SDS Digital Accord Sequarallel Quick Reference Cards

Contents

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QUICK REFERENCE

Recording: MIDI Song

Record a MIDI Song

You can record an entire MIDI Song to play or divide into Loops to play along with TRAX & Layers.

Set Up Source:

Turn on / enable MIDI Clock
Patch Source to MIDI in
Set Stop Point if can

MIDI Source can be a DAW with MIDI interface, a MIDI Sequencer like Beat Step Pro or other. Must send a MIDI Clock signal to record as a song. A modular clock can also be used if just manually playing in MIDI from a keyboard. While manual stop is not a problem, a proper on down-beat (measure/bar) stop is better

Press S+P Buttons

Arm Seq for Song Record

Pressing the S+P Arms for recording Song only Both LEDs will flash. Pres "S" to cancel.

Play MIDI Source

If no MIDI Stop after, use "S" button on module

Create Loops

[LOOP] Quick-Box

In [LOOP:OFF] QB (Press & hold to enter), you can divide parts of the Song into Loops in Bars. Scroll down to "Loop 2: Add:" to make a Loop. Click Loop to adjust Size. Continue for more loops. Trim last Loop with "Song End" adjustment.

Edit / Add Loops in Play List

After creating Loops, these will be placed into the [PLAYLIST] QB under the "SO" (song) column. Double click blocks or cells to add/delete/insert Loops Double click Start block and select [::ARM::]

Press "P" button to Play your Loops.

Apply SongFX

To Blocks: Transpose, Scale, Mirror, Re-trigger etc

Double-click Song Loop Blocks and select [--EDIT-->] to modify SongFX for it. Each block can have a different SongFX# or all use the same one. Once [:SONG FX:] highlighted, either scroll to set some SongFX parameters, or press and hold to assign a SongFX# or adjust SongFX transpose etc.

SongFX#'s are called up with each block that plays. Some parameters, like Transpose and scale can be set to send to TRAX and Layers. Layers can use most other SongFX parameters.

QUICK REFERENCE

Recording to TRAX tracker

Record to TRAX Grid

You can record an entire MIDI Song to play or divide into Loops to play along with TRAX & Layers.

Set Up Source:
Decide on a MIDI Channel
Patch Source to MIDI in
or CV inputs (CC5,6,CKo)

MIDI source for TRAX should be hand played or perhaps CV input in CC5, CC6, and CKo for gate, note & velocity. TRAX will switch to whatever MIDI channel is input, but this can be changed afterwards in Setup.
TRAX records / stacks notes into lanes and will overwrite whatever was in the Step before (as default mode)

Set Up TRAX Record
Record velocities?
Record Lengths, delays?
Keep cell's Note FX?

Click [TRAX:Add:] Yes Click TRAX 1 and scroll to [-RECORD-] and press and hold to enter record settings
By default, any notes recieved will completely overwrite the notes in the present step.
Settings to protect NoteFX assignments as well as switches to record the velocity, length, delay can be turned on.

Set Tracker Size and Speed

Press and hold [TRAX:1] and select Letter A to enter the TRAX Editor. Scroll right into the Pop-up and click on [:SETUP:] to make soe settings for the tracker.
How many steps should the tracker be? Faster Clock mult's will loop the tracker quicker.

Play in some notes

Notes are added to the grid as they are played when the Sequarallel is Playing (Hit "P" button) but when not playing will add a note(s) then progress a step.

Add NoteFX to a note

In the TRAX Editor, triple-click any note to edit it's basics. In this menu a NoteFX#1-8 can be selected, then the NoteFX edited by selecting FX EDIT->
NoteFX can Echo or chop a note, offset with a micro-arp, add random parameters, or trigger MIDI events each time the note is played.
During record NoteFX assignments can be protected so they will be applied to any new note recorded!

Any presently playing SongFX# (#1 by default) can be used to transpose or scale a TRAX as the TRAX QB does. In SongFX (held to enter)SongFX transpose can be applied, or in SongFX Scale, any scale quantization.

QUICK REFERENCE

Recording: MIDI Layers

Record a MIDI Layer

You can record set number of bars in an accumilative way or as 1-shots from any MIDI source, CV, or even record itself (Rec Until:TRAX)

Set Up Source:

Decide on a MIDI Channel
Patch Source to MIDI in
Decide on Clock/Sync

MIDI Source can be a DAW with MIDI interface, a MIDI Sequencer, or MIDI keyboard / pads.
The source can be the Clock source, or use the modular Clock (input or self) to play along with if playing by hand.

Set Up Layer Record

How many bars?
1-shot recording or add?
Start with Clock (play arm)?

Click [Lay:Add:] Yes Click Layer 1 and scroll to [L Record]. Press and hold to enter Layer Record Setup

For hand played Layers that add each bar span just exit and set how many bars (click on [L Record]). Hit "P" to start your sequence (assuming you know the tempo)

For recording a MIDI Sequencer (DAW) using it's clock turn on "Clock Start" and "Rec Until:1-shot". Exit and set how many bars. Press "P" button to arm for clock.

Start Play / Clock

From Source Clock, or
modular clock
or running record

Hand playing:
If Sequarallel is already playing, then Layers will start recording from the bar that you played the first note.
If not a 1-shot, once the Layer loop is playing, another record can be added by simply playing more notes

DAW/Sequencer (MIDI clock):
Once set up, press "P" button to arm play on MIDI clock
Start DAW/Sequencer and a Layer will be recorded.

Edit Layer Loops

Include / exclude Layers in
the Layer Loop Sequencer

Click and hold [LAYER 1] QB and select SEQ 1 to add and edit Layers in the Step sequencer. Some Layer's can play while others not. Also set how many bars in each step, as well as StepFX (scroll left on row and double-click to open StepFX settings).

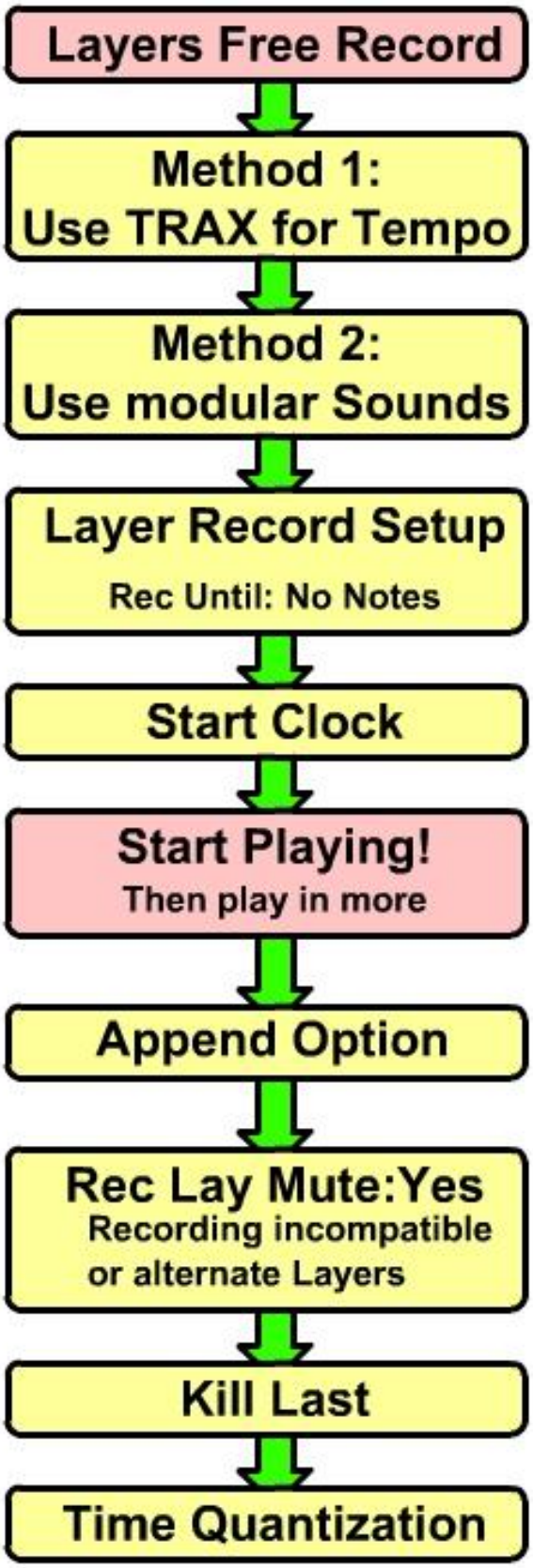
Add up to 4 of these Loop Sequences anywhere into the [Play List] to play your Layers in various ways.

SongFX#'s that are are presently playing (regardless of whether a Song was recorded) can be used by StepFX to change the way you Layer Loops play, if StepFX "Use SongFX" and/or Use Re-triggering are turned on.

QUICK REFERENCE

Layer Record Methods: Free Play

(By Example)



To free play in Layers, a tempo is still required so that it will match the clock, be quantizable, and have a predictable length, even if Appended.

Create a TRAX, enter [SETUP] to make it Channel 10 and add a beat on steps 1,5,9, & 13. The first should be different i.e. open hat, closed hat for the others.
This will give 4 beats with a start beat like a metronome.

Alternatively, a tick sequence from the same clock in modular could be used, or just another sequence that marks the start of bars. It is important that the clock is stopped, then started to allow Beat 1 alignment.

In the [LAYER 1] QB scroll to [L RECORD] and hold.
To automatically add layers while playing, leave all of the settings, especially REC UNTIL:NO NOTES. This will let you add more Layers by simply playing them in.
Exit then select [L Record] to set the bars (i.e. 4 bars)

Patch the MIDI in to your keyboard or pads, start your clock and hit "P"lay, or arm "P"lay and start your clock. If using the "self clock" just hit "P"lay.

Once ready, start playing the keyboard/pads for the number of bars you have set. Play will begin on beat 1 after that. You can continue to build the loop or wait, then add to it as Record will re-arm right away.

If you want to start by playing a short backing part, then expand to a longer loop, in Layer QB activate [APPEND] As long as you play a note before the 2nd beat, the loop size will be doubled, and can be doubled again.

If you don't want to hear previous Layers while you are recording a new one, (perhaps they clash?) then in [L RECORD] Setup, turn on REC LAY MUTE.
Don't worry about density though as some parts can be masked in the Layer Loop Step Sequencer.

If you make a mistake, wait until the Layer begins to play then click [LAYER 1] and scroll to [KILL LAST]. Click and select YES. This works for previous Layers too

If your notes are a bit out of sync, aligning them to other Layers can sound sloppy. Try the [QUANT:/8] setting in the Layer QB. If you are plagued with bad timings, perhaps add some [SWING:+15] in [SONG FX]

QUICK REFERENCE

Layer Record Methods: DAW/Seq

(By Example)

MIDI Seq. Record

MIDI Clock

Arm to Record

Play DAW / Sequencer

To record into a Layer from a DAW or Hardware MIDI sequencer, timing is everything. Layers are recorded from a clock-start condition rather than while playing.

