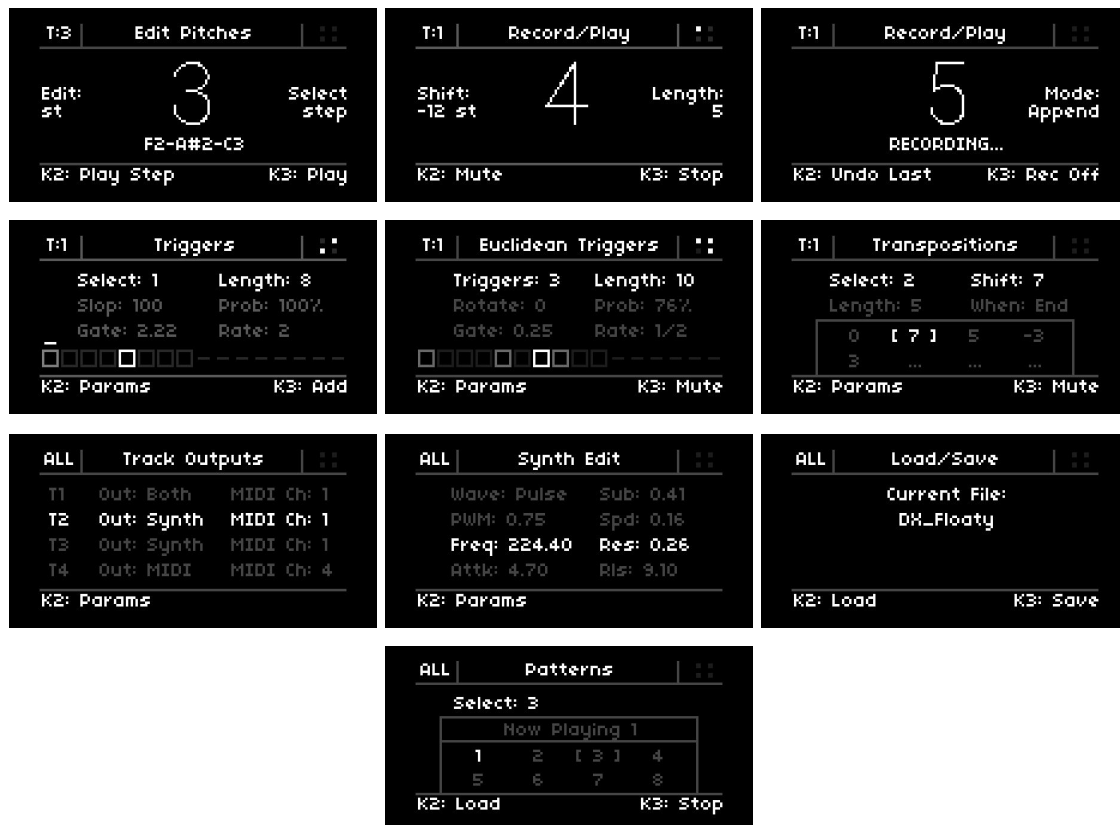


Fourtunes Version 1.0



November 2020

Fourtunes is a 4-track polyphonic step sequencer, inspired by sequencers you'd find in instruments like the JX-3P and SH-101, and the unusual paths you find yourself wandering down when you trigger those sequencers with an external clock source (like a drum machine) that is decoupled from the programmed sequence of pitches.

Fourtunes currently requires MIDI input for programming pitches. Fourtunes can output MIDI on an independent channel for each track, and is also built with the excellent Molly The Poly synth from [@markeats](#) in mind. Each track output can be routed to MIDI, to Molly The Poly (listed as "Synth" in the track outputs page), or both.

