lowquo

GUIDE / COMPLETE MANUAL

lq-12 user guide

The full guide for lq-12 0.3.0: sampling, chopping, sequencing, DIRT, resampling, projects and audio setup.

lq-12 0.3.0 / macOS 11+ / Apple Silicon + Intel

LQ12 - user guide

A 12-bit sampler, sequencer and groovebox by LOWQUO.

LQ12 turns the computer into an instrument. This guide is written in keys. Every musical operation is a key, and that is the design rather than an omission - the keyboard is the control surface, and your hands never leave it. You can click too: every click does exactly what a key already does (section 2).

This guide is for LQ12 0.3.0. You can chop a sample, sequence the > pieces, and resample what you made into a new sample to chop again. > > **On Windows and Linux,** `CMD` **is** `CTRL`**.** The guide is written with the > macOS key names; everywhere it says `CMD`, press `CTRL` - and LQ12 says > `CTRL` on screen there. `ALT`, `SHIFT` and every other key are the same.

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1. The first five minutes

- **Open it.** If the top right says `NOT LISTENING`, click the window once. LQ12 is played from the keyboard, and it says so when it is not hearing it.
- **Prove you have sound.** `CMD+T` plays a short tone: left, then right, then both. If you hear nothing, go to section 10 before anything else.
- **Load a sample.** `L`, pick a WAV or AIFF. It lands on the selected track.
- **Write something.** Tap `Q`, `E`, `Y`, `I` - four of the sixteen step keys.
- **Play it.** `SPACE`.
- **Wear it in.** `N` shows DIRT, then hold `UP`. That sound is what LQ12 is for. `N` again to go back to the steps.
- **Cut it up.** `SHIFT+C`, then `RETURN`: TRANSIENT cuts where the hits are. `Q` onwards now play the pieces of your sample - just play them; nothing is written. (`SHIFT+RETURN` divides it evenly instead.)
- **Sequence the pieces.** `SHIFT+P`, then press the slices you want: each one goes on the next step, and `RIGHT` leaves a rest. `SHIFT+P` to come back, then `SPACE`.

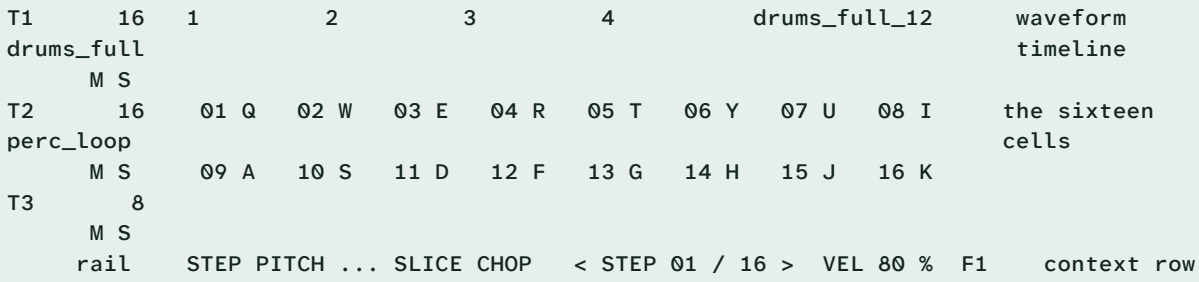
That is the whole instrument in eight steps. Everything below is detail.

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2. What you are looking at

Five things, always in the same place. In Chop the waveform grows and the sixteen become slices (section 7).

```
LOWQUO LQ12  BREAKS *      92.0 BPM  SWING 50.0 %     < PAGE 1 / 4 >      header
```



The header is the whole instrument: the project (`*` means unsaved), play and stop, tempo, swing, and which page of the pattern the sixteen keys reach. If LQ12 is not receiving your keys it says `NOT LISTENING` there - and says nothing at all when everything is fine. The button opens the audio settings, as `CMD+,` does.

The rail down the left is all eight tracks at once: the sample each one plays, its loop length as a number and as a bar against the longest - eight loops of different lengths are eight bars of different widths - and `M` and `S`. The selected track is raised and edged in amber.

The waveform timeline is the sample on the selected track. The playhead runs across it; what `START` and `END` leave out is shaded back; the numbers along the top are beats, counted from where the step starts, at the current tempo and pitch - so you can see how much of the sample one beat of the pattern reaches. The sample's name is in the corner. If it is showing something other than the track's own sample - a step with a sample of its own, or a sample you are browsing - the corner says so. It grows into the work surface when you chop (section 7).

