



Birds | Max4Live device

v.1.0 user manual

Aylesim - 2026

A Quiet Thank You:

Damian Garcia Andreu: for being my anchor when my mind drifted, for believing in me unconditionally, for every quiet moment you chose to stay close. And for the chocolate birds on the side of the bed, which somehow said everything words couldn't.

Fabio Menolascina: for helping me drawing the birds that gave this project its face, and for never letting friendship get in the way of a good critique, pushing me in making better things.

Laura Bizzoca: for your steady curiosity and for always being the first to dive in. You've been watching this grow from the beginning, and that means more than you know.

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Eduardo Pesole, Riccardo Sellan, Carmelo Fascella and the folks of Max Berlin Network: being part of this group gave me more strength than I expected. Sending random updates into the chat, getting feedback, feeling heard, it kept me going.

To all my friends, family, loved ones. and to Berlin.

Welcome to Birds

a generative music system for Ableton Live.

Birds creates 16-step melodic sequences that evolve in real time, so you can explore new ideas without programming every note.

It combines generative algorithms with evolution strategies, so you can try different styles and ideas as the sequence plays.

The interface uses a simple metaphor: birds on wires.

Each bird is a note, its position on the wire is the pitch, and its position along the sequence is the timing.

As the sequence plays, birds move between wires, they fly from one pitch to another, so you can see the melody change as it evolves.

This manual explains how to use Birds from setup to performance.

You'll learn how to choose and control the generative styles, adjust evolution and mutation, use the visual interface, and integrate Birds with your Ableton Live projects.

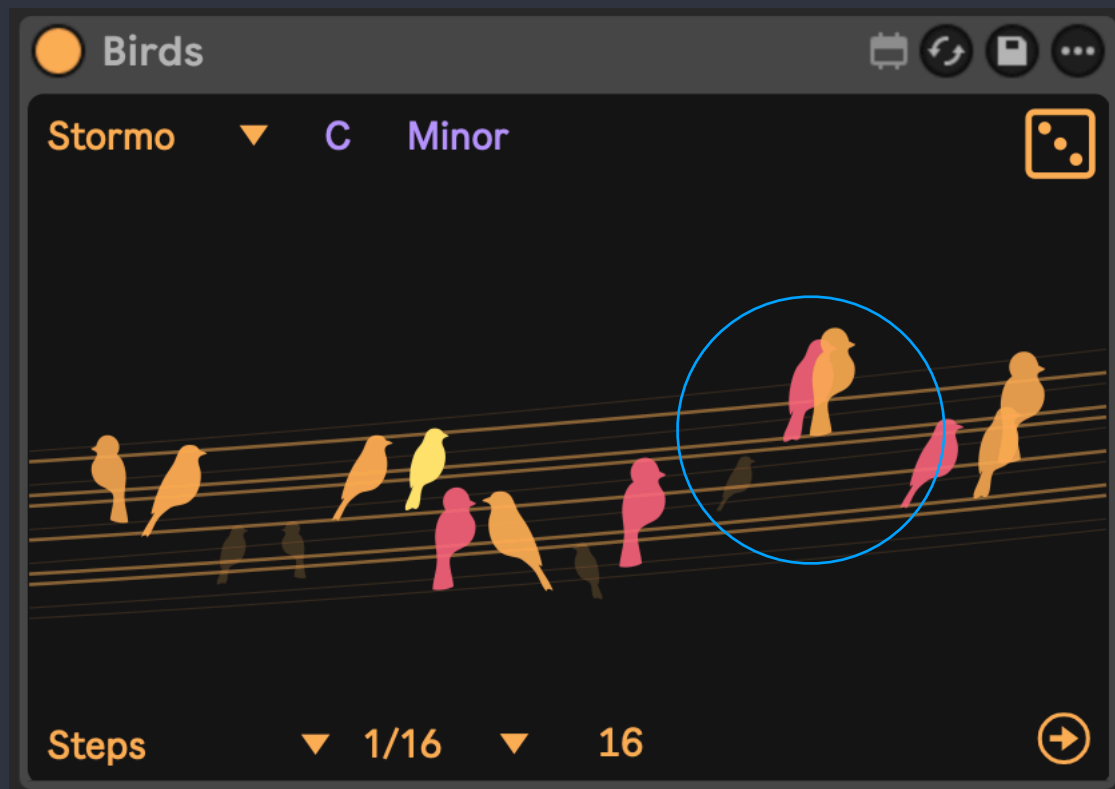
Whether you're sketching ideas or performing live, this guide will help you get the most out of the system.