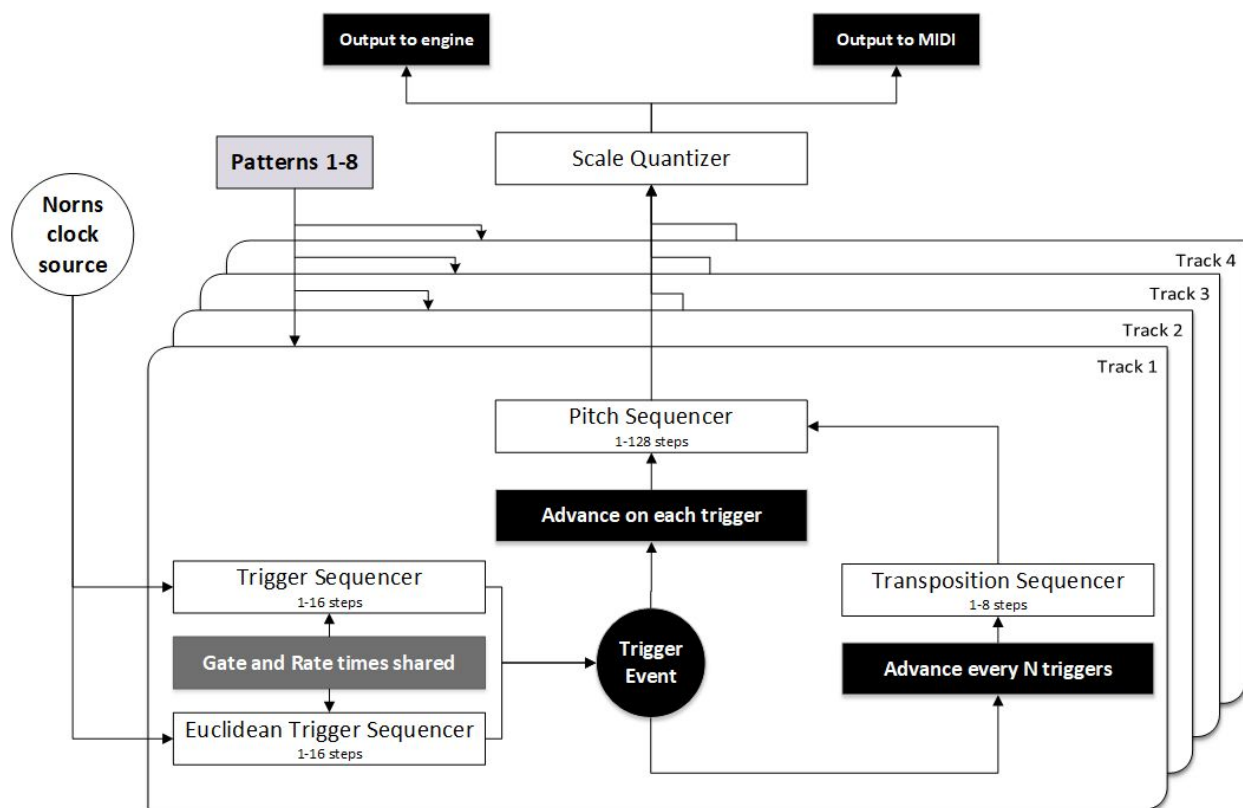
Each of the four tracks contains the following:

- A polyphonic pitch sequencer that is programmed in step time via MIDI input.
- A 16-step trigger sequencer that advances the pitch sequencer.
- A 16-step euclidean rhythm based trigger sequencer that works in tandem with the main trigger sequencer (or on its own if you leave the trigger sequencer empty) to advance the pitch sequencer.
- An 8-step transposition sequencer that transposes the main pitch sequencer.

The length of each of the 4 sequences (pitch, trigger, euclidean trigger, transposition) can be set independently while the sequencer is playing. The rate and gate times of the trigger and euclidean trigger sequencers are shared. The rate of the transposition sequencer can be set independently from the others.

There are 8 pattern slots available that store and recall all of the track and sequence settings.

A map of how everything in Fourtunes works together is on the following page...



The various pages and modes of Fourtunes are always accessed by holding Shift (K1) and turning encoder 1 (E1). The order of the pages is as follows:

Edit Pitches <> Record/Play <> Triggers <> Euclidean Triggers <> Transpositions <> Track Outputs <> Synth Edit <> Load/Save <> Patterns.

Note that Fourtunes requires MIDI input for programming pitches. You can select the MIDI Input device via the norns parameters page. The scale quantization is also accessed via the norns parameters page.

The rest of this manual attempts to explain each page....