The sixteen cells are the instrument. Two rows of eight, matching the two rows of keys under your fingers:

```
Q  W  E  R  T  Y  U  I        cells 1-8
A  S  D  F  G  H  J  K        cells 9-16
```

Tap one to switch a step on or off. `UP` and `DOWN` change whatever the sixteen are showing - normally the selected step's velocity (section 6). `1` to `8` choose which of the eight tracks you are playing.

The context row along the foot answers three questions, left to right. *What am I looking at?* - the tabs `STEP PITCH START END LEVEL PAN DIRT VEL SLICE CHOP`, the one showing filled in amber (teal for Slice and Chop). Every tab goes where it says, from anywhere; one that cannot - SLICE before the sample is cut - says why in the header. *Where am I?* - `STEP 03 / 16`, `SLICE 02 / 08` in Chop or `WRITE STEP 05 / 64` in Slice, then the value `UP` and `DOWN` will change and whose it is: `VEL 80 %` for the step, `TRACK +0.0 st` for the track, `STEP 05 LOCK +3.0 st` in teal while you hold a step. *What do the keys do?* - the two or three keys that matter right now, and always `F1 ALL KEYS`. If anything is wrong - a slice that is not there, a page past the end of the loop - it is said here in red, before the hints.

Tab	The keys are	The cells show
`STEP`	steps	the pattern - what each step plays
`PITCH` … `VEL`	still steps	that one parameter, sixteen times
`SLICE`	slices, to write	the page you are writing, large; the slices above it, as a bank
`CHOP`	slices, to hear and cut	the slices of the sample, on a big waveform

The mouse

Every click is a key you already know, sent the same way:

and hear a slice, in Slice to write it

`SHIFT+C`, `STEP` goes back

they go to the slice either side, in Slice they move the write step

its key

track, without selecting it

`]`, and is `CMD+,`

- a **cell** is its key - click to switch a step on or off, in Chop to select
- a **tab** is its key - `PITCH` is `Z`, `SLICE` is `SHIFT+P`, `CHOP` is
- the **arrows** either side of `STEP 03 / 16` are `LEFT` and `RIGHT`; in Chop
- the button on the context row - `EXTRACT` in Chop, `LAYOUT` in Slice - is
- a **track row** is `1-8`; its `M` and `S` mute and solo *that*
- the header's **play** button is `SPACE`, the **page arrows** are `[` and

Nothing can be done only with the mouse, and clicking never takes the keyboard away from LQ12.

Reading the sixteen

On the `STEP` tab each cell shows **what that step plays**, from the real audio, and says it in a word at the foot:

sample

- `SL3` - slice 3, and the cell draws only slice 3
- `FULL` - the whole sample, trimmed by `START` and `END`

- REST - the step is off: an empty cell, nothing drawn
- SL? in red - it names a slice that is not there, and plays the whole

change here

bar across its top

stops saying it as soon as you have

- the **bar** along the foot is the step's velocity - what UP and DOWN
- a **teal dot** beside the key means that step overrides something (section 6)
- S007 means that step plays sample 7 instead of the track's
- the **selected** step is edged in amber; the **playing** step has an orange
- an amber bracket on the right of a cell is where the loop ends
- past the end of a short track the cells go dim - still there, not playing
- when nothing is programmed yet, the surface says Q-K PLACE STEPS - and

Looking at one parameter instead

Press Z, X, C, V, B, N or , - or click the tab - and the sixteen stop drawing the pattern and start drawing **that parameter**, one control per cell with its value under it: +7 semitones, 45%, -6dB, L40, 80. A short tick in each cell marks the track's own value; a cell whose control sits on it is inheriting, one that sits off it is a lock, drawn in teal. The selected step is amber.

left out drawn back - on a step that plays the **whole sample**. A step that plays a slice shows its slice, whole, and SL4: its edges are the slice's, set in Chop. X or C on that step goes there (section 7).

gets, so more DIRT looks blockier.

- **PITCH** rises and falls from the centre.
- **START** and **END** are a window on the step's waveform, with what is
- **LEVEL** is the step's level against the track's.
- **PAN** sits left or right of a centre line.
- **DIRT** draws the step's waveform through the same reduction the sound
- **VEL** is each step's velocity. There is no track velocity.

Press the same key again, or click STEP, to go back to the pattern.

The surface shows what UP and DOWN edit. In a parameter view they change that parameter for the track; hold a step while you press them and the value is locked to that step instead (section 6). The step keys still toggle steps, and the hints still start Q-K STEPS. The context row tells you which value the arrows will change: TRACK normally, or

the step and `LOCK` - `STEP 05 LOCK +3.0 st` - while you hold a step. `,` is velocity, which belongs to each step anyway - there is no track line, and the arrows change the selected step.

