# MIDI TOOLSET 003

MANUAL + USER GUIDE

# MIDI TOOLSET 003

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## Obligatory Legal Stuff

Thank you for purchasing this collection of creative Max for Live MIDI Tools!

### License Agreement:

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## Important Info

These tools require Live 12.2 or Live 12.2 Suite with Max for Live installed; we strongly recommend Live 12.2 or higher with Max 9.0.7 or higher.

**Please note that once installed, since MIDI Tools are not Max MIDI Effects, they cannot be dragged and dropped onto MIDI tracks: they can only be loaded via the Generator and Transformer tabs of the MIDI clip editor.**

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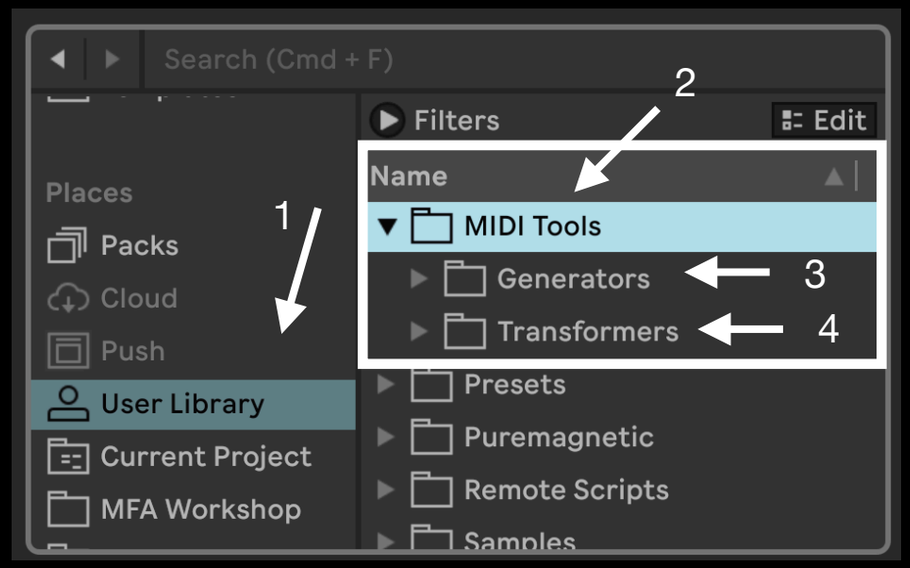
## Installation Instructions




To install MIDI TOOLSET 003, first double-click to decompress 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!

In Live's Browser, navigate to the User Library in Places (1). Then find the MIDI Tools folder located there (2). If you don't see a folder called MIDI Tools in your User Library, simply create it yourself.

Finally, drag our Generators to the Generators subfolder (3), and our Transformers to the Transformers subfolder (4). Again, if these subfolders don't exist yet, create them yourself.

Live should automatically detect them and within the next few minutes, they should appear in the dropdown chooser of Live's Generators or Transformers in the corresponding tab of any MIDI Clip's Note Editor.

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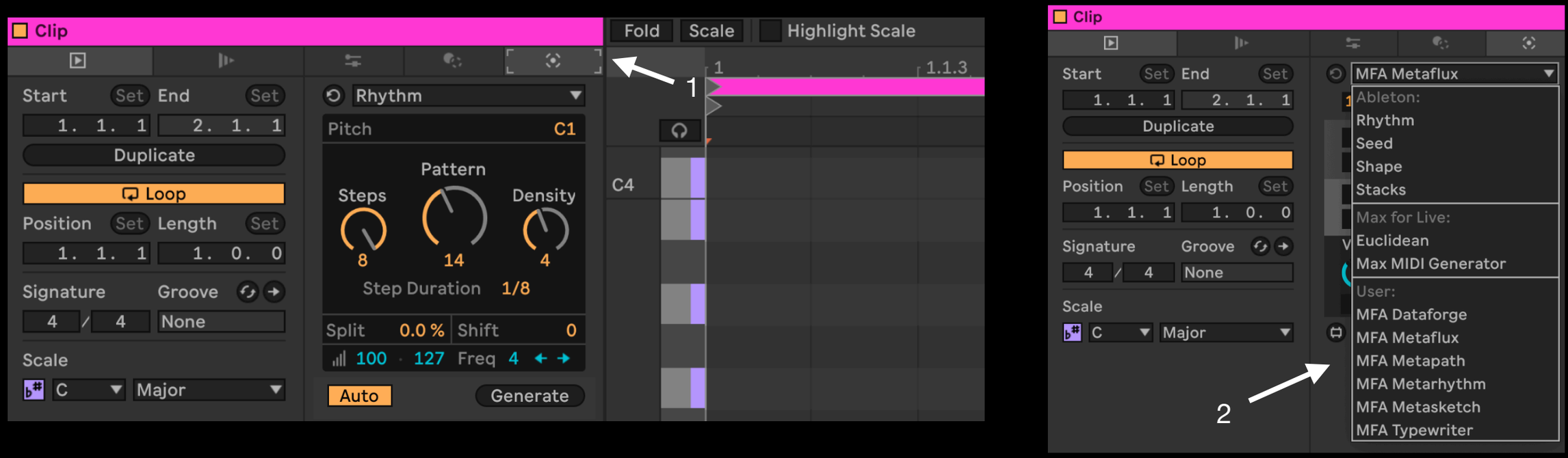
## Generator Instantiation




