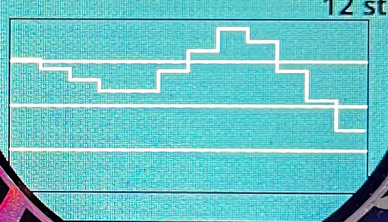


ZAZOU

MK2 Addendum

ENVELOPE

G: STEP C: 0
P0: 99 P1: 69
P2: 127 P3: 45



BASE | CONFIG

ALGO | SEQ

gate 1

gate 2

gate 3

gate 4

FILE



Ingenious Instruments for Creative Minds

midi out

note 1

note 2

note 3

note 4

Zazou MK2 Addendum (firmware 2.00 and later)

Zazou's overall operation is described in the main user manual. This addendum only covers the features introduced with firmware version 2.00 (and later).

The general operation remains the same; the main new control is a double-click on the central encoder (ALGO) to access envelope settings.

Envelopes

Envelopes are used to shape the velocity (volume / intensity) of notes over time, or to create accents based on the sequence.

Each track has its own envelope: they are completely independent from one another..

Access and setup

- Enter and exit Envelope mode with a double-click on the ALGO encoder.
- Once in Envelope mode, turn the ALGO encoder to scroll through the 4 envelopes (tracks 1 to 4).
- Click the ALGO encoder to select a parameter (it will be highlighted).
- Then use the LIVE encoder to adjust the selected parameter value.

Output

Envelopes can be output in two ways:

CV

If an envelope is enabled on a track, it sends its signal to the corresponding CV output (CV1 to CV4).

However, if no envelope is assigned to the track (mode OFF), then the velocity value specific to each algorithm is applied.

Via MIDI

Envelopes are output over MIDI on CC11 (Expression).

- In GATE or CHANGE modes, if the four tracks drive the same instrument, that instrument must be able to receive 4 distinct envelopes at the same time (even in polyphony). It therefore needs a paraphonic behavior (or appropriate MIDI routing) and must be set to the same MIDI channels as assigned in Zazou.
- In STEP mode, each note is sent with its own velocity: CC11 is not used. This makes it possible to use four envelopes even with an instrument that does not support a paraphonic mode via CC.

Envelope modes

OFF

The envelope is not used: the velocity settings specific to each algorithm are output instead.

GATE

A “classic” envelope triggered by each note.

You can set Attack, Decay, Sustain, Release (in ms).

The CURVE parameter shapes the “perceived” envelope curve:

- CURVE = 0: linear (neutral)
- CURVE > 0: more exponential (sharper attack / faster rise)
- CURVE < 0: more logarithmic (softer / more gradual rise)

CHANGE

This envelope triggers when the sequence changes, not necessarily on every note.

It has the shape Attack → Decay → back to zero (Sustain and Release are not adjustable).

It can emphasize chord or pattern changes, create a rhythmic “pumping” effect tied to the structure, or produce accents by phrase (sequence) rather than by note.

STEP

This envelope works per step, like an accent table that runs across the entire sequence.

Here you don’t set A/D/S/R anymore: you set 4 points that draw an accent curve.

- Choose points P0, P1, P2, P3 (0 to 127) to define the shape.
- Adjust CURVE to increase or reduce curvature between these points.
- The system then computes a velocity value for each step of the sequence.

New sequences

More than twenty new sequences have been added.

In Zazou, sequences do not automatically impose a specific scale, in order to keep all exploration possibilities open. However, some sequences will work “better” with a minor scale, major scale, etc.

List of all sequences:

ROOT — Stays on the root (degree I): there is no key change. However, there is still a sequence-change signal defined by the number of steps set in Sequence mode, which can be useful with envelopes.

RANDOM — Chooses degrees in a pseudo-random way within a coherent set: perfect for unpredictable progressions.

II-V-I — Classic jazz progression that strongly resolves to the tonic. Very effective for a cadential feeling.

CIRCLE OF 5 — Walks the circle of fifths: creates very “logical” and modulatory harmonic changes.

CIRCLE OF 4 — Fourths variant (reverse direction): same coherence as the circle of fifths, with a different, often more “descending” color.

ANATOLE — Typical progression (I-VI-II-V): a very musical standard, instantly “pop/jazz”.

CLASSICAL 4 — Long cycle inspired by “classical” progressions: structured, narrative progression with several degrees before returning.

I-II-III-II — Small stepwise diatonic motif: climbs to III then returns to II, great for melodic loops.

I-IV-V — Very common progression: simple, effective, universal.

I-V — Tonic/dominant alternation: very direct tension/resolution, perfect for a minimal motif.

BLUES 12 I — 12-bar blues (version 1): cycles I / IV / V in a traditional structure.

BLUES 12 II — 12-bar blues (version 2): a more “tense” variant with a stronger emphasis on V.

III-IV-IV#-V-V — Gradual rise to the dominant with a chromatic semitone in the middle: strong tension effect.

I-V-VI-IV — Iconic pop progression: instantly works for songs and pads.