Make sure your MIDI source has MIDI Clock engaged. In the Layer QB's [L RECORD] (hold to enter) set the CLOCK START:YES and REC UNTIL: 1-SHOT

Exit back to LAYER 1 QB, select [L RECORD] and set the number of bars the recording will be (4 beats/bar) This will arm to record a Layer. Arm to "P"lay.

Press play on you source (DAW or HW MIDI Sequencer) and watch the beats/bars count down. Once finished, newly recorded Layer will play along.
More Layers can now be added with these settings.

o o

CV Sequencer Record

To Record a modular CV sequence, we can use the CV+Gate to MIDI configuration.

Self Record Setup
Set CV in -> Merge MIDI
Set to Self Record

To ensure Self-record ability, go to the bottom of QB's to [SAVE:EDIT] click and scroll down to [SETTINGS], hold to enter global settings. Set CV IN>:MERGE INPUT. Go back to [LAYER 1] QB, the into [L RECORD] to set REC UNTIL: to TRAX. (This is the normal use for self-rec)

Set up CC5, CC6
To make MIDI Notes

In [MIDI PUSH] set CC5 & CC6 Direction: to Input
Make CC5's FUNC:MIDI GATE, CC6's FUNC:MIDI NOTE.
CKO can be used for MIDI VEL if velocity is useful.

Clocking
Pre-Run Clock

The CV Sequencer's clock should be patched to CLKin. The clock going from stopped to running will sync the Sequarallel's beat 1, so Sequencer should also be reset.
*It's good to do a "pre-run" to tune Sequar. to new clock

Arm to Record

Select Layer 1 QB and scroll to [L RECORD] to set the number of bars you wish to record. This will arm record. Press "P"lay button to arm play.

Start Clock

Start your clock. This will start the Sequarallel playing and start Layer recording. Once done, layer will play.

The internal Clock (self clock) can be used to clock your sequencer and record it the same way. Reset your sequencer and hit "P"lay.
*Note: As a caution, REC UNTIL:TRAX will reset so needs to be set again for the next self Record.

QUICK REFERENCE

Editing Layers in Loop Sequencer

Playing Layer Loops

Click & Hold [LAYER:n] QB and select a Sequence # to enter the Layer Loop Step Sequencer. Hit Play "P"

The Grid Display

The Grid will show the first step populated with the Layers you have recorded in. Click the blocks to add / remove Layers from a step.

Edit Bars Per Step

#	BR	A	B	C	D	E	F	G	H
1	04	04	04	04					
2	--	--	--	--					
3	--	--	--	--					
4	--	--	--	--					

"BR" is bars in step. This can be adjusted to any amount so if larger, then Loops will repeat in Step, if smaller, then will step before Loops are done.

Add More Steps

#	BR	A	B	C	D	E	F	G	H
1	04	04	--	04					
2	12	--	04	--					
3	02	04	--	--					
4	02	--	--	--					

Step 2 will play Layer B 3 times, but Step 3 will only play half of Layer A before continuing. Step 4 has no Layer A so Layer A will still continue to Play.

Variable Step Sizes

#	BR	A	B	C	D	E	F	G	H
1	04	04	--	04					

← Scoll left, double click

Scroll left to Step# and double-click to enter StepFX. In Step 4 you could turn on "Stop Last" to limit step 3 to playing only 1/2 of the Loop.

Edit StepFX

Loops:Transpose, Level, Solo, MIDI Channel, Probability, Use SongFX, SongChan, Re-trigger Notes Stop Last Loops Playing

Modify Each Step

Transpose, change Level(vel) Use SongFX to shorten notes or Limit Max / Min note or Mirror Notes

EXAMPLE

Step 1: No StepFX Play A & C Normally

Step 2: Play Layer B with SongFX applied

Step 3: Play Layer A Transposed & Solo

Step 4: Play Layer C but Stop Layer A Retrigger notes and set Probability to 80%

#	BR	A	B	C
1	04	04	--	04
2	12	--	04	--
3	02	04	--	--
4	02	--	--	04

24 BARS

L1 [A] Block in Play List will take 24 Bars to Play

Presently Playing SongFX# can be used to modify Layer Loops in Steps that have "Use SongFX" and/or "Retriggering" enabled. Many SongFX including Scales, Limit, Length, Levels, Mirror and the FX Sequencer (for re-triggering and more FX) will modify Layer notes and their play.

QUICK REFERENCE

TRAX Legacy Sequencer (Record)

(By Example)

Knob Controlled Steps

A short TRAX Sequence can be set up to have each step controlled by an external MIDI CC input to mimic a standard pitch knob controlled modular sequencer.

TRAX Record Setup
Define Function Select CC
Define Scale Root Note
Define "CV" Knobs Start CC#

In main screen scroll to TRAX:ADD, click and "YES" to make TRAX1. Click and hold on it and select [A] to enter the TRAX editor. Scroll right and down pop-up to the [RECORD] QB. Press and hold to enter settings.

Set FUNC SELECT CC# (to sel. what the knobs adjust)
Set NOTE OFFSET CC# (good if scale quantizing)
Set CC ROW START CC# for starting "CV" pitch knob

Set Sequencer Size

Exit the Record Setup and scroll down to [SIZE:16] QB. Change the size to 8, which will only require 8 knobs to control the steps (like a normal modular sequencer)

Add Notes
Manually or Step Record

Notes in the grid are required, like enabling a step.
Step Record: Turn on [RECORD] and play in 8 notes.
Manually: Just use encoder to add 8 notes in Lane 1.

Run (Play) Sequence

Make sure Func Select knob is fully down (Re-Note)
Make sure Note Offset knob is down (for Scales)
Hit Play (P button) and adjust "pitch" knobs as desired

Change Knobs Func:
Re-Note: Pitch Adjust
Velocity: Set Levels
Length: Change Note Lengths

Adjust the Function Select knob to change what the 8 Pitch knobs are controlling. Velocity can mute steps, Length cause them to overlap, Delay can offset times, Lesser used NoteFX can select a NoteFX# for the note, FX Map can mask NoteFX (up to 8 steps in this case), Kill can remove stepss, or add them back, while Shift can move the sequence up or down to change sync.

Scale & Chords

Turn on [SCALE:xx] QB to (min7). all notes adjusted will be quantized to the scale. Notes in Lanes 2, 3 & 4 will also be scaled. The Note Offset CC sets the Root.

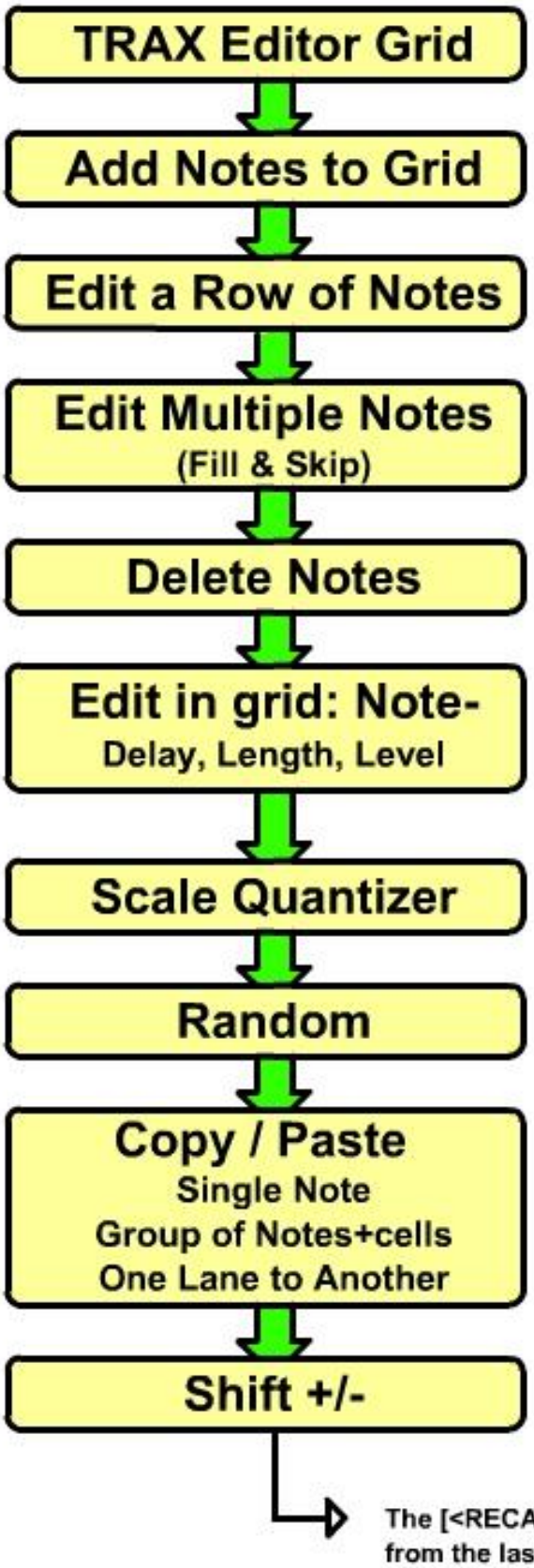
Note1: These record settings are not Global but could be set in Song:00 and [SAVE:INIT] to make them a starting point in any new project.

Note2: As TRAX Record can be any TRAX Letter, consecutive letters in the Play List will come into focus and be modified if knobs are moved.

QUICK REFERENCE

TRAX Editor

(Editing Notes in Grid)



Hold on any TRAX QB will enter the TRAX letter selector and selecting one of those will open it's grid. The tracker grid is 4 lanes wide with up to 64 steps per letter.

Double-click anywhere on the grid to add a note. Scroll up or down to select the note, which will audition, then click to finalize.

To Select a whole row (lanes 1-4) scroll to the left margin and double-click. All notes will be highlighted and can be scrolled up/down to new notes together.

To Edit multiple notes, scroll right which opens the side pop-up QB's. Select [FILL:1] and change to (i.e.) 6. While [FILL:6] is highlighted, selections will be 6 rows. Set [SKIP:2]. Now every second row will be selected.

Notes can be deleted by double-clicking on one, then scrolling down until "--". To delete numerous notes, In Pop-up, select [DELETE] then double-click them.

Select [LEVELS:] then scroll back into grid. Double-click a note, or notes, the set the level (L=100, Velocity) If [LEVEL] is clicked a second time, then notes will show but the level won't until it is double-clicked. The same goes for Length, Delay, and Fx.