Now that you've installed your MIDI Tools in Live's User Library, they can be accessed via Live's MIDI clip editor.

To load one of our Generators, select the Generator tab (1) and choose one from the User section of the drop-down menu (2).

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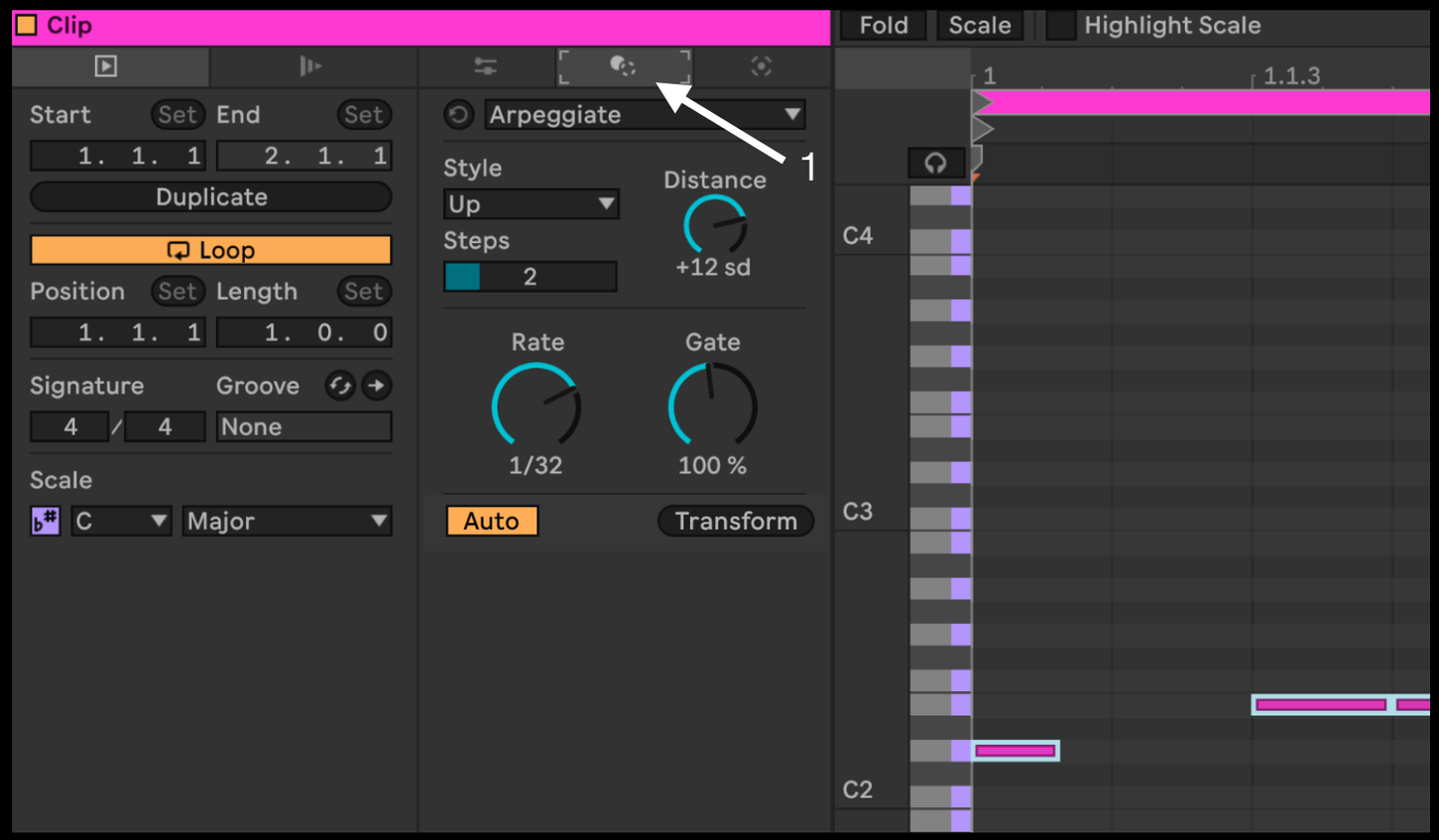
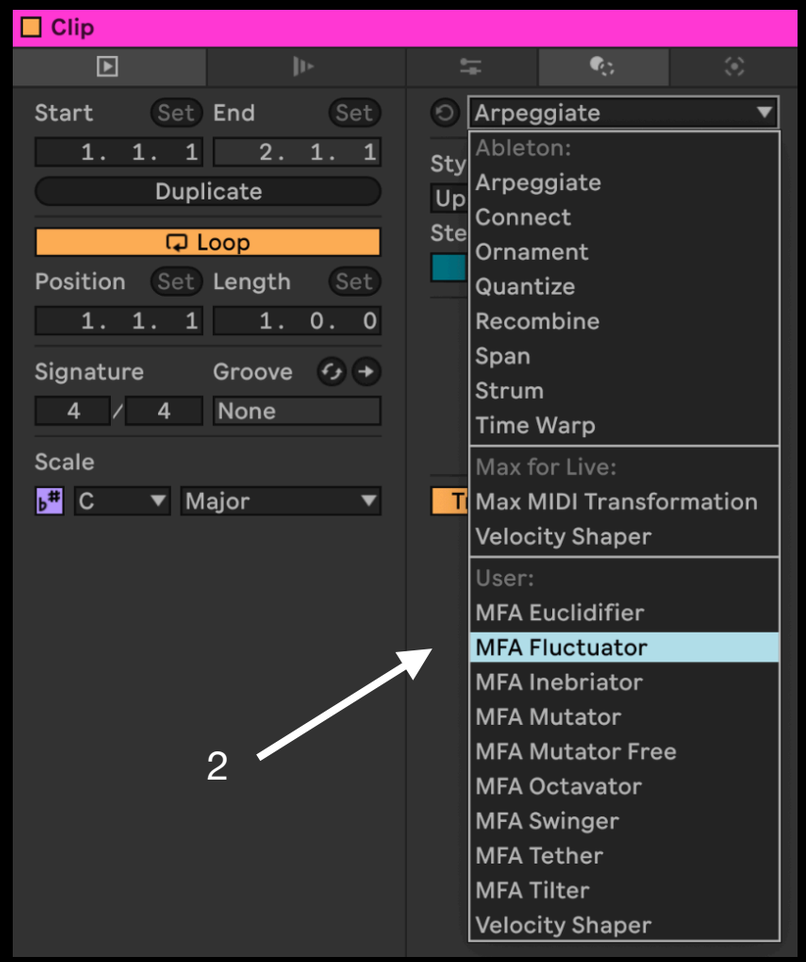
## Transformation Instantiation




