SEQUENCED MULTI-FX

SeqFX

Sequence every effect.

Twelve studio effects in series, with every parameter free to be driven by a host-synced step sequencer. The complete user guide.

User Guide · Version **0.3.0**
VST3 · AU · Standalone

Contents

1 Introduction — What FXmorph Is

FXmorph is a sequenced multi-effects plugin. It chains **twelve** classic effects in series and runs your signal through them one after another. What makes it different from an ordinary effect rack is that **almost every parameter can be driven by a built-in step sequencer** that locks to your host's tempo.

Each effect exposes **three sequenceable lanes** (its three most important parameters). Every lane carries two things at once: a static **Base** value you set with a knob — fully automatable by the host like any normal plugin parameter — and a **step pattern** you draw in, which pushes that value up and down on every step of the grid. The result is rhythmic, evolving, tempo-locked motion: filter sweeps that snap to the beat, delays that stutter in time, sidechain pumps, gated reverbs, risers and drops, and far stranger things.

The twelve effects, in their default signal order, are:

Filter → Delay → Reverb → Distortion → Chorus → Compressor → EQ → Phaser → Flanger → Tremolo → Ring Mod → Lo-Fi

The first six are enabled by default; the last six start bypassed (see section 5). You can **reorder** the chain by dragging tiles, **bypass** or **solo** any effect, and audition variations with two **A/B pattern slots**. A large library of factory presets — including a deliberately over-the-top *Mayhem* set that lights up all twelve effects at once — gives you instant starting points.

> **At a glance**
>
> 12 effects · 3 sequenceable lanes each (36 lanes) · host-synced step grid of 1–32 bars × 4/8/16 steps per bar · per-step gate/probability lane · Hold or Glide interpolation · swing · A/B slots · 153 factory presets across 12 categories.

2 Installation

FXmorph ships in three formats. Install the one(s) your DAW uses, then rescan plugins. The standalone app needs no host at all.

Format	Use with	Install location
VST3	Most DAWs (Live, Cubase, Reaper, Studio One, Bitwig…)	macOS: `~/Library/Audio/Plug-Ins/VST3` Windows: `C:\Program Files\Common Files\VST3` Linux: `~/.vst3`
AU (Audio Unit)	Logic Pro, GarageBand, other macOS hosts	macOS only: `~/Library/Audio/Plug-Ins/Components`
Standalone	Running FXmorph on its own, no DAW required	Applications / Program Files — launch like any app

Tip: paths beginning with `~/Library` install for the current user only. To install for every user on macOS, drop the file into `/Library/Audio/Plug-Ins/…` instead. On Windows, an installer typically handles the VST3 path for you.

Unsigned beta notes

Pre-release (beta) builds may not yet be code-signed or notarized, so your OS will warn you the first time you open them. This is expected for a beta — the steps below are a one-time approval.

macOS
If macOS says the app "cannot be opened because the developer cannot be verified,"
right-click (or Control-click) the plugin / app and choose *Open*
, then confirm. After approving it once, it opens normally. For the standalone app you can also approve it under *System Settings → Privacy & Security → Open Anyway*.

Windows
If
SmartScreen
shows "Windows protected your PC," click
More info → Run anyway
. This only appears for unrecognized publishers and won't return once the file is trusted.

3 Interface Tour

The window is resizable (from a compact 620×460 up to very large) and laid out in horizontal bands, top to bottom: the **Toolbar**, the **Chain Strip**, the **Gate / Probability lane**, and the large **Detail panel** below. Throughout the UI, controls share a unified **brushed-metal / chrome** look: rotary knobs sit in a chrome bezel with a glowing value arc, faders are recessed grooves with a chrome thumb, and buttons and dropdowns are chrome pills that glow cyan on hover. Colour is used to mean something: **cyan (#49B6CE)** for input/output and global controls, **amber (#E0A030)** for modulation depth and meters, and a distinct **signature hue per effect** so each of the twelve reads at a glance.