While {SCALE:] in pop-up is selected and set, any row selected in grid will quantize to set scale. Make some random notes in a row, they will quantize to root (lane 1)

Turn on [RANDOM:n] to randomize groups of notes (use with [FILL]. The number is variance amount. Can be used with [SCALE] to quickly change a loop.

In pop-up, click on [COPY], now scroll up to grid and move to a cell to set copy, double-click. Scroll up/down to set the number of steps to copy notes. Click to Copy. Now move to the Row and lane you want to Paste to and double-click. Scroll size of Paste, which will repeat the range. Click to Paste. *Note: [Paste] will remain active.

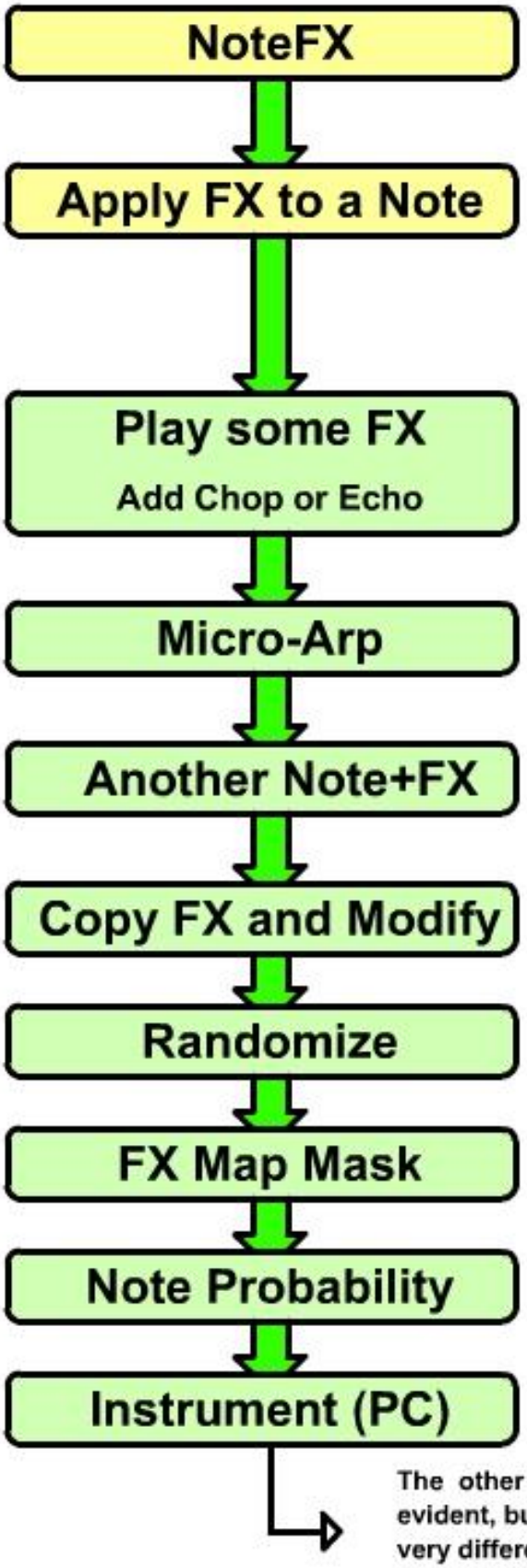
Shift, moves / rotates groups of notes up/down, live. Shift needs [FILL:1] set to 2 or more. So set Fill to 6, then turn on [SHIFT]. Select top of notes you want to shift, and double-click. Scroll to shift, click when done.

The [<RECALL] QB will recall grid state from entry into TRAX Editor or from the last time [COPY] was clicked. Clicking Copy on/off is a good way to save a sequence to revert to with Recall. A sort of "undo".

QUICK REFERENCE

TRAX NoteFX

(By Example)



TRAX trackers have up to 8 NoteFX bundles each that can be used anywhere on the tracker grid to apply FX like Echo-delay & Chop-ratchet with a micro-arp, PC changes, probability, MIDI glide, pan, CC's, & random

Create a [TRAX:ADD] by setting YES, then hold on [TRAX 1] and select [A] to enter the TRAX Editor.
Double-click in top-left corner to create a note C3.
Triple-click the new note to get into it's settings.
Scroll down to FX SEL: and change to 1 to add FX1.
Click on FX EDIT to enter FX1 editing window.

Hit "P" button to Play the note
Scroll down to CHOP MULT: and change to 2, 3
Go up to ECHO REPEAT and set to 8, then ECHO:FEED: adjust to 85% so all can be heard. Set ECHO:TIME:1:00.
This echo's once for every step

Select MICRO ARP=1 +0 and scroll to step 2 and click
Set to +3. Repeat with step 4 at +7. Set to Step 1 again.
Now the Echo is an Arp! Try CHOP MULT:4

Hold to Exit FX Editing back to grid. At step 5, add another note, Eb, then triple click to add FX1 to it.
Now both notes are using FX1.
Change FX SEL: to 2 and click FX EDIT to edit.

Select COPY FROM T:1:A **FX1** to copy FX1 here.
Change back to ECHO REPEAT:8 so 2nd note Echos.
Change MICRO ARP Step 6 to +12, Step back to 1.

Scroll up to RANDOMIZE: and change to MICRO ARP
Adjust RAND RANGE to 8. This will vary arp start point.

Scroll down to FX MAP SIZE:16 and change to 3
Scroll over and toggle Last Block off. When the FX Map hits the Masked step, no NoteFX is applied to the note.

Just above is the Note Probability setting from 0-100%. Adjust to, say, 60%. Remember that if the NoteFX is masked, then the note will always play as Probability is a NoteFX. Useful for densely populated grids!

Instrument can be used to switch PC's with each note. Try a different PC for each of the NoteFX!

The other settings like Fine Tune, Glide (MIDI), and MIDI CC's is self-evident, but can really add to a more complex sequence making it sound very different on each pass.
*Other NoteFX#'s are easily accessed with TRAX EDIT FX:n at the top.

QUICK REFERENCE

Playing a TRAX Tracker to VCO

Playing to Gate & CV

TRAX MIDI or Lanes can be brought out to the Gate, Vel, and CV output rows on the panel.

[CV MODE] QB
Setup Jack's TRAX Source

Each jack can be configured to output from a specific TRAX source, i.e. TRAX 1A, TRAX 1C, or TRAX 1 ALL as well as through regular MIDI sent by TRAX on a MIDI channel, to MIDI out, or MPE zone channels.

VEL Jacks CC1-CC4

VEL jacks:
Scrolling -->JACK: to CC1 will allow setting of the same TRAX source to output the note velocities, or mult with an Envelope. or simply trigger an envelope.

TRAX Lanes
Set Lane # for VCO(s)

If the TRAX Source is direct, i.e. TRAX 1A, then a Lane# must be specified.
Scroll -->JACK: to GATE+CV1, and set for LANE 1
Scroll -->JACK: to CC2 and set it also to LANE 1
This will output the velocities of the notes on CC2.

Channel Setting?
Why do we need a channel?

Even the TRAX direct using Lanes has control over the Gate, Vel, & CV jacks, the Channel option remains. This is to satisfy the "Merge MIDI in?" option Channel. (Scroll to the bottom of CV Mode's settings)

Stack Notes, Cycle, Range, Arpeg, or Random?

Because TRAX Lanes are direct, there is no need to decide on the order of notes across the jacks, so Stack, Cycle, Range, and Arpeg have no affect.
Random does though. Instead of a trickle-down random capture for jacks, each jack row has a probability setting from 0% to 100%.

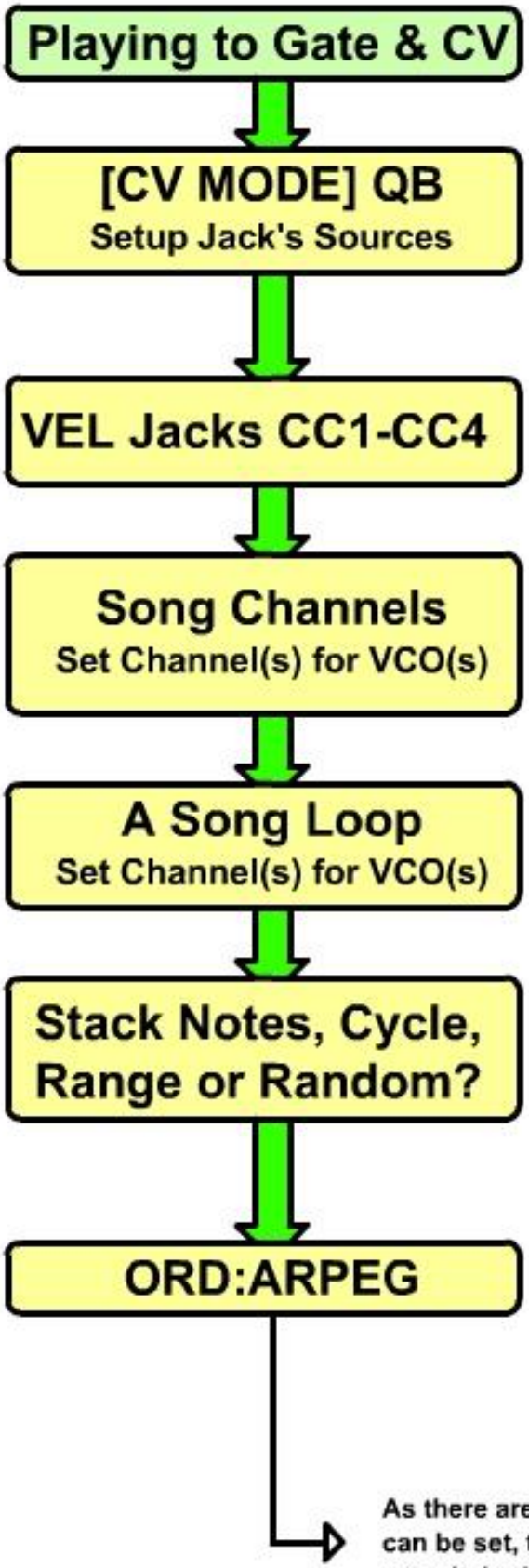
TRAX SETUP
Lanes, Velocity Out
Bridge Map

There are some settings in the TRAX Editor [:Setup:] that can have an affect on direct outputs:
Lanes 1,2,3,4 / 1-4 (default) to only allow a single lane out
VEL OUT: Length will output a voltage representing the length of a note in the tracker, for envelope control... About 0.1V per tick (23 = 2.3V).

Bridge Map (Step bridges for notes skip trigger/gate edge) relies on the direct approach as MIDI can really bridge notes. SO if you plan to use bridging, set CV Mode to use TRAX + Lanes!