Transformation MIDI Tools are also accessed directly in Live's MIDI clips, but are only active when MIDI notes are already present.

To access our Transformers, select the Transformer tab (1) and select one from the User section of the drop-down menu (2).

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## Overview

Designed to accelerate workflow, enhance creativity, and access new realms of musical possibility, our third MIDI Toolset includes four MIDI Generators and eight MIDI Transformations.

Unfurl intricate polymetric sequences with Metagrid, weave extended dynamic musical arrangements with Metaloom, juggle beat patterns with Rematrix, and explore visual noise algorithms as a raw source of musical material with Scantron.

Then transform your MIDI with a host of new creative tools and utilities. Collapse polyphony to monophonic expressions with Monotizer, use Multiswap and Paraswap to explore probabilistic note or parameter replacements. Navigate new rhythmic terrain with Quantographer to instantly create infinite tupletted groove scapes. Refractor folds, wraps, inverts, and warps patterns while Replacer instantly converts outtmoded drum maps. Finally, Seeker is a powerful interstitial variation engine with intuitive XY control, while Teleport probabilistically relocates notes in your clip according to various rules.

Our most powerful Toolset yet? Possibly. All MIDI Tools are scale aware and Info View annotated to seamlessly enhance your creative experience.

# MIDI GENERATORS

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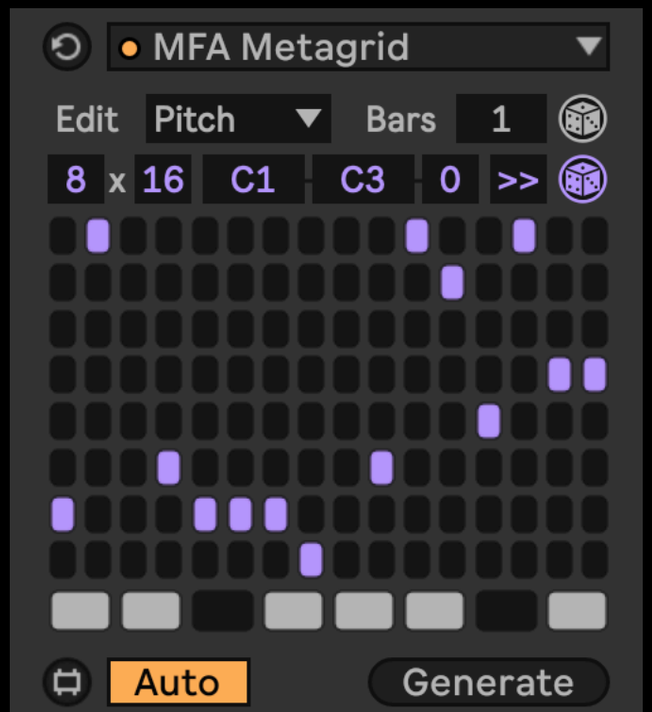