Installation

- Unzip the Birds archive.
- Drag the Birds.amxd file onto a MIDI track in your Live set, or load it from the browser sidebar (Places or your User Library).

Adding Birds to your User Library to keep Birds in the browser for quick access (optional):

- Open the folder Ableton/User Library/Presets/MIDI Effects/Max MIDI Effect
Mac: usually in Music/Ableton
Windows: usually in My Music/Ableton
- Copy the Birds.amxd file into that folder.
- In Live's browser, go to Places → User Library → Presets → MIDI Effects → Max MIDI Effect. Birds will appear there.



Each bird is a note in the sequence. Their colors show the state of each note:

- **Yellow (primary)** — Notes from the original generated sequence.
- **Red (secondary)** — Evolved notes: they have been changed by the evolution algorithms and differ from the original.
- **Transparent** — Inactive notes (gate off): they are muted and not played.

Birds keeps a reference to the original sequence. As the evolution runs, some notes move away from that reference (they become red), but the system can always bring them back toward it. This is why the sequence is shown between yellow and red birds.

This way the melody doesn't drift into randomness: it starts from a clear idea and evolves around it, so you can explore variations while still returning to the original whenever you want.



The **Random** button (dice icon) generates a new sequence using the current style.

Each click creates a fresh melody that becomes the new reference for evolution. Birds offers several generative styles, selectable with the dropdown menu on the left.

Stormo — Maximum chaos. Notes and gates are fully random, with no memory between steps. Useful for unpredictable, dense textures.

Ostinato — A short motif that repeats with small variations. Almost all steps are active, with an accent on the first note of each repetition. Good for repetitive, driving patterns.

Cantabile — Smooth, connected melody with small pitch steps and Euclidean rhythm. Soft dynamics. Good for flowing, lyrical lines.

Puntillista — Few sparse notes with wide silences. Notes favor the tonic and dominant. Good for sparse, pointillistic textures.

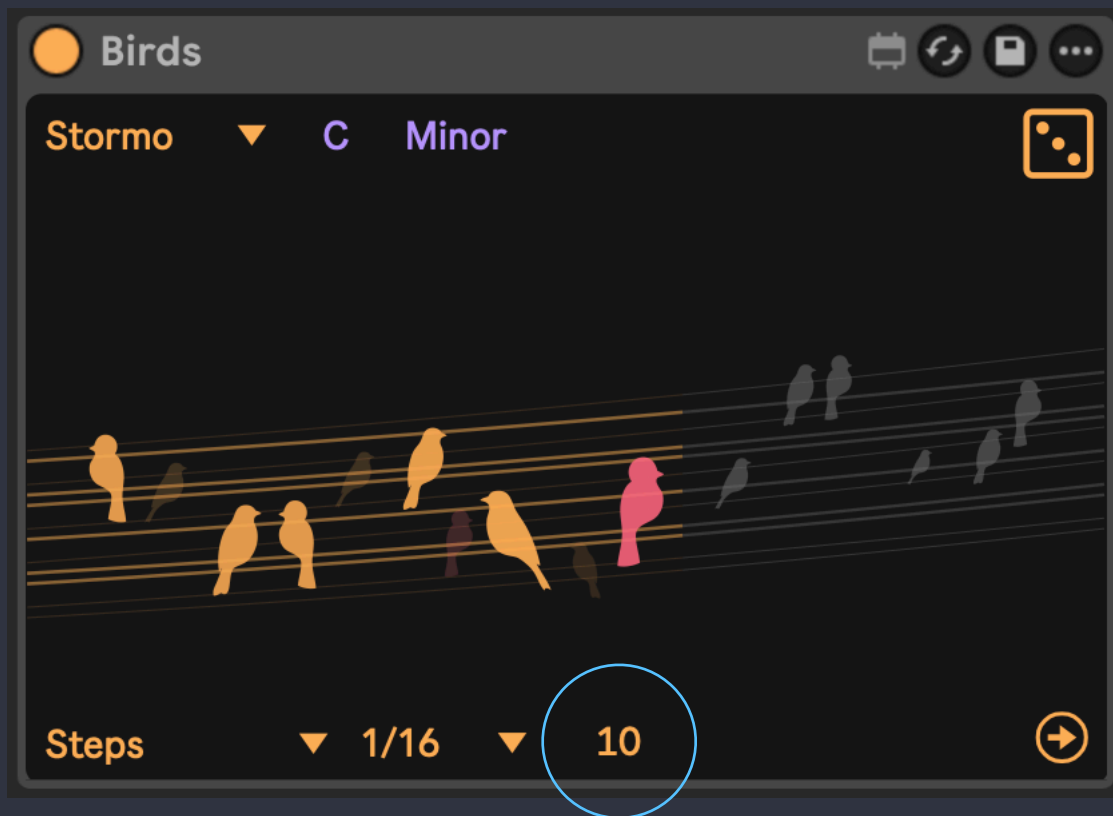
Birds uses the **scale** and **root** (key) set in Ableton Live. When scale mode is on, all generated notes stay within that scale: only the chosen intervals are used, so the melody stays diatonic and in key. With scale mode off, Birds uses all 12 chromatic notes, giving more dissonant and atonal results.