Edit Pitches Page

E1 - Select current track

Shift (hold K1) + E1 - Change page

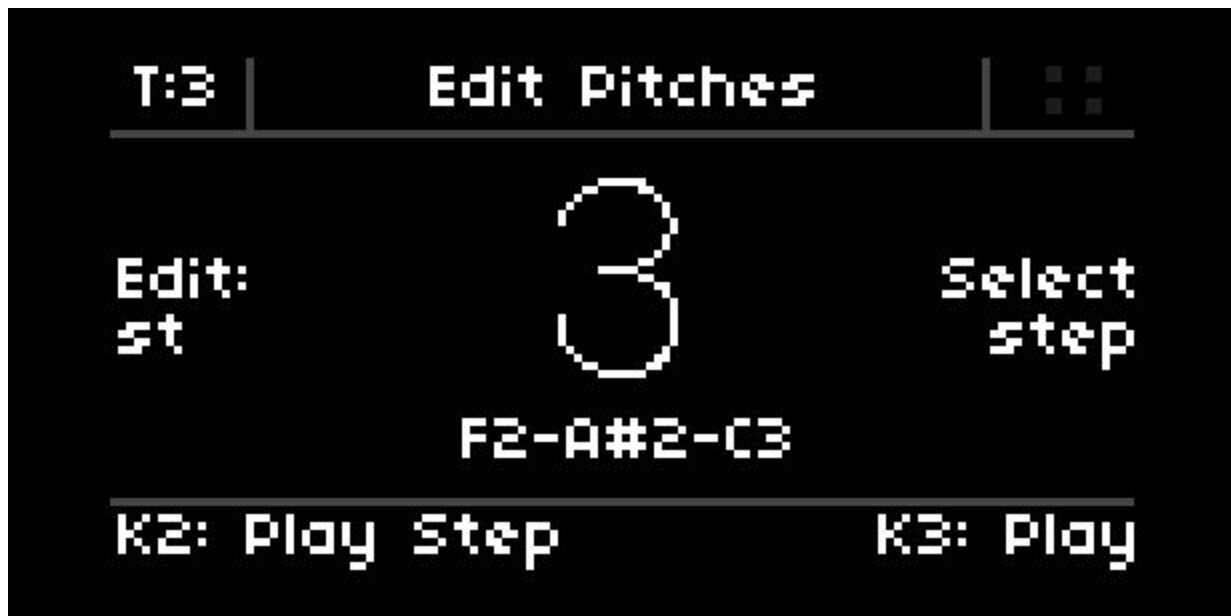
K2 - Play the currently selected step (i.e. audition)

K3 - Play the sequence - exits Edit Pitches page and returns to Play/Record.

E2 - Change the pitch value(s) of the currently selected step by a semitone.

Shift (hold K1) + E2 - Change the pitch value of the currently selected step by an octave (if the step contains a chord, the chord is inverted).

E3 - Select step for editing - each step is played as you turn E3 to select different steps.



Description of parameters:

Edit - Adjusts the pitch value(s) of the currently selected step in semitones. Hold Shift (K1) to adjust the selected step in octaves. If the selected step contains a chord, holding Shift will adjust the chord by applying inversions.

Select Step - Selects the current step for editing.

In the Edit Pitches mode, any note information coming in to the MIDI Input will overwrite the currently selected step (the step won't advance after a new note or chord is entered as it does in record mode).

*Note that entering Edit Pitches mode will **always** stop the sequencer from playing. As this behavior might not be desirable at times (e.g. flipping between the other modes in the middle of*

a performance), you can disable access to the Edit Pitches mode by going into the norms parameters view and setting “Edit Pitches” to disabled.

Record/Play page - Play Mode

E1 - Select current track

Shift (hold K1) + E1 - Change page

K2 - Mute/Unmute current track

Shift (hold K1) + K2 - Clear sequence on current track

K3 - Play/Stop

Shift (hold K1) + K3 - Turn on recording

E2 - Shift root pitch of sequence (i.e. tune the sequence) on current track

E3 - Adjust length of sequence on current track



Hit K3 to start the sequencer playing! If the sequence is empty, you'll see a big "E" in place of the number representing the current step, in which case you'll need to record something first. If the sequence contains data but is reset to the start, you'll see a "-" until the clock is started.

Description of parameters:

Shift - Applies a semitone pitch offset to the output of the sequencer.

Length - Sets the length of the sequence, from 1 step up to however many steps were recorded.