## Generator 1: Metagrid

Metagrid unfolds endless overlapping parameter sequences via up to eight discrete parameter grids: Pitch, Velocity, Length, Chance, Octave, Mute, Multiple, and Divisor. Each grid can be resized from two up to 24 choices spread across the selected range, and from two up to 32 programmable steps. Each individual grid can be randomized and then played forward, backward, elliptically, or randomly.

Length, Chance, and Octave grids are inactive by default with no range differentiation; to activate them, simply adjust their minimum and maximum ranges. Multiple and Divisor are both set to a single dial for global timing control by default — but each can be toggled to a programmable grid mode for unusually intricate and dynamic rhythmic expression. Pitch features an octave slider, Velocity has a deviation range slider, and the note Length grid has a factor control. The Mute grid is always visible at bottom.

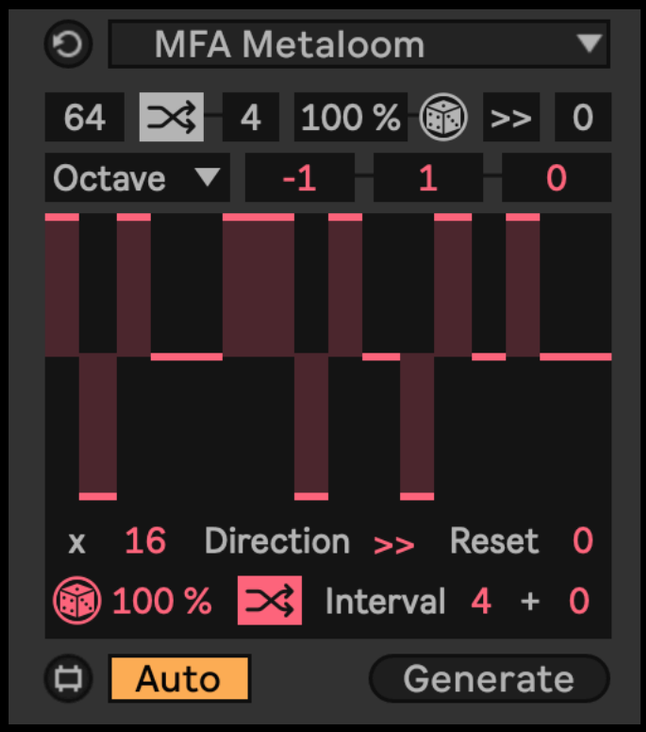
Up top, select the current editing grid, specify how many bars to extend the pattern for — up to 512 — and even randomize all grid choices, step lengths and fills at once. With grids of different lengths, you can easily unfold hypnotic polymetric arrangements.

## Generator 2: Metaloom

Metaloom weaves evolving sequences across six parameter sequencers: Pitch, Velocity, Length, Chance, Octave, and Mute. Each grid features a discrete length, range, independent play direction, and reset in bars, along with randomization, amount, auto-randomization toggle, and interval controls. Pattern Rate can be set globally with rhythmic Multiplier and Divisor controls.

The main window allows for editing of the initial sequence from which permutations will be derived. Along with range controls, Pitch and Octave both get an octave offset control, Velocity gets a deviation control, note Length gets a base factor, Chance gets a base amount, Mute gets a weighted randomization option as well as instant state inversion.

Up top, select the current editing sequence and specify how many bars to extend the pattern for — up to 512. Enable auto-randomization for all parameters simultaneously while specifying the auto-randomization interval and amount. Click the dice to randomize all sequences, and control all sequence directions and bar resets globally, overriding individual sequence settings. By auto-randomizing parameters at controlled phrase intervals, it rapidly generates extensive, dynamic arrangements.