Birds has two ways to advance through the sequence:

Steps (internal clock) — The sequence advances on its own, driven by the project tempo (playback rate). The step length depends on the rhythmic division (e.g. 1/16) and the BPM. The device follows Ableton's transport.

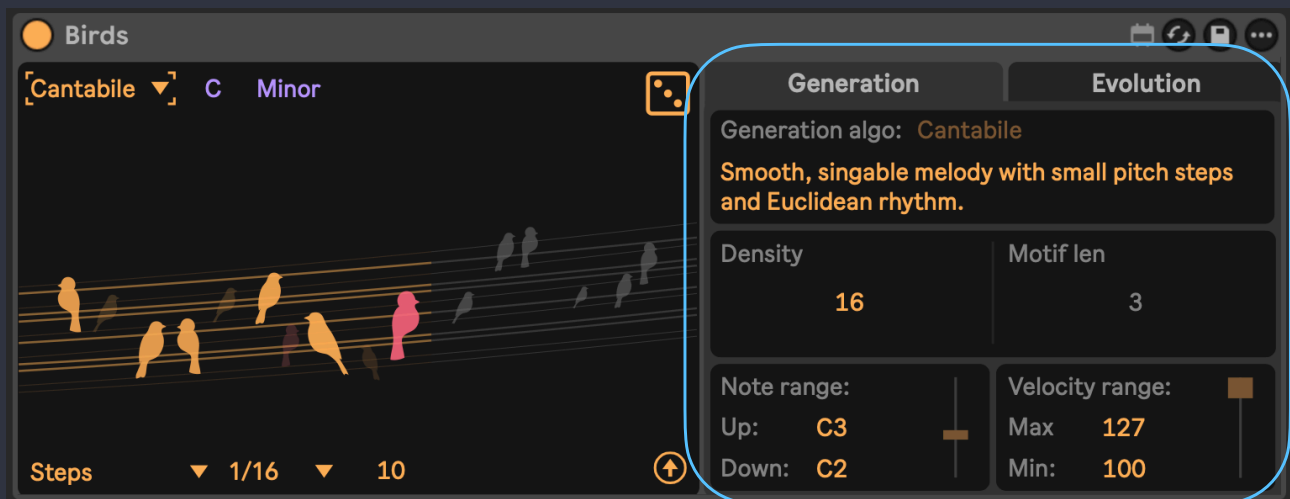
MIDI trigger — Each incoming MIDI note moves the sequence by one step. You can drive Birds from an external sequencer, drum pad, or keyboard: every note in advances to the next step. This lets you sync Birds to other hardware or software and control the rhythm from outside.



The Sequence Length control sets how many steps the sequence uses (1–16).

It defines the length of the melodic loop: fewer steps give shorter phrases, more steps give longer ones.

In the bird display, steps beyond the selected length are grayed out to show they are not played.



