CHANCE ENGINE

MANUAL + USER GUIDE

CHANCE ENGINE

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Obligatory Legal Stuff

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CHANCE ENGINE

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Change Log

v2.0

- Euclidean Pulse Generation with direction and inversion
- Count-based Probability Triggers for each Parameter
- Three Arp and one Retrigger Mode
- New Random Pattern Mode with Direction and Re-Roll
- Velocity Intensity Control
- Transposition Shift
- New Offset Chance Parameter for Probabilistic Delays
- Output Delay Divisor
- Global Swing Awareness
- Revamped Interface, Optimizations and more

v1.7

- Added Scale Awareness for Live 12
- Updated GUI

v1.6

- Added a new base rate divider, calculated after the multiplier, for a wide range of tupletted and other polyrhythmic timings
- Improved support for included presets

v1.5

- Added a new randomization mode, Decide, similar to the recently added mode in Pattern Engine, wherein pitch randomizations will be selected between two possible note-relative values specified by the minimum and maximum pitch randomization sliders
- Added a new timing section consisting of:
    - Swing quantization chooser (None, 8n, 16n, 32n)
    - Swing intensity slider (only active with a swing quantization value other than None selected)
    - Swing chance dial (only active with a swing quantization value other than None selected and a swing intensity value above zero) - this allows you to randomize whether eligible notes will be swung on a per-note basis
    - Humanize slider to add additional, short, randomized delays, with higher values increasing both probability of notes being delayed and the maximum delay length, up to 100ms
- Bug fixes and performance optimizations

v1.4

- Bug fixes and optimizations

v1.3

- Bug fixes and optimizations

v1.2

- Added Cycle Reset option to reset pulse generation cycles at intervals measured in bars3
- Added bundled Global Hub compatibility, with local pin option to ignore Global Hub settings
- Added Live 11 scales
- Bug fixes and optimizations

v1.1

- Bug fixes and optimizations

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Important Info

Chance Engine is a MIDI effect, which means it cannot be used on audio tracks, and must be placed before instruments.

It also does not generate MIDI notes in default Process mode, so be sure to trigger a MIDI clip on the MIDI track where you've placed it — or switch to Generate mode to produce MIDI notes using nothing but Chance Engine itself.

Finally, this device requires Live Suite with Max for Live installed. We strongly recommend Live 10.1.x or higher with Max 8.1.x or higher.

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Installation Instructions

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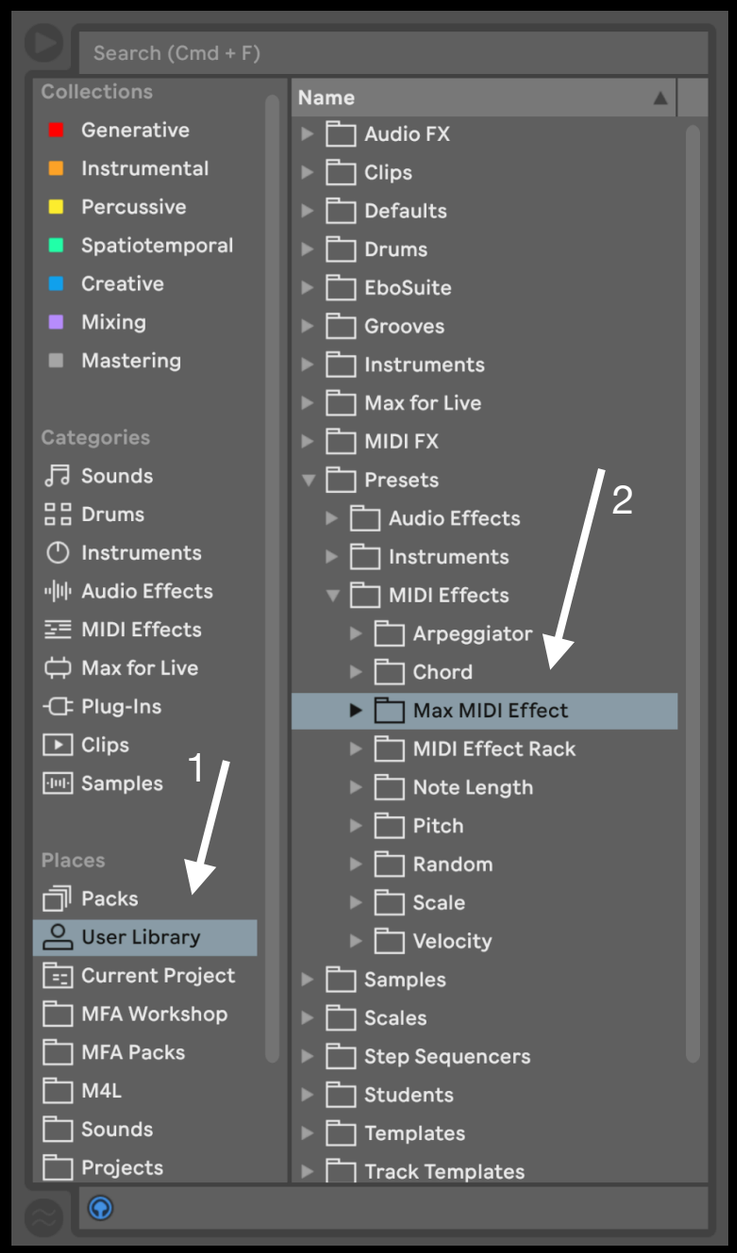

