Meyer Devices MIDI Tools

Version 2, November 2024

meyer-devices.com

Philip Meyer MIDI Tools

Polyrhythm

Thanks for downloading my MIDI Tools. I hope that lots of crazy music will be made with these devices, and would love to see what *you* make with them. See the next page of this document for info on how to get in touch.

Also, I respectfully ask that you not share the tool files directly to others without my consent. If you have a friend who would like to trial the tools before buying, let me know and I'd be happy to help make that possible

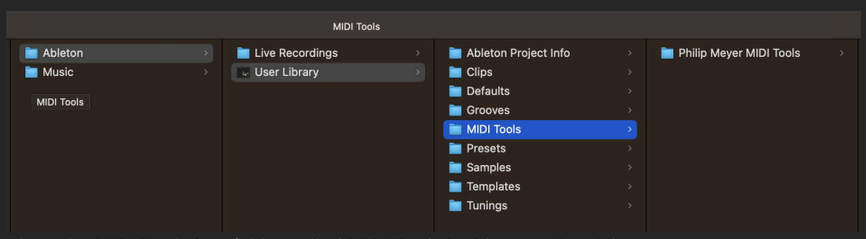
Polyrhythm

Ableton Live 12 Suite or Ableton Live 12 with a separate Max for Live license are required to use these devices.

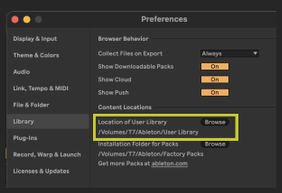
Polyrhythm

To install MIDI Tools, simply drag the AMXD files into the MIDI Tools folder of your Ableton User Library. If there is no MIDI Tools folder, create one!

Note: Make sure that the Library you're using is the same one you've specified in your Live preferences, especially if your Library lives on an external drive.



Place the MIDI Tools in a folder called MIDI Tools inside your User Library

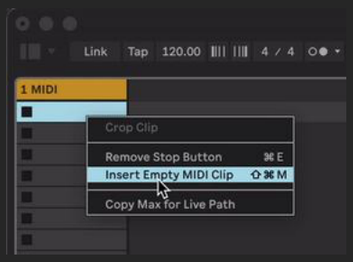


Make sure your Live Preferences are pointed at the correct User Library

Polyrhythm

To use these devices, create a new MIDI clip or select an existing one. The devices will be visible in the MIDI clip tools panel.

Note that Transformers and Generators live in separate tabs.



Create a new MIDI clip or select an existing one to see MIDI Tools

MIDI clip tools panel with the Blocks Generators (vertical view)

MIDI tools panel with the Blocks Generators (horizontal view)

Philip Meyer MIDI Tools

Polyrhythm

Some Mac users who used the Live 12 Beta reported issues with getting the MIDI Tools to appear in Live, even though the devices were in the User Library. If this is you, you can try following the steps below.

Note: do this only if you know that your User Library settings are correct (see previous page)

Steps:

- Delete the files in ~/Library/Application Support/Ableton, but **not** the folder itself
- Delete the files in ~/Library/Preferences/Ableton, but **not** the folder itself

Polyrhythm

Email me : philip@inter-modal.com

Join Rhizomic Sequencing server on Discord: **https://bit.ly/rhizomic**

Follow me on Instagram: **https://www.instagram.com/p__meyer/**

YouTube: **https://www.youtube.com/@p__meyer**

Bass + Lead Transformer

Generate a bass line or lead melody from a chord progression

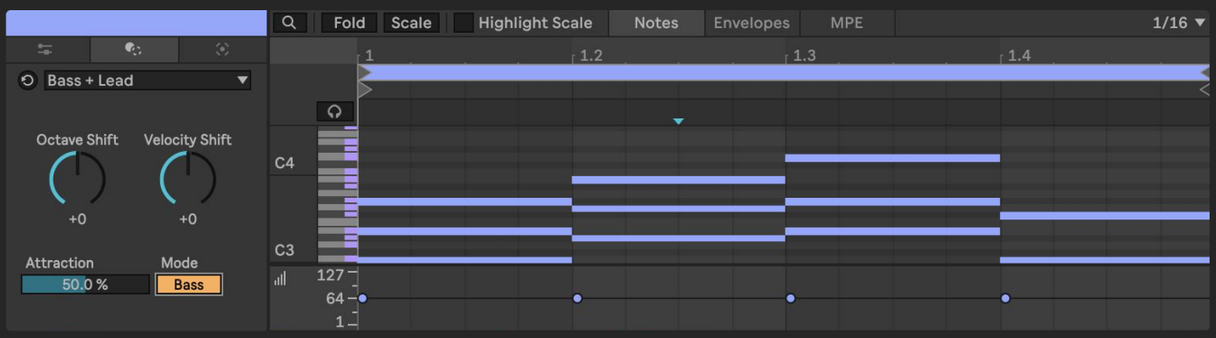
Octave Shift
Transposes the notes by octaves.

Velocity Shift
Offsets the velocity of the kept notes.

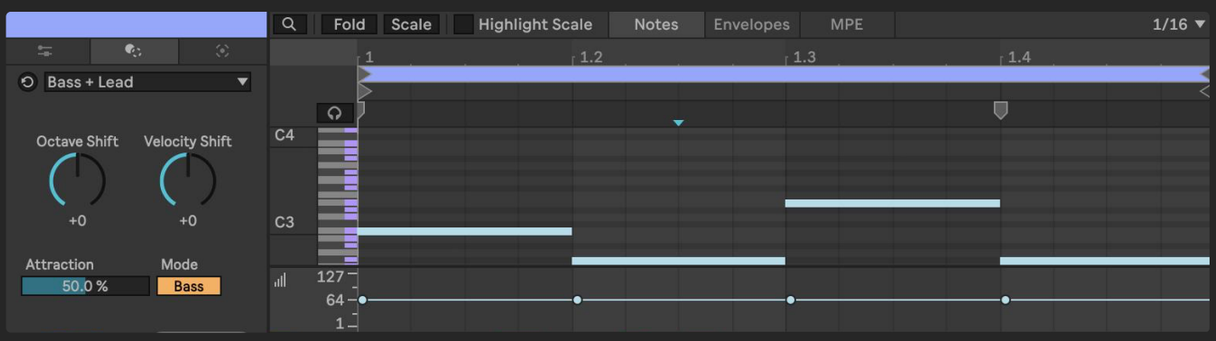
Attraction
This parameter controls this device's chord detection algorithm.

A higher value means that notes are more likely to be grouped together, resulting in fewer chords.

Mode
"Bass" keeps the lowest note in each chord, while "Lead" keeps the highest note.