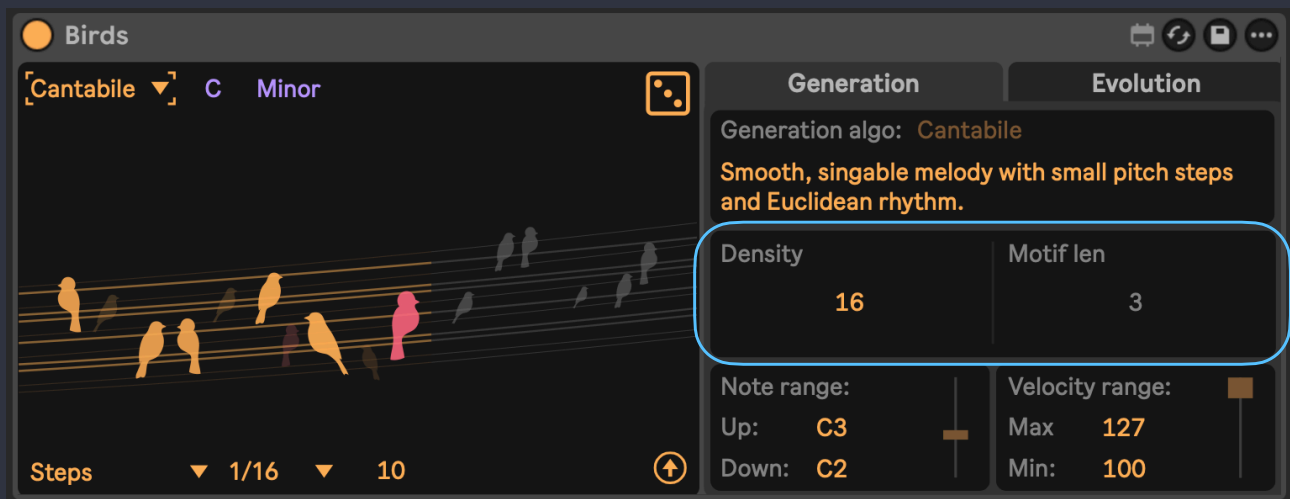
The **Generation** tab holds all parameters that shape how new sequences are created.

Use it to control density, pitch range, velocity, motif length, and other options before generating with the Random button or choosing a style.



In the Generation tab there is a section that shows a short description of the active generative algorithm.

It updates when you change style (Stormo, Ostinato, Cantabile, Puntillista) and explains how that algorithm builds the sequence



Density (1–16) controls how many steps have an active note, but its behavior depends on the style:

Stormo — Gate probability per step: $\text{density}/16$. 16 = all gates on, 8 \approx half, 1 = very sparse. Each step is decided independently.

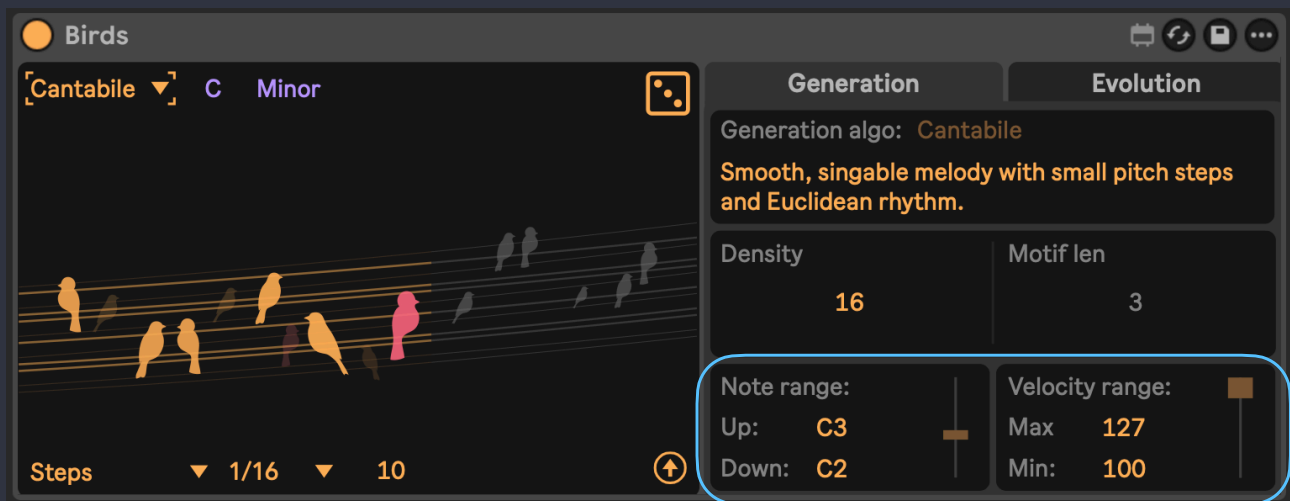
Cantabile — Number of active notes over 16 steps (Euclidean rhythm).

