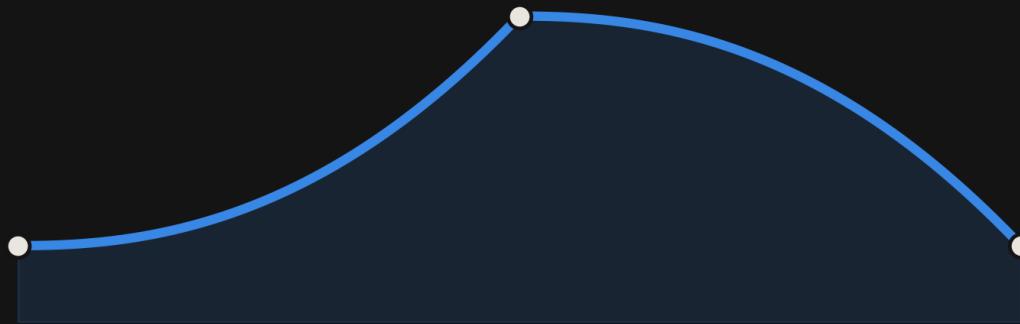


HumanizerHost

Make your virtual instruments breathe — automatic MIDI CC expression
for long notes and whole phrases



v0.3.0 · VST3 instrument · macOS & Windows · built for Cubase, Dorico and other DAWs

What is HumanizerHost?

A VST3 instrument that hosts your libraries

Load up to four VST3 instruments (Kontakt, Synchron Player, BBC SO, ...), layered and summed, each with an optional insert FX and its own volume.

It writes the expression for you

Incoming MIDI is analyzed and the plugin automates your instrument's dynamics CCs (CC1, CC11, ...) — so sustained notes swell, settle and fade like a real player.

