MSQ-CC-LRE

MotionSeQuencer for ControlChanges for 2xLRE8x2 Boards Synth-Patch-Editor & Motion-Sequencer 4 ControlChange (= CC-Automation)





Video

Introduction

Controls and automate a Nord Drum2 (Drum-Synth)NORD DRUM 2

<u>It acts as:</u>

- **Midi Merger** NTE,CLK,PC merge with CC... - **Patch Manager** it replaces the Synths internal Patch Storage, each PC Number from your Sequencer is added by the BANK CC (CC 32), where each Nr is ADD 128 PC Numbers more...

- **Motion Sequencer** Record your Controller Movements in a Sequence in 32th Resultion @ maximal 256 Steps length

Features

- Remote your Synths by: 8x Midichannels with up to 32x Control Change (CC)

- Save the Patches and dump it to Synth

- Load hundrets of Patches via received Program Change + the Bank-CC (CC32)

- **Save Patches** vie CC24 + CC value 0-127... when sending before a BankCC32 you can expand that to 128×128 patches

- Record CC-Motion-Sequences - PLAY Motions-Sequences up to 256 steps @ 32th rate - VELOCITY MORPH Add Velocity-Ammount to CCs

- MERGE incoming Midi-Notes/Clock/Pitchbend with Automated CCs

- Set Sequencer Beatstructure - how to interprete Clock-ticks (4/4, 5/4, 6/4, 7/4...) - CC23

- **Global Page**: for example you use 8 simular Drum-Voices, with the Global you have 8 channel strips with dedicated Controlls, for example:

8xVolume, 8xTone/Noise-Mix, 8xDistortion, 8xClick

if you have one Synth over 2xMSQ_CC_LRE Tracks(booth set to MidiChannel 0, to get 64CCs instead of 32), then the Global Page: have the ability to show/edit a parameter from Track1Voice on

Track1Global, and from Track2Voice on Track2Global... it depends how you set the Midichannel in the Systemsettings (which are hardcodet but via Mapping Array changeable)

- for one multipart-synth, MSQ_CC_LRE do all the Preset Store, and Automations, so it is one Unit > to use the Unit in a other way would make all the Patches (128×128 patches) useless, so once done, its bound to it, load all with Programchange! minimal is better here, there will be other **MSQs** outthere see MSQ-CC-BCR

Hardware Requirements

External Requirement: (for example)

- Melody/Clock Source with ProgramChange-Output: midibox_seq_v4l oops that dont do PC...
- Melody/Clock Destination: NordDrum 2

Midibox:

- core32
- 1xMidi IO connect 1 midicontroller and 1 Note/Clock-Source/Destination
- SD-Card, formated with FAT32
- Soldering Iron, Wires, PCB....
- USB Power Supply
- 2x LRE 8×2 mb-lre8x2cs_pcb
- 3 extra Encoders and Ledrings (to controll the unit) + Pushfunction inclusive Button LED
- 8 Momentary Buttons without LED
- 1 Momentary Button with LED

- 1x DINX4
- 1x DOUTX4

Setting

Cabeling

MidilO PortB Out »> Synth Midi IN MidilO PortB In »> Clock+Notes

Frontpanels

Stickers

LCD

it would be possible to add 16 OLEDs but... but i dont have the money for that right now....

MBHP

Software

Firmware

V1. from 9.05.2018msq_cc_lre_v0.norddrum2.zip

hardcodet for a NordDrum2 - but change-able in Mapping via a Array in Sourceode: this is the maping which says wich of the 32 internal CCs are one of the outhernal CCs (0-127):

