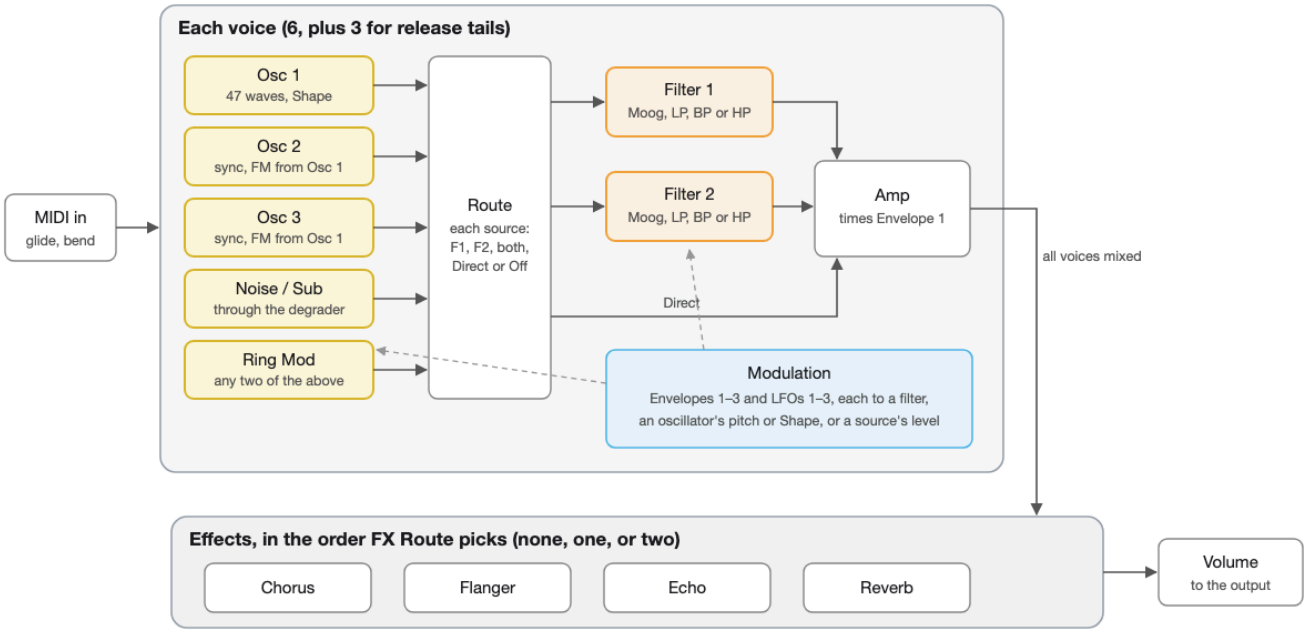
K1Ks User Guide

Krakli · 8 November 2026

What K1Ks is

K1Ks is a polyphonic synthesizer from Krakli, built in the classic way: three oscillators and a noise/sub source go through two filters and an amplifier, with envelopes and LFOs to move things and four effects at the end. The original K1Ks was a 32-bit SynthEdit VST from 2017. This is a 64-bit rebuild for Mac (VST3, AU and Standalone) and Windows (VST3 and Standalone), with the original panel and its 64 sounds.

- **Three oscillators** with 47 waves: the original eleven plus 36 shared with Arminator26. A **Shape** control bends or sweeps each one.
- **Sync and FM:** Osc 2 and 3 can hard-sync to Osc 1, and Osc 1 can frequency-modulate them.
- **Noise or a sub oscillator**, through a sample-rate degrader, and a **ring modulator** that multiplies any two sources.
- **Two filters**, each a Moog-style low pass or a 4-pole low, band or high pass. Every source is routed to Filter 1, Filter 2, both, or straight out.
- **Three envelopes and three LFOs**, each sent to one of 16 destinations: the filters, the oscillators' pitch or Shape, or a source's level.
- **Chorus, Flanger, Echo and Reverb**, in ten orders.
- **The same patches and banks:** original `.fxb` banks load as they are, and banks saved here open in the original K1Ks.



Installing

Mac (macOS 12 or later, Apple silicon or Intel):

- **VST3:** copy `K1Ks.vst3` to `~/Library/Audio/Plug-Ins/VST3`.
- **AU:** copy `K1Ks.component` to `~/Library/Audio/Plug-Ins/Components`.
- **Standalone:** `K1Ks.app` runs on its own. Choose your audio and MIDI devices in its Options menu.

If you copy a build from another computer or a download, macOS may say the plugin "is damaged and can't be opened". It isn't damaged: macOS blocks plugins that aren't signed with an Apple Developer ID. To clear the block, run this in Terminal, with the path of the plugin you copied:

```
xattr -dr com.apple.quarantine ~/Library/Audio/Plug-Ins/VST3/K1Ks.vst3
```

Windows (64-bit):

- **VST3:** copy the whole `K1Ks.vst3` folder into `C:\Program Files\Common Files\VST3`. That needs administrator rights.
- **Standalone:** run `K1Ks.exe`.

GitHub builds the Windows version on every change: open the repository's **Actions** tab, then **Windows build**, then the latest run, and download **K1Ks-Windows-x64**. `BUILD-WINDOWS.md` explains how to build it on a PC instead.

In your DAW, K1Ks is listed as an instrument by **Krakli**. The original 32-bit K1Ks was a VST2 with a different ID, so the two can be installed side by side.

The screen at a glance



From left to right:

- **OSC 1, OSC 2, OSC 3:** the three oscillators.
- **RING MOD** and **NOISE/SUB:** the other two sources.
- **FILTER 1** and **FILTER 2.**
- **LFO 1, LFO 2, LFO 3.**
- **ENVELOPE 1, 2, 3.**
- **GLOBAL:** Volume, Mono/Poly, Glide and Bend Range.
- **Along the bottom:** the four effects, the FX Route fader, and the display with the patch bar.

Every source and modulator ends in a yellow selector that says where it goes.

Using the controls:

- **Knobs and faders:** drag up and down, or use the mouse wheel. Hold **Shift** while dragging for fine control. Double-click to return a control to the first patch's setting.
- **Small switches:** click to flip them.

- **Yellow selectors:** click for the list of choices, or use the mouse wheel.
- **Names and values:** hover over any control to see its name and value.
- **Resizing:** drag the window's corner; the panel scales as a whole.

Patches and banks



The display at the bottom right shows the effects route along its top and the patch below it.

- **Arrows:** step to the previous or next patch.
- **The name:** click it for the list of all 128 patches.
- **EDIT:** rename the patch. Type the name and press Return, or Escape to cancel.
- **COPY:** copies the current settings into the next slot, named "(Copy n) ...", and moves to it. Use it to build a variation without losing the original.
- **LOAD BANK:** go back to the built-in bank, or open an `.fxb` bank, including banks saved by the original K1Ks.
- **SAVE BANK:** saves the whole bank as `.fxb`, in the original's format. It keeps your current edits.
- **LOAD PATCH, SAVE PATCH:** single patches, as `.k1kspatch` files.

Your DAW project remembers the patch you're on, any edits, and a loaded or edited bank. The built-in bank has 64 sounds (listed at the end of this guide), then 64 copies of a default patch to build your own on.

The oscillators



Each oscillator has, from the top:

- **OCTAVE:** five positions, –2 to +2 octaves.
- **TUNE:** raises the pitch by up to an octave. The small switch beside it makes Tune step in semitones, for intervals like a fifth (7) or an octave (12).
- **WAVE:** picks one of 47 waves. The first quarter of the knob's turn holds the original eleven; the rest go on from there. **Right-click** the knob to pick a wave by name.
- **SHAPE:** changes the wave's character (see below).
- **LEVEL:** how loud the oscillator is.
- **ROUTE:** where it goes: Filter 1, Filter 2, Filter 1 and 2, Direct (past the filters) or Off.

Osc 2 and 3 have two more:

- **SYNC:** the small switch beside Shape. Osc 2 or 3 restarts its wave with every cycle of Osc 1, the classic sync sound. Tune the synced oscillator above Osc 1 and sweep its pitch.
- **FM:** the tiny knob beside Level. Osc 1 modulates its pitch at audio rate, for bell and metallic tones.

The waves

Group	Waves
Original	Sine, Saw, Ramp, Soft Ramp, Peak Ramp, Square, Triangle, Peak, Octava, Cluster 1, Cluster 2
Shaped sines	Peaked sine, Half sine, Half peaked, Double sine, Double peaked, Double rect., Double rect. pk
Harmonic series	All bright, All 1/n, All soft, All flat 16, Odd bright, Odd 1/n, Odd soft, Odd flat 9, Even, Organ 8' 4' 2', Organ full
Formants	Formant 2, 3, 4, 5, 6, 8, 11, 15, 20; Resonant 4, 8, 16, 32; Vowel A, E, I, O, U

What Shape does

At 0 every wave plays as listed. Turning Shape up does something different for each group:

Waves	Shape
Original and shaped sines	**Phase distortion**, as on the original: the wave is squeezed into the start of each cycle, so it gets brighter and gains an edge. A sine moves toward a buzzy, saw-like tone.
Harmonic series	Tilts the sound **brighter**. Waves with a top harmonic (flat 16, flat 9, the bright ones) open up to more harmonics.
Organs	Brings in **more drawbars**, lowest first.
Formants and Resonant	**Sweeps the peak** up through the harmonics, like a filter sweep: an envelope on Shape gives a "wah".
Vowels	**Morphs** on through the vowels (A, E, I, O, U and round again), four vowels over the full turn.

Shape keeps the wave at about the same level as it moves. Any envelope or LFO can drive it: choose **Osc 1, 2 or 3 Shape** as its destination.

Ring mod and Noise/Sub



RING MOD multiplies two sources, giving the sum and difference of their frequencies: clangorous, bell-like or robotic tones.

- **INPUT 1** and **INPUT 2:** each picks Osc 1, Osc 2, Osc 3 or the Noise/Sub. The Osc 1 input is a pure sine at Osc 1's pitch; the others use the oscillators' own waves. The ring mod hears the oscillators whatever their Level, so you can ring-modulate two oscillators you can't otherwise hear.
- **LEVEL:** goes well past the other levels (to 30), as ring modulation is quiet.
- **ROUTE:** as for the oscillators.

NOISE/SUB:

- **The switch** (with the noise and square symbols): pink noise, or a square wave one octave below the note.
- **BIT DEPTH:** a sample-rate degrader for grit. Turned down, it holds each sample longer for a crunchier, lo-fi sound; turned up, it is clean.
- **LEVEL** and **ROUTE:** as for the oscillators.

The filters



The two filters are the same. Sources reach them by their **ROUTE** selectors; Filter 1 and Filter 2 can run side by side with different settings, for example a low pass on the oscillators and a band pass on the noise.

- **FREQ:** the cutoff. 5 is about 440 Hz, and each step is an octave (about 14 Hz to 14 kHz).
- **RES:** resonance. The Moog type rings freely near the top.
- **TYPE: MF** (Moog-style 24 dB low pass), **LP** (low pass), **BND** (band pass) or **HP** (high pass). The last three are 4-pole.

Envelopes



- **ENVELOPE 1** shapes the volume of every note (A, D, S, R). It can also modulate something else at the same time, with its **AMOUNT** and the selector under it.
- **ENVELOPES 2 and 3** are free for modulation. Each has:
  - a **D (delay)** fader before the usual A, D, S, R, which holds the envelope back after each key, in seconds, up to 4 (reached under halfway up). The release is held back by the same time;
  - **INVERT** (the small switch at the left), which turns the envelope upside down, so it starts high and falls;
  - **AMOUNT** and a destination selector.

The faders run from instant (bottom) to several seconds (top); Sustain is a level.

LFOs



The three LFOs run freely and are shared by all the notes. Each has:

- **WAVE:** sine, saw, ramp, triangle, pulse, white noise or pink noise.
- **DELAY:** holds the LFO back after each key, up to 3 seconds, so vibrato can fade in late in a long note.
- **RATE**, with **LFO / HFO** below it. **LFO** runs from very slow (one cycle per minute or so) to about 7 Hz. **HFO** runs at audio rate, about 14 Hz to 6.5 kHz, for growls, FM-like tones and ring-mod effects on a filter or pitch.
- **AMOUNT**, with **Low / High** below it. **Low** is a gentle range for vibrato (about a semitone at most on pitch); **High** is 55 times stronger, for big filter sweeps and wild pitch effects.
- **The destination selector.**

On a level or Shape destination, the LFO swings around the middle of that control's range, as in the original. Its depth adds to the knob's own setting.

Destinations

The envelopes and LFOs each choose one of these:

Destination	What moves
Filter 1, Filter 2, Filter 1 and 2	Cutoff
Osc 1 Pitch, Osc 2 Pitch, Osc 3 Pitch, Osc 1 and 2, All Osc	Pitch
Osc 1 Shape, Osc 2 Shape, Osc 3 Shape	Shape
Osc 1 Level, Osc 2 Level, Osc 3 Level, RM Level, Noise/Sub Level	Level

Envelope amounts are strong: on a pitch, an Amount of 1 is already an octave. For pitch sweeps, start low.

Global



- **VOLUME:** the patch's level.
- **MONO/POLY:** the red switch. Poly plays up to six notes. Mono plays one, restarting the envelopes on each key and going back to the previous key when you let go.
- **GLIDE:** slides the pitch from one note to the next. At its lowest it is off; further up, the slide gets slower. It works in both modes, and suits mono leads and basses best.
- **BEND RANGE:** how far the pitch wheel bends, from 0 to 12 semitones.

Effects



The small switch at the left of each effect turns it on. The **FX Route** fader beside the display chooses which effects the sound goes through, and in what order. The display shows the choice:

Fader, from the bottom	Chain
1st position	Direct (no effects)
2nd to 5th	Chorus, Flanger, Echo or Reverb alone
6th, 7th	Chorus then Echo, Flanger then Echo
8th, 9th	Chorus then Reverb, Flanger then Reverb
10th (top)	Echo then Reverb

An effect that's switched on but not in the route isn't heard.

- **Chorus:** two delay lines swept by their own LFOs. **RATE 1** and **RATE 2** set their speeds, **DEPTH** how far they sweep, **INTENS** the feedback on the first line, and **MIX** the blend.
- **Flanger: RATE**, **INTENS** (feedback) and **MIX**.
- **Echo: TIME** (in seconds; the delay reaches its longest, 3 seconds, a third of the way round), **REPEAT** (feedback) and **MIX**.
- **Reverb: SIZE**, **DAMP** (darker tails as it rises) and **MIX**.

K1Ks is mono, as the original was: both outputs carry the same sound.

Sound design tips

- **A classic analogue lead:** Osc 1 and Osc 2 on Saw, Osc 2 tuned a few cents up (a hair of Tune), both to Filter 1 on MF, with Envelope 2 to Filter 1. Mono, a little Glide.
- **Sync sweep:** Osc 2 on Saw with Sync on and Level up, Osc 1 Level at 0. Envelope 2 to Osc 2 Pitch with an Amount around 1 to 3: the classic tearing sync sound.
- **Bells:** Osc 2 on Sine with FM at 3 to 6 and Tune at a non-octave interval, a fast attack, no sustain and a long release on Envelope 1.
- **Talking formants:** Osc 1 on a Formant or Vowel wave, with LFO 1 (slow, High) or Envelope 2 to Osc 1 Shape.
- **Moving pads:** an organ or harmonic series wave with a slow LFO on Shape, Chorus then Reverb.
- **Lo-fi texture:** Noise/Sub on Sub with Bit Depth turned down, routed Direct alongside the filtered oscillators.
- **Audio-rate growl:** an LFO on HFO and High, to Filter 1, with the rate near the note's pitch.
- **Drums:** patches 46 to 51 (DRM) are drum and percussion sounds to start from.

Control reference

Ranges are in the plugin's own units, which follow the original (mostly 0 to 10).

Sources

Section	Control	Range	What it does
Osc 1–3	Octave	5 steps	−2 to +2 octaves
Osc 1–3	Tune	0–1	Up to an octave higher; in semitones with its switch on
Osc 1–3	Wave	47 waves	The wave; 0–10 holds the original eleven
Osc 1–3	Shape	0–10	Phase distortion, tilt, drawbars, formant sweep or vowel morph, by wave
Osc 1–3	Level	0–10	The oscillator's level
Osc 2, 3	Sync	on/off	Hard sync to Osc 1
Osc 2, 3	FM	0–10	Osc 1's frequency modulation of its pitch
Ring Mod	Input 1, Input 2	4 choices	Osc 1, Osc 2, Osc 3, Noise/Sub
Ring Mod	Level	0–30	The ring mod's level
Noise/Sub	Noise or Sub	2 choices	Pink noise, or a square an octave down
Noise/Sub	Bit Depth	5 to 0.05	Degrader: low on the knob is crunchy, high is clean
Noise/Sub	Level	0–10	Its level

Section	Control	Range	What it does
All sources	Route	5 choices	Filter 1, Filter 2, Filter 1 and 2, Direct, Off

Filters and envelopes

Section	Control	Range	What it does
Filter 1, 2	Freq	0–10	Cutoff: 5 is about 440 Hz, each step an octave
Filter 1, 2	Res	0–9.8	Resonance
Filter 1, 2	Type	4 choices	MF (Moog low pass), LP, BND, HP
Envelope 1	A, D, S, R	0–10	The amp envelope
Envelope 2, 3	D (delay)	0–10	Holds the envelope back after each key (seconds, up to 4)
Envelope 2, 3	A, D, S, R	0–10	The envelope's shape
Envelope 2, 3	Invert	on/off	Starts high and falls
Envelope 1–3	Amount	0–10	Depth to its destination (on pitch, 1 is an octave)

LFOs, global and effects

Section	Control	Range	What it does
LFO 1–3	Wave	7 waves	Sine, Saw, Ramp, Triangle, Pulse, White Noise, Pink Noise
LFO 1–3	Delay	0–30	Holds the LFO back after each key, 0.1 s per step
LFO 1–3	Rate	−10 to −1	LFO: about 0.013 to 7 Hz. HFO: about 14 Hz to 6.5 kHz
LFO 1–3	Amount	0–0.18	Depth (Low), or 55 times it (High)
Global	Volume	0–10	The patch's level
Global	Mono/Poly	2 choices	One note with retrigger, or six
Global	Glide	0 to −10	Off at 0; slower slides as it turns up
Global	Bend Range	0–12 semitones	Pitch wheel range
Chorus	Rate 1, Rate 2	−10 to −4	The two sweep speeds, about 0.01 to 0.9 Hz
Chorus	Depth, Intens, Mix	0–70 ms, 0–6, 2–9	Sweep depth, feedback and blend
Flanger	Rate, Intens, Mix	−8 to −2, 0–10, 0–10	Speed (about 0.05 to 3.4 Hz), feedback and level
Echo	Time, Repeat, Mix	0–10, 0–10, 0–10	Delay time (seconds, up to 3), feedback and blend
Reverb	Size, Damp, Mix	0–10	Room size, damping and blend
Effects	FX Route	10 routes	Which effects, in which order

K1Ks 2026 and the original K1Ks

- **The same:**
  - the original's 105 settings, their ranges and its 128 patches;
  - original `.fxb` banks load as they are, and banks saved here open in the original.
- **New:**
  - 36 more oscillator waves, shared with Arminator26, and Shape's own movement for each of their groups. A patch that uses one of the new waves plays Cluster 2 in the original K1Ks.

    - Right-click a Wave knob to choose by name.
- **Changed:**
    - **The sound engine is new.** It follows the original's design closely but was rebuilt from scratch, so patches may sound somewhat different. The original eleven waves are new tables shaped to their names, as the original's wave data was locked inside a third-party module.
    - **Delayed LFO depth.** In the original, a delayed LFO got deeper with each note held. Here every note gets the same depth.
    - **Panel art.** A few controls in the original showed SynthEdit's default blue knobs or grey faders by mistake. They now match the rest of the panel.
    - **Levels.** Each factory patch has a level trim, so stepping through the bank stays at an even loudness.

Factory patches

No.	Name	No.	Name	No.	Name	No.	Name
1	Opened Slowly	17	For the Big Gig	33	Prodigy Sync	49	DRM HH Op
2	Heavens Choir	18	Formanta Banta	34	Pseudo Chorus Guit	50	DRM Perc Zap
3	Brat Sync	19	Froese Flute	35	Remember Genesis	51	DRM Shaker
4	3-Layer-Analog	20	Italian 60s Movie	36	RMO Marimbas	52	Steppin Poly
5	Bhangra Lhi	21	JP8080 Pad	37	Sax Reed in Albert Hall	53	StringOrchestra
6	Bright Stringensemble	22	K1Ks Plucktero	38	SH1000 Trumpet	54	Syntha Brass
7	Deep Male Choir	23	Keys of the sky	39	Smooth Lead	55	Table Piano
8	DM Sync Bass	24	LFO GLides	40	SQ Sound I	56	Techno Bazz
9	Doomish Choir	25	Little Westminster	41	SQ Sound II	57	The Syntha Vocal
10	Duality	26	Mental Atmosphere	42	SQ Sound III	58	Tubular Bells
11	Euro Brass	27	Mrs Soprano	43	SQ Sound IV	59	VHS Synth
12	ESQ-1 Polyesque	28	My old K700	44	SQ Sound V	60	PhysMod Guitar
13	Fairytale Sync	29	Pad & Plucks	45	SQ Sound VI	61	Welson Strings
14	Fantasy Organ	30	Parsons Guitar	46	DRM Kick_c2	62	Waveterm B Landscape
15	Fat Anna Bazz	31	Polyphased	47	DRM Snare	63	Valley Carillon
16	FM Fantasy	32	Poppy Harpsichord	48	DRM HH Cl	64	TS10 Pad

Patches 65 to 128 are copies of a default patch, ready to build your own sounds on.