ 1.3.1 Manual

Windows 98, ME, 2000, XP, Vista

OS 9, OSX 10.4, OSX 10.5

Universal Binary

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Introduction

Thank you for choosing the reKon audio™ VST Lead2 Editor. The VST Lead2 Editor is a realtime MIDI synth editor that allows you full control of every parameter of the sound on the Clavia Nord Lead 2™, 2X, Lead 2 Rack and Lead 2X Rack synthesizers. Now you can utilize your Nord to its full potential and build lasting and meaningful patches that will bring new life to your Nord, and more importantly, your music. All this and more in a matter of minutes via a slick and friendly user-interface that actually adds featured to your Nord such as the ability to name your patches in a way that makes them understandable. You also maintain all your patches in the VST itself without the hassle of manual dumps. All parameters are fully automatable in your favorite VST host giving you the ability to visually program the Nord to your music via the host sequencer.

The Clavia Nord Lead 2™ synthesizer...
Clavia is a Swedish bourne company offering a fine line of professional virtual analog synthesizers including the original Nord Lead, Nord 2 and 2X, Nord 3 as well as many other fine synthesizers. Each series boasts more features than it's predecessor, yet retain some backwards compatibility with them as well. This is the third "virtual-analog" synth reKon audio

has made a VST Editor for. We believe the Nord has a sound quality and a following that is sure to last for years to come and we are proud to offer our editor and presets for this fine synth.

Installation

reKon audio software is now installed with a simple installer file. The installer will allow you to specify the location of your VST folder and sometimes, additional components to install.

Windows XP, Vista
Use the included. EXE installer file. The installer will allow you to specify the location of the VST Plugin folder to install the VST Lead2 Editor into and provide an adequate means to uninstall the software.

Mac OSX
Use the included .DMG installer file. The installer will allow you to specify the location of the VST Plugin folder to install the VST Lead2 Editor into and provide an adequate means to uninstall the software. *Note- All our plugins are UB (Universal Binary) compatible.

Setup

Assumptions
It is assumed that the user is familiar with the basic functionalities of the hardware synthesizer, it's operators manual and the basic concept of MIDI itself. Without this knowledge, utilizing the editor may be a bit more challenging to set up and use properly. By familiarizing yourself with the operators manual and the MIDI standards, and following the instructions in this manual, you should be able to get up and running in a short amount of time.

STEP 1: Setting Up the Lead2
Make sure you have your midi ports and channels set up and matching properly and that all cables are working and connected properly.

STEP 2: Setting Up the Plugin for Your VST Host (DAW)
The setup procedure will vary from host. Each host may support VST's differently and more importantly, each host may support MIDI data from a VSTi differently, or not at all. Please refer to the 'Supported Hosts' list on the rekon audio web site at www.rekonaudio.com. Also, please refer to the setup instructions provided with your VST host application for setting up a VST instrument (VSTi).

Setup Example for Cubase SX 1-3 or Cubase 4.1.3
To setup the reKon™ VST Lead2 Editor for Cubase SX 1-3 or Cubase 4.1.3 **:

1. Be sure to check your VST Instrument plugins folder to make sure the editor was installed.
2. Open Cubase SX or Cubase 4.1.3+.
3. Create a new project.
4. Open your 'VST Instruments' panel and then select the 'reKon™ VST Lead2 Editor' VST in

a VST slot.

5. Create a 'MIDI' track. Select this MIDI track. (this will be the MIDI track the VST Lead2 Editor is on).

6. On the I/O properties panel for this MIDI track, assign the MIDI input to the 'VST Lead2 Editor'. Assign the MIDI output to go to the MIDI port (and channel) that your Clavia Lead2 is on.

7. Create another 'MIDI track'. Select this track.

8. On the I/O properties panel for this MIDI track, assign the MIDI input to your MIDI keyboard. Assign the MIDI output to go to the MIDI port (and channel) that your Clavia Lead2 is on. (this will be the MIDI track to play and record your note/pitch/mod changes to the Clavia Lead2).

9. Activate the little yellow 'speaker' icons for both MIDI tracks (this allows them to be played even if the track is not selected).

10. Start tweaking and playing the Clavia Lead2 via the VST Lead2 Editor and your MIDI keyboard. Cool!

*NOTES- *Setup for other hosts is similar. Please see the Host Support page on the reKon audio web site for more information. **Note that MIDI messages were dropped from VSTi in Cubase SX 3.1.1+ and Cubase 4 versions 4.0 - 4.1.2 (a SB bug). Please refer to the Steinberg website for more details on MIDI support and versions in these hosts.*

STEP 3: Setting Up MIDI IN tracks

For MIDI Input into the editor:

1. Follow Steps 1 -4 above. * Be sure to disable any outgoing MIDI tracks from the editor to prevent a feedback loop!)

2. Create a 'MIDI' track. Select this MIDI track. (this will be the MIDI track the VST Lead2 Editor is on).

3. On the I/O properties panel for this MIDI track, assign the MIDI input to the MIDI port (and channel) that your Clavia Lead2 is on. assign the MIDI Output to the 'VST Lead2 Editor'.