`M` (reverse), `.` (tempo) and `/` (swing) have no picture of their own. The sixteen keep drawing the pattern and the context row names them and shows the value instead: `REV` belongs to the `TRACK`, `BPM` and `SWING` to the `PROJECT`. The same key again goes back.

Chop (section 7) is the one thing in LQ12 that does change what a key does, and it is drawn in its own colour, teal, so you cannot be in any doubt about it.

---

3. Tracks

Eight tracks. Each holds one sample, its own pattern, and its own length.

`1-8`	select a track
`SHIFT+M`	mute it
`SHIFT+S`	solo it - not exclusive, so you can solo several

Everything else you do acts on the **selected** track. There is never a "which track did I mean" in a gesture, only in the selection. That is what keeps an eight-track instrument feeling like a one-track one.

Solo beats mute. A track that is both is audible - solo means "let me hear this", and it would be useless if a mute you set ten minutes ago could veto it.

---

4. Steps, pages and length

A track is up to **64 steps** long. There are sixteen keys. A **page** is which sixteen of those steps the keys are currently over.

`[ ]`	previous / next page - 1-16, 17-32, 33-48, 49-64
`SHIFT+[ SHIFT+]`	shorten / lengthen the track, 1 to 64
`LEFT RIGHT`	move the step cursor

Shortening never erases. Trim a 16-step track to 7 and steps 8-16 keep everything they hold - their triggers, their velocities, their locks. Lengthen it again and they come back exactly as they were. Length is a playback boundary, not an eraser, which is what makes shortening a safe thing to try mid-take.

Polymeter

Because each track has its own length, they do not have to agree.

```
T1   16 steps
T2   11 steps
T3    7 steps
T4   32 steps
```

Four tracks against one clock, coming back into line every 2,464 steps. This is one of the main reasons to use LQ12, and it costs you one key: `SHIFT+[`.

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5. Samples

LQ12 has a **pool** of up to 256 samples, shared by all eight tracks.

`L`	load a WAV or AIFF into the pool, onto this track
`; '`	move the browse cursor through the pool
`P`	hear whatever the cursor is on
`SHIFT+O`	make it this track's sample
`O`	put it on the selected **step** only
`ALT+BACKSPACE`	that step goes back to the track's sample

A step playing its own sample is how one track holds a whole kit. Assign, and the step is marked.

Loading the same file twice makes two pool entries, deliberately. They are two sounds you may want to treat differently.

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6. Parameters and locks

Seven per-track values, on the row under your left hand:

key		
`Z`	PITCH	−24 to +24 semitones
`X`	START	where playback begins in the sample
`C`	END	where it stops
`V`	LEVEL	the track fader

B	PAN	left to right
N	DIRT	section 8
M	REVERSE	play it backwards

And three more: , velocity, . tempo, / swing.

Each key shows its parameter (section 2), and the arrows change what is shown. The same key again goes back to the steps.

UP DOWN	change the value
SHIFT+UP/DOWN	fine
ALT+UP/DOWN	coarse

Holding a key is **one** undo, not thirty - the whole movement is one thing you did.

Velocity

With no parameter showing, the arrows change the **selected step's velocity** - the height of its bar. UP/DOWN move it 5 %, SHIFT 1 %, ALT 25 %, between 0 and 100 %. Hold a step key and press UP/DOWN to change that step's velocity - here that is not a lock - and letting go does not switch it off.

Changing a velocity never switches a step on. A step that is off still has one, and the context row shows it with OFF.

Locking a value to one step

Show a parameter, hold a step key and turn the value. That value now belongs to that step alone; every other step keeps the track's.

```
Z,  then  hold  E   +  UP UP UP          step 3 is three semitones up
```

Six parameters can be locked: pitch, start, end, level, pan and DIRT. TAB latches lock mode if you would rather not hold a key: in a parameter view the arrows then lock the selected step.

BACKSPACE	clear the lock of the view you are in (in STEP and in Chop there is none, so it clears nothing; in Slice it takes the hit off the write step, section 7)
SHIFT+BACKSPACE	clear every lock on that step
ALT+BACKSPACE	the step goes back to the track's sample (section 5) - not in Chop or Slice, where steps are written by the slice keys only

CMD+SHIFT+BACKSPACE	clear the whole pattern - every step off, and every step's locks, sample and slice with it

A locked step switches on when you lock it, because a lock you cannot hear is indistinguishable from a gesture that did nothing.

Level and pan locks are not fader moves. The track fader sits after DIRT, where a fader belongs. A level lock sets how hard *that one hit* drives DIRT - an accent, not a volume change. That is the musically useful thing, and it is why an accented hit sounds dirtier rather than just louder.