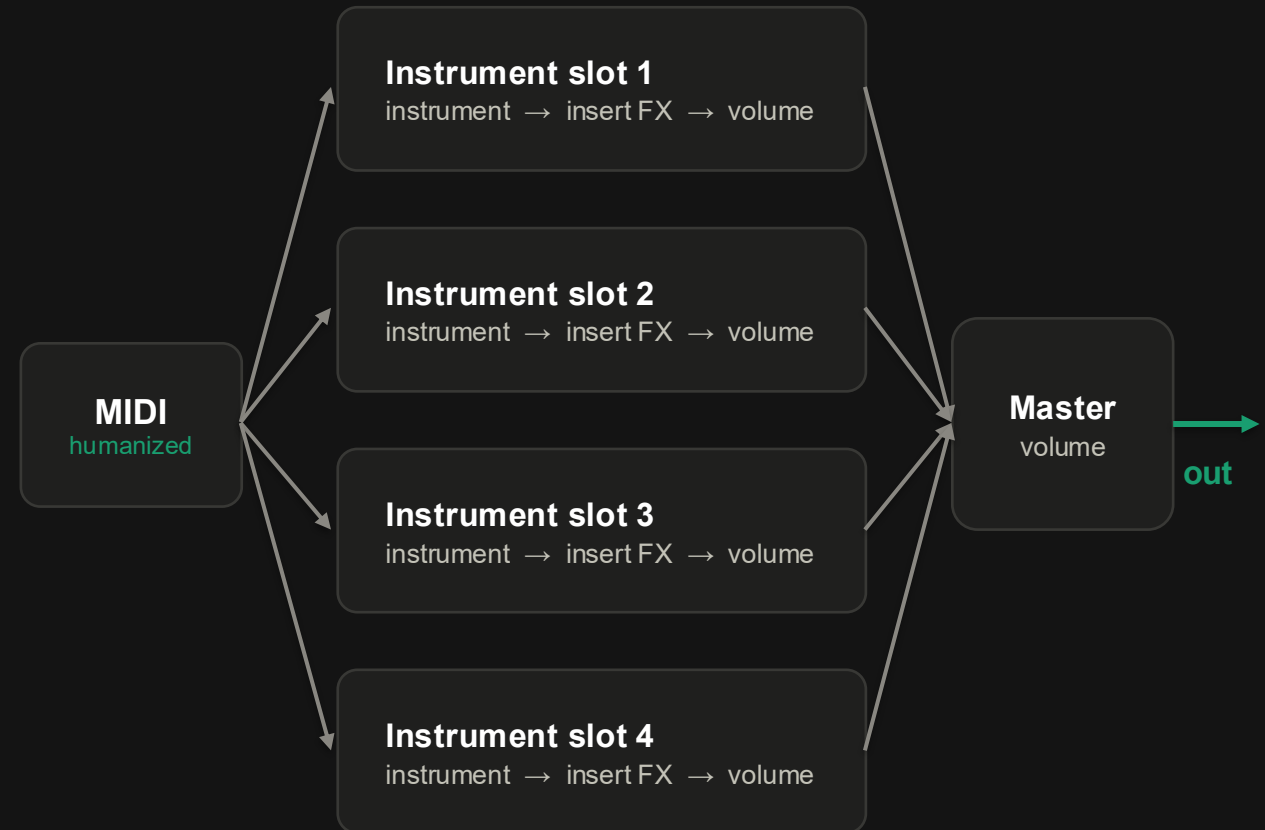
Two layers of humanization

Phrase humanization shapes the dynamics across whole musical phrases; long-note curves shape every sustained note individually.

Everything travels with your session

Hosted plugins, their full state, curves and settings are saved in the DAW project. Export/render is identical to what you hear.

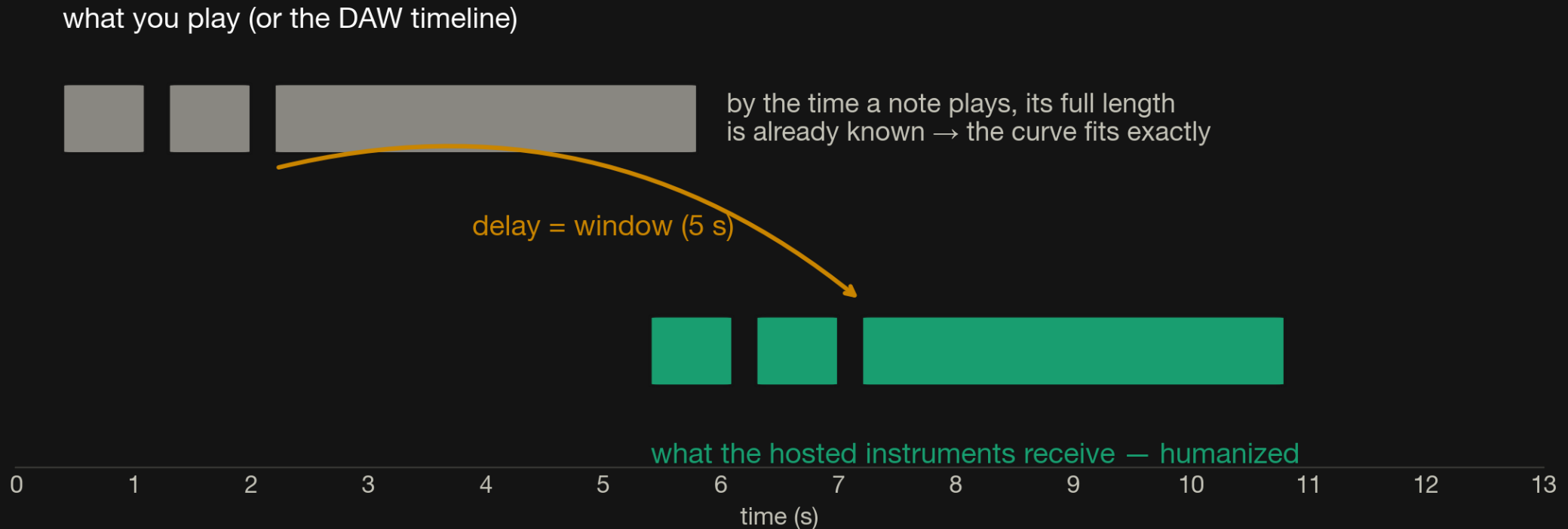
The instrument rack



All four slots receive the same humanized MIDI. Hosted editors open in floating windows.