Puntillista — Number of active notes, capped at 6. Values above 6 have no effect. Sparse, pointillistic patterns.

Ostinato — Minimum number of active gates (at least 12). Keeps the pattern dense and almost always moving.

Motif Len (2–8) sets the length of the repeating motif for Ostinato

Shorter values (2–4) give tight, repetitive patterns; longer values (6–8) give longer phrases before the motif repeats.



Note Range is set by **Note Down** and **Note Up** (MIDI 0–127). These define the lowest and highest pitches the algorithm can use.

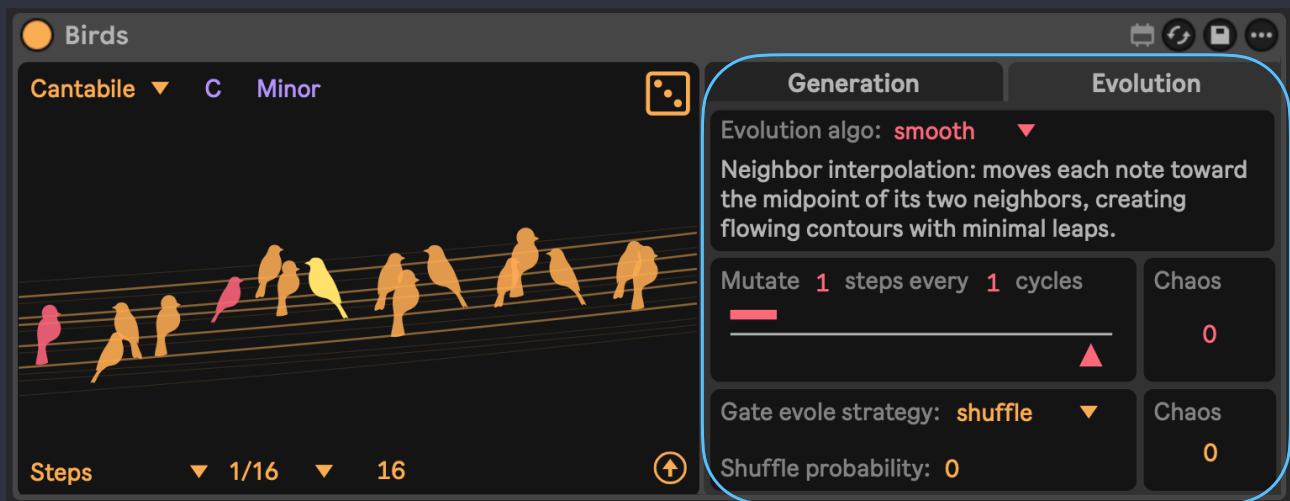
All generated notes stay within this range.

The span between them also affects melodic motion: a narrow range favors small steps, a wide range allows larger leaps.

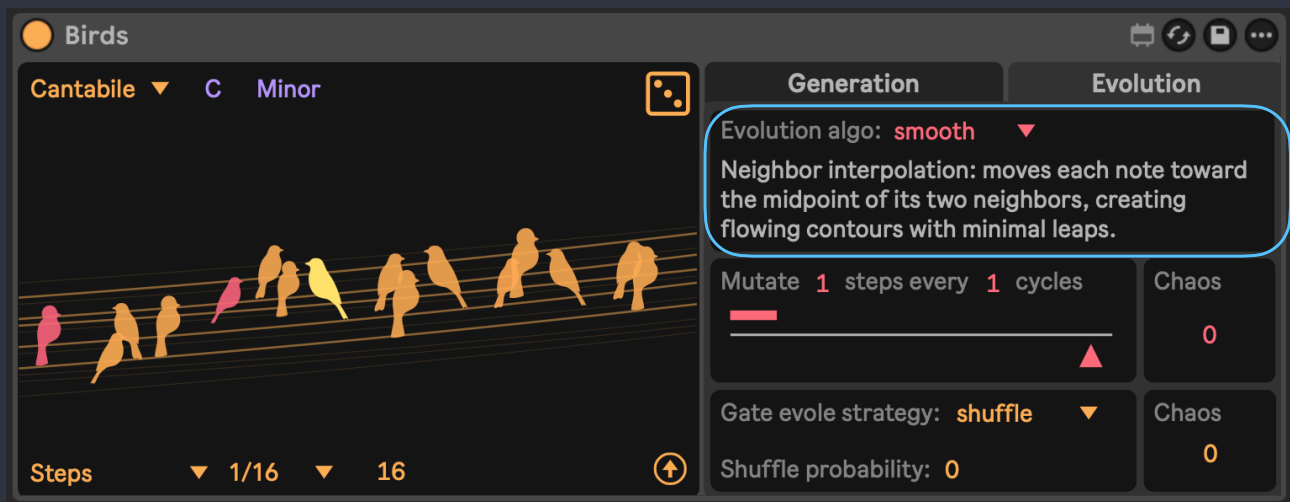
Velocity Range is set by **Velocity Min** and **Velocity Max** (0–127).