3.1 The Toolbar

The top band holds global transport, grid and routing controls. Left to right:

Control	What it does
Bars	Sequence length in bars, **1–32** (horizontal slider with value box).
Steps/bar	Grid resolution per bar: **4/bar**, **8/bar** or **16/bar**.
Snap	Value snapping while dragging steps: **Off**, **1/2**, or **1/4**. Hold `Shift` to bypass snapping temporarily.
Sync	Sequencer clock source: **Host** (follow the DAW transport) or **MIDI**.
Hold / Glide	Interpolation toggle. **Hold** = instant jumps between steps; **Glide** = smooth ramps. (Label changes to show the current mode.)
Swing	Swing amount, 0–100 %, delaying every other step for a shuffled feel.
In / Out / Mix	Three cyan knobs: **Input gain** (−48…+12 dB), **Output gain** (−48…+12 dB), and **Dry/Wet Mix** (0–100 %).
A / B	Two pattern slots for comparing versions; the active slot is highlighted. The small copy button copies the current pattern into the other slot.
Preset	Opens the preset menu (factory categories, your saved User presets, and *Save User Preset…*).
Overflow (⋯)	More actions: **Randomize All**, **Clear All**, **Reset All**, and **Save User Preset…**

3.2 The Chain Strip

Directly under the toolbar is the chain strip: a row of tiles, one per effect, arranged as **two rows of six** in signal order. Each tile shows the effect's **name**, a **mini sparkline** previewing its lane patterns, and small **bypass** and **solo** dots. Tiles are tinted with each effect's signature hue, and the currently focused effect is highlighted.

- **Click** a tile to focus that effect — its full editor appears in the Detail panel below.
- **Drag** a tile to **reorder** the chain; the audio signal then flows through the effects in the new order.
- Toggle a tile's **bypass** dot to mute that effect, or its **solo** dot to hear it alone (solo overrides others).
- The strip's **Overview** button switches the panel below into a multi-effect overview that shows all twelve effect sections stacked in two columns at once, instead of one focused effect.

3.3 The Gate / Probability Lane

A thin full-width lane sits between the chain strip and the detail panel. It is a single per-step lane spanning the whole grid that acts as a master **gate** / level / probability envelope for the sequence. Draw it like any lane — click and drag to set per-step values, or use the scroll wheel over a step to nudge it. A moving **playhead** tracks the current step in time with the host.

3.4 The Detail Panel

The large area below is where you edit the focused effect. It contains:

- A **title** with the effect's name.
- A **settings sidebar** of mode controls specific to that effect (for example the Filter's type, the Delay's sync division and ping-pong toggle, the Compressor's attack/release/makeup with a live **gain-reduction meter** in amber). These are embedded from the effect's settings component.
- Three **lane rows** — one per sequenceable parameter. Each row pairs a **Base knob** (the static value) and an **amber Depth knob** (how strongly the step pattern moves it) on the left with the editable **step lane** on the right.

Inside a lane you click and drag to draw step heights, scroll a step to fine-tune, and right-click for per-lane actions. A playhead sweeps across in sync with playback. Hold `Shift` while dragging to ignore Snap. The Base and Depth knobs are ordinary host parameters, so they can be automated and (where supported) **MIDI-learned** from a hardware controller.

> **Keyboard shortcuts**
> `Ctrl+Z` undo · `Ctrl+Shift+Z` / `Ctrl+Y` redo · `Ctrl+S` save user preset · `Ctrl+T` toggle A/B slot · `Shift`-drag bypasses step snapping.

4 The Step Sequencer — Core Concept

This is the heart of FXmorph, so it is worth understanding well. Every one of the 36 lanes (12 effects × 3 parameters) combines **three ingredients** on every step:

1. **Base** — the lane's static value, set by its Base knob (normalized 0…1 across the parameter's range). This is the value the lane sits at when no modulation is happening. It is a normal automatable parameter.
2. **Step** — the height you draw for that step. Step values are **bipolar**: the centre line means "no change," drawing **above** centre pushes the value **up**, drawing **below** centre pushes it **down**.
3. **Depth** — the amber knob, 0…1, scaling how far a full step deflection can reach away from the Base.