| const uB CC_MapD(B112) = 4 // CC_MapD (Part) [Internal CC B7] = value of external CC >> // CC MapD (B12Channel) Benetr/Source) = Value of SynthMetization | |
|---|---|
| // Ist Rew Herizental (tep-rew) // 2nd Rew Herizental // 3rd Rew Herizental // 4th Rew Herizental | |
| // CC-se-LBE: 0 1 2 3 4 5 6 7 8 9 18 11 2 13 14 15 12 2 13 14 13 16 17 18 18 28 21 22 23 24 25 28 27 14 54 56 50 51 51 51 51 51 51 51 51 51 51 51 51 51 | 20 29 30 31 (International Action 1 Martin 1 |
| 1 57 58 24 25 28 26 26 27 10 7 15 17 14 16 18 19 28 21 48 52 53 47 48 54 55 26 55 | 58 , 255 , 255 , 255 , . // Nord Drum 2 Voice 1 NidiCh 7 58 , 255 , 255 , 255 , . // Nord Drum 2 Voice 2 NidiCh 8 |
| 1 57 - 58 - 51 - 52 - 58 - 51 - 52 - 58 - 7 - 15 - 17 - 14 - 18 - 18 - 59 - 53 - 52 - 48 - 52 - 53 - 53 - 53 - 53 - 53 - 53 - 53 | 50 , 255 , 255 , 255 , // Nord Drum 2 - Vaice 3 - MidiDA 9 |
| (57, 56, 24, 23, 26, 22, 10, 7, 15, 17, 14, 16, 18, 19, 21, 21, 46, 52, 53, 47, 46, 54, 55, 254, 59, 51, 46, 26, | 58 . 255 . 255 . 255 . // Nerd Drum 2 Value 4 Mudich 30 58 . 255 . 255 . 255 . // Nerd Drum 2 Value 5 Mudich 11 |
| (57, 59, 53, 51, 52, 53, 52, 55, 55, 57, 55, 57, 54, 14, 16, 59, 59, 52, 53, 45, 46, 55, 55, 55, 55, 55, 55, 55, 55, 46, 58, 55, 55, 55, 55, 55, 55, 55, 55, 55 | 58 , 255 , 255 , 255 , 251 , // Nerd Drum 2 Vaice 5 Middlh 11 58 , 355 , 255 , 255 , 275 , // Nerd Drum 2 Vaice 6 Middlh 12 |
| 1 255 , | 255 , 255 , 255 , 255) , //mot in Use |
| | 255 , 255 , 255 , 255}; //est in Une |
| This Mapping says which one of the 32 internal CCs are positioniered in the | |
| This Mapping says when one of the 52 methal ees are positionered in the | |
| Mixer/Overview/Channelstrip-Mode | |
| Mixel/Overview/Chamleistip-Mode | |
| // 4 CC_Boute_Bode = 1: = 8x Channelstrip | |
| const all CC Mup[10][12] = (//CC Mup1 [Active_Strip_Set] [CC to remap to Mup0] // Site Marginguestal // 2018 Mar Marginetal // 2018 Mar Marginetal // 4th Rew Marginetal // 4th Rew Marginetal | (ata) |
| 1 | 7. 7. 7. 32. 32 // Channel-Strip-Set1 (Miser) |
| | 5 5 5 5 32 32 32 3 7 0 Channel-Strip-Set2 (Filter) 25 25 25 32 32 32 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| (15, 13, 15, 15, 13, 15, 12, 23, 24, 19, 19, 19, 19, 19, 19, 19, 23, 24, 24, 24, 24, 24, 24, 24, 24, 24, 24 | 25 . 25 . 25 . 32 . 32 . 32 . // Charnel-Strip-Set2 (Decay) 32 . 32 . 32 . 32 . 32 . 32 //mat used |
| | 32 . 32 . 33 . 32 . 32 . 32 . 1/net used 32 . 12 . 33 . 32 . 32 . 3 . //net used 32 . 32 . 33 . 32 . 32 . 12 . //net used |
| | 32 , 12 , 32 , 32 , 12) , //not used 32 , 32 , 32 , 32 , 32 , 32) , //not used |
| L (32, 32, 33, 32, 33, 32, 33, 32, 33, 32, 32 | 32 , 32 , 33 , 32 , 32 }};//mot used |
| | |
| // to get: CC_Map4[0-7][CC_Ma | L-Mr. |
| // ts get: CC_Map8[0-7] CC_Map8[1][0-7]] = 15CC-Wr.= N.Filt CC_Map8[17][0-15]] = 13CC-Wr.= N.Res Far Wales: Sear(0) CC_Strue[12] [Sc_Strue[12] [Sc_Strue | |
| // to get: CC_Mpp1[0-7] CC_Mpp1[2][0-7]] = 210C-Nr.+ N.Decay CC_Mpp1[0][0-7] [CC_Mpp1[2][1-15]] = 470C-Nr.+ Tinbec | |
| // to get: CC_Pap018-711 CC_Pap018-71] = 255CC-Nr.= Northing-will be filtered ant > black out LEDRING | |
| » · · · · · · · · · · · · · · · · · · · | |

there are 8 deep edit pages, and 8 overview pages.

CC Routing to Synths

MSQ_CC_LRE internal i have 8×32 CCs, they are always identical. but with a simple input output matrix i can decide which CC it gets in real world.

each of the 8 Part can have midichannle 0-15...

So we talking about Mapping... in the moment it is made in the source code with a simple array.

To Do

alot, but since it is base on MSQ-CC-BCR! most is done, and its running solid

maybe scale min max values for CC: for example different synths have only 0-3value instead of 0-127, by different functions like WAVEFORM...) - this will be interesting when using other synths then nord drum...

Resources

Community users working on it

• **Phatline** = Programming, Documentation...

Just let a Private message on the forum to user already involved, the sourcecode is includet in the firmware .zip!!!

From: http://www.midibox.org/dokuwiki/ - **MIDIbox**

Permanent link: http://www.midibox.org/dokuwiki/doku.php?id=msq-cc-lre&rev=1645738013



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