To install Chance Engine, first double-click to uncompress the ZIP archive it arrived in. Presumably you've already done this, because you're reading the manual, also included in said ZIP — good job!

Now you just have to drag the subfolder (named MFA Chance Engine) containing the actual .amxd file Finder (Mac) or Explorer (Windows) to the User Library of Live's Browser (Arrow 1 at left). This will copy the required files to your User Library.

We recommend dragging it to the specific folder pictured here: User Library → Presets → MIDI Effects → Max MIDI Effects (Arrow 2 at left). From that point, we might humbly suggest adding it to an appropriate Browser Collection, if applicable.

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Device Overview

Variety is the spice of life. Change it up with the power of chance.

Chance Engine introduces random fluctuations to the most important parameters of incoming MIDI drums, melodies, and harmonies in real time. By adjusting the probability of playback, sustain, velocity, offset, octave, timing, and pitch, you can create endless musical variation from even the simplest input. Each parameter's behavior can now be controlled by count-based triggers, allowing for meticulously controlled randomness that emerges only when you wish, while the new offset parameter introduces delays with variable timing for more nuanced rhythmic shifts.

Velocity, octave, and pitch ranges are easily defined, and transposition can be applied globally—all within a selected key and scale. Incoming note pitches can be randomized on each note-on or at set rhythmic intervals, with four distinct modes: pure Chance, stumbling Drunk, binary Decide, Fluid, a mode inspired by particle motion in liquid that yields uniquely lyrical output, and the new Pattern mode which randomly generates a repeating pitch sequence of up to 512 steps. Pattern's direction option allows pitch randomization to travel along intentional trajectories.

Switching from Process to Generate mode allows Chance Engine to create its own MIDI output internally. You can manually set a base pitch in Internal mode or allow MIDI input to control transposition via Receive mode. Choose a rhythmic structure by combining a base rate, multiplier, and optional offset—or go off-grid with millisecond-based timing. Notes can be generated in continuous free time, only while receiving MIDI, or only during silences between input notes. From there, output is shaped by all the same probabilistic parameters used in Process mode, including the ability to quantize timing with swing, apply delay divisions, and offset output at both musical and sub-millisecond resolutions.

Note generation now includes Euclidean pulse patterns with directional control and inversion, three arpeggiation modes for melodic generation, and a retrigger option for rhythmic motifs. Whether processing MIDI clips or generating notes from scratch, you can freely explore, experiment, and capture your results by recording to new MIDI or Audio clips in Live.