4. Turn some knobs on the Lead2. The editor should respond by visually showing the movement of this control in the editor.

How to load a Lead2 patch into the editor:
Once you have completed the MIDI input steps above, you can now receive a 'Single Controller Dump' from the Lead2 to 'recreate' the patch in the editor. Here's how:

1. Select the patch on the Lead2 that you wish to save into the editor.

2. Press the 'Shift+Dump One' button.

3. The editor will update all parameters to the values of the dumped patch.

4. Rename the patch in the editor to the name of the hardware patch. Save the patch as an .fxp file.

The Graphical User Interface

Using The Graphical User Interface
The graphical user interface of the VST Lead2 Editor™ is designed for maximum ease of use, giving you easy access to all of the Clavia Lead2™ controls right on one screen. You are also able to rename, modify and browse the patches right inside the editor itself. All control elements are handled via either a Knob, Combo box, Button or Text Edit Box.

The User Interface
The following screen shot will help familiarize the controls of the VST Lead2 Editor™ v. 1.3.1:

Working With the VST Lead2 Editor

About Sound
The VST Lead2 Editor™ is a VSTi (synth) plug-in that deals only with MIDI data. As a result it makes no sound of its own. The sound comes from the actual hardware synth itself... Which is what you want (pure hardware generated sound, but with VST control). The VST Lead2 Editor™ is not a VST MIDI Effect plug-in, it is a VSTi instrument without audio processing functions.

Using the Controls
Most controls on the VST Lead2 Editor™ are self explanatory as to their use. The VST Lead2 Editor is designed to 'mimic' the look and feel of the actual hardware. There are two types of knobs, those that have their 'zero' or lowest value set to the far left, and the other has the 'zero' position set in the absolute middle. The display readouts will vary based on the related ranges and values for that particular control.

Resolution of the Controls
To obtain a finer resolution control of the knobs in the VST Lead2 Editor™, hold down the shift key while adjusting the knob. This will allow you to 'fine-adjust' the values of the knob.

Resetting the Default Value of a Control
To reset a control to its default value, hold down the 'CONTROL' key while clicking on the control.

Receiving MIDI Continuous Controller Data
The VST Lead2 Editor™ can receive and interpret MIDI Continuous Controller (cc) messages. All controls respond to their correlated MIDI CC number as listed in the MIDI Continuous Controller Chart of this manual. Automation of all parameters can be achieved via these MIDI Messages or via your sequencer host.

The MIDI LED Indicators
When the VST Lead2 Editor™ receives or transmits MIDI data, the corresponding MIDI LED will

blink to notify you. The VST Lead2 Editor™ responds to MIDI Note On/Off, Pitchbend, Modulation, Continuous Controller MIDI messages.

The MIDI Channel Selector
This selects the MIDI channel that the VST Lead2 Editor™ receives and transmits MIDI data on. This value is independent of the preset and will not be stored with the preset. This allows you to browse presets on individual MIDI channels.

The MIDI SEND and RECEIVE Buttons
These buttons determine whether or not to send/receive MIDI Program changes. When activivated, Program change messages will be sent/received between the editor and the hardware synth.

The MIDI In Button
This button determines whether or not to receive MIDI into the editor. When activivated, MIDI messages will be received between the editor and the hardware synth. Use this as an alternative to the hosts 'midi in' activation button. Ideal for when turning on/off midi in quickly, for example controller dumps. MIDI in should be disabled to prevent feedback loops, when using the MIDI Out simultaneously.

The About Screen
To view the About screen, click on the reKon audio™ logo button.

Working With Presets

The Presets Section
The preset section allows you to control and manage your presets or 'patches' as they are referred to in the synthesizer world. The display readout shows the current preset name and number. The arrow buttons will allow you to move up and down through the presets. The 'loader bar' indicates MIDI data being sent to your synth to set the patch dynamically.

Changing the Current Preset
Use the arrow buttons to change the currently selected preset.

Renaming the Current Patch
To rename your preset, simply click on the name in the display readout and type the new name of your patch, then hit the 'Enter' key. Patch names are limited to 24 characters.

Using the Copy/Paste Button
You can easily copy and paste presets to and from the currently selected preset. First select the preset you wish to copy by navigating to it with the preset select arrow buttons. Now, click the red 'Copy/Paste' button (you will notice the button change color). Next, navigate to the preset number you wish to paste to. Now click the 'Copy/Paste' button again (the 'Copy' button will change back to it's default state). Voila! This tool is invaluable for creating variations of your favorite presets and allows you to quickly build your preset library up.

Default Preset Banks
The default preset bank in the VST Lead2 Editor is the standard factory default bank A from Clavia Music. If you modify the default bank and wish to restore the default bank, you can easily load the bank from the 'fxb' folder. Also included is a default blank bank that has all presets values set to zero. This results in a preset that makes no sound on the synthesizer. This is sometimes a good bank to start your projects with which you can copy patches into without worry of overwriting other patches.