The trick: it listens ahead

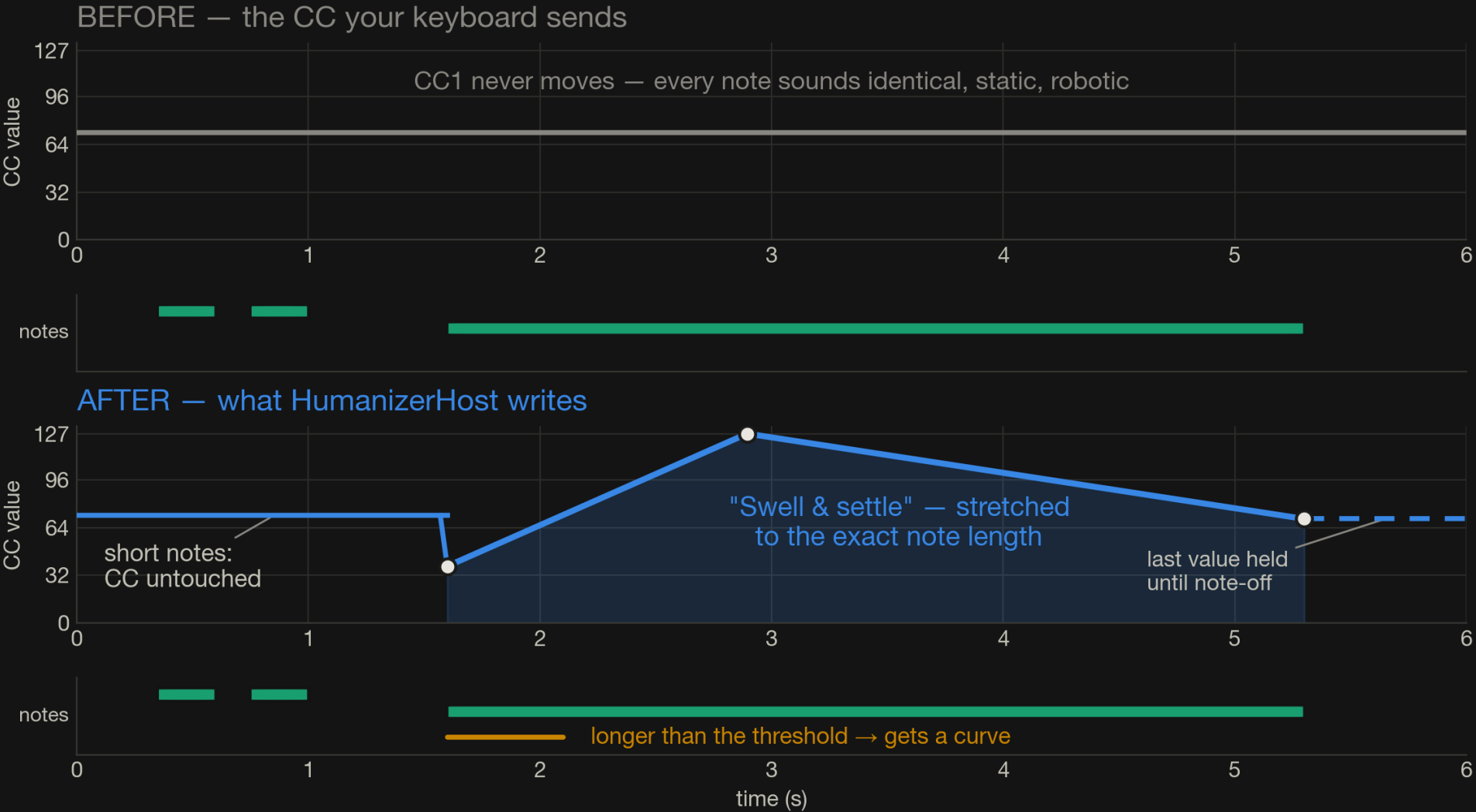
All MIDI reaches the hosted instruments delayed by the analysis window — so when a note plays, the plugin already knows its length.



One knob, two jobs — window = delay (0.5–10 s, default 5 s). Playback-only mode (default: on) keeps live input instant while the transport is stopped — the humanizer engages during playback and export only.

The delay is deliberate and identical on the timeline and when exporting: what you hear is exactly what renders.

Long-note humanization — before & after



Notes are never modified — only the CC lanes are written. One curve owns a CC at a time: the most recent long note wins.