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Visual Guide: Process Mode

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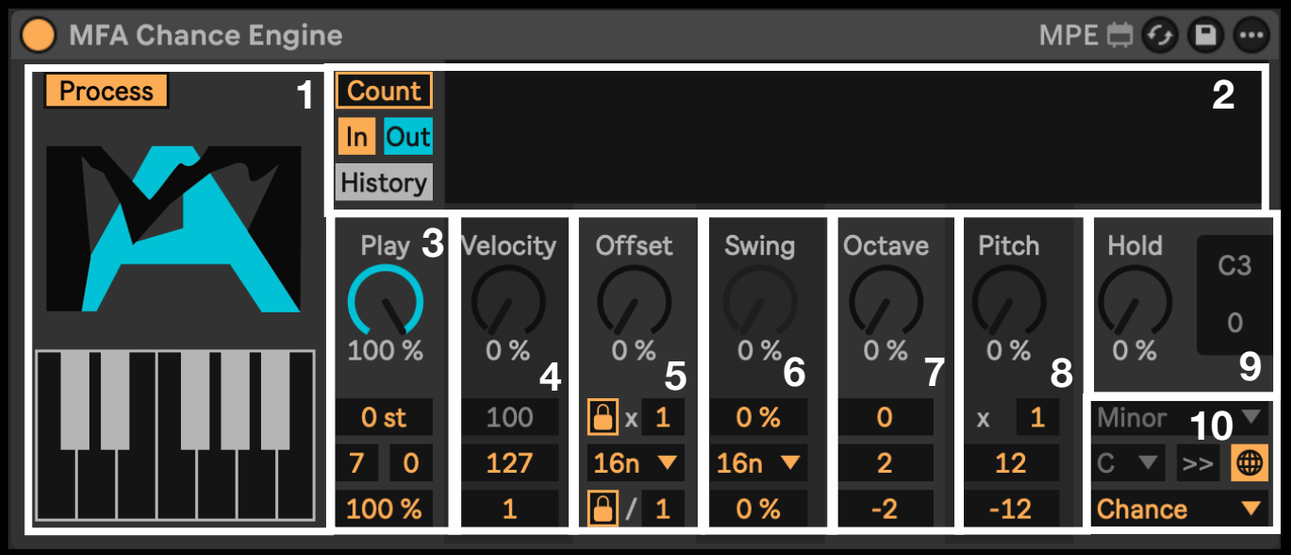

1 · This section at left allows you to toggle from Process into Generate mode via the main button. The keyboard below displays incoming and outgoing notes.

2 · This area allows you to view the input and output MIDI scopes as well as a history - or the parametric count options.

3 · The Play dial determines the chance incoming notes will be sent to the output; 100% means they will always play, 0% means they never play. Below we can transpose the outgoing notes in semitones; below this we have a semitone factor and then a multiplier to adjust transposition in multiples of this amount; at bottom, the intensity percentage multiplies throughput velocity by this amount.

4 · The Velocity dial determines the chance incoming note velocity will be randomized within the range determined by the minimum velocity output slider at bottom, and the maximum velocity output slider just above that; the base velocity control sits between these sliders and the dial to set the default velocity output in Generate mode.

5 · The Offset dial controls the chance that note output will be delayed by an amount specified below by the multiplier and factor of the selected base rate menu; when multiplier or divisor is locked, that fixes the delay amount to this precise value — but when unlocked, the value sets the maximum amount of a range that will be randomized.

6 · The Swing dial determines not the amount of swing, but the chance that notes will be swung as per the settings below. The slider below the dial is the degree of swing, controlled by the global swing amount of the set unless pinned locally. The chooser below determines which rhythmic intervals are eligible for swing; with the top slider set to 0% and/or no rhythmic interval selected, the swing chance dial will be inactive. The bottom humanization slider allows for short randomized delays to note timing for stochastic slop.

7 · The Octave dial determines the chance that the octave of incoming notes will be randomized, with the slider directly below setting the base octave, and the sliders below that adjusting the maximum and minimum octave range.

8 · The Pitch dial determines the chance of incoming note pitches being randomized. The slider at top right transposes all note output together; the two sliders below that determine the range within which notes will be randomized above and below their incoming pitch values. The multiplier determines how often notes will be randomized; at the default x 1, each note will trigger a random value, but you can change this to a multiple of 16th notes with, for example, pitches only randomizing every 1/2 bar at 16n x 8.

9 · The Hold dial controls the chance eligible notes will be sustained. To the right is a numeric display of the current outgoing pitch and velocity values; click here to flush stuck notes.

10 · Select the scale and key to which all outgoing note pitches will conform. With the default Global mode enabled, Chance Engine will receive the scale, key, and swing amount from Live 12 or an instance of Global Hub added to the set; click the globe icon to pin the scale and key locally to the device - particularly important for saving presets where the scale and key are relevant. The mode menu determines whether notes are randomized according to pure Chance, using a Drunk random walk algorithm, using brownian motion to emulate the random fluctuation of particles in a Fluid state, or a random Pattern of notes with optional direction control.