These set the softest and loudest velocities for generated notes.

Each style picks velocities within this range; some (e.g. Cantabile) use a narrower band, others (e.g. Puntillista) use the full range for more contrast.



The **Evolution** panel controls how the sequence changes over time while it plays. It keeps a reference to the original sequence and mutates notes toward or away from it.



Use the **Evolution algo** control to choose how pitch is mutated.

Click it to open the menu and pick a strategy (chromatic, diatonic, stepwise, smooth, gravity, drift, interval, rotate). A short description appears explaining how the current strategy changes the melody.

Chromatic — Mutated notes are chosen at random from all 12 chromatic notes, ignoring the scale. Maximum unpredictability: the melody can move anywhere. Useful for atonal or experimental textures.

Diatonic — Mutated notes are chosen at random from the active scale (any degree, any octave). Stays in key but can change freely. Good for varied yet harmonically safe lines.

Stepwise — Notes move by 1–2 scale degrees up or down. Keeps the melody conjunct and flowing, with few or no leaps. Suits lyrical, vocal-like phrases.

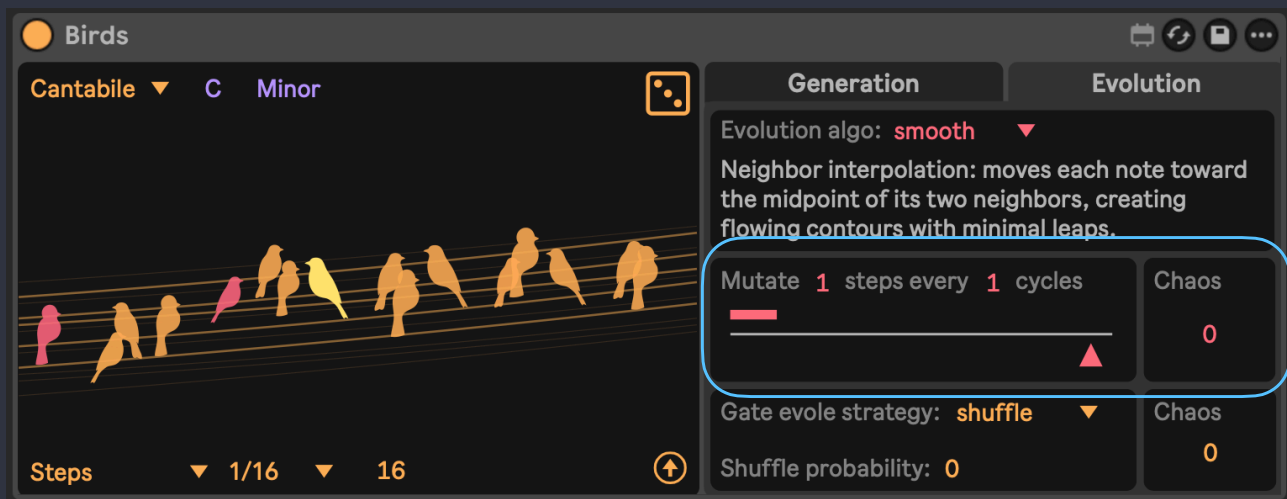
Smooth — Each note moves toward the midpoint of its two neighbors. Produces smooth contours and gradual changes, with few jumps. Good for gentle, flowing evolution.

Gravity — Notes are pulled toward the root. The farther they are from the tonic, the stronger the pull. Keeps the line centered and tonal, with a clear sense of resolution.

Drift — Small random steps with a gentle pull back when notes stray too far. Adds subtle variation without losing the overall shape. Good for controlled randomness.