The Notes tab — where you shape it

The screenshot shows the HumanizerHost software interface, specifically the Notes tab. The top bar includes the HumanizerHost logo, version v0.3.0, copyright © 2026 Franck Dansaert, and an Enabled status button. Below the top bar are four tabs: Phrase, Notes (selected), Instrument, and Monitor. The main interface is divided into several sections. On the left is a list of 8 CC lanes, with '1 · CC 1' selected. The central area contains controls for the selected lane: a 'Window / delay (s)' slider set to 5.00, a 'Long-note threshold (ms)' slider set to 500, and a 'Playback only' checkbox. Below these are controls for the CC lane: 'Enabled' checkbox, 'CC' dropdown (set to '1 · Modulation Wheel ...'), 'Mode' dropdown (set to 'Replace'), 'Min' value (0), 'Max' value (127), 'Glide (ms)' value (30), 'Curve preset' dropdown (set to 'Swell & settle'), and 'Variation %' value (0). The bottom section is a large grid with a blue line graph representing the CC curve. The graph has two points: one at the 'note start' and one at the 'note end'. The line rises from the start point to a peak and then falls to the end point. At the bottom of the grid, there is a legend: 'Double-click: add point | Alt-click: delete point | Drag between points: bend'.

8 CC lanes

Each lane targets one CC (CC1, CC11, or any other) with its own curve, range and settings.

Replace or Scale

Replace overrides what you play on that CC; Scale multiplies it, keeping your own expression.

Curve editor

Drag points, double-click to add, alt-click to delete, drag between points to bend the segment.

Glide (0–500 ms)

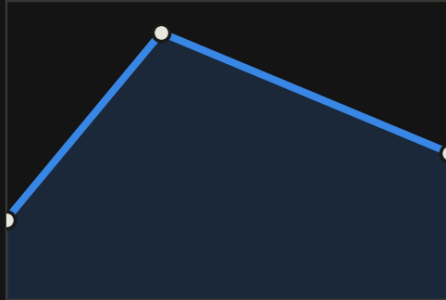
Smooth, legato-aware transitions — the CC pre-glides before an overlapping note's attack.

Window & threshold

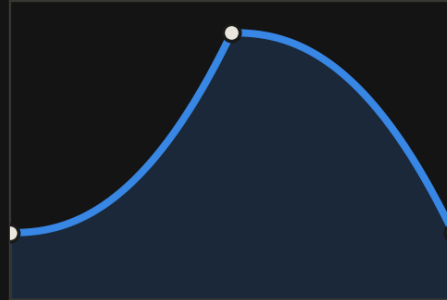
Set the lookahead and how long a note must be to earn a curve.