QUICK REFERENCE

Playing a Song or Layer to VCO



Any MIDI source can be brought out to the Gate, Vel, and CV output rows on the panel.

Each jack can be configured to output from a specific source, be it a MIDI channel, certain TRAX number, Layer number, SongLoop, or MIDI input.
Multiple notes are "stacked" down the rows if other jacks are assigned to the same channel and source.
By default, MIDI out, channel 1 is used on all jacks.

VEL jacks:
Scrolling -->JACK: to CC1 will allow settings other than velocity, i.e. emvelope+velocity, or just a triggered envelope. MIDI CC's can also be brought out.

If you have a Song Recorded (or Layers) you can bring a certain MIDI channel out to a jack row. i.e. say you want channel 2's notes to output to jack row 1:
Scroll -->JACK: to GATE+CV1, and set for CHAN 2
Scroll -->JACK: to CC1 and set it also to CHAN 2
This will output the velocities of the notes on CC1.

If you only want a certain Song Loop (or Layer) to be played by the VCO, simply select the Song Loop # as the source. The Channel must still be set though.
For Layers, a certain Layer can be played only.

Exiting CV Mode, the following QB [ORD:] selects how multiple rows present chord notes (or poly) to the jacks. If multiple jacks are on the same channel from the same source, then ORD: comes into play. Stack the notes, cycle them as they come in, Set a certain note range, or present them randomly according to a flow % downward. All of these have settings (hold on QB > 1 second)

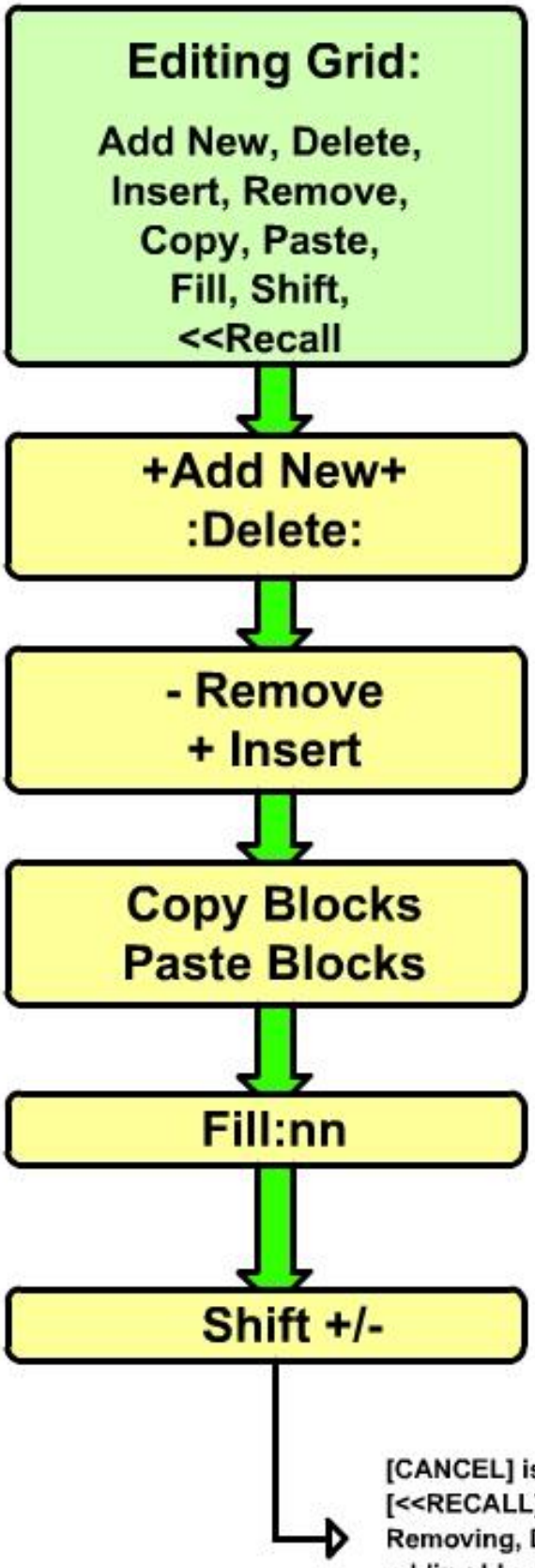
There are 4 Arpeggiators, one to output on each jack. The inputs are NOT aligned to the outputs unless they are from different channels in CV Mode. Multiple "jacks" on the same channel will constitute the arp steps. There can be 4 different Arps output from the same channel as a result.

As there are 4 CV Modes [CVMODE:1-4] up to 4 whole jack configurations can be set, then accessed easily from the panel, via MIDI Remote control, or switched from blocks in the Play List as your composition progresses using block PLFX (Play List FX) as a controller.

QUICK REFERENCE

Play List - Grid Editing

(By Example)



The Play List plays Blocks in Series until the last Block in the Group, then moves to the top of the group for that track. Tracks consist of Song Loops, Layer Tracks 1-4, and TRAX tracks 1-5, and are 64 cells high.

Flashing bars next to block means it's armed to play next.

L3	L4	T1	T2	T3	T4	T5
--	--	--	--	--	--	--
--	--	[A]	--	--	--	--
--	--	A	--	--	--	--
--	--	--	--	--	--	--

To add a block onto a track, double-click an empty spot on the grid, let's add to TRAX 1 (T1), then scroll to [+ADD NEW+] and Click. [A] will be hilited in grid with a mini TRAX grid. click again to create the empty TRAX block. Make 2 more below the new [A]. Double-click the center one and select [:DELETE:]

The space between the blocks has created 2 groups so playing one won't flow to the next over the gap. Remove the gap by double-clicking on it and selecting [-REMOVE]. Put it back by Double-clicking the 2nd [A] block and selecting [+INSERT].

To Copy these 2 blocks, double-click the top one and select [:COPY:]. Scroll down to hilite 4 cells and double-click to copy them. Now select the empty cell between them and double-click, select [:PASTE:]. Scroll down to hilite 4 cells and double-click to paste. There should now be 4 [A] blocks in a group.

Setting [FILL:nn] to more than one will select multiple cells to apply the edit, starting from the top. i.e. If you want to delete 10 blocks, set Fill:10 and then [DELETE] Works also with Insert, Remove, Copy, Paste and Shift

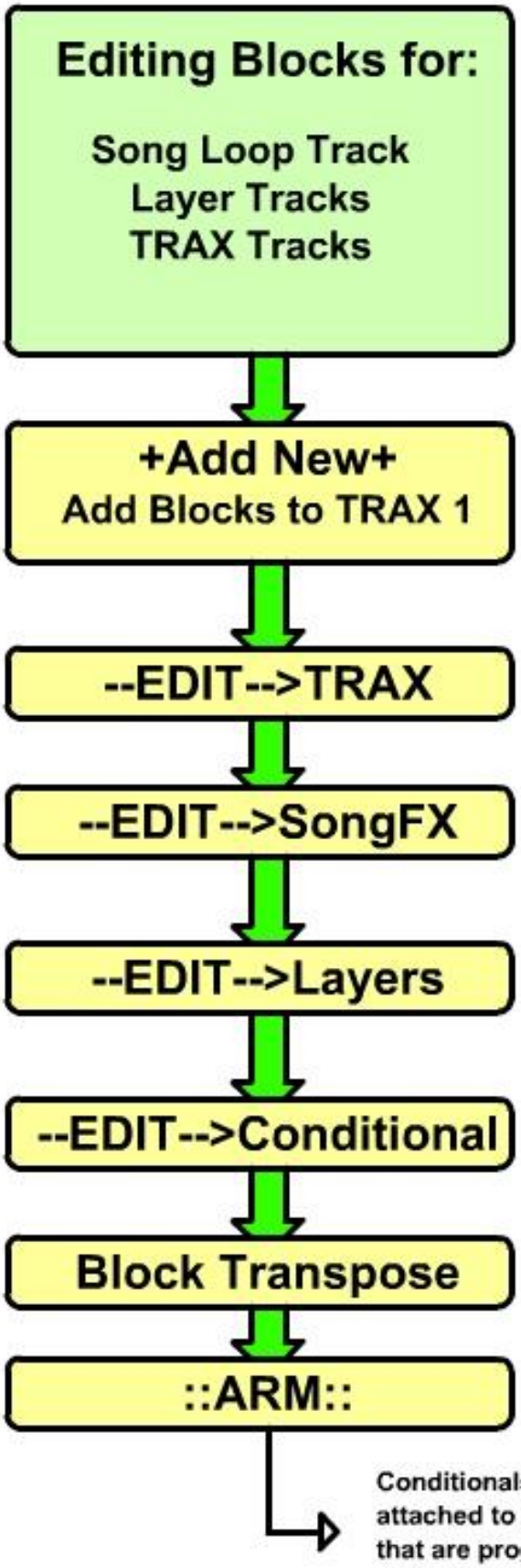
[Shift+/-] will shift the number of blocks defined by the [FIL:nn] parameter up or down as you scroll. This is useful for making space to add more blocks between. Double-click the top block on track T1 and scroll down to set [FILL:10]. Select [SHIFT+/-] and scroll blocks up or down to move. Double click when finished.

[CANCEL] is a way to exit the pop-up window without doing anything
[<<RECALL] will undo an immediate change by Pasting, Inserting, Removing, Deleting, or back to that point before one of these even after adding blocks etc.
[:EXIT:] is a way to exit Play List. From grid just press & hold to exit.

QUICK REFERENCE

Play List - Block Editing

(By Example)



The Play List plays Blocks in Series until the last Block in the Group, then moves to the top of the group for that track. Tracks consist of Song Loops, Layer Tracks 1-4, and TRAX tracks 1-5, and are 64 cells high.

Flashing bars next to block means it's armed to play next.	L3	L4	T1	T2	T3	T4	T5
	--	--	--	--	--	--	--
	--	--	[A]	--	--	--	--
	--	--	A	--	--	--	--
	--	--	B	--	--	--	--

To add a block onto a track, double-click an empty spot on the grid, let's add to TRAX 1 (T1), then scroll to [+ADD NEW+] and Click. [A] will be hilited in grid with a mini TRAX grid. click again to create the empty TRAX block. Make 2 more below the new [A], but the lower one scroll up one to make it letter [B]

Double-click an [A] block and select [--EDIT-->]. This will enter into the TRAX Editor to set up tracker grid. Add a few Notes. Hold to exit back to Play List. Do the same with Block [B] to make it different.

Move left across grid to SO (Song Loops) Track. Double-click on existing Song Loop [01] the select [--EDIT-->] to edit it's Song FX. Use EXIT or SONGFX.

Once back in Play List, select near the top of L1, Layer 1 track and double-click to [+ADD NEW+] Double-click the new Layer Block [01] to enter the empty Layer Loop Step Sequencer. There are no Layers recorded but can be stepped through anyway.