# MIDI GENERATORS

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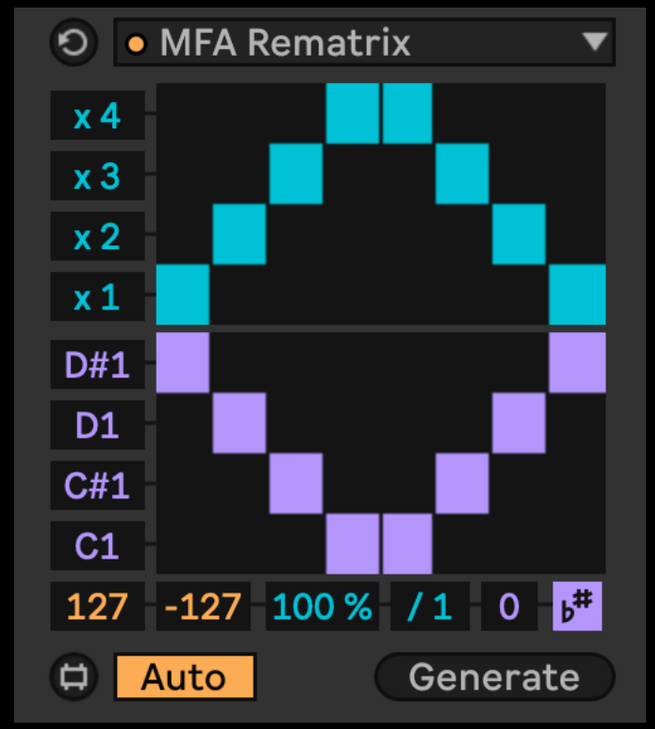
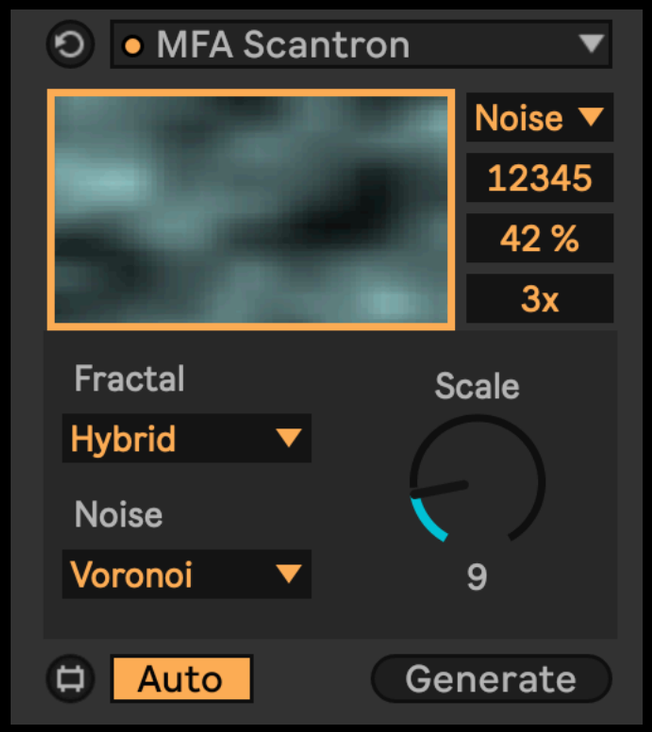



## Generator 3: Rematrix

Two probability matrices define unique patterns, remixing any selection of up to four MIDI notes. Up top, specify the likelihood of a multiple of the current grid length being triggered, with the more blocks placed on a horizontal lane making it that much more likely; a timing lane with no blocks will not occur. You can also reduce the multiplier to zero to deactivate notes on that block. The grid below functions identically, but with probabilities controlling the likelihood of specified note pitches instead.

At bottom we have default velocity, global deviation, and length factor for all generated notes. Increase the divisor to explore tupletted microrhythmic variations at increasingly tighter timings. Finally, adjust the output in octaves, and enable scale awareness for melodic pattern expressions.




## Generator 4: Scantron

Building off the architecture of our Photomat device, Scantron uses sonification to convert visual noise patterns into MIDI patterns. Up top, select Note range controls, Image adjustment options such as color balance, hue, or contrast, or use the Noise setting to explore six fractal algorithms with nine noise types and a scale control. At top right, below the edit mode selector, scan through different noise frames, adjust the resolution, and zoom in; when zoomed above 1x, click and drag on the noise viewer to explore different segments of the current frame.