8 factory shapes — plus your own

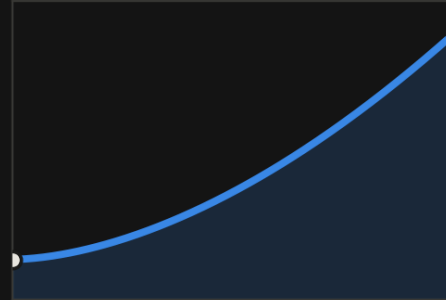
Swell & settle



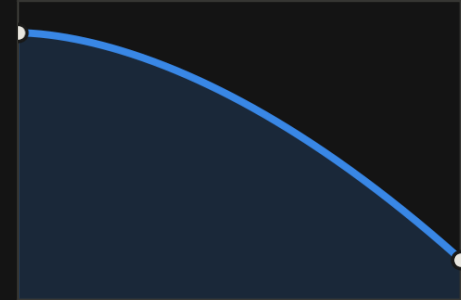
Messa di voce



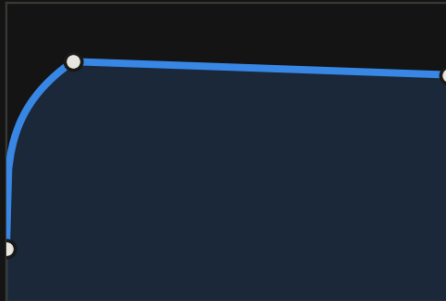
Crescendo



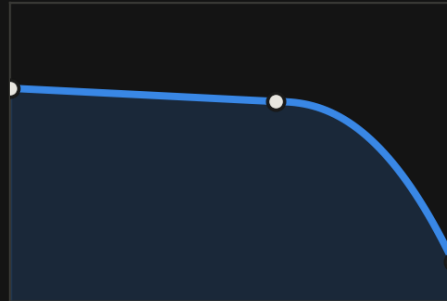
Diminuendo



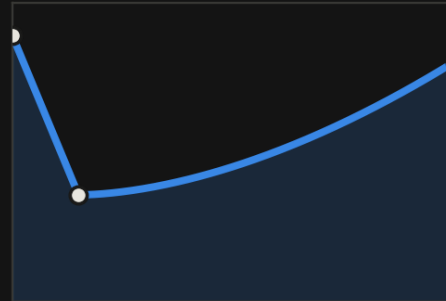
Attack & sustain



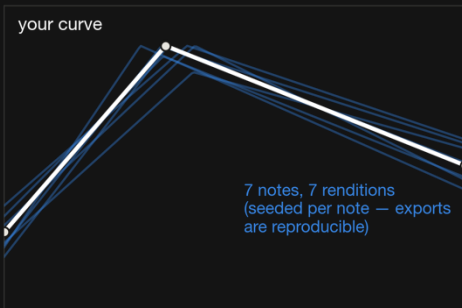
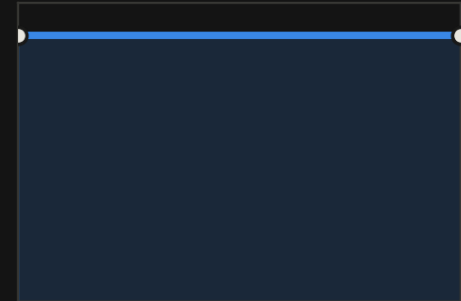
Fade at end