Interval — Uses leaps from minor 2nd up to 5th, with a bias toward larger intervals. Produces angular, jumpy lines. Suits more dramatic, disjunct melodies.

Rotate — Copies the note from a nearby step (1–2 positions away), shifting the pattern along the sequence. Creates gradual pattern rotation and displacement. Good for rhythmic and motivic variation.



Difference Limit sets the target distance between the current sequence and the original. An indicator shows the current difference so you can see how far the melody has drifted.

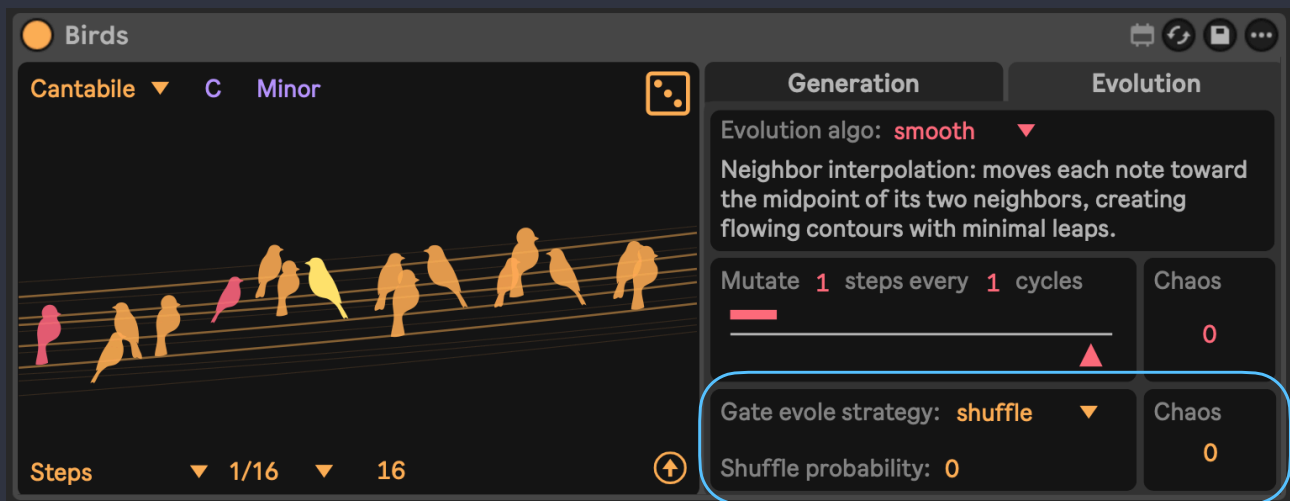
When the difference reaches the limit, the melody stabilizes and no longer drifts further. This keeps the evolved melody repeatable: you can loop it and the theme stays consistent, even as it evolves.

- **Below the limit** — The sequence is too close to the original, so evolution diverges: it mutates notes that still match the original until the limit is reached.
- **Above the limit** — The sequence has drifted too far, so evolution converges: it restores mutated notes toward the original until the difference is back under the limit.

Chaos — Chance of an extra random mutation at each step, independent of the diverge/converge logic.

Even when the sequence is stable around the difference limit, turbulence can still change notes.

Low values add occasional surprises; high values make the melody unpredictable.



Gate Evolve Strategy controls how the rhythm (which steps are active) changes over time:

None — Gates stay as generated. Only pitch evolves; the rhythm does not change.

Shuffle — At each step (with a probability set by Shuffle Probability), one active gate is turned off and one inactive gate is turned on. The number of active notes stays the same, but their positions change. Good for shifting accents and patterns without changing density.

Density — Keeps the number of active gates at **Gate Limit** (0–16), but which notes are on or off is chosen at random. The total density stays fixed while the pattern changes. Useful for exploring new rhythmic ideas within a fixed density.

Gate Chaos is the chance that a gate is randomly flipped at each step: an active note can turn off, or a muted note can turn on. It changes the rhythm over time by adding or removing notes. Low values keep the rhythm mostly stable; high values make it more irregular and unpredictable.

Thank You

Birds is now part of your creative toolkit. I hope it brings you many new melodies and unexpected ideas.

Thank you for choosing Birds and for trusting this project. If you'd like to share your experience, ask a question, or suggest an improvement, I'd love to hear from you at ay@alexandromiracapillo.com

For more about Birds and future updates, visit www.aylesim.com

Happy creating