TriggerMatrix V0

yes there is a 8bit Prototype, built in a Techstar made it a TEKKSTAR, but also there it was soon replaced with a 32Bit Core,

it was a 8×8 LED-Matrix, with 2×8 Buttons, on Breathboard

a other 32bit Variante built in on the other Upper-Manual in Crumar 198, UI-controlled via a BCR2000

TriggerMatrix V1

32 Bit PROTOTYPE

TriggerMatrix V2

not supported anymore, it has timing issues, use the way more lightwight V3 or V4!

What is Triggermatrix ?

a quick but not full view into triggermatrix and sequencing (german-austrian)
Triggermatrix Teaching
Triggermatrix-basics
Echtzeit Musik

Teaser

You have spend time to program a cool rythm, and you already know which chords/melodys you want to play, and now its time to programm the timing/steps/the rythm in the melody… after quite a while of trying and looking on your drumline you have a fitting melody line for your drums…

now you change the drums a bit… o no i also have to change the melody now… i make a break, a intro…oh no so much work and time…and all because, the melody is fixed in arrangement,

you want a melody line that goes with beat? you want to change the beat note stream also (noteprocessing)? > read more… i have a tool for you!!! it will change your way doing LIVE!
get ready for JAM!

Features

Short spoken:

- 16xdrumtriggers > Trigger-Routing-Matrix > Drum-Syntesizers
- Melody-lines > Trigger-Routing-Matrix > Melody-Syntesizers

Rules:

- Drum-Trigger are Velocity Master > we dont care about the velocity of the Melodys
- There are Songs (ProgramChange), each Song has 16 different Trigger-Routings Presets> these are the Song-Parts
- 512 Songs saved on SD-Card, and Load-able while playing
- 512 System-Settings(Setups) saved on SD-Card…i use only one of it
- Triggermatrix midi-outs are connected to all synths, so it manage the program-change also
- 16x Trigger-OUTs with fixed Notes, on one midichannel - to connect Drum-Synths, Drum-Samplers
- 6x Polyphonic Melody-Retrigger-OUTs on 6 MidiChannels - to connect MelodySynths to it
- 12x Monophonic Melody-Retrigger-OUTs on 12 MidiChannels - to connect Monophonic Synths like pitchable Drums or Bass-Synths
- All 16 Trigger & ReTrigger-OUTs share the same Routing and Channelstrip UI (Mute, Solo, Roll…)
- Trigger, Poly, Mono-OUTs can be controlled seperatly by > **Random-Kill** & **Velocity-OFFSet**
- 6x Melody-Input-Matrix - Route & Mix Melody Inputs to the 16 Melody-Retrigger-Outs (saved in Song)
- 16x Melody-Input-Matrix-Hold-Buttons - hold the last Note, save it in the Patch - usefull when pitch drums.

V1: the Matrix has also a Trigger-Sequencer built in, the Melodys have to come from anywhere else, but @ the end, they have to be plugged into the matrix…

Trigger-sequencer, a few facts:

- is a Drum-Step-Sequencer
- 256 Steps in total
- minimal LoopSection is 16steps = 1 Page, there are 16 pages to chain
- intro LoopSection, from step 0 until to the "minimal LoopSection"- is played once, then it loops the normal LoopSection
- The sequencer is made to give a static NoteStream, the Song-Structure is done by the TriggerMatrix
- Full Velocity control, visible with 3 different colours, each colour-Vel is set with its own CC
- Free programmable Swing to each Step, with 2 different swing Length-sets, which are controlled live via CC
- copy, paste, erase of pages
- copy, paste, erase of rows
- forward, backward, fw><bw - play direction
- Not only 4/4 are possible, all other things like 5/4 are possible! +++