Sysex Patches and Banks
The VST Lead2 Editor can also load and save standard sysex (system exclusive) patch and

bank files. This makes importing your existing patch libraries very easy. Use the Sysex menu to select either a patch or bank load or save method. Once you have loaded a sysex patch or bank, you should give the patch(es) a unique name and then save them as a .fxb/.fxp file.

MIDI Continuous Controller (CC) Messages

The following MIDI Continuous Controller messages are transmitted (Tx) and Received (Rx) by the editor to set the patch. *NOTE- Not all parameters are available to all Lead2 Models.

Nord Lead Parameter	Range	CC#	Value Labels
Gain	0-127	7	
Oct Shift	0-4	17	-2, -1, 0, 1, 2
Mod Wheel Destination	0-4	18	04 cc morph top light, 00 filter bottom light, 01 fm bottom and middle light, 02 osc2 middle light, 03 lfo1 top and middle
Unison	0-1	16	Off, On
Poly/Legato/ Mono	0-2	15	Mono, Legato, poly
Portamento Auto	0-1	65	Off, On
Portamento Time	0-127	5	
LFO 1 Rate	1-127	19	
LFO 1 Waveform	0-4	20	00 SH wave bottom light, 01 ramp down bottom and middle light, 02 triangle middle light, 03 cc square top and middle , 04 1st wave (random?) top light soft random, square, tri, saw, random
LFO 1 Destination	0-4	21	04 FM top, 00 PW bottom, 01 filter bottom and middle, 02 osc2 middle, 03 osc 1+2 middle and top osc 1+2, osc 2, filter, pulse width, FM
LFO 1 Amount	0-127	22	
LFO 2/Arpeggio Rate	0-127	23	
LFO 2 Destination/ Arpeggio Mode	0-8	24	04 osc 1+2 top, 07 filter bottom, 03 amp middle, 00 arp dwn bottom + arp light, 02 u & d bottom + middle + arp light, 01 up middle + arp, 05 random top + middle + arp, 06 echo top + arp light filter, arp up, arp down, arp up+down, amp, osc 1+2, rand arp, echo, off

LFO 2 Amount/ Arpeggio Range	0-127	25	
Modulation Envelope Attack	0-127	26	
Modulation Envelope Decay	0-127	27	
Modulation Envelope Destination	0-4	28	01 FM top, 02 pw both, 03 both lights off?, 00 osc2 bottom osc2, fm amt, PW , off
Modulation Envelope Amount	0-127	29	
Osc 1 Waveform	0-3	30	03 sine top, 00 square bottom, 01 saw third down, 02 triangle second down square, saw, tri, sin
Osc 2 Waveform	0-3	31	square, saw, tri, noise
Osc 2 Semitones	0-120	78	m60 to 60
Osc 2 Fine Tune	1-127	33	
Oscillator FM Depth	0-127	70	
Osc 2 Keyboard Tracking	0-1	34	
Oscillator Pulse Width	0-127	79	
Oscillator Sync	0,1,4	35	01 sync bottom, 02 ring mod top, 03 ring + sync both, sync on-off, ring mod on/off, filt dist on-off (bit 0 = sync on/off, bit 1 = ring mod on/off, bit 4 = filter dist on/off)
Oscillator Mix	0-127	8	osc1 - osc2
Amplifier Envelope Attack	0-127	73	
Amplifier Envelope Decay	0-127	36	
Amplifier Envelope Sustain	0-127	37	
Amplifier Envelope Release	0-127	72	
Filter Envelope Attack	0-127	38	
Filter Envelope Decay	0-127	39	
Filter Envelope Sustain	0-127	40	
Filter Envelope Release	0-127	41	
Filter Mode	0-4	44	LP12dB, LP24dB, HP24dB, BP, Notch+LP
Filter Cutoff	0-127	74	

Filter Resonance	0-127	42	
Filter Envelope Amount	0-127	43	
Filter Velocity	0-1	45	Off, On
Filter Keyboard Track	0-3	46	01 1/3 (one third) bottom, 02 2/3 top, 03 full both, 00 off Off, 1/3, 2/3, full
Filter Distortion	0-1	80	on-off

MIDI Implementation Chart

The following MIDI data is transmitted (Tx) and Received (Rx) from the editor...

Message	Tx	Rx	Notes
Channel	x	o	1-16
Mode	x	x	Omni mode
Note On/Off	-	o	note numbers 0-127
Velocity	-	o	0-127
Aftertouch	-	o	0-127
Poly Pressure	-	o	0-127
Pitchbend	-	o	0-127
Modulation	-	o	0-127
Continuous Controller	o	o	0-127
Program Change	x	x	0-127
System Common	x	x	
System Realtime	x	x	
System Exclusive	x	x	

x = no
o = yes