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Visual Guide: Count Options

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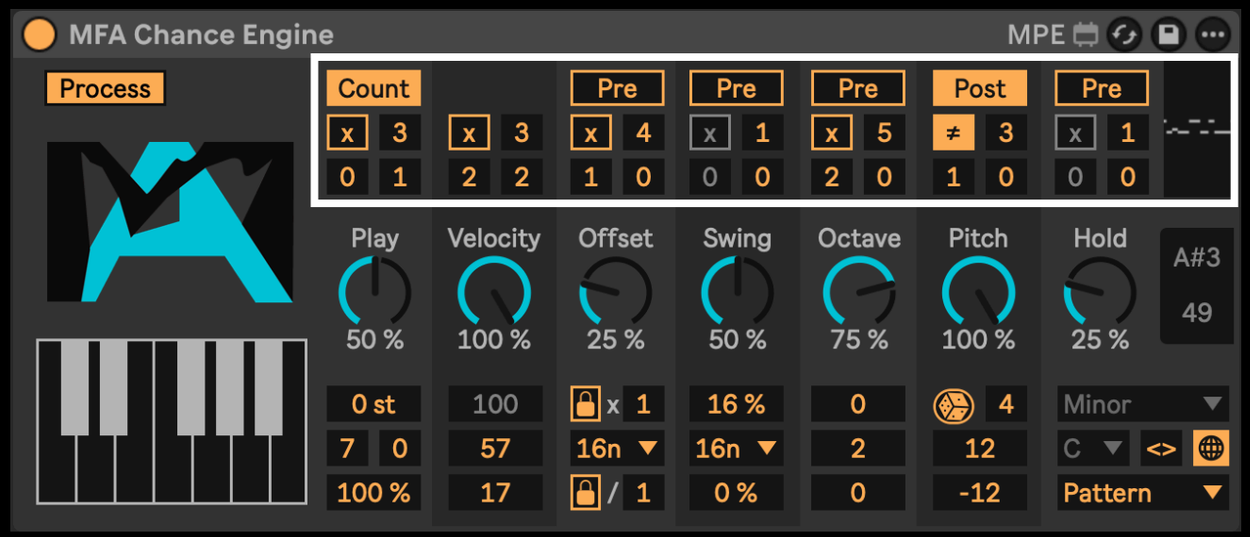

With Count enabled, you can select which note counts are eligible for probabilistic manipulation above each parameter. The current note display is compressed to the right of the interface.

Eligible parameters get a Pre or Post toggle to determine whether counting takes place before or after Play chance calculations.

The Count value at upper right determines which notes are counted; click the toggle at left to invert this selection. Below are count offset and bar reset controls.

In this example, count takes place based on the notes received (or generated) before Play chance is processed. Every note will be counted except for the 5th one because the count toggle is inverted (from x to ≠). The count begins 2 notes later than the first note received as the offset is set to two, and this counting pattern resets each bar.

Here, every third note received after Play chance processing will be counted for parametric processing, with no offset or bar reset; notes that don't fall under these count settings will not be processed by the corresponding parameter.

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Visual Guide: Generate Mode

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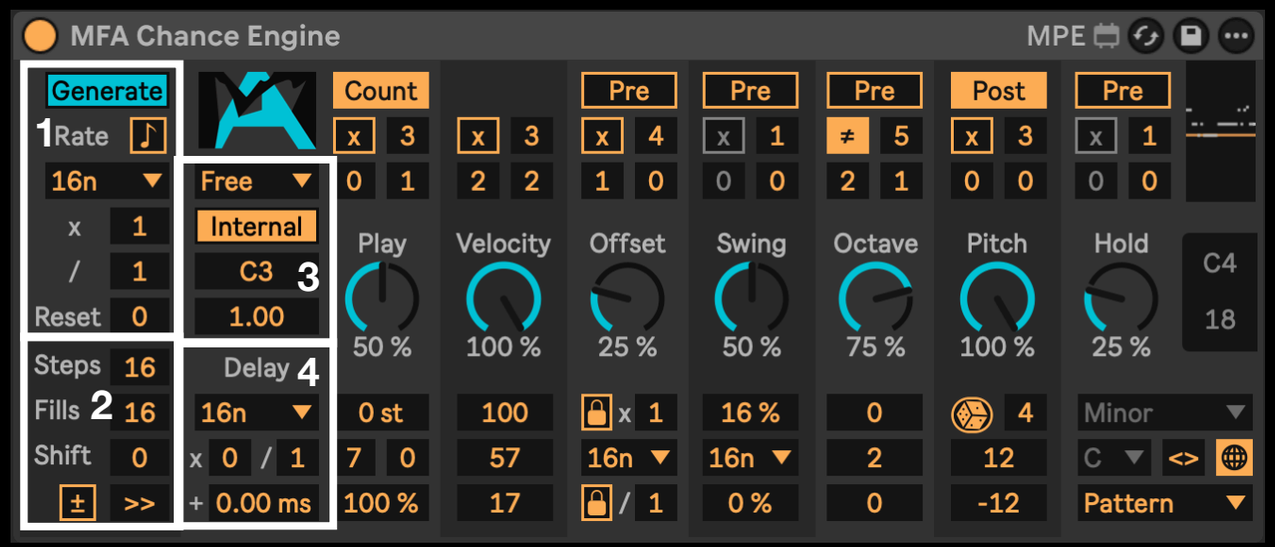