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7. Chop and Slice

Sample, chop, a bank of slices under your fingers, then play in whichever pieces you want: the classic hardware sampling workflow. It works on any sample - a drum break, a vocal phrase, a bassline, a chord loop, a field recording - because a slice is just a piece of a sound. LQ12 does it with two contexts, one for each half of the job, and the steps for the rest:

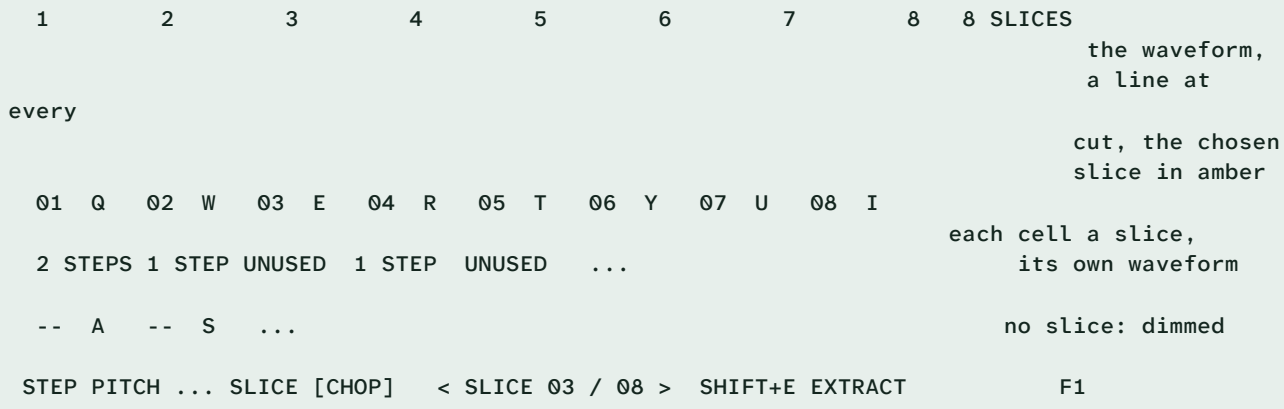
	The keys are	What they do
CHOP SHIFT+C	slices	**define the piece**: you hear them and move their edges. Nothing is written to the pattern
SLICE SHIFT+P	the same slices	**assign the piece**: each key writes its slice on the next step
STEP	steps	**shape the occurrence**: pitch, level, pan, DIRT, velocity - each step its own

Chop cuts one sample into up to sixteen slices and puts each of them under a key. Nothing is destroyed: a slice is two numbers pointing into audio LQ12 never alters, so you can always get the whole sound back.

```
SHIFT+C          chop / stop chopping
```

The screen changes shape - the waveform grows, the cells become slices - and the CHOP tab lights in teal, which is how you know this one is different from looking at a parameter: the keys themselves mean something else now.

Reading the Chop screen



the selected one is amber, and its thick edge is the one `LEFT/RIGHT` will move, tagged `LEFT EDGE` or `RIGHT EDGE`. Along its foot are the keys: `Q-K HEAR SLICES`, `LEFT/RIGHT MOVE EDGE`, `TAB SWITCH EDGE` and the ways on. Anything no slice covers is hatched - a gap is allowed, and you should be able to see that you made one. The count is in the corner.

teal (amber when selected), numbered `01`, `02`... - because the whole question in Chop is what `Q` does right now. `--`, dimmed, means that key has no slice, because you have fewer than sixteen.

counted, not just the page you can see. `UNUSED` means none do yet.

go to the slice either side. `START` and `END` pick the slice's left and right edge, as `X` and `C` do. Every other tab goes where it says: `STEP` or `SHIFT+C` leaves Chop for the steps, a view's tab (or its key, `Z`, `V`, `B`, `N`, `,`) leaves it for that view, and `SLICE` or `SHIFT+P` goes straight across to Slice.

- **The waveform is the work.** Each slice is a band, numbered over its start;
- **The cells are slices, not steps.** Each shows its own slice's waveform in
- **Under each slice** is how many steps of this track play it - all 64 of them
- **The context row** has `CHOP` lit in teal and `SLICE 03 / 08`; its arrows

Making the cuts

`RETURN`	**TRANSIENT** - find the attacks, cut just before each one
`SHIFT+RETURN`	**EQUAL** - divide the sample evenly, into as many slices as it has, or 16
`=`	more equal slices - 2, then 4, then 8, then 16
`-`	fewer, down to none

`Q`…`I` `A`…`K`	select a slice **and hear it** - and nothing else: in Chop the keys never write a step

TRANSIENT and EQUAL are also the two buttons along the foot of the waveform, with their keys on them.