Generic Interface

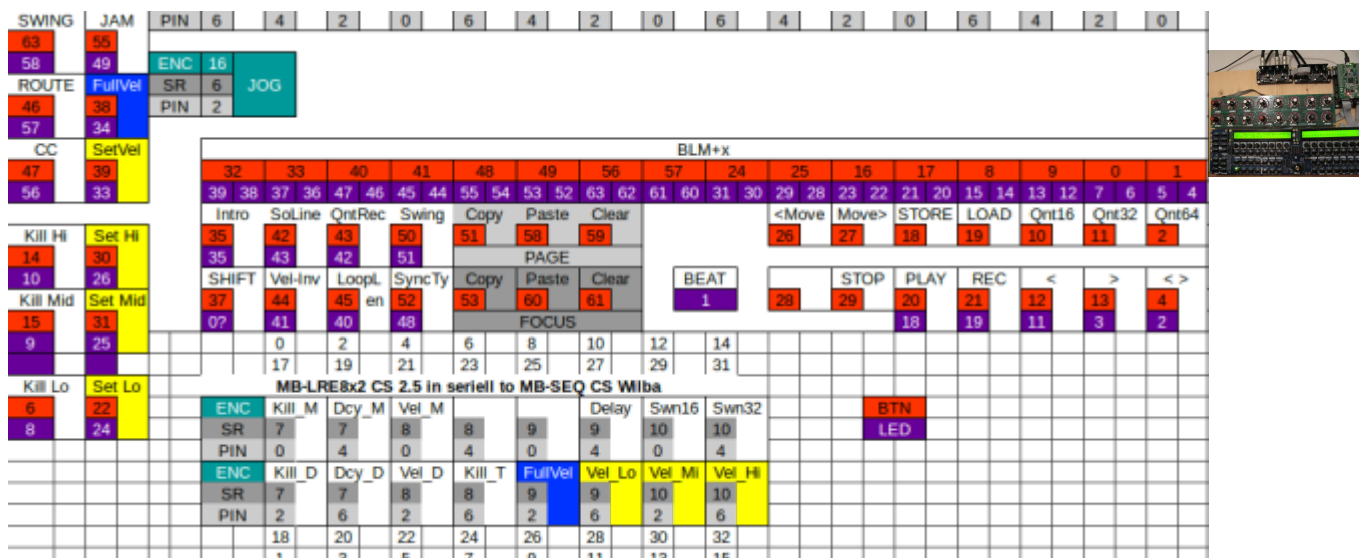Generic in sense of: PCBs that already out there:

- Wilba SEQ CS
- BLM16x16x
- LRE8x2CS_PCB
- CORE32 STM32F4
- 2x 2x40Char Display
- 2x Midi IO
- SD-Card and some wires (which all are crimpable)

so when you have those things, upload the Code & watch the videos above

Serial Chain is: Wilba SEQ-CS and then LRE8x2
code is working, SEQUENCER timing is a mess, i was still a newbee in c > "learning by doing"

here is a "FrontPanel+Pin-Out" where the functions on the WILBA CS & LRE8x2 are explained