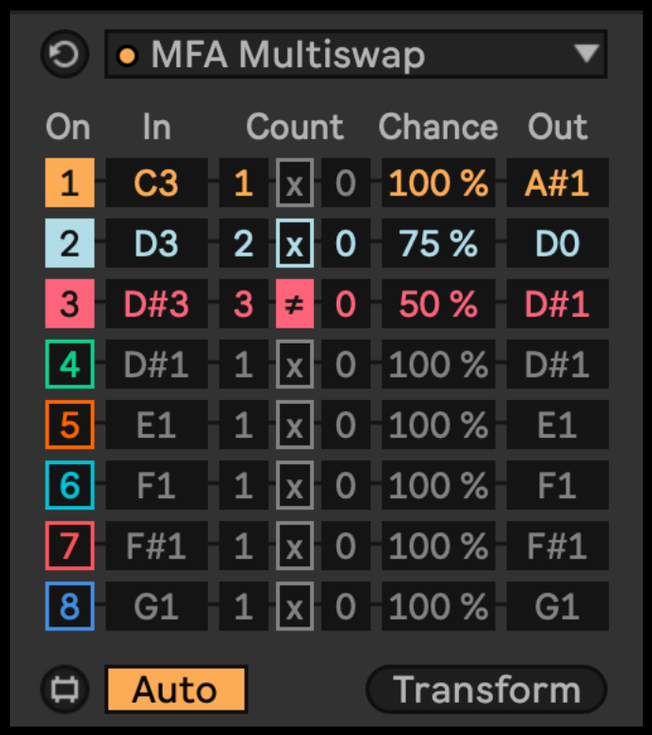
In Image mode, select a color channel — or polyphonic expression of all three simultaneously — along with the X or Y axis for interpretation of average pixel columns or rows, respectively. Then adjust color balance, hue, brightness, and saturation for further processing.

Finally, Notes mode controls pitch, velocity, length, rate, and chance settings. To make patterns less busy, explore the gate options to eliminate values above or below a threshold value.

# MIDI TRANSFORMATIONS

## Transformation 1: Monotizer


Monotizer extracts single notes from polyphonic material according to nine algorithms selectable from the chooser up top. Lowest collapses to the lowest note of each chord, highest extracts the highest pitch of each chord. Ascend counts upward in each chord, so the first chord plays the first note, the next chord the second note, and so on; Descend expresses this algorithm in a downward direction, while Elliptical combines them in a upward-downward motion; patterns with chords of different note counts can result in less predictable extractions with these, but that's part of the fun. Median takes the note nearest the middle that already exists within a chord, while Average calculates a mathematical average of the notes in the chord to extract a somewhat different value — in many cases these two will produce a very similar result, but still worth experimenting with. Finally, Random extracts a random note from each chord, while fixed defines an arbitrary new pitch with the same rhythm as the chords. An easy Octave dial allows instant transposition down to bass line or up to lead range, while Offset in current grid intervals allows the resulting pattern to rhythmically precede or follow the originating chords by a specified interval.




## Transformation 2: Multiswap

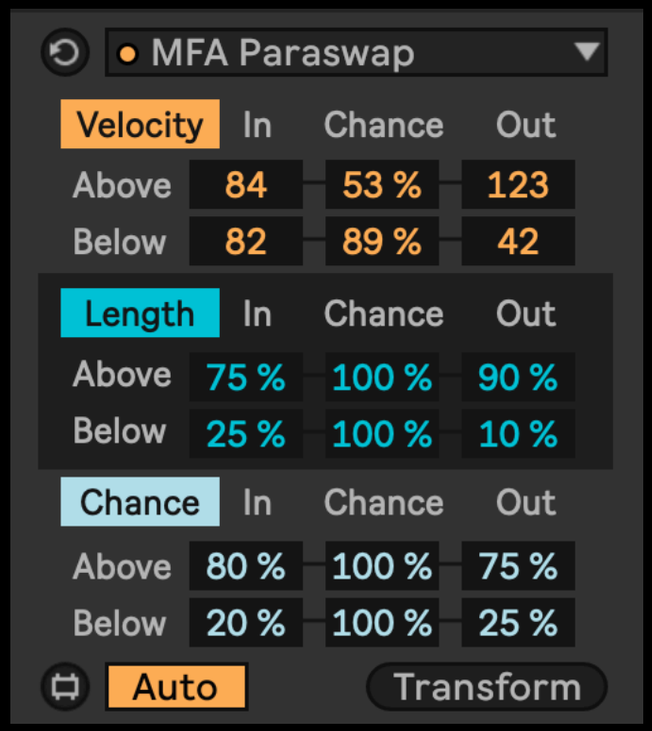
Multiswap allows for remapping of up to eight note pitches: each lane's input pitch is transposed to a specified output pitch instead.

Where it gets interesting is you can reduce the chance of each note swap lane for the transposition to only occur probabilistically, and experiment with count settings to only transpose a note every so many notes, or the inverse, with optional offset. At the default count of 1, each note will be transposed.

Combine count and chance settings to create dynamic variations.

# MIDI TRANSFORMATIONS






## Transformation 3: Paraswap

Paraswap takes inspiration for Multiswap, but applied to note parameters rather than pitches — and in a multiband fashion.

Velocity above and below a threshold can be probabilistically remapped to a new output value.