In Generate mode, a variety of settings appear.

1 · At far left, we have our pulse timing settings. The selected base rate is then multiplied and divided by the controls below to arrive at a polyrhythmic pulse pattern that can be reset in bars below; Toggle to Time mode to control the pulse rate in milliseconds.

2 · Beneath these we have our Euclidean settings with up to 64 steps that can be populated with fills, rotated via shift, optionally inverted, and played forward, backward, or elliptically.

3 · Here we have some important controls. In Free mode, note generation continues freely, Gate mode only generates while receiving MIDI input, and Side mode only generates when there is no MIDI input; Arp mode retriggers the rhythmic pattern and transposes while notes are held, Arp Loop also loops a random pattern when in Pattern mode, while Arp New generates a new random pattern when in Pattern mode; Retrigger restarts the rhythm with each note in.

With Internal mode, base note pitches are determined via the slider that reads C3; in Receive mode, base note pitch is transposed by incoming MIDI. Below these we can set generated note length as a multiplication of the current factored base rate.

4 · Finally, at bottom we have a flexible output delay with base rate, multiplier (which at zero means no quantized delay), delay divisor, and optional millisecond delay addition.

To learn more, simply open Live's Info View and hover over any parameter for a detailed explanation.

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FAQ

Chance Engine isn't doing anything — what's wrong?

Chance Engine's default Process mode does not generate MIDI, it only processes MIDI, so be sure MIDI is being fed into it from a Clip or a generative MIDI effect. Make sure the device is on, receiving MIDI, and the Play chance dial is above 0% — or switch to Generate mode to produce MIDI internally; in Generate mode, make sure the Playback chooser is set to Free.

Notes aren't randomizing with each new note input — why?

Make sure the note randomization multiplier is set to 1 or else randomization will occur at multiples of your base rate in Generate mode, or 16n in Play mode. Turn the Pitch randomization dial up to increase the chance of random values being generated.

Randomized note values are barely changing even with the Pitch randomization at a high value — what gives?

Make sure the random mode is set to Chance or Fluid, not Drunk — even at 100%, Drunk mode will only randomize to adjacent note values.

Output sounds super, well, random — not musical at all — what can I do?

Make sure to select a musical scale that is not simply Chromatic; it's best to select the same scale and key for all the devices and clips in your set to maintain harmonic coherence.

MIDI notes are getting stuck for some reason — what should I do?

The MIDI note output display in the upper right of Chance Engine's GUI doubles as a MIDI flush button — in the rare case of emergency, just click there.

I don't want Chance Engine to conform to Live 12 or Global Hub's scale and key — is this possible?

Any device that can be impacted by Global Hub has a Global toggle; click this to pin the scale and key to Local Chance Engine settings. Toggling from Local back to Global mode will automatically force the device to inherit Live 12 or Global Hub settings.

Chance Engine scale and key are not saved with my Live set or presets — what's wrong?

For device scale and key to be stored locally with a set in versions older than Live 12 without an instance of Global Hub, or with a preset, the scale and key Global mode must be toggled to pin the scale and key to Local Chance Engine settings first. Toggling from Local back to Global mode will automatically force the device to inherit Global Hub or Live 12 scale settings.

Thank you for supporting us by purchasing this device — we hope it inspires your creativity!

For more information, video tutorials, and other devices, please visit us online at: **manifest.audio**

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