SWING	JAM	PIN	6	4	2	0	6	4	2	0	6	4	2	0	6	4	2	0
63	55																	
58	49	ENC	16															
ROUTE	FullVel	SR	6	JOG														
46	38	PIN	2															
57	34																	
CC	SetVel							BLM+x										
47	39		32	33	40	41	48	49	56	57	24	25	16	17	8	9	0	1
56	33		39 38	37 36	47 46	45 44	55 54	53 52	63 62	61 60	31 30	29 28	23 22	21 20	15 14	13 12	7 6	5 4
		Intro	SoLine	QntRec	Swing	Copy	Paste	Clear		<Move	Move>	STORE	LOAD	Qnt16	Qnt32	Qnt64	
Kill Hi	Set Hi	35	42	43	50	51	58	59		26	27	18	19	10	11	2	
14	30	35	43	42	51		PAGE										
10	26	SHIFT	Vel-Inv	LoopL	SyncTy	Copy	Paste	Clear	BEAT		STOP	PLAY	REC	<	>	< >	
Kill Mid	Set Mid	37	44	45 en	52	53	60	61	1	28	29	20	21	12	13	4	
15	31	0?	41	40	48		FOCUS				18	19	11	3	2		
9	25		0	2	4	6	8	10	12	14							
			17	19	21	23	25	27	29	31							
Kill Lo	Set Lo		MB-LRE8x2 CS 2.5 in seriell to MB-SEQ CS Wilba														
6	22	ENC	Kill_M	Dcy_M	Vel_M			Delay	Swn16	Swn32		BTN					
8	24	SR	7	7	8	8	9	9	10	10		LED					
		PIN	0	4	0	4	0	4	0	4							
		ENC	Kill_D	Dcy_D	Vel_D	Kill_T	FullVel	Vel_Lo	Vel_Mi	Vel_Hi							
		SR	7	7	8	8	9	9	10	10							
		PIN	2	6	2	6	2	6	2	6							
			18	20	22	24	26	28	30	32							
			1	3	5	7	9	11	13	15							

TriggerMatrix V3

Teaser

more then V2 was Song-Structured, V3 is a JAM Oriented
in V2 we had a lot of UI-Elements, Menues, and Settings.
V3 is stripped down and optized: 8 Faders, 5 Tactial Buttons, 3 Switches, 1 Encoder, + BLM16+16X.
its more the orginal V0 Tekkstar, there we had only a matrix a view buttons and Pots… more used as an instrument
3/4 4/4 4/5 and other settings are Set on the 16×16 Matrix with "on matrix text".
The Timing now is rock-steady.
New is the Clip-Launcher, here we can Ableton-Style switch Clip-Variations and Songs
Now we have a Roll-Variation Fader!

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Rules:

- Drum-Trigger are Velocity Master > we dont care about the velocity of the Melodys
- There are Songs (ProgramChange), each Song has 8 different Trigger-Routings Presets> these are the Song-Parts
- 256 Songs saved on SD-Card, and Load-able while playing
- System-Settings, like Ports or MidiChannels are Hardcodet
- Triggermatrix midi-outs are connected to all synths, so it manage the program-change also
- 16x Trigger-OUTs with fixed Notes, on one midichannel - to connect Drum-Synths, Drum-Samplers
- 5x Polyphonic Melody-Retrigger-OUTs on 5 MidiChannels - to connect MelodySynths to it
- 11x Monophonic Melody-Retrigger-OUTs on 11 MidiChannels - to connect Monophonic Synths like pitchable Drums or Bass-Synths
- All 16 Trigger & ReTrigger-OUTs share the same Routing and Channelstrip UI (Mute, Solo, Roll...)
- Trigger, Poly, Mono-OUTs can be controlled seperatly by > **Random-Kill** & **Velocity-OFFSet**
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- 32 th fixed rate
- 3,4,5,7,11,13/4 tact
- minimal LoopSection is 16steps = 1 Page, there are 16 pages to chain
- intro LoopSection, from step 0 until to the "minimal LoopSection"- is played once, then it loops the normal LoopSection
- The sequencer is made to give a static NoteStream, the Song-Structure is done LIVE by the TriggerMatrix-ROUTER
- Full Velocity control, visible with 3 different colours, Velocity Set via FADER
- Free programmable Swing to each Step, with 2 different swing Length-sets, which are controlled live via CC EDIT no CC for that right now
- copy, paste, erase of pages
- copy, paste, erase of rows
- fixed forward play direction

U Interface

PCBs that already out there:

- BLM16x16x
- CORE32 STM32F4
- 2x Midi IO
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Extendet UI via GPIO via J10AB, J5AB:

Community users working on it

- **Phatline** = Programming, Documentation, Hardware-Prototype, Testing, Jamin…

Getting Involved ?

Just let a Private message on the forum to user already involved

From:
http://wiki.midibox.org/ - **MIDIbox**

Permanent link:
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