Record/Play page - Record Mode

E1 - Select current track

Shift (hold K1) + E1 - Change page

K2 - Undo the last recorded step (Append mode only)

Shift (hold K1) + K2 - Clear sequence on current track

K3 - Turn off recording

E2 - Unassigned

E3 - Change recording mode (see below)



There are three different recording modes. Only one mode (Append) is available when recording with the sequencer stopped. If you enter record mode with the sequencer already playing, you can switch between modes using E3. The available modes are described as follows:

Mode	Description
Append (default)	Each new note or chord received at the MIDI input is appended to the end of the sequence.
Overdub	As the sequence plays, each new note or chord received at the MIDI input is overdubbed on top of the data stored at the currently active step.
Replace	As the sequence plays, each new note or chord received at the MIDI input replaces the data stored at the currently active step.

Triggers Page

E1 - Select current track

Shift (hold K1) + E1 - Change page

K2 - Switch between which parameters are controlled by E2 and E3

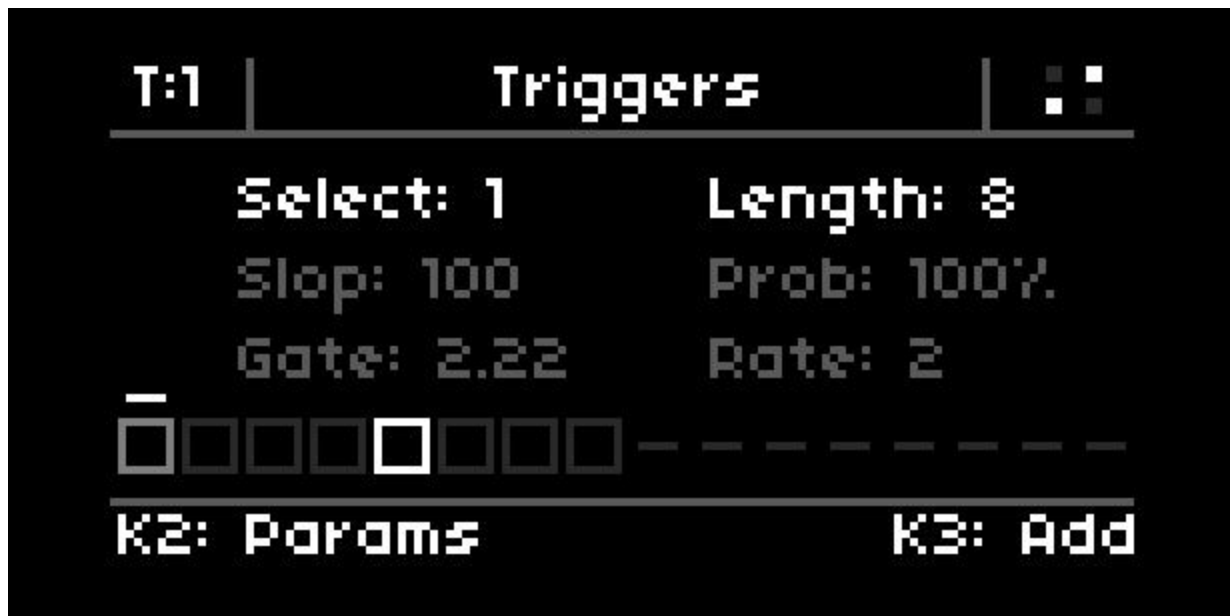
Shift (hold K1) + K2 - Switch between parameters in opposite direction

K3 - Add a trigger at the currently selected step

Shift (hold K1) + K3 - Delete a trigger at the currently selected step

E2 - Change the value of the currently selected parameter (left column)

E3 - Change the values of the currently selected parameter (right column)



Description of parameters:

Select - Select the current step of the trigger sequence to edit. A horizontal line above the steps indicates which step is currently selected.

Length - Set the length of the trigger sequence.

Slop - Set the timing slop amount for the currently selected step. If the trigger advances a sequence step with a single note, that note will be delayed by a random amount, If the sequence step contains a chord, the notes of the chord will be spread out over time by a random amount.

Prob - Set the probability that the currently selected step will trigger.

Gate - Set the gate time (i.e. duration) of all trigger events for the currently selected track.

Rate - Set the rate at which the trigger sequence advances for the currently selected track.