Sforzando



Flat

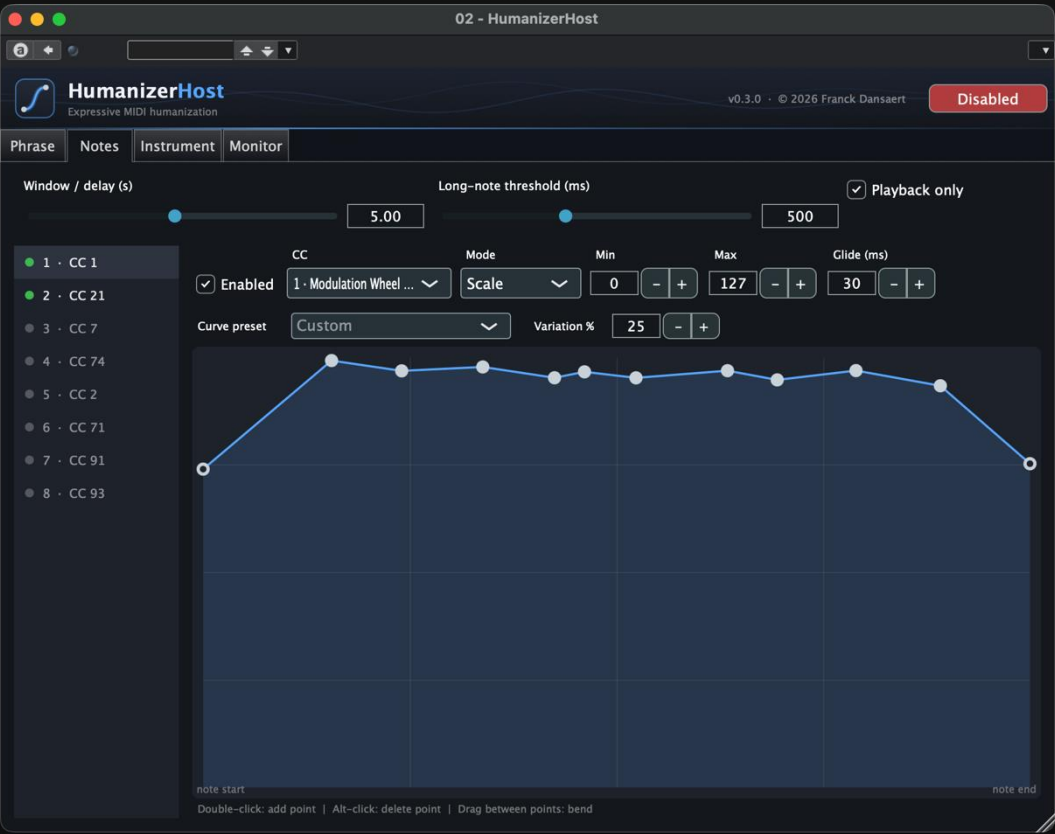


Variation % — no two notes alike

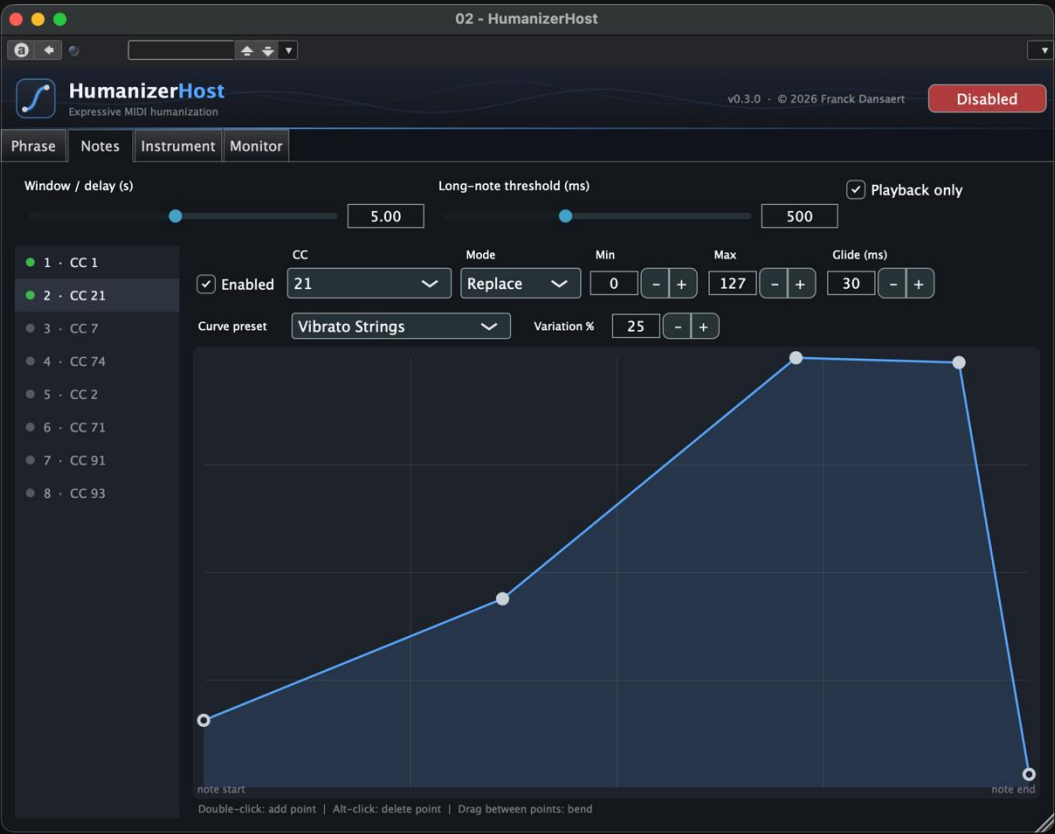
Per-note random jitter moves the curve points slightly in time ($\pm 8\%$) and value ($\pm 10\%$), so repeated notes stop sounding copy-pasted. Seeded per note: replaying or exporting reproduces the same performance. Save your own edited curves as named presets — available in every project.