Note length above or below a threshold can be probabilistically remapped to a new duration factor.

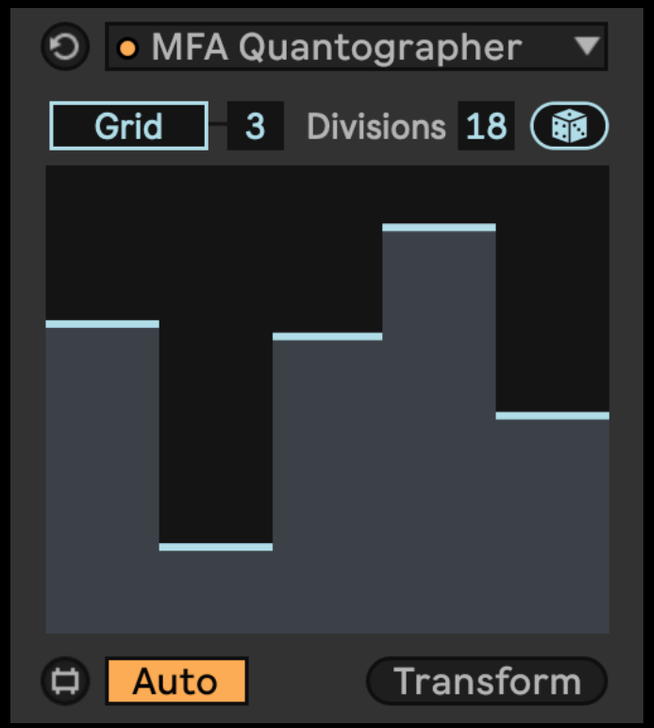
Chance amounts above and below a threshold can be probabilistically remapped to a new chance value.

## Transformation 4: Quantographer

If you're tired of the same old grooves, Quantographer is for you. Divide a grid selection, set the number of tupletted timing divisions available, and adjust the sliders to re-quantize notes within the divisions allowed.

Toggle from Grid to Note to count by actual notes present instead of grid intervals — and click the dice to randomize to a new set of divisions.

Find a new groove you love? Right-click the MIDI clip note editor, select Extract Groove(s), and apply it to all your clips from the Groove pool.



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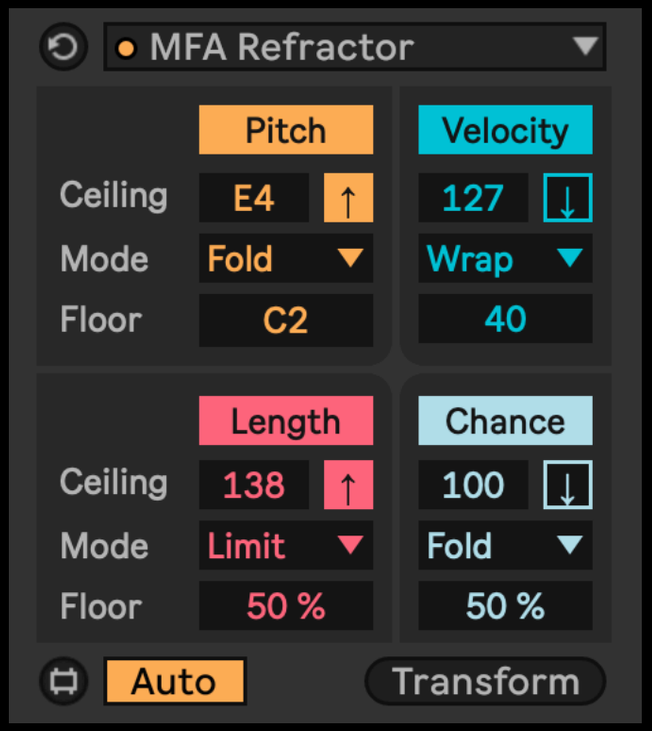



## Transformation 5: Refractor

Reflect, refract, wrap, and limit Pitch, Velocity, Length, and Chance within ranges so that values exceeding a range either reflect back in the opposite direction with the default Fold, start in again from the opposite limit with Wrap, or simply remain at the selected limit value — all of which are easily revertible.

## Transformation 6: Replacer

Type or copy and paste pitch or velocity replacement maps as note pairs with or without a comma. Perfect when adapting MIDI files with different drum machine mappings to Live's Drum Rack mappings for example; if there's a pitch map you often use, save it as a text file to easily copy and paste whenever you find yourself needing to adapt your clips in the future.