How they combine

A flat lane (every step left at centre) always plays exactly the Base value, so an untouched effect behaves like a normal static plugin. As you pull steps away from the centre, the value swings around the Base by an amount set by Depth. Conceptually:

```
value = Base + (Step − ½) × 2 × Depth
```

In words: a step at the very top with Depth at 100 % reaches a full Depth's worth *above* the Base; a step at the very bottom reaches the same amount *below*; the centre line sits on the Base. The result is always kept within the parameter's legal range. Lower the Depth and the same drawn pattern produces gentler movement — useful for dialing a sweep in by feel without redrawing it.

> **Why bipolar?**
> Because the centre line means "leave it alone," you can sequence just a few accent steps and let the rest ride on the Base value — perfect for, say, opening the filter only on the downbeat, or ducking the level only on the kick.

Interpolation — Hold vs. Glide

The toolbar's interpolation toggle decides how the value moves *between* steps:

- **Hold** — the value jumps instantly to each step and stays there. Crisp, stepped, rhythmic (trance gates, stutters, hard filter steps).
- **Glide** — the value ramps smoothly from one step to the next. Fluid and analog-feeling (slow sweeps, swells, wobbles).

Bars, Steps-per-bar & the grid

The grid length is **Bars × Steps-per-bar**. Bars range from **1 to 32**; Steps-per-bar is **4**, **8** or **16**. So a single bar can be 4, 8 or 16 steps, and a 32-bar pattern at 16 steps/bar gives long, evolving sequences. Individual lanes can also use a shorter loop length than the full grid, which lets lanes cycle at different rates against each other (polyrhythm).

Swing

Swing (0–100 %) nudges every second step later in time, turning a straight grid into a shuffled, grooving one. A little goes a long way; values around 50–60 % give a classic shuffle.

Host tempo sync

With Sync set to **Host**, the sequence is locked to your DAW's transport and tempo: the playhead follows the song position, so patterns line up with bars and beats and stay in time even as tempo changes. Several effects additionally offer their own tempo **Sync** division (Free, 1/1, 1/2, 1/4, 1/8, 1/16, plus triplet and dotted variants) for their internal rate. Set Sync to **MIDI** to clock from incoming MIDI instead.

5 The Twelve Effects

Each effect below lists its three sequenceable lanes exactly as defined in FXmorph, with parameter id, range and default value. Ranges marked with units (Hz, dB, ms, %, :1, bit) are the real-world values; "%" lanes run 0–1 internally and are shown as a percentage in the UI. The first six effects are **enabled by default**; the last six start **bypassed** so that older presets — written for the original six — sound exactly as before. Enable any of the extra six from its chain tile.

5.1 Filter ON BY DEFAULT

A resonant multimode filter — Low Pass, High Pass or Band Pass (set in the sidebar). The staple of rhythmic, tempo-locked sweeps and gates.

Lane / id	Range	Default
Filter Cutoff — `filterCutoff`	20 – 20000 Hz (log)	1000 Hz
Filter Resonance — `filterResonance`	0.001 – 10	0.707
Filter Mix — `filterMix`	0 – 100 %	0 %

5.2 Delay ON BY DEFAULT

A feedback delay with optional tempo **Sync** division and a **Ping-Pong** toggle in the sidebar. Sequence the mix for stutters and dub throws.

Lane / id	Range	Default
Delay Time — `delayTime`	1 – 3000 ms	250 ms
Delay Feedback — `delayFeedback`	0 – 95 %	30 %
Delay Mix — `delayMix`	0 – 100 %	35 %

5.3 Reverb ON BY DEFAULT

An algorithmic reverb with a Pre-Delay control and a **Freeze** toggle in the sidebar. Sequence size and mix for gated and swelling spaces.