Start with TRANSIENT. It finds where the hits are - in a break, a bassline, plucked notes, a rhythmic phrase - and makes one slice per hit, as many as there are, up to sixteen: eight hits are eight slices, not sixteen. The header says `TRANSIENT / 8 SLICES`. Each cut goes just before its hit, on a quiet spot, so it does not click.

EQUAL divides evenly, wherever the hits are: on a loop exactly in time, sixteen equal slices are sixteen sixteenths. On a loop whose hits are not on the beat, equal slices cut through them and leave some slices silent - that is what EQUAL means, and TRANSIENT is the one that follows the music.

A slow pad, a drone or anything without clear attacks has nothing for TRANSIENT to find: it says `NO CLEAR TRANSIENTS` and changes nothing. Use EQUAL, or cut by hand (below).

UP **is not "add a slice".** It splits **the slice you have selected** into > two halves. Pressing it six times in a row without moving the selection > splits the first slice, then the first half of it, then the first half of > that - which leaves you with a run of ever-smaller slices bunched at the > start of the sample and one enormous one at the end. That is what it is for > - cutting finely into one particular sound - but it is not how you divide a > loop. Use = for that, and - to undo a chop you did not mean.

A slice's edges are its only boundaries

A **slice** is a piece of the sample, defined here in Chop. There are up to sixteen, they belong to the sample rather than to a step, and every step that plays slice 4 plays the same slice 4: move its edge and all of them move.

A step that plays a slice plays **all of it**, from its left edge to its right. To make the piece shorter, longer, earlier or later, change the slice - here. Each step can still have its own pitch, level, pan, DIRT and velocity; those shape the occurrence, not the piece.

START and END belong to steps that play the **whole sample**. They are a window on it, the track's or a step's own:

```
X           START      move it in     (  = 1 %, ALT+  = 10 %, SHIFT+  = a hair)
C           END     bring it back to just past the hit
```

That gets one hit out of a break without chopping at all. The lit region on the waveform is exactly what will play. Do that on track 1 for a kick, then select track 2, browse to the same sample with `;` `'`, `SHIFT+O` to put it on that track, and window it onto the snare. One break, two tracks, one clock.

On a step that plays a slice, `X` and `C` take you to that slice's **left** or **right edge**, here in Chop, rather than trimming again inside it. The waveform says so before you press them

- `SL4 / START AND END ARE THE SLICE'S EDGES` - and the header says where you have arrived: `SLICE 04 / LEFT EDGE / 3 STEPS PLAY IT`. A START or END a step had before it was given a slice is kept, unheard, and applies again if the step goes back to the whole sample.

Moving a cut by hand

`TAB`	switch between the slice's **left edge** and its **right edge**
`LEFT RIGHT`	move that edge, a few milliseconds a press
`SHIFT+LEFT/RIGHT`	fine: one frame - for a click you can hear but not see
`ALT+LEFT/RIGHT`	coarse: tens of milliseconds - across a hit in a press or two
`X C`	the left edge, the right edge - or click `START`, `END`
`UP`	split this slice into two
`DOWN`	merge it with the next one

Hold an arrow and the edge keeps going; letting go and pressing again is the same movement, one undo. A plain or `ALT` move lands on a quiet spot near where it would, so a moved edge does not click either; `SHIFT` moves exactly one frame. With the mouse, drag the selected slice's edge on the waveform, or click a slice to select and hear it.

The position keys play what they select, every time. Choosing a slice by looking at a waveform is guesswork; choosing one by hearing it is not.

A gap between two slices is allowed. Pulling an end edge in so the slice stops before the next one starts is a tight chop, and that is the point of cutting by hand. Pushing an edge over its neighbour is not allowed - two slices over the same audio are two names for one sound.

- all the way down clears the chop and the sample plays whole again.

Putting the pieces on steps: Slice

Cutting is half of it. The other half is choosing which pieces to play, and when - which is the **Slice** context.

```
SHIFT+P          slice / back to steps     (or click the SLICE tab)
```

Slice needs slices. If the sample the selected step plays has not been cut, the tab and `SHIFT+P` both stay where you are and say so - `CUT THE SAMPLE FIRST / SHIFT+C CHOP` - rather than standing you in front of an empty bank or cutting it for you.