Euclidean Triggers Page

E1 - Select current track

Shift (hold K1) + E1 - Change page

K2 - Switch between which parameters are controlled by E2 and E3

Shift (hold K1) + K2 - Switch between parameters in opposite direction

K3 - Mute the output of the Euclidean Triggers sequencer

Shift (hold K1) + K3 - Delete a trigger at the currently selected step

E2 - Change the value of the currently selected parameter (left column)

E3 - Change the values of the currently selected parameter (right column)



Description of parameters:

Triggers - Set how many triggers are generated by the euclidean rhythm algorithm.

Length - Set the length of the euclidean rhythm trigger sequence. *Note that the length of the sequence determines the placement of the triggers. Play around and you'll see.*

Rotate - Rotate the trigger sequence generated by the euclidean rhythm algorithm.

Prob - Set the trigger probability for all of the trigger events generated by the euclidean rhythm algorithm. *Note that this differs from the Triggers page, where probability is set per step.*

Gate - Set the gate time (i.e. duration) of all trigger events for the currently selected track.

Rate - Set the rate at which the trigger sequence advances for the currently selected track s.

Transpositions Page

E1 - Select current track

Shift (hold K1) + E1 - Change page

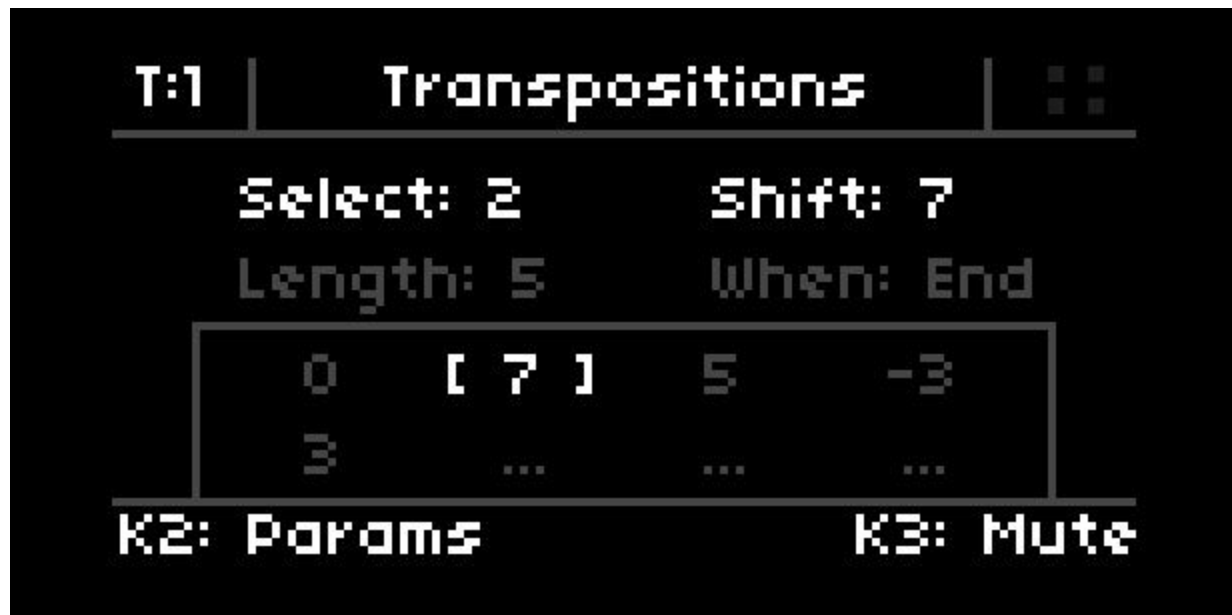
K2 - Switch between which parameters are controlled by E2 and E3

Shift (hold K1) + K2 - Switch between parameters in opposite direction

K3 - Mute the output of the transposition sequencer

E2 - Change the value of the currently selected parameter (left column)

E3 - Change the values of the currently selected parameter (right column)



The transposition sequencer transposes the output of the main pitch sequencer. Each number in the list represents a semitone offset that is applied to the main pitch. The length of this sequencer is from 1 to 8 steps. The step of the sequence that is currently active will be enclosed in [square brackets].

Description of parameters:

Select - Select the current step of the transposition sequence to edit (the selected step is the brightest)

Shift - Set the semitone offset value for the currently selected step

Length - Set the length of the transposition sequence from 1-8.