I-IV-V-IV — Energetic back-and-forth around IV: very effective for loops and riffs.

TIERCE UP — Ascending thirds movement: uplifting feel and gentle modulation.

TIERCE DOWN — Descending thirds movement: more “melancholic” / cinematic.

SCALE UP — Runs up the scale: useful for builds, breaks, narrative sequences.

SCALE DOWN — Runs down the scale: perfect for phrase endings and descents.

50s I-vi-IV-V — Very singable and nostalgic progression.

PACHELBEL — Popular canon (I-V-vi-iii-IV-I-IV-V): long loop, stable and “epic”.

TURN I-vi-ii-V — Standard jazz turnaround: cyclic motion that naturally calls for repetition.

BACK IV-bVII-I — “Backdoor cadence”: modern resolution to I, soul/alt-rock color.

MIX I-bVII-IV-I — Typical mixolydian progression: rock/modal color, open feel.

ANDALOU — Andalusian cadence (minor): Mediterranean color, dramatic and hypnotic.

i-bVI-bIII-bVII — Minor progression (cinema/EDM): dark, wide, ideal for pads.

JAZZ BLUES 12 — Enriched jazz blues: keeps the blues form with more “jazzy” degrees.

AMBI DORIAN — Dorian modal sequence: atmospheric, neither too major nor too minor.

LYDIAN SHIM — Lydian movement: bright, suspended sensation.

HOUSE MIXO — Groove-oriented progression in mixolydian: cyclic and driving.

AEOLIAN ROLL — Rolling aeolian (natural minor): stable minor color, “rolling” feel.

PHRYGIAN RAV — “Rave” phrygian: strong modal tension (minor second), aggressive and catchy.

TENSION — Intentionally tense sequence: emphasizes unstable degrees.

MOD QUARTAL — Quartal harmonies: modern / modal-jazz color.

CHROM SLIDE — Alternation with chromatic slides: friction and “push” toward the tonic.

MOTORIK — Repetitive kraut/motorik-type motif: hypnotic and steady.

TRANCE POP — Effective minor progression for trance/pop: energetic and cyclic.

HARMONY

In the sequence parameters, the Alternate m/M function has been replaced by HARMONY.

The HARMONY parameter determines how the module chooses/adapts chords when the sequence changes (harmonic progression).

Depending on the mode, the module can:

- leave chords completely free;
- alternate major / minor;
- enforce diatonic coherence (chords compatible with the selected scale).

Important: the DIAT modes mainly make sense with a 7-note scale (strictly diatonic). If the scale does not allow reliable deduction (non-7-note scale, or tonic outside the scale), the behavior becomes more “free”.

FREE (Off)

No harmonic constraints:

- chords can be any type (major, minor, 7th, sus, altered chords, etc.), depending on settings and/or randomness;
- the sequence mainly sets the root/transposition (the current “tonal center”), without guaranteeing the chord is within the scale;
- the result can be chromatic / outside tonality, perfect for experimental use.

ALTERNATE

“Major <-> minor” mode (color alternation):

- at each chord change, the module can switch a chord quality to its “twin” when possible (M <-> m, 6 <-> m6, 7 <-> m7, M7 <-> m,M7, sus2 <-> sus4, etc.);
- depending on settings, this alternation can be systematic or probabilistic;
- the chord may still be outside the scale: the chord is not adapted to the scale, only its “color” (major/minor) is changed.

SOFT DIAT

“Soft” diatonic: mainly forces the chord quality to be diatonic.

- the module analyzes the chord root (from the sequence) within the selected scale and adjusts the chord toward the expected diatonic quality for that degree (e.g., in major: I Maj, ii min, iii min, IV Maj, V Maj/7, vi min, vii dim, etc.);
- if the user is using a “7th-chord family”, the system tries to stay consistent (7 / M7 / m7 / m, M7...), otherwise it falls back to triads (Maj/min/dim/aug);
- SOFT DIAT mostly affects the chord type, but does not necessarily lock every note produced by melodic algorithms if they traverse the full scale.

HARD DIAT

“Hard” diatonic: diatonic chord + notes constrained to chord tones.

- same principle as SOFT DIAT to choose a coherent diatonic chord;
- additionally, some algorithms can be recentered so that notes land mainly (or exclusively) on the chord tones (triad / 7th), rather than on the whole scale.

Notes:

SOFT DIAT / HARD DIAT are most reliable with a 7-note scale.

- if the chord root does not belong to the scale (possible in very free modes), the module may choose not to enforce diatonic behavior to avoid inconsistencies.
- HARD DIAT cannot force the harmonic logic of all algorithms: it is inherently inoperative with SERIEL and INTERVAL, and may be limited with WALKING-BASS, RANDOM, ARPEGGIO. However, it applies to the fractal algorithms (FIBONACCI, MANDELBROT, JULIA), as well as WANDER and ARCHIMEDES.