Slice is laid out for writing, top to bottom:

```
SOURCE     the sample, its slices marked                    break01
BANK       [01 Q][02 W][03 E][04 R] ... [16 K]      the pieces, and their keys
OVERVIEW   Q-K WRITE SLICES  LEFT/RIGHT STEP ...    all 64 steps, in a line
PAGE        01 WRITE  02      03      04      ...   the page you are writing:
                                                  sixteen steps, large
               SL3    REST     SL4    FULL
```

and how many steps use it. The one you played last is outlined in amber. Click a tile to write it, as its key does.

it plays - `SL3`, `FULL` for the whole sample, or `REST` - and the **write step**, where the next slice goes, is edged in amber and marked `WRITE`. Click a step to move the write step there; nothing else changes until a key writes. The keys are the bank's here, so the page shows step numbers, not keys.

the other three compact - with the write step and where the loop ends.

- **The bank** is one row of the slices, each with its key, its own waveform
- **The page** is the sixteen steps you are writing, large: each shows what
- **The overview** is all 64 steps in a line - the page being written wide,
- The context row says where you are: `WRITE STEP 05 / 64`.

`Q`…`K`	write that slice on the write step, switch the step on, hear it, and move on
`RIGHT`	move on **without** writing - a rest
`LEFT`	move back
`[ ]`	move the write step a page back or on, keeping its place on the page
`BACKSPACE`	take the hit off the write step
`RETURN`	`LAYOUT` - every slice, evenly over the track (below)
`SPACE`	play, as everywhere

Any slice, on any step, in any order, as often as you like. Slice numbers and step numbers have nothing to do with each other. A new pattern from a few pieces is a few keys and some `RIGHT`s:

```
Q  RIGHT  R  Q  Q  RIGHT  RIGHT  R      piece 1, rest, piece 4, 1, 1, rest, rest, 4
```

From a break that might be kick, rest, snare, kick, kick. From a vocal, a syllable stuttered and answered by a word; from a bassline, two notes rearranged into a new line. One

piece repeated on whichever steps you like is just one key and the RIGHTs between.

The header says each write - SLICE 04 TO STEP 03 - and on each bank tile, how many steps play that slice, counted over all 64 and updated as you go. The tile outlined in amber is the slice you played last.

It is **step entry**, not recording: one key is one step, whether the transport is running or not. To hear a slice without writing it, go to Chop - that is what Chop is for.

The write step runs across the pages by itself and stops at step 1 and at step 64 rather than wrapping round. It can go past the end of the track's loop: the steps there are written and kept, and the overview and the row say OUTSIDE THE CURRENT LOOP - they will be heard when the track is long enough. Writing there never makes the track longer.

Every slice key is one undo. A slice written onto a step keeps that step's velocity and locks. If the step played a different sample of its own, it now plays this one: slice 4 of this sample is not slice 4 of something else.

BACKSPACE takes the hit away: no slice, step off. The step's velocity, its locks and its own sample stay, so only the trigger goes. One undo brings it back.

The bank is chosen when you enter Slice: the sample the selected step plays. Moving the write step onto a step with a different sample does not change the sixteen sounds under your fingers. Changing track does: the bank is then that track's.

Lay the whole chop out at once

SHIFT+P, RETURN LAYOUT

LAYOUT puts every slice on the track, in order, evenly over **the track's whole length** - not the page:

Track	Slices	Lands on steps
16 steps	16	1, 2, 3 ... 16
64 steps	16	1, 5, 9 ... 61
16 steps	4	1, 5, 9, 13
12 steps	4	1, 4, 7, 10

It is a quick way to hear the sample put back together, in time, before you change it - not the way to make something new. Each target step is switched on and keeps its velocity and locks; steps in between are left exactly as they were. A target step that plays a **different** sample of its own is skipped and left alone, and the header says so: LAYOUT / 14 PLACED / 2 SKIPPED. The whole layout is one undo.

A track shorter than the chop is refused - TRACK TOO SHORT FOR 16 SLICES - rather than dropping slices or stacking two on a step. Lengthen it with SHIFT+], use fewer slices, or play them in by hand.

Then SHIFT+P (or ESC, or the STEP tab) to leave, SPACE to play, and that is your sample rearranged.

SL? means the slice is not there any more

Chop sixteen slices, put slice 12 on a step, then re-chop to eight. That step now names something that does not exist.

LQ12 **does not rewrite it**. The number is yours, and chopping back to sixteen makes it mean the same thing again. In the meantime the step plays the whole sample and says so:

SL3 under a step	it plays slice 3
SL? under a step	it names a slice its sample does not have
2 STEPS PLAY A MISSING SLICE in Chop	how many steps on this track are stranded
SLICE 7 UNAVAILABLE - PLAYS WHOLE SAMPLE	the selected step, spelled out, in red

Nothing is lost and nothing needs repairing. The same thing happens if you give a step a different sample with fewer slices, and putting the old sample back resolves it.