When - Determines when to advance to the next step of the transposition sequence. The default value "End" will advance the transposition sequencer every time the main pitch sequence reaches the end of its length. Setting When to some number *N* (1-64) will advance to the next step of the transposition sequence when *N* many trigger events have been sent from the trigger sequencers.

Track Outputs Page

Shift (hold K1) + E1 - Change page

K2 - Switch between which parameters are controlled by E2 and E3

Shift (hold K1) + K2 - Switch between parameters in opposite direction

E2 - Change the value of the currently selected parameter (left column)

E3 - Change the values of the currently selected parameter (right column)



ALL	Track Outputs		::
T1	Out: Both	MIDI Ch: 1	
T2	Out: Synth	MIDI Ch: 1	
T3	Out: Synth	MIDI Ch: 1	
T4	Out: MIDI	MIDI Ch: 4	
K2: Params			

The Track Outputs page lets you route the output of each of the 4 tracks.

Description of parameters:

Out - Select the destination of the selected track. “Both” (default) sends the track output to both the MIDI output and the internal synth. “MIDI” sends the track output to the MIDI output only. “Synth” sends the track output to the internal synth only.

MIDI Ch - Set the MIDI channel used for transmitting the track output.

Synth Edit Page

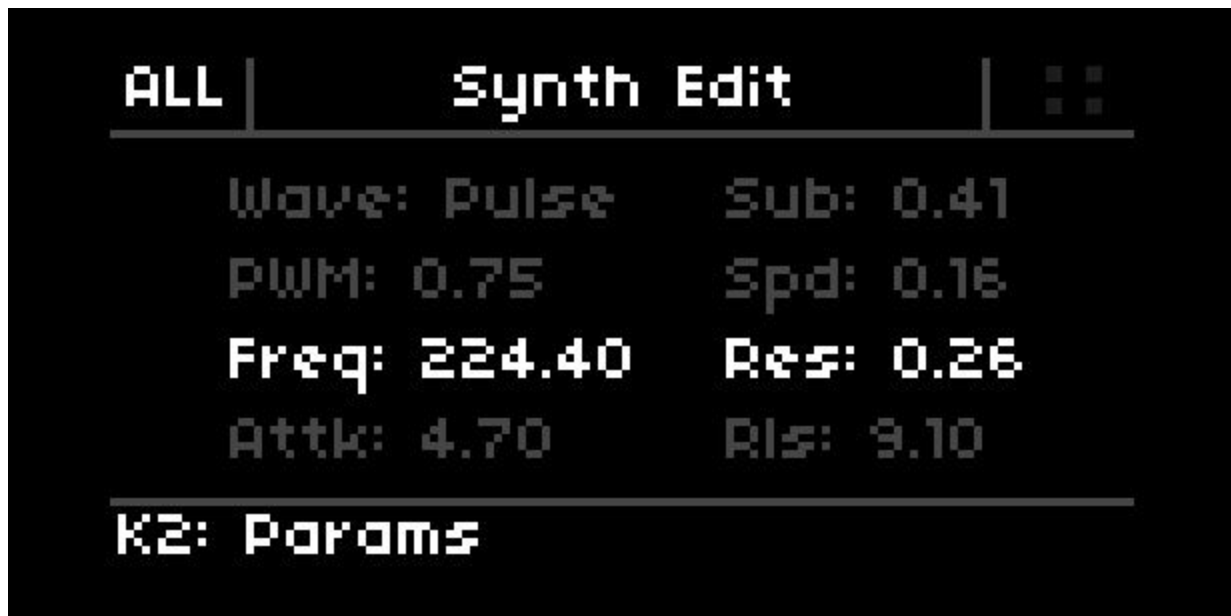
Shift (hold K1) + E1 - Change page

K2 - Switch between which parameters are controlled by E2 and E3

Shift (hold K1) + K2 - Switch between parameters in opposite direction

E2 - Change the value of the currently selected parameter (left column)

E3 - Change the values of the currently selected parameter (right column)



The Synth Edit page provides a handful of useful parameters from the Molly The Poly synth engine. If you want to dig deeper into the synth parameters, every parameter is available on the norms parameters page (including the 3 patch creator functions).