Lane / id	Range	Default
Reverb Size — `reverbSize`	0 – 100 %	50 %
Reverb Damping — `reverbDamping`	0 – 100 %	50 %
Reverb Mix — `reverbMix`	0 – 100 %	30 %

5.4 Distortion ON BY DEFAULT

A saturator/waveshaper with selectable type — Tanh, Hard Clip, Foldback or Bitcrush — plus a Makeup control in the sidebar. The Tone lane is a post-drive low-pass colour.

Lane / id	Range	Default
Distortion Drive — `distortionDrive`	0 – 100 %	0 %
Distortion Tone — `distortionTone`	200 – 8000 Hz (log)	2000 Hz
Distortion Mix — `distortionMix`	0 – 100 %	0 %

5.5 Chorus ON BY DEFAULT

A modulation chorus/vibrato with sidebar Sync, Feedback and Spread controls. Sequence depth and mix for swells, warble and width.

Lane / id	Range	Default
Chorus Rate — `chorusRate`	0.01 – 20 Hz	0.5 Hz
Chorus Depth — `chorusDepth`	0 – 100 %	30 %
Chorus Mix — `chorusMix`	0 – 100 %	0 %

5.6 Compressor ON BY DEFAULT

A dynamics compressor with sidebar Attack, Release and Makeup, plus a live **gain-reduction meter** (amber). Sequencing the threshold turns it into a tempo-locked sidechain-style pump.

Lane / id	Range	Default
Compressor Threshold — `compThreshold`	−60 – 0 dB	−20 dB
Compressor Ratio — `compRatio`	1 – 20 :1	4 :1
Compressor Mix — `compMix`	0 – 100 %	0 %

5.7 EQ BYPASSED BY DEFAULT

A single sweepable peak/bell band — set frequency, gain and Q, and sequence any of them for rhythmic notches, wah and boosts.

Lane / id	Range	Default
EQ Freq — `eqFreq`	20 – 20000 Hz (log)	1000 Hz
EQ Gain — `eqGain`	−18 – +18 dB	0 dB
EQ Q — `eqQ`	0.1 – 10 (log)	0.7

5.8 Phaser BYPASSED BY DEFAULT

A swept multi-stage phaser with a sidebar tempo Sync. Jet-plane sweeps and slow swirls; sequence the feedback for rising-tension effects.

Lane / id	Range	Default
Phaser Rate — `phaserRate`	0.01 – 10 Hz	0.5 Hz
Phaser Depth — `phaserDepth`	0 – 100 %	50 %
Phaser Feedback — `phaserFeedback`	0 – 95 %	30 %

5.9 Flanger BYPASSED BY DEFAULT

A short-delay flanger with a sidebar tempo Sync. Metallic comb-filter sweeps; high feedback gives the classic jet whoosh.

Lane / id	Range	Default
Flanger Rate — `flangerRate`	0.01 – 10 Hz	0.3 Hz
Flanger Depth — `flangerDepth`	0 – 100 %	50 %
Flanger Feedback — `flangerFeedback`	0 – 95 %	40 %

5.10 Tremolo / Auto-Pan BYPASSED BY DEFAULT

An amplitude tremolo that doubles as an **auto-pan**: raise the Stereo lane and the modulation pans left/right instead of just dipping level. Sidebar tempo Sync turns it into a trance gate.

Lane / id	Range	Default
Tremolo Rate — `tremoloRate`	0.01 – 20 Hz	4 Hz
Tremolo Depth — `tremoloDepth`	0 – 100 %	50 %
Tremolo Stereo — `tremoloStereo`	0 – 100 %	0 %

5.11 Ring Mod BYPASSED BY DEFAULT

A ring modulator: multiply the signal by a tunable carrier for robotic, metallic and bell-like timbres. Sequence the frequency for sci-fi sweeps.