Algorithms

Zazou’s melodic fractal engine has been significantly expanded: Cantor, Fibonacci, Sierpinski, Mandelbrot and Julia have been improved. This version of Zazou may therefore produce different results compared to the previous one.

See the main user manual for a description of the common options.

Four new algorithms have been added: **Tintinnabuli**, **Wander**, **Archimedes**, **Guidetone**.

RANDOM

Generates a random note at each trigger, sourced either from the scale (SCALE) or from the chord (CHORD).

Operation identical to version 1.xx.

ARPEGGIO

Plays a sequential arpeggio over a list of notes (scale or chord).

Operation identical to version 1.xx.

WALKINGBASS

Plays predefined walking bass patterns, synchronized to the progression.

Operation identical to version 1.xx, with many additional patterns (funk, disco, reggae, dub, tumbao, bossa, techno, acid, EBM, industrial, melodic, etc.).

SERIEL

Generates a 12-tone chromatic series (dodecaphonic-style) that can cycle through different forms: Prime, Inversion, Retrograde, Retrograde-inversion.

Operation identical to version 1.xx.

CANTOR

Generates a motif based on the Cantor set principle (recursion that “removes the middle third”).

It first builds a list of possible notes either from a scale spread over several octaves, or from a chromatic scale.

The depth parameter controls recursion: the higher it is, the more “sparse / fractured” the motif becomes.

Operation enriched compared to version 1.xx.

FIBONACCI

Generates a melody using pseudo-random steps inspired by Fibonacci, with bounces within a defined range.

Operation enriched compared to version 1.xx.

INTERVAL

Builds a melody by accumulating intervals around a reference note.

Operation identical to version 1.xx.

SIERPINSKI

Generates a note using Sierpinski-like subdivision logic (recursion, repetitions).

Operation enriched compared to version 1.xx.

MANDELBROT

Generates notes from iterations of a Mandelbrot set (complex sequence).

Operation enriched compared to version 1.xx.

JULIA

Generates notes derived from the iteration count within a Julia set.

Operation enriched compared to version 1.xx.

New algorithms

TINTINNABULI

Implements a “Tintinnabuli” logic (inspired by Arvo Pärt): one melodic voice plus one triad voice.

The melody moves within the scale (UP / DOWN / UP&DOWN / RANDOM) with a step (STEP) from 1 to 4 degrees.

The triad voice selects a triad tone:

- either from the current chord (CHORD),
- or from a triad related to the scale.

Depending on the mode, you can:

- output the melody alone;
- the triad alone;
- or alternate both, and choose the triad placement rule (nearest, above, below).

WANDER

A “controlled walk” generator: a melodic line moves across the range, with mostly small steps, rarer jumps, and a tendency to return to a “home” note.

Movement uses boundary bouncing (when reaching the top or bottom of the range, the direction reverses).

Parameters:

- TONIC: base degree (tonal center of the walk). This is the note the line returns to most often.
- STEP MAX: maximum size of “normal” steps (1 to 6). Higher values let the walk progress faster.
- LEAP %: probability of a “big jump” (up to ~40%). Low values keep the line stepwise; high values make it more leaping.
- START: starting position within the range (useful to vary the entry point).
- HOME: strength of the pull back toward the “home” note. Higher HOME makes the walk correct its direction more often toward the center, and tends to keep jumps closer to the center.

ARCHIMEDES

Generates musical phrases from the digits of π (Pi), in the spirit of “variations around π ”.

Builds a motif up to 16 steps long.

You can influence step size (mostly small, sometimes larger), direction (depending on the mode), and a tendency to resolve to the tonic at the end of the phrase.

Variants (modes):

- SEQ: small transpositions from one phrase to the next (progressive variation feel).
- CALL/RESP: second half of the phrase derived from the first (call/response).
- ORNAMENT: adds occasional neighboring ornaments (passing tones / appoggiaturas).

GUIDETONE

Generates a melodic line that aims for target notes (“guide tones”) in a controlled way, in phrases (1 to 16 steps).

The line moves mostly stepwise, with rare leaps (LEAP) and possible escape tones (TENSION) to add relief.

On the last step of a phrase, the target very often returns to the tonic (cadential feel).

Parameters:

- BASE DEG: chromatic transposition (a semitone offset applied to the output).
- TARGET: target-note selection: ROOT (tonic), 3rd, 5th, 7th, or RANDOM (random choice among these targets).
- LEAP: controls the frequency and size of leaps. Low = very stepwise; high = more frequent and wider leaps.
- PHRASE: phrase length (1..16 steps). Higher values give the line more time to “prepare” the target.
- TENSION: amount of controlled detours and irregularity: increases the probability of escape tones (a small one-degree detour), increases step variety on weak beats, and may introduce slight contour drift.

Save system

The save system has been completely rewritten, even though the interface and overall operation look the same.

Auto-save and internal SD saving now include all parameters, including envelopes.

WARNING: Saves made with the previous version are not compatible: too many changes have been made in Zazou to maintain compatibility with 1.xx files.