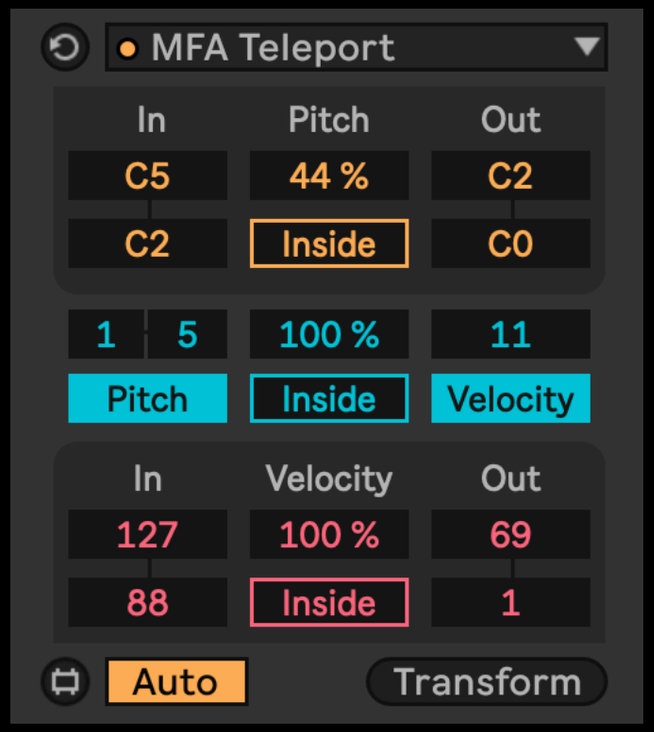
# MIDI TRANSFORMATIONS


## Transformation 7: Seeker

The ultimate variation engine, Seeker offers rapid control of Pitch, Velocity, Length, grid timing Offset, and Chance via intuitive XY grid. Up top, select the current parameter for range control settings, define whether changes are randomized or absolute within ranges, and in random mode, whether randomizations are applied to individual notes, or all notes occurring in a chord simultaneously.

Each parameter can be toggled on for XY control with ranges — or, when toggled off, given an absolute value control. An axis toggle determines whether each parameter is governed by horizontal or vertical motion when activated.

At bottom are the interval controls, allowing for rapid variations at specified bar intervals. In Fill mode, define an interval in bars at which random or absolute adjustments will be applied, offset by a certain number of beats within that bar, for a specified duration of beats within that bar. Instant phrasing variations complete. Switch to Evolve mode to generate cyclic pattern variations at each new interval in bars. In either mode with interval set to zero, general randomization will be applied to all notes in the current selection.




## Transformation 8: Teleport

Probabilistically transport pitches or velocities within specified input ranges to a different output range — great for instantly creating scale-aware variations. Then probabilistically transport notes within a certain grid range to another grid location — with the option to require grid relocations also meet current pitch and velocity input range criteria as well.

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## FAQ

**Where can I find my new MIDI Tools?**

Unlike Max for Live audio or MIDI effects, MIDI Tools are not accessed via Live's Browser. If installed as instructed in the MIDI Tools folder of your User Library, Live will automatically detect them and add them to the drop-down MIDI Transformation or MIDI Generator selection menus in the Transformer and Generator tabs of any MIDI Clip.

**Why are my Tools not generating or transforming?**

For notes to be generated or transformed, a selection of time or notes must be selected first. Then, be sure Auto is enabled beneath the MIDI Tool interface — or click the Generate or Transform button. Now changes to a MIDI Tool should be reflected in the Note Editor.

**What if my MIDI Tools don't stop generating or transforming?**

After achieving a desired state with your MIDI tools, click in the MIDI clip to reset the Apply Cycle so generation and transformation will only be applied to new selections and previous alterations will remain in place; to avoid continuous alterations during an Apply Cycle, disable the Auto button beneath a MIDI Tool and manually click the apply button to the right of it to see and hear your changes.

**I don't want MIDI Toolset 003 to conform to Live 12's scale and key — is this possible?**

If you want a MIDI Tool to ignore the current scale and key, disable Live's global scale and key settings or those within the clip; if the Tool has a scale toggle, you can use that too.

**How come some parameters don't continue randomizing?**

To maintain consistency when using multiple MIDI Tools in a simultaneous chain, random seeds ensure certain parameters are only randomized a specific way at a given time; to re-randomize a MIDI Tool, just click Generate or Transform below the tool to produce a new random seed.

**Why are some parameters not labeled?**

Working within the limited range constraints, we have opted for color-coding where possible — but you can always check Live's Info View to understand any of our MIDI Tool parameters.

**Where can I learn more about my MIDI Tool?**

All our MIDI Tools are Info View annotated: just open Live's Info View, then hover over a MIDI Tool parameter to learn more about it.

**My MIDI Tools look small — how do I make it bigger?**

In the Display & Input tab of Live's Preferences pane, increase the Display Zoom percentage slider to 125% or 150% (values in between may result in irregular display issues on certain systems).

**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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