Lane / id	Range	Default
Ring Freq — `ringFreq`	20 – 5000 Hz (log)	200 Hz
Ring Depth — `ringDepth`	0 – 100 %	100 %
Ring Mix — `ringMix`	0 – 100 %	0 %

5.12 Lo-Fi BYPASSED BY DEFAULT

A bit-crusher and sample-rate reducer for vinyl, radio and bitcrushed-beat textures. Sequence the rate for dropout glitches.

Lane / id	Range	Default
Lo-Fi Bits — `lofiBits`	1 – 16 bit	16 bit
Lo-Fi Rate — `lofiSrate`	100 – 20000 Hz (log)	20000 Hz
Lo-Fi Mix — `lofiMix`	0 – 100 %	0 %

> **Default-bypassed effects**
> EQ, Phaser, Flanger, Tremolo, Ring Mod and Lo-Fi all start with Mix/output at zero and are **bypassed** out of the box. Click their chain tile's bypass dot to engage them (factory presets that use them do this automatically).

6 Presets & A/B Compare

The **Preset** button opens a menu of factory presets grouped into category submenus, followed by your own **User** presets and a **Save User Preset…** command. Choosing a factory preset resets the plugin and configures the grid, base values, depths and step patterns for that sound. FXmorph ships with **153 factory presets** across 12 categories:

Category	# Presets	Character
Basic	1	*Init* — clean reset to defaults
Filter	16	Sweeps, gates, wobbles, acid lines, plucks, rises/drops
Delay	16	Stutters, dotted/triplet echoes, dub throws, slaps, swells
Reverb	14	Halls, plates, gates, swells, cathedrals, shimmer
Distortion	14	Crush, warm saturation, fuzz pulses, octave stabs, drive
Chorus	12	Swells, vibrato, lush pads, detune, warble, gates
Compressor	12	Sidechain pumps, glue, squash, brick-wall, breathing
EQ	6	Sweeps, notches, telephone, bass boost, air, wah
Modulation	20	Phaser, flanger, tremolo/pan, ring-mod variations
Lo-Fi	6	Vinyl, bitcrush, radio, tape hiss, rate drops
Combos	24	Multi-effect chains: filter+delay, build-ups, drops, risers…
Mayhem	12	All twelve effects engaged at once — total chaos
Total	**153**	**across 12 categories**

> **Mayhem**
> The *Mayhem* category (Total Chaos, Kitchen Sink, Apocalypse, Overload, Meltdown, Pandemonium, The Works, Maximalist, Wall of Noise, Hurricane, Supernova, Armageddon) is the showcase set: each of its 12 presets un-bypasses and drives
> **all twelve effects simultaneously**
> with audible base values and motion. Spectacular, extreme, and a great way to hear everything FXmorph can do at once.

User presets

Save User Preset… (also `Ctrl+S`, or via the overflow menu) writes the entire current state to a `.fxmorph` file in your user preset folder (`FXmorph/Presets` under your user application-data directory). Saved presets then appear under the **User** submenu and reload exactly as saved. You can also **Save Pattern…** / **Load Pattern…** to arbitrary locations from the panel's right-click menu.

A/B compare slots

The toolbar's **A** and **B** buttons hold two independent versions of the whole patch. Tweak in A, press **B** (or `Ctrl+T`) to switch and build an alternative, then flip back and forth to compare. The copy button duplicates the current slot into the other so you can branch from a good starting point. Slot A is seeded with the current state when the editor opens.

7 Global Controls

Control	Range	Purpose
Input Gain	−48…+12 dB	Level into the chain — drive the distortion/compressor harder or tame a hot input.
Output Gain	−48…+12 dB	Final level after all effects — match loudness against bypass.
Mix (Dry/Wet)	0–100 %	Global blend of the processed signal against the dry input — parallel-process the whole chain.
Interpolation	Hold / Glide	Stepped jumps vs. smooth ramps between steps (see §4).
Swing	0–100 %	Shuffle feel by delaying every other step.
Bars · Steps/bar	1–32 · 4/8/16	Overall grid length and resolution.