Double-click an empty cell and select [+ADD COND] [--EDIT-->] must be used to edit a conditional block after this. See manual on Conditionals.

Double-click on a Block in TRAX track T1 then select [TRANSPOSE]. The block will show 12 which is the transpose center. scroll down or up to transpose

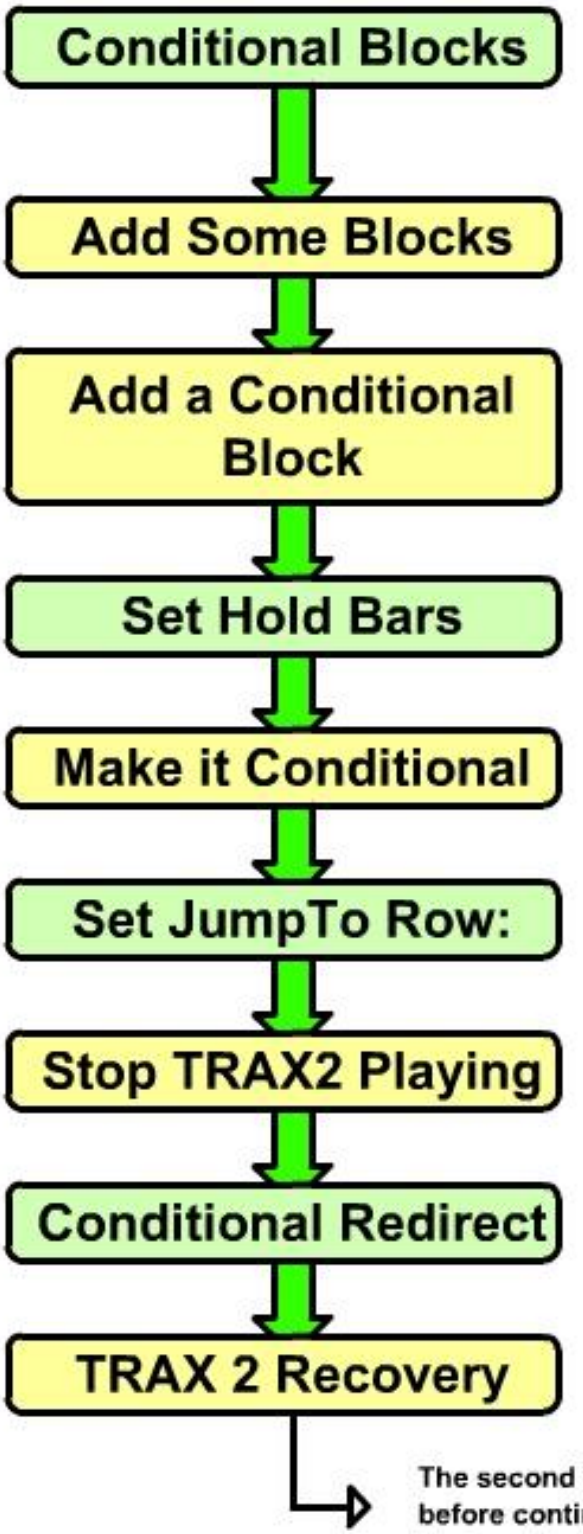
Double-click any Block to arm it to be the start point when "P" Play button pressed. Arms during play will be forgotten in lieu of the original set during Stop.

Conditionals can use a cell space in any group, whereas [*PLFX*]st be attached to a regular block. PLFX is similar to remote control switches that are programmed to change parameters and settings anywhere in the Sequarallel. See "quick Reference" card on Play List - PLFX for more

QUICK REFERENCE

Play List -Conditional Blocks

(By Example)



Conditional Blocks are special block to add control to how the Play List head moves through tracks.
While PLFX can be used to "Arm" blocks Conditionals offer more flexible control.

For this example, create 3 TRAX1 (T1) Blocks to use, and 2 TRAX2 (T2) Blocks to use. All from Row 1.
Edit TRAX T1[A] and enter [SETUP] to change the CLOCK: to X8 (faster) Arm the top block on each track.

Next, Double-click on the empty cell below the last block on TRAX1 (T1) track and select [+ADD COND]
The Condition Block T1 Setup will appear.
After this, use [--EDIT-->] to re-enter this setup.

In the Conditional setup, set HOLD BARS: to 8.
This will pause play of T1 for 8 Bars before resuming
Exit the setup and hit Play (P) to watch the play head

Double-click the Conditional Block & select [--EDIT-->] to re-enter. Select "HOLD UNTIL:" and set to TRAX2.
Now will resume early, the next TRAX2 block that plays

Back in Conditional Setup, Scroll to JUMPTO:ROW: and set to ROW 2. This will re-direct the playhead to row 2 only when the TRAX2 condition is met.
Exit and do a test Play to see the play head movement

Double-click under the second TRAX2 (T2) Block to add a conditional there. [+ADD COND]
Set the "HOLD UNTIL:" parameter to "CN" continuous

This will permanently stop T2 playing, which will null the possibility of T1's condition being met, so the JumpTo will no longer occur. Exit and do a test play.

For an interesting twist, try setting TRAX2's conditional to HOLD BARS:5. This will cause a re-alignment at the top row after TRAX1 has done the shorter loop 3 times

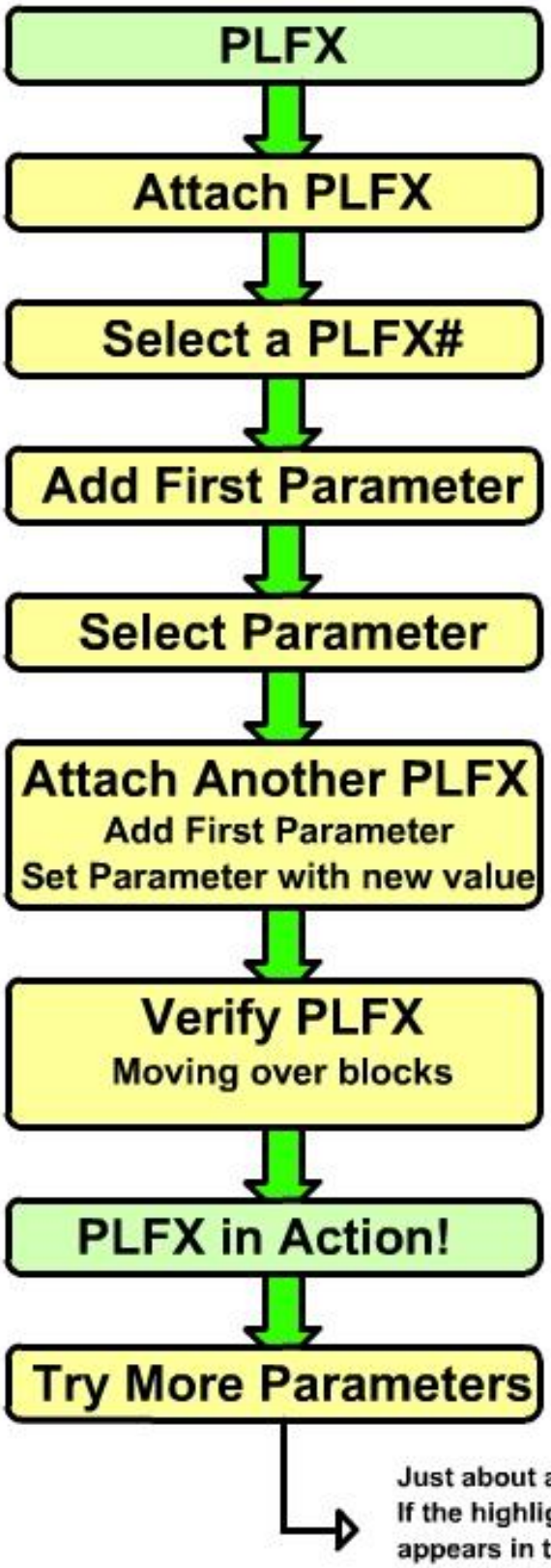
The second "UNTIL" in the setup requires the both conditions be met before continuance or JumpTo is enacted. There is also a MIDI remote that can be learned immediately bymoving the control.

As you can see, Conditionals can become quite complex. In many cases it's just easier to lay out the blocks to play sequencially, but conditionals can make a regenerative piece possible.

QUICK REFERENCE

Play List - PLFX

(By Example)



Play List Blocks represent Song Loops, TRAX trackers, and Layer Loop Sequencers, but can also have a PLFX attached to execute parameter changes when played.

For this example, create 3 TRAX1 (T1) Blocks to use. To attach a PLFX to a Block, double-click the Block and select [*PLFX*]. This will open the PLFX Setup

A PLFX Number must be selected first to enable it. Click PLFX#: and set to 1. There are up to 8 per track.

Scroll down to 1: and click to find a parameter. You will exit to main screen with the "S" LED flashing.

Scroll up to [TRANS:+0] QB and highlight it as if you will be adjusting it. Press the "S" button to save value. LED will stop flashing and you will see the PLFX setup.

Mostly, there will be 2 Blocks using PLFX in the same track, one to set initial value, and the other to set the other value. Double-click a different T1 block & [*PLFX*] Click PLFX#: and set to 2. Scroll down to 2: and click. In main, scroll back up to [TRANS:+0] and set to +5

Exit the PLFX setup back to the Play List grid. When you move over the blocks "P1" and "P2" will breifly show before the bar count to verify PLFX's are attached to these blocks. P1 & P2 can be attached to other blocks further along in this track if desired.

Assuming there are some notes in the TRAX1 tracker, Arm the block with "P1" and hit Play (P button). When the Play head reaches the block with "P2" the master transpose will change to +5.