Example of custom curves for strings

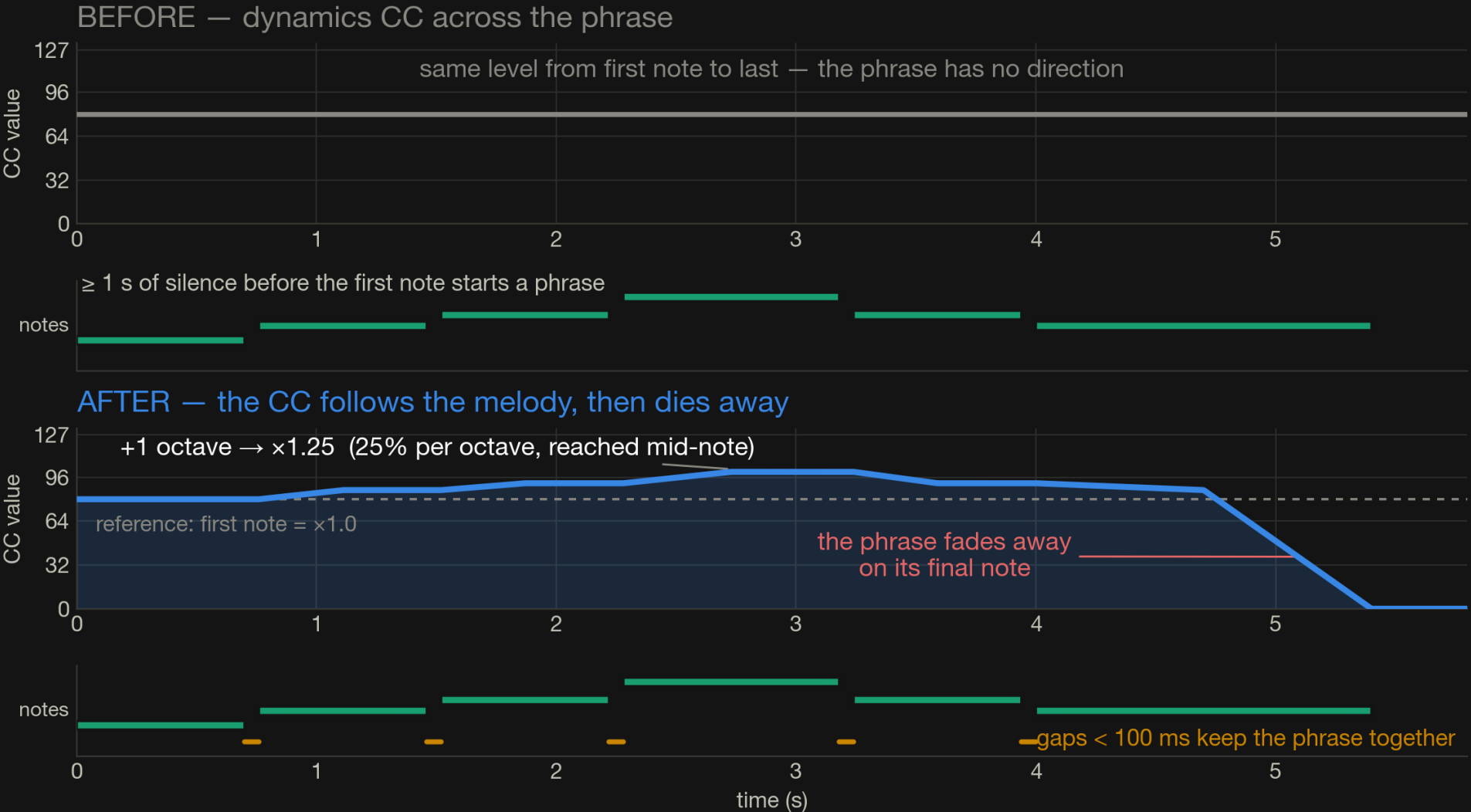
Dynamic (with bow changes)



Vibrato (swell)



Phrase humanization — before & after



Applied before the long-note curves — the phrase contour multiplies the final CC output, so it is always audible.

A phrase is a run of notes closer together than Max gap, whose first note follows a real rest (Silence).

Pick the CC your library uses for dynamics
— usually CC1 (mod wheel) or CC11
(expression).

How strongly the CC follows the melodic contour: at 25%, +1 octave pushes the CC up $\times 1.25$.

Notes below the pitch threshold still play but never distort phrase detection.

The Monitor tab — see what it plays (new in 0.3.0)



Before & after, live

One track per monitored CC: the humanized output as a solid curve, what you actually played dashed.

Perfectly aligned

Incoming events are shown at the time their humanized counterpart comes out, so the two curves line up.

Note markers

A mini piano-roll strip shows the note stream — green note-on, red note-off — on the same timeline.