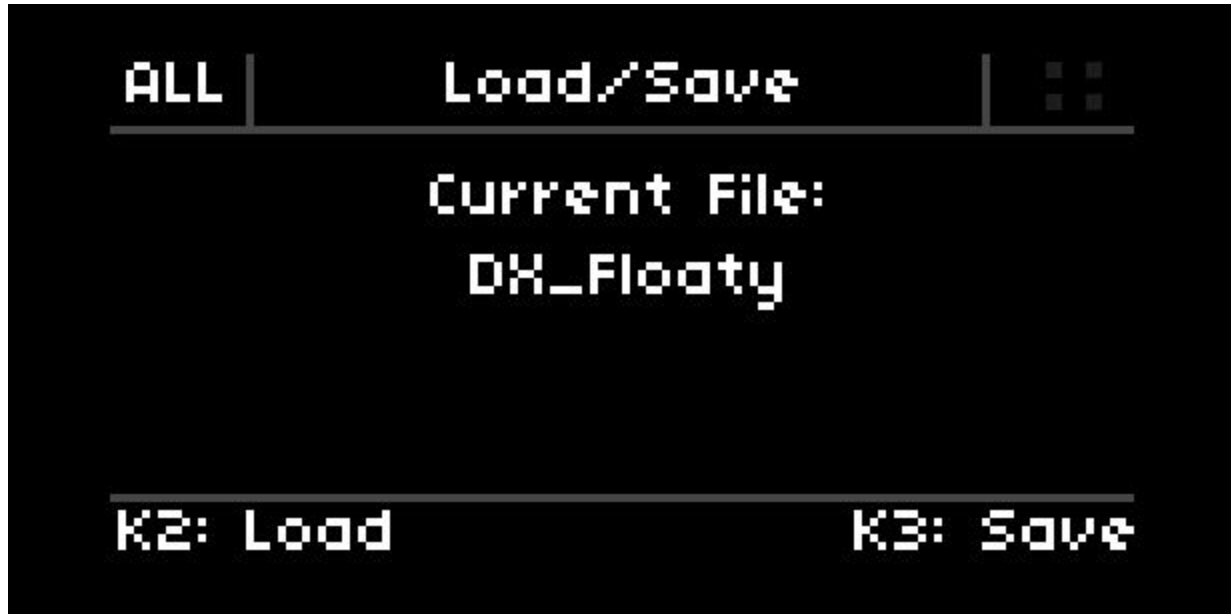
Load/Save Page

Shift (hold K1) + E1 - Change page

K2 - Load a file.

Shift (hold K1) + K2 - Clear the edit buffer for all tracks (i.e. reset)

K3 - Save the edit buffer to a file.



The Load/Save page lets you load and save stuff! And by stuff I mean everything - anything you've recorded or edited will be saved and/or recalled with the name you provide.

If your session was started after clearing the edit buffer via Shift + K2, the current file will be listed as "buffer". The state represented by "buffer" is saved every time the sequencer is stopped, and every time you exit recording mode. The intention here is that the script will always pick up from where you've left off. Once you've saved the file you're working with, that name will appear on this screen until you load/save another file (or restart the script).

Patterns Page

Shift (hold K1) + E1 - Change page

K2 - Load a pattern (i.e. make it the active pattern in the sequencers)

Shift (hold K1) + K2 - Copy the current pattern to the next location (not available for pattern 8)

K3 - Play/Stop

Shift (hold K1) + K3 - Jump to the “home” screen (Play/Rec screen)

E2 - Select the pattern to load.



The Patterns page lets you choose between the 8 available patterns. A pattern in Fourtunes is a collection of all sequences on all all tracks.

Fourtunes always starts with up pattern 1 being the active pattern.

To select a pattern to be loaded, turn E2. The selected pattern will be enclosed in [square brackets]. To load the pattern and make it active, press K2 after you’ve made your selection. The currently loaded pattern in the list will always be indicated with a brighter number (as well as being displayed in the “Now Playing” bar above the pattern list).

So for example, the state of the Patterns page in the image above is as follows:

- The currently playing pattern is pattern 1, as indicated by the Now Playing bar, as well as the brightness level of that entry in the list.
- The currently selected pattern is pattern 3, as indicated by the square brackets around that entry of the list.
- If K2 is pressed, the currently playing pattern will become pattern 3. *Note that the change to the newly loaded pattern will take place on the next 16th note timing interval.*