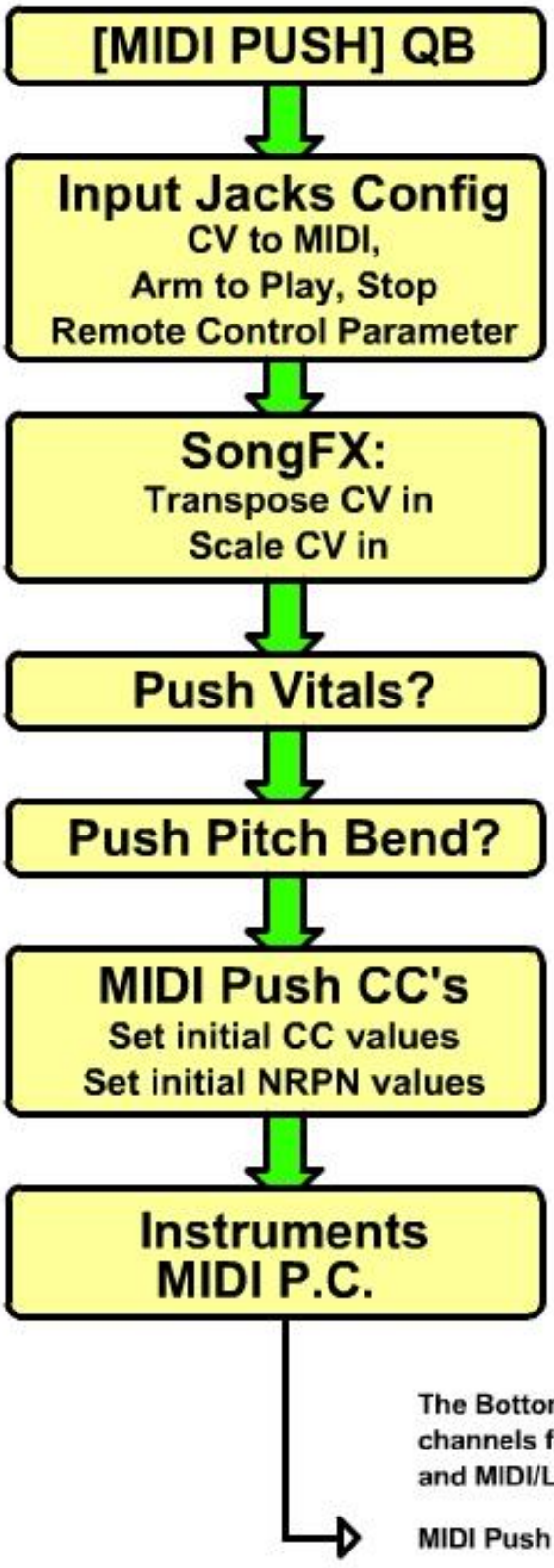
Stop play and try another in parameter 2: in both PLFX#1 & PLFX#2. Perhaps a noteFX Chop value!

Just about any parameter can be changed with PLFX (just like Remote) If the highlighted value causes the LED to stop flashing and a description appears in the PLFX list, then it is changeable.
Note: Stopping Play during PLFX parameter editing is important as it could get changed by the previous value being sent as you're setting it.

QUICK REFERENCE

MIDI PUSH

(By Example)



[MIDI PUSH] allows various MIDI settings and config's that can all be sent with a simple click. Hold to enter.

CC5, CC6, and CKo jacks can be configured to be inputs for various CV-->Functions. See CV2MIDI Quick Ref card.
Select CC5 FUNC: and scroll to:
PLAY ARM: Trigger to arm for Play on next Clock step 1.
STOP ARM: Trigger to arm to Stop Play on Clock step 1.
LEARN: Program to control a param. (See Remote card)

Select CC5 FUNC and change to MIDI NOTE
Select CC6 FUNC and change to MIDI GATE
Apply CV and trigger (Gate) to play notes, then scroll down to SCALE CV IN, set to YES, then Hold to exit.
Click [SONG FX:01] and scroll to [SCALE:NO] to select a scale to apply to the CV input.

Turn on PUSH VITALS to allow vital MIDI resets to be sent with [MIDI PUSH] is clicked. i.e. (Pitch center), release sustain pedal, volume & pan default, etc.

Turn on PUSH PITCHBEND to include it in the above.
PITCHBEND RANGE can be set from 1 to 12 semitones
*For Synths that support this. Default is +/-2 semitones.

To send initializers forup to 4 CC's per MIDI channel:
Set MIDI PUSH CC=CHAN to the channel of desired CC.
Set MIDI CC: number and value i.e. MIDI CC:007 TO 100
These can also be used to set defined NRPN's.
NRPN's are defined in main [SETTINGS] menu.

In the lower section you can set Instruments on each MIDI Channel. If a Song/Layer recorded had instrument information, then some of these will be populated.
The GM Synth instrument names are shown, but can be a useful reminder for a non-GM synth.

The Bottom Setting, CHANNELS:MIDI INPUT, lets you select Masks for channels for MIDI/LINK input, MIDI/LINK output, MIDI>LINK/LINK>MIDI, and MIDI/LINK Thru. As these can be fairly involved, see manual pg. 38.

MIDI Push sends are also sent on the backplane LINK output header.

Recommendations:
Leave Push PitchBend on as some loops/modifiers may leave off center
Leave Push Vitals on unless it is causing problems with your synth.

QUICK REFERENCE

MIDI CC to CV

(By Example)

Patch CC1 to CC6

Up to 6 jacks can be used to output CV from MIDI CC / Pitchbend / Aftertouch sources

Set CC5 & 6 to OUT

Because CC5 & CC6 are bi-directional, they must be set to be outputs if you want to use them as such.
In [MIDI PUSH] set CC5 / CC6 DIRECTION to OUTPUT

Select MIDI Source

In [CV MODE] select -->JACK: and scroll to CC1
Select your SOURCE:MIDI OUT (or MIDI in for only in)

Select MIDI Channel

Select the MIDI CH:01 - 16, MPE ZONE0/1, or ALL
MPE Z0=ch.02 to ch.05, MPE Z1=ch.15 to ch.12

Set Voltage Range

V-RANGE:25,50,75,100% sets range of:
1.25V, 2.5V, 3.75V, & 5V centered at 2.5V if not Bi-polar.
2.5V, 5V, 7.5V,10V centered at 0V If Bi-polar

Set FUNC:CC#:---

Set FUNC: to CC#:007 or another you can source.

Set MIDI CC Smooth

Turn on MIDI CC: SMOOTH:YES to reduce steppiness from the limited 0-127 range of MIDI CC's.
Adjust SMOOTH STEP:1 for smoothest, 10 for fastest.

Track Pitch Bend

To track MIDI Pitch Bend messages with CV output, select FUNC:CC#, scroll up past 127 to PITCHBEND
Smoothing is inactive as PB is already smooth.
Bi-polar on will center at 0V (+/- 5v) or if off, 2.5V.

Track Transpose

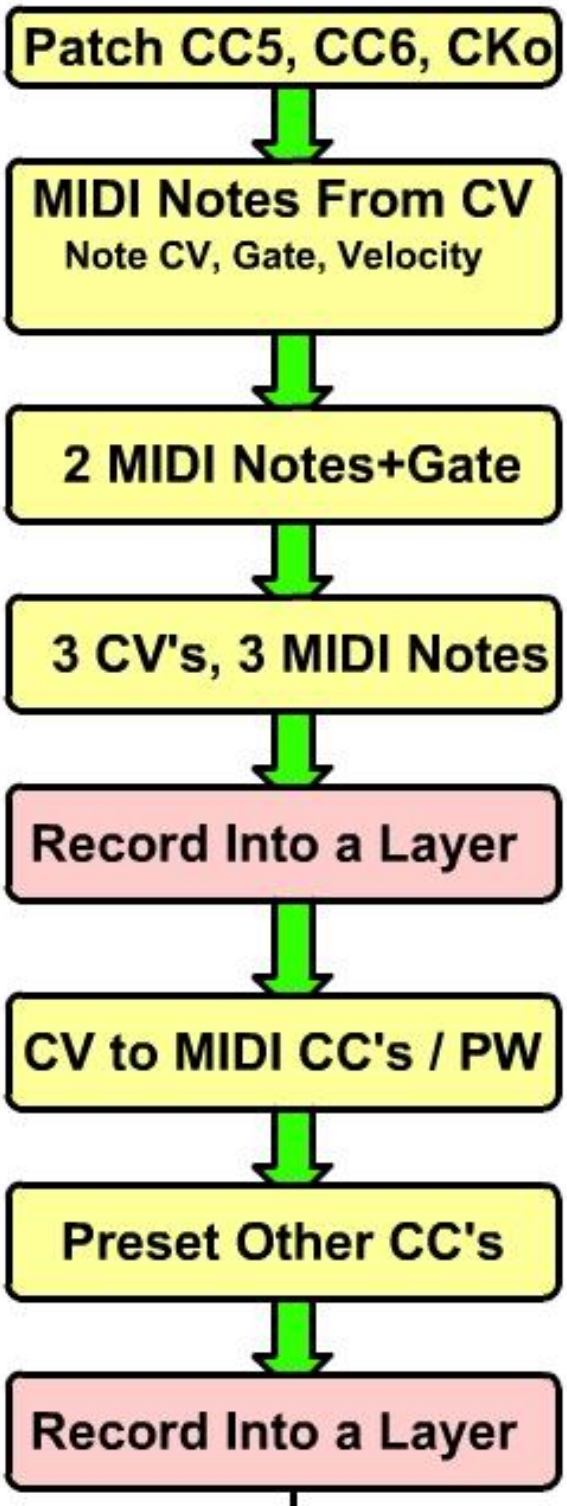
The present Master Transpose (QB) can also be tracked @ appx. 1V/octave.
Select FUNC:CV TRANSPOSE

MIDI / LINK sources are exclusive but MIDI/LINK input Merge can also be left active for future patches etc.
Remember that all of the MIDI2CV settings made are only for CV Mode 1
There's still CV Mode's 2, 3, & 4 which can be easily switched to for more source control (i.e. channel) of the same jacks.

QUICK REFERENCE

CV to MIDI CC's & Notes

(By Example)



Up to 3 Jacks can be used to change CV to MIDI
In [MIDI PUSH] QB, set jack(s) "Direction:" to Input(s)
Set CKO MODE to CV INPUT. Leave All on Channel 01

In [MIDI PUSH] Set CC5 FUNC: to MIDI NOTE
Set CC6 FUNC to MIDIVEL (Velocity input)
Set CKO FUNC: to MIDI GATE
Patch accordingly to CV & gate/trigger sources

To play 2 MIDI Notes at the same time from the same Gate, Set CC6 FUNC also to MIDI NOTE.
2 Notes will play on each gate/trigger

To Play 3 MIDI Notes, Change CKO FUNC: also to MIDI NOTE. With no Gate/trigger, notes will only play on CV changes > 1/2 semitone. They may trigger from voltage noise in the system so best for continuous playing of notes.

Exit and select LAYER ADD? YES. Click [LAYER 1] and scroll to L RECORD. Press and hold to enter the recording settings. Set REC UNTIL: TRAX (1-shot, self)
Exit and arm L RECORD for 4 or 8 bars.
Hit "P" button to record 4 or 8 bars & to play for next...