If a slice plays the whole sample

It did in builds made before the fix on the morning of 30 September 2026 (revision 4d1e1ed; the BUILD row in preferences shows yours): the chop was drawn on screen and saved to the project, and the audio thread had never been told about it, so every key played the sample from the top. Fixed. If you see it again, it is a bug and worth reporting.

Resample, and chop it again

What you have made can become a sample, and the sample can be chopped like anything else. That is the loop LQ12 is built around:

```
SAMPLE -> CHOP -> SEQUENCE -> PROCESS -> RESAMPLE -> REPEAT
```

CMD+SHIFT+E asks which source, and names what each would render:

```
RESAMPLE                    INTO A NEW SAMPLE IN THE POOL

T    SELECTED TRACK         T3  /  16 STEPS
M    FULL MIX               T1 T2 T3  /  32 STEPS
ESC  CANCEL
```

another track is soloed: you asked for it. One loop of its own length.

longest track you can hear.

- `T` renders the selected track on its own - even if it is muted, or
- `M` renders what you hear: mute and solo applied. One loop of the

It is rendered from the top of the pattern, by the same engine that plays it, so the slices, the locks, DIRT, level and pan, swing - everything - are in it. The music stops first if it was playing. There is no tail: the sample is exactly the loop, so an equal chop of it lands on the steps it came from.

A resample is an exact capture: it keeps the level LQ12 played at. Nothing normalises it or turns it up. A step at the default velocity on a centred track comes back about 5 dB below its source - roughly 1.9 dB for the 80 % velocity and 3 dB for the centre of the pan law - because that is how loud it was. If a resample of a resample is getting quiet, turn the track's LEVEL or the steps' velocity up before you resample: the resample will be exactly that.

The header says `RESAMPLED T3 TO SAMPLE 014`. The new sample is in the pool and **browsed**, and nothing has been changed to use it. So, straight away:

```
P            hear it
SHIFT+O      make it this track's sample
SHIFT+C      chop it  -  = = = for eight  -  then SHIFT+P and play the slices in
```

`O` puts it on the selected step instead. The new sample **stays browsed** while you go to the track or step it is for - changing track does not move the cursor off it. Browsing with `;` `'`, loading, or making another sample does.

Resampling twice makes two samples: `T3 RESAMPLE 001`, `T3 RESAMPLE 002`. It is saved inside the project like every other sample, so it needs nothing outside the `.lq12`. Until you save, the `*` stays - undo cannot remove a sample from the pool.

`SAMPLE POOL FULL` means all 256 are used. `NOTHING TO RESAMPLE` means there is no step on, on an audible track, with a sample behind it.

Extract a slice into a sample of its own

`SHIFT+E` in Chop - or the `EXTRACT` button on the context row - copies the selected slice out into a **new sample**. Slice 4 of a break becomes a sample like any other: hear it, put it on a track or a step, process it, chop it.

```
SHIFT+C      chop
= = =        eight equal slices
E            slice 3: hear it, select it
SHIFT+E      extract it - EXTRACTED SLICE 03 TO SAMPLE 014
P            hear the new sample
SHIFT+C      back to steps; 4 for another track
SHIFT+O      it is that track's sample now
```

edge, every channel, at the sample's own rate. No DIRT, level, pan, pitch or START and END - the source, cut out. Resample is the other one: it captures what LQ12 plays, everything included.

Chop, so you can extract the next slice straight away. In Chop `P` plays the new sample; the slice keys go on playing slices.

or put a different sample on the track: the extract does not change.

stays browsed while you change track to put it somewhere. Extract the same slice again and you get a second sample, `BREAK01 SLICE 03 #2`.

not remove it.

- It is **the slice's audio and nothing else**: from its start edge to its end
- The sample you chopped is not changed, and nothing is assigned. You stay in
- It is its own audio. Move the slice's edges afterwards, re-chop the break,
- It arrives whole, named after where it came from - `BREAK01 SLICE 03` - and
- It is saved inside the project. The `*` stays until you save, and undo does

`NOTHING TO EXTRACT - CUT THE SAMPLE FIRST` means the sample is still whole. `SAMPLE POOL FULL` means all 256 are used; nothing is copied.

---

8. DIRT

DIRT is the instrument's character behind one knob: sample-rate reduction, 12-bit companded quantisation, saturation and a closing top end, all moving together along a curve that was voiced by ear.

DIRT	
0	transparent. Not "nearly clean" - the reducer, the saturator and the tone filter are bypassed. What remains is the 12-bit converter, which is the instrument, not the effect.
1-25	grain and a little warmth. Safe across a whole loop.
25-60	the LQ12 sound. Audible decimation, transients starting to break up. Most records get made here.
60-85	obvious aliasing, hard saturation, dark.
85-100	destructive, and deliberately so.

DIRT is **per track**, before the fader. Eight tracks can be worn to eight different degrees, and a fader move afterwards does not change how hard a track is being driven.

Lock DIRT to a step and it applies from that hit until the next one - which is how you get one filthy snare in an otherwise clean bar.

---

9. Projects

`CMD+S`	save
`CMD+SHIFT+S`	save as - a new project folder, which becomes the one you are working in
`CMD+O`	open
`CMD+Z` / `CMD+SHIFT+Z`	undo / redo - 128 deep
`CMD+E`	export the pattern to WAV
`CMD+SHIFT+E`	resample into the pool (section 7)

A project is a **folder** - `MyBeat.lq12` - holding the arrangement and a copy of every sample in its pool, used or not, resamples and extracts included. Move it, rename it, send it to somebody: it still plays. Delete the file you originally loaded and it still plays.

Autosave protects your work without touching your file. If LQ12 stops unexpectedly, the next launch offers to recover what was not saved. `CMD+R` takes it, `CMD+D` discards it. Your own saved project is untouched either way, and it says so on screen.

Undo covers what you **made** - patterns, values, locks, assignments. It does not move your selection, your page, or your mute and solo. Undoing an edit from ten minutes ago must not silently unmute a track you are performing with.

Closing with unsaved work asks: SAVE CHANGES? `S` saves, then closes - on a project that has never been saved it asks where first, and if you cancel or the save fails you are back at the question. `D` closes without saving, and the recovery goes with it: you meant it. `ESC` cancels and stays open. Those three keys mean this only while the question is on screen.

---

10. Sound

`CMD+,` opens Preferences. **AUDIO** is where the sound goes:

OUTPUT DEVICE	every output the system reports; the system's default is marked
OUTPUT PAIR	which two outputs, on an interface with more than two

SAMPLE RATE	only the rates the device supports
BUFFER SIZE	only the sizes it supports, with the time each takes: `256 samples / 5.8 ms`
TEST	a short, quiet tone: left, right, both

choose a row, `->` change it, and everything can be clicked. `[ ]` move to **KEYBOARD** (every key, as `F1` shows them) and **ABOUT** (version, build, diagnostics). These settings belong to this computer: they are not in your project, never mark it unsaved and are never undone. Changing one while a pattern plays keeps it playing, from the top, through the new setup. If the device you chose is not there, LQ12 uses the system default and says so - never silence. There is no bit-depth setting: LQ12 runs in floating point, and Export writes 24-bit WAV.

`CMD+T`	test tone - left, right, both
`CMD+.`	panic. Silences everything immediately.
`CMD+C`	copy a support report to the clipboard

`CMD+.` is not `SPACE`. Stopping the transport lets voices ring out, which is correct and is not what anybody wants when a sound is stuck.

The support report carries the version, the build and the audio settings in use. It contains no audio, no file paths and nothing personal.

If there is no sound

- `CMD+T`. If you hear the tone, the problem is in the pattern, not the audio.
- `CMD+,` and check the output device is the one you are listening to - **NOW PLAYING THROUGH** names it.
- Check the track is not muted, and that nothing else is soloed.
- Check LEVEL - `V` - is not at `-inf` (all the way down).

---

11. The whole key map

`F1` shows it. The keys it names are read from the real bindings, so a key shown there is the key that works.

`ESC` backs out one level at a time: it closes `F1`, then leaves Chop, then leaves a parameter view, then lets go of latched lock mode, then comes back from preferences.

A key with no meaning does nothing - quietly, without the macOS beep. A `CMD` shortcut LQ12 does not use, such as `CMD+H` to hide, still goes to macOS (on Windows and Linux, a `CTRL` shortcut LQ12 does not use goes to the system).

---

12. What is not in this build

0.3.

- MIDI, recording, plugin formats, song mode. None of these are planned for

The limits that *are* permanent: 8 tracks, 4 voices each, 64 steps, 256 samples, 12 bits. Those are the instrument, not a ceiling waiting to be lifted.

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13. Telling us something went wrong

Most useful, in order:

- **What you pressed, in order.** "Loaded a break on T1, `N`, held `UP` for two seconds, `SPACE`" beats "DIRT sounds wrong".
- **Whether it survives a relaunch.** A problem that comes back after a restart is in the file; one that does not is in the session.
- `CMD+C` in preferences, pasted in.
- If it crashed: on macOS the crash report - the full one; on Windows the error from Event Viewer (Windows Logs -> Application); on Linux whatever LQ12 printed in the terminal.