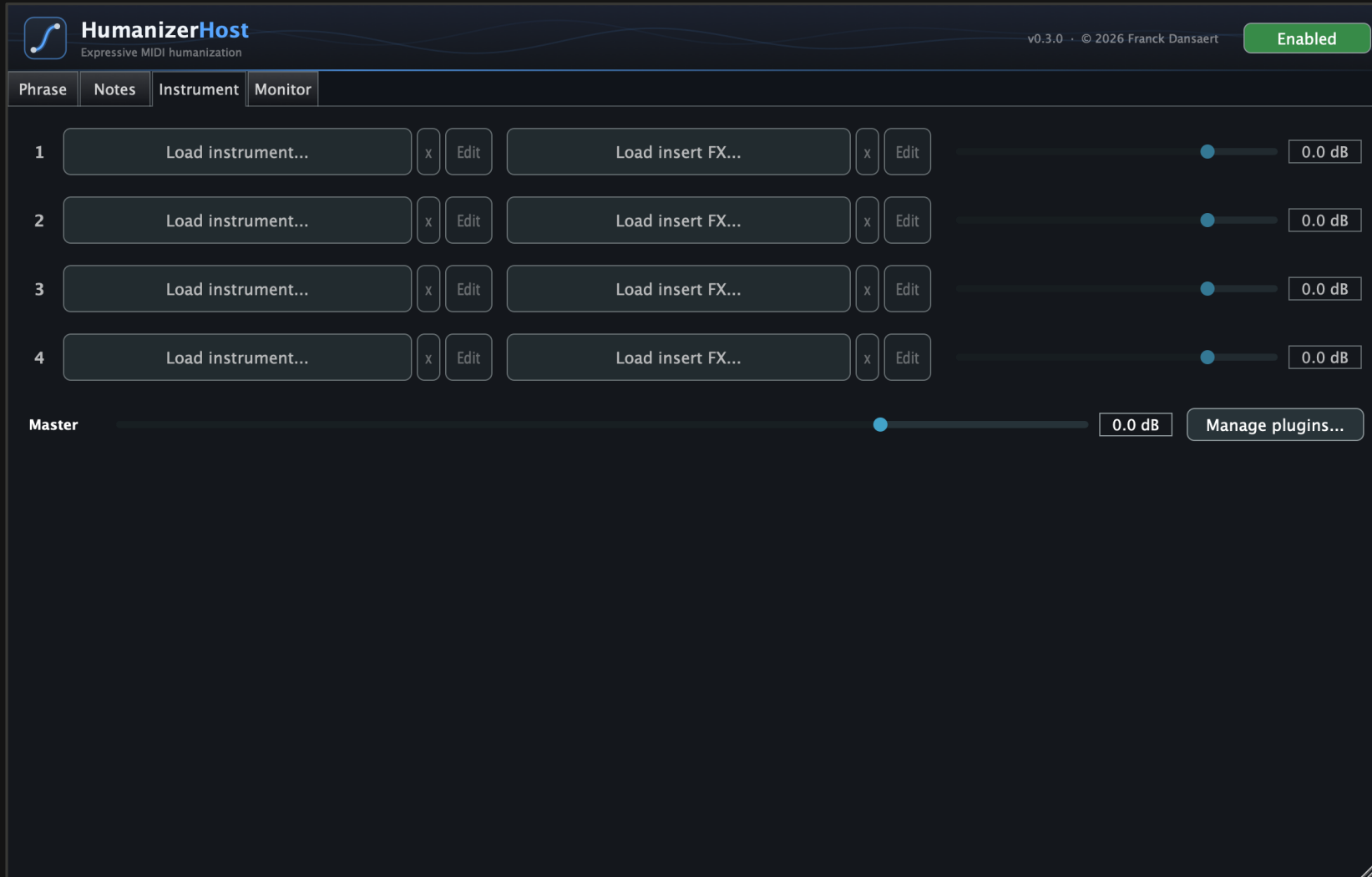
Sliding window & Freeze

View 1–30 s of history (default 5 s) and freeze the display to examine a phrase.

Zero audio cost

The audio thread feeds a lock-free FIFO only while the tab is open — it never blocks or allocates.

Getting started — the Instrument tab



1 · Insert the plugin

Add HumanizerHost as an instrument track in Cubase, Dorico or your DAW.

2 · Scan & load

Manage plugins... → scan for VST3s once. Then Load instrument... and type keywords (e.g. “spitfire strings”) to filter.

3 · Balance the rack

Optionally add an insert FX per slot and set slot / master volumes.

4 · Humanize

Notes tab → enable a lane, pick the CC your library responds to, choose a curve — and play.

Good to know

Set the threshold ~10% low

DAWs shorten quantized notes slightly — use e.g. 900 ms to catch 1-second notes.

The delay is a feature

It is not reported as latency: the offset is identical on the timeline and in exports. Nudge tracks earlier if needed.

Playback only (default on)

Transport stopped → MIDI passes straight through, no delay: audition patches normally.

Bypass ALL instances

The green/red button above the tabs disables the humanizer in every instance at once — perfect for A/B-ing. Always off at launch.

Notes longer than the window

Still humanized: the curve is stretched to the window and the final value held to the real note-off.

All VSTs of your project have to be hosted in the plugin

Because of the 5 seconds delay (or the delay you choose), all your VSTs should be hosted in the HumanizerHost even those which are not modulated (all humanization settings disabled) to make sure all your tracks will be delayed by 5s and consequently synchronized