[MIDI PUSH]
Change CC5 FUNC: to CC#007 (click CC# to set 007)
Change CC6 FUNC: PITCHBEND (+/- V)
Change CKO FUNC: to to CC#074 (RPN cut filter)

Scroll down to MIDI PUSH CC=CHAN:1 (below "-----"
Set MIDI CC:071 TO 120 (Filter resonance for CC74)
Set MIDI CC:007 TO 100 (Recovery if unpatched)

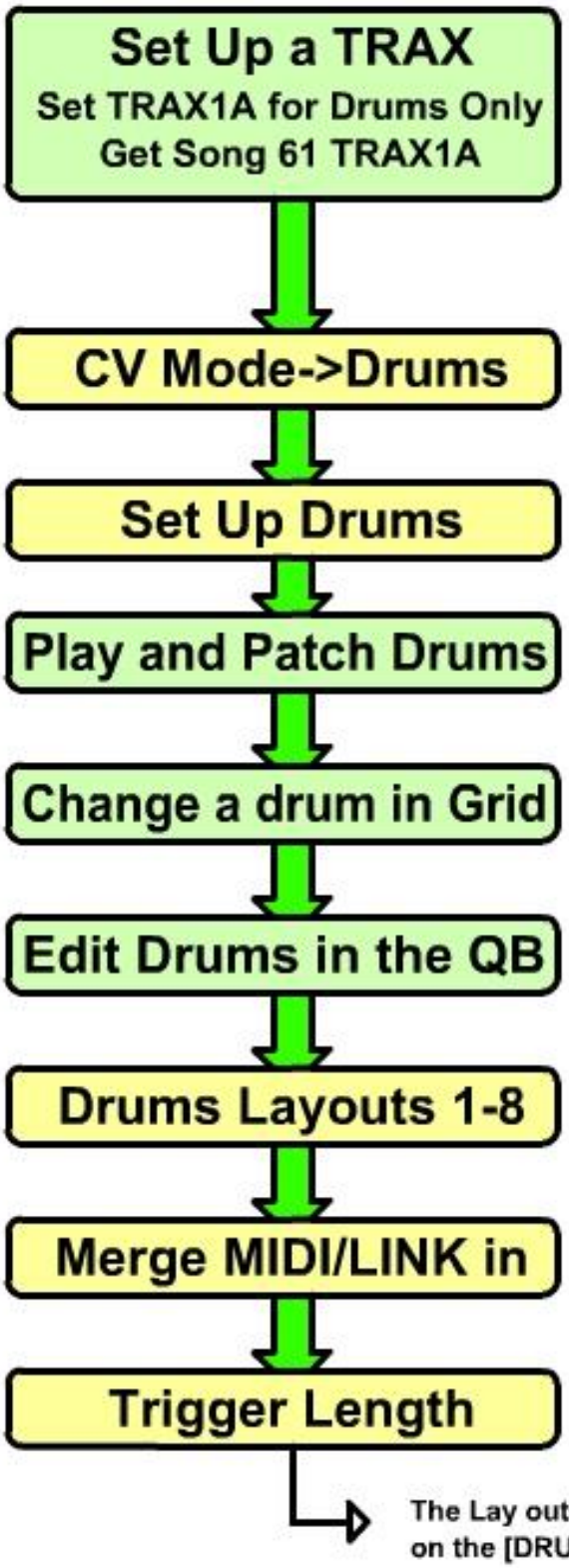
Repeat the Recording setup above to record your CC and pitchbend actions! Once recorded, the inputs can be changed to control something else.

Note that CC# assignments can be changed via Remote MIDI control, or with Play List PLFX but care must be taken to ensure the value at the point of switching won't be consequencial.

QUICK REFERENCE

Drums Mode [CV MODE:n]

(By Example)



For Drums Mode, we'll use the included Demo Song 61. In [PLAYLIST] scroll to [T1] track, double-click on a cell and select [+ADD NEW+]. Double-click block to [-EDIT->]

In TRAX, scroll right and click [:SETUP:] to set the MIDI and LINK Channels to 10 so only drum TRAX will show. Exit back to [PLAYLIST], Double-click the new T1 block and scroll upwards until the shows SONG 61 TRAX:1A Click to load and hit the "P" Button to Play

In main screen, scroll up to [CV MODE:1], click & scroll to [DRUMS:1]. Notice the 12 drums panel on the left. These are the drums that will output to the 12 jacks.

Click and hold [DRUMS 1] to enter the Drums settings. Scroll to Source and select TRAX.
Exit back to main and hit Play ("P" Button)

If you have modular drums, patch Kick to GATE[1], the snare to GATE[3], and a hat/cymbal to VEL[3] jack. Notice that the Kick has no output? It's not [36].

Scroll to the top in main screen, wait a second, then continue scrolling up into the grid to box [36]. Click 36 and change to 35 (Accoustic Kick). Good!

Scroll back down to [DRUMS:1] and re-enter setup. Here you can view the GM MIDI names for drums that are assigned to each jack: Gate 1-4, Vel 1-4, CV 1-4

Scroll to LAYOUT:1 and change to 2. Change SOURCE: to MIDI OUT. This will also play from the TRAX tracker but also from Song, Layers, etc. There's 8 Global layouts.

If you have a V-drums or pads or drum sequencer, they will likely be on channel 10 and can be "merged" to output from the trigger jacks.

Some drum modules expect a very short trigger, so use TRIGGER:200MS to shorten length, or you can set to "GATE" which will depend on the source note lengths.

The Lay outs can also be changed from the main screen by clicking on the [DRUMS:1] QB, then clicking again to highlight the number.

*Note: Because CV Mode/Drums mode is a patch change (VCO's-drums) These settings will remain regardless of Song Project. So if you patch for drums, then want to play a different project, then will still show Drums.

QUICK REFERENCE

Envelopes (independent)

(By Example)

Patch CC1 to CC6

Up to 6 jacks can be used to output CV from Envelopes. We'll use CC 1 for the example.

Set Up Envelope 1

In Main, scroll to {ENVELOPE] QB and press & hold Select [1] to make settings to Envelope 1

Adjust Envelope Size

Adjust the "size" of the envelope in Beats:Ticks.
Set it to 1:00 (1 beat long)

Set Envelope Trigger

Select TRIGGER: CLOCK. A clock is required (or use internal clock under [CLOCK:/nn] QB.

Select CV Output

Set the CV OUTPUT to CC1. You will see LED flashing on each clock. This does not require seq. playing.
This setting is independent of any CV Mode setting.

Change Env. Type
[ADSR EDIT]
[CV DRAW]
[PARAMETER]

Exit back to main, then click [ENVELOPE] and scroll.
Click [ADSR EDIT] to make envelope an ADSR type
Click [CV Draw] to make envelope from recording CV from jack CC5. (Make CC5 an input in [MIDI PUSH])
Click [PARAMETER] to make Envelope by entering waveform parameters.
Click [COPY FROM] to use a previous Songs Envelope

Remove CC1 Velocity

As [CV MODE] sets CC1-CC4 default output to velocity this should be disabled to prevent interference.
Go to [CV MODE] and select -->JACK:CC 1
Scroll to FUNC:VELOCITY and set to NONE

Reduce CV Voltage

The envelope's voltage (swing) can be reduced with V-RANGE in [CV MODE] 100%, 75%, 50%, 25%

Multiply Speed

The Envelopes Speed can be multiplied with the ENV RATE:X1 setting. This sacrifices the resolution.

Other CV MODE settings can change the way an independent Envelope plays, like the Bipolar option. If Param envelope, then will chop bottom. Note triggered envelopes can cause two different envelopes to play from the same jack (i.e. CC1=VEL+ENV2) and will cancel each other to start. If Env Reset is not on then notes will only trigger it's envelope after the independent envelope has finished. See manual for more.

QUICK REFERENCE

Envelopes (Note Triggered)

(By Example)

Patch CC1 to CC6

Up to 6 jacks can be used to output CV from Envelopes. We'll use CC 1. You'll need a note source i.e. TRAX on channel 1. (Notes on beats...)

Set Up Envelope 2

In Main, scroll to [ENVELOPE] QB and press & hold Select [2] to make settings to Envelope 2

Adjust Envelope Size

Adjust the "size" of the envelope in Beats:Ticks. Set it to 2:00 (2 beats long) and Exit.

Make Parametric Env

Click [ENVELOPES] QB and scroll to [PARAMETER] Select [2] for envelope 2 and adjust the FREQUENCY: to get 3 sine waves showing. Adjust Frequency Ramp up to 10 or so. Scroll down and EXIT.

Note Triggered Env
MIDI OUT, Chan:1, Bipolar, V-RANGE=100%

In [CV MODE] Select -->JACK:CC1 check source is MIDI OUT, Channel 1, and set FUNC:ENVELOPE 2
Make sure V-Range is 100% and Bipolar=yes
If Bipolar=No then the negative is chopped off.

Set Env Timings
Env Reset & Gate Hold

If ENV RESET is turned off, then notes playing before an envelope is finished won't re-trigger it.
ENV GATE HOLD will only allow envelope to play while the Gate is high. Turning off reset allows it to rotate.

Velocity * Envelope

Try setting FUNC:VEL-ENV2 if your TRAX/Notes have different velocities. This will change the amplitude of the envelope to match velocity.

Dualing Envelopes

Try setting another Envelope to trigger from beats or bars (in settings) and assign it to the same jack (CC1). Notice there are now 2 different Envelopes playing?

Envelopes triggered by Notes can also be set to send over a MIDI CC. Click and hold [ENVELOPES] and select [2] to enter settings, then set MIDI out to your CC/PitchBend/AfterTouch and toggle the Channel(s).

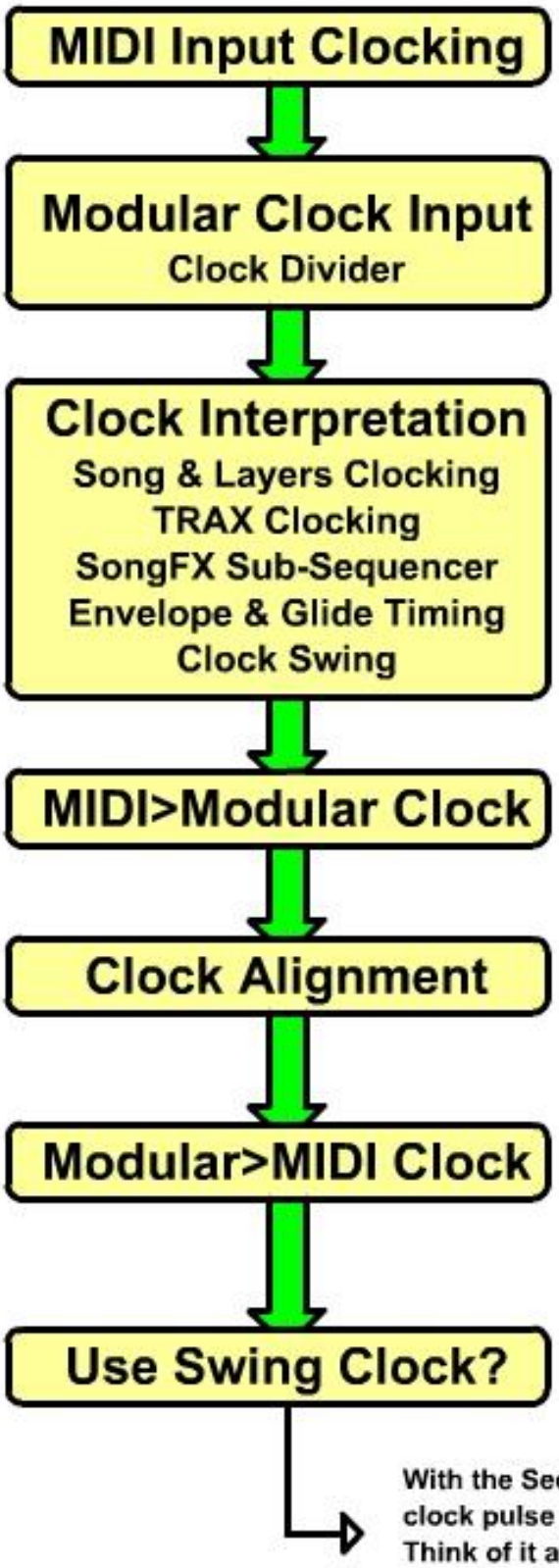
*Please note that Bi-Polar off also limits the MIDI (CC) to upper half! V-Range also cuts the range of the MIDI (CC).

Any Envelope can be assigned to any CC jack. One Envelope could be assigned to all jacks to run in different phases as triggered.

QUICK REFERENCE

Clocking I/O

(By Example)



When Playing or Recording with a DAW or other MIDI sequencer, it's best to enable the source's MIDI Clock

Modular Clock input is divided up into 24 PPQN to mimic a MIDI clock, and outputs a 24 PPQN MIDI clock.
Modular clock can be divided by 1 to 96 if required.

In the Sequarallel, clocks are 24 PPQN (24 ticks/quarter)
Song & Layer Record and play always matches 24PPQN
TRAX uses a X8 (192PPQN) base to allow up to 8 steps per quarter note. This clock uses independent tracking.
SongFX Subsequencer's clock is defined as note timing up to 1/32nd notes and uses the same clock X8 as TRAX.
Envelope & Glide remain proportional to the Clock.
The main Swing in SongFX actually delays every 2nd 8th note (12 ticks) so affects all clocking.
TRAX Swing, used with X2 is independent only for TRAX.

Patch a MIDI Source that sends a clock to MIDin Jack.
In [MIDI PUSH] settings, make sure CKO MODE is set to CLOCK OUT. Run MIDI Source (patched to MIDI in) and modular slaves to CLKout for a sync'ed clock.

The Sequarallel aligns the modular clocks to the first MIDI tick received (after a>2 second pause) so the start of "play" from source is important for good sync.

Patch a clock source 60 to 180 BPM (1-3Hz) to CLKin.
Modular clock starts by default when "P" Play started.
Once stopped, MIDI Clock is sent for a few beats for any clock dependent delays to finish in a synthesizer etc.
Clock can be continuous by changing in [SETTINGS] "-FREE RUN CLOCK:YES".

Also in [SETTINGS] QB is an option to MIDI output the SongFX Swing clock instead of the even period clock.
Warning: Some synths may not like this type of clock.

With the Sequarallel's complex clocking architecture, don't expect a 1 to 1 clock pulse stepping as is the case with most basic modular sequencers. Think of it as a record playing and the speed is aligned by tracking with the clock source. That said, uneven clocks can still be dealt with, and sometimes provides interesting results.
Speed changes in clock rate work fine as long as they aren't too abrupt!

QUICK REFERENCE

Remote Control

(By Example)

MIDI Remote Control

Nearly all parameters in the Sequarallel can be changed on-the-fly with a MIDI controller with CC knobs or notes.

Set Up Source:

MIDI Channel for Remote
Song Project vs. Global?
CC Knobs vs. Note Keys?

MIDI Source can be any controller with knobs/sliders patched to MIDI in or Link in header on the back.
Select a MIDI channel like 16. This will block normal MIDI.
Do you want remotes for this project or any project?
CC knobs can be used for gradual control of a parameter while MIDI notes can set a few fixed values.
Both can be used together.

Activate MIDI Remote

[REMOTE:NO] QB set to any channel 1-16 will enable remote control on that channel. "NO" turns it off.

Remote Setup

Learn Remotes to Project
Use Song Project first

Press and hold on [REMOTE:nn] to enter remote setup.
Set LEARN SONG to YES to use only with this project.
Set *USE:SONGnn FIRST. This will prioritize over Global.
Set DISPLAY:SONG to view our Song Project Remotes.
Set TYPE:MIDI CC to view as we will start with knobs.

Learn Method 1:

Program MIDI CC List

Scroll down to a CC# you want to assign to control a parameter, i.e. 007: and Click on it. Now, back in main, Scroll up to [TRANS:+0] and select to highlight it.
Press "S" Button to stop LED flashing and Assign to 007
"Master Transpose" will appear in List next to "007".

Learn Method 2:

MIDI Learn from movement

Exit Remote Setup "EXIT", LED will blink showing it's in programming mode, ready to learn from MIDI input.
Scroll up to [JUMPTO:1] and select it to highlight.
Move the knob you want to select JumpTo row numbers.
The highlight will returnto normal. Check in [REMOTE:n]

Notes Set Values

Learn Notes to change parameter values

EXIT to main and scroll back to [TRANS:+0]. Select and change to -3 but leave highlighted. Play a MIDI note in.
Highlight will reset, change Transpose back to +0 and play another note. Press "S" button to end "Learn mode"
Play the two notes, watch Transpose change -3 to +0.

View Note Remotes

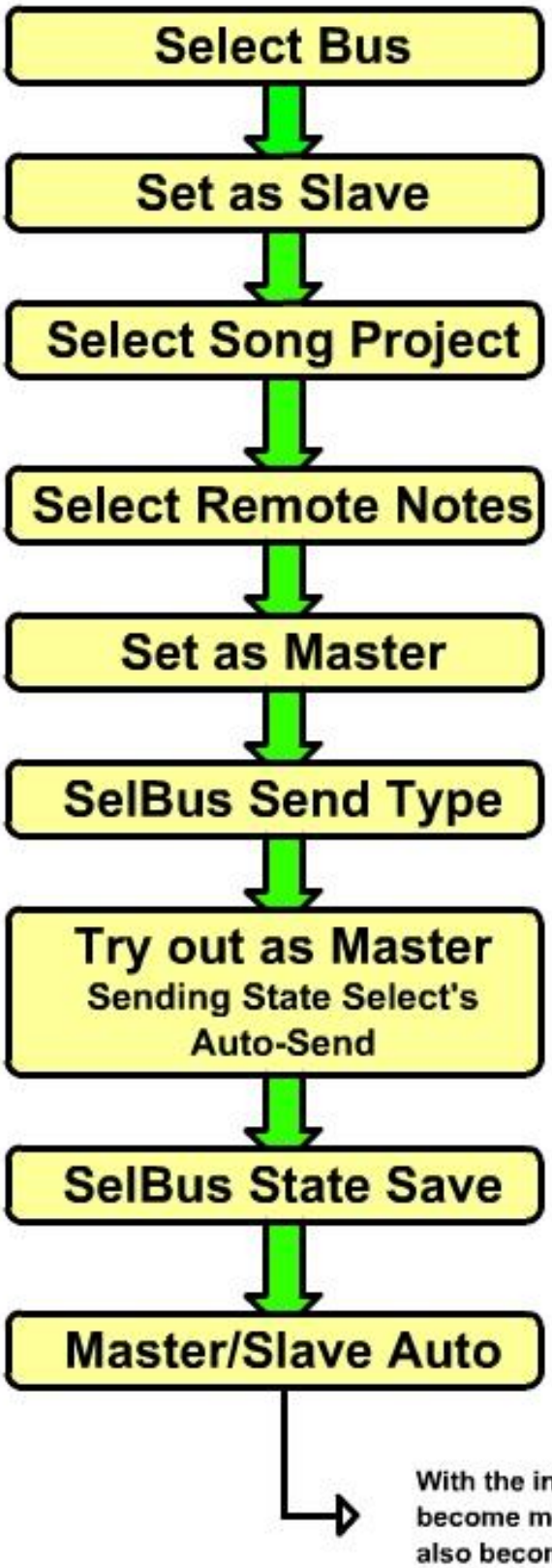
Back in [REMOTE:nn] select TYPE and change to NOTES
Scroll down through Notes List to find your Transpose entries. Another note can be set by selecting it, then go highlight the parameter and press "S" button.

Global Remotes are programmed the same way. Set "Learn Global: Yes"
Song Project remotes can be used along with Global remotes with "Use Song 1st" or Global can have priority by setting "Use Global 1st"
* CV inputs can be used to Remote control through their own "Learn"

QUICK REFERENCE

Select Bus I/O

(By Example)



Select Bus is a special MIDI-like signal that rides on the PSU ribbon to control other modules settings or for other modules to control the Seqarallel & remote Notes

Open the [SELBUS:00] QB and change DIRECTION to SLAVE. AUTO will work also, but not best while testing

To make your SelBus master to change / load Song Projects, select SLAVE FUNC: and scroll down(left) through all of the numbers to SONG SEL.
Now sending a State Select (0-61) will Select Song#.

If you have some Remote Notes set up to change parameters then you can use Select Bus Remote option. Scroll SLAVE FUNC: up to your remote offset for 0-63 i.e. if your remote notes start at Note#10, set REM>+10.

If you have Select Bus slaves, the the Sequarallel can be a Master. Change DIRECTION to MASTER. Now, the QB number (0-63) will be sent when selected:

SEND SELBUS: allows type selection. Try BOTH to test. If there are no Slave issues then leave as BOTH.
MERGE sends Ch.1 Notes (for 2nd Sequarallel mostly!)

Exit to Main and click on the [SELBUS:00] QB. Change to 01. Any slaves will register the change by however they are enabled on the Select Bus. (ie. Prog) On power-up and Song load, this number will be sent to notify other modules on SelBus to update state.

Back in SelBus Settings, the SB STATE SAVE option can be turned on to make a state select send cause a state save in receiving modules. Rarely used case.

If DIRECTION is set to AUTO then the Sequarallel is a Master until a state select message is sent by another module, at which point it becomes a Slave.
Changing the QB number switches back to Master.
In AUTO, the message is not sent on power-up/Load.

With the increasing popularity of digital modules, Select Bus may become more popular in the future. Our Accord Melisma module can also become a Master or Slave, and future modules will also use it.

Even though not implemented in any modules, we adhered to standard and added hardware ability for Select Bus Clock Line.