Note: each effect *also* has its own **Mix** lane, controlling how much of that single effect is blended in. The global Mix above sits across the entire chain, on top of the per-effect mixes.

8 Tips & Workflow Recipes

Rhythmic filter gate

Focus **Filter**, set its Type to Low Pass and raise **Filter Mix**. On the Cutoff lane, draw a step every fourth step up to the top and leave the rest near the bottom; choose **Hold** interpolation. Instant tempo-locked stutter gate. (See the *Lowpass Gate* and *Triplet Gate* presets.)

Sidechain pump

Focus **Compressor**, set a high Ratio and fast Attack/Release. On the Threshold lane, dip it hard on each downbeat and leave it high elsewhere. With **Hold** you get a hard ducking pump that breathes with the beat — no external sidechain needed. Start from *Sidechain Pump* or *Eighth Pump*.

Riser / build-up

Use a long grid (e.g. 4–8 bars). Draw a steady upward ramp on **Filter Cutoff** and **Reverb/Delay Mix**, switch to **Glide**, and let everything climb across the pattern. Add a rising **Distortion Drive** for heat. The *Build Up*, *Filter Rise* and *Mega Riser* presets are ready-made templates.

Lo-Fi wash

Engage **Lo-Fi** (un-bypass it) and pull Bits down to ~12 and Rate to ~12 kHz for vinyl grit, then add **Reverb** and a touch of **Chorus** for a dreamy, degraded wash. *Vinyl* and *Lo-Fi Dream* get you there in one click.

All-FX Mayhem

Load any **Mayhem** preset to hear all twelve effects driven at once, then mute effects one at a time using the chain tiles' bypass dots to find the combination you like — a fast way to discover surprising chains. Save the keeper as a User preset.

9 Troubleshooting & FAQ

The plugin doesn't show up in my DAW.

Confirm the file is in the correct folder for your format and OS (§2), then trigger a **plugin rescan** in your DAW's preferences. On macOS, ensure you approved an unsigned beta via right-click → Open. AU is macOS-only; if your host is VST3-only, use the VST3 build.

I get no sound (or no effect).

Check the global **Mix** knob isn't at 0 % (fully dry), and that the effect you expect isn't **bypassed** on its chain tile — remember six effects start bypassed. Each effect also has its own **Mix** lane: if that's at 0, the effect is inaudible even when active. Finally, make sure no other effect is **soloed**, which mutes everything else.

The motion sounds steppy / too smooth.

Toggle the **Hold / Glide** interpolation button. Hold gives hard stepped jumps; Glide ramps between steps. Lower a lane's **Depth** knob if the modulation is too wide, or raise it for more movement.

My patterns aren't in time with the song.

Set **Sync** to **Host** so the sequence follows the DAW transport, and start playback from a bar line. Check **Bars** / **Steps/bar** match the feel you want, and that **Swing** is at 0 % if you expect a straight grid.

How do I undo a change?

`Ctrl+Z` undoes, `Ctrl+Shift+Z` or `Ctrl+Y` redoes. Lane edits, randomize and clear are all undoable.

CPU usage seems high.

Running all twelve effects at once (e.g. a Mayhem preset) is the heaviest case. Bypass effects you aren't using from their chain tiles, and reduce very long grids (high Bars × 16 steps/bar) if you don't need them. Reverb, chorus and the modulation effects are the most demanding.

Can I automate the knobs from my DAW?

Yes. Every Base and Depth knob, plus the global In/Out/Mix, Bars, Steps, Swing and interpolation controls, are exposed as host parameters and can be automated. Where your host supports it, Base/Depth knobs can also be **MIDI-learned** from a controller (right-click a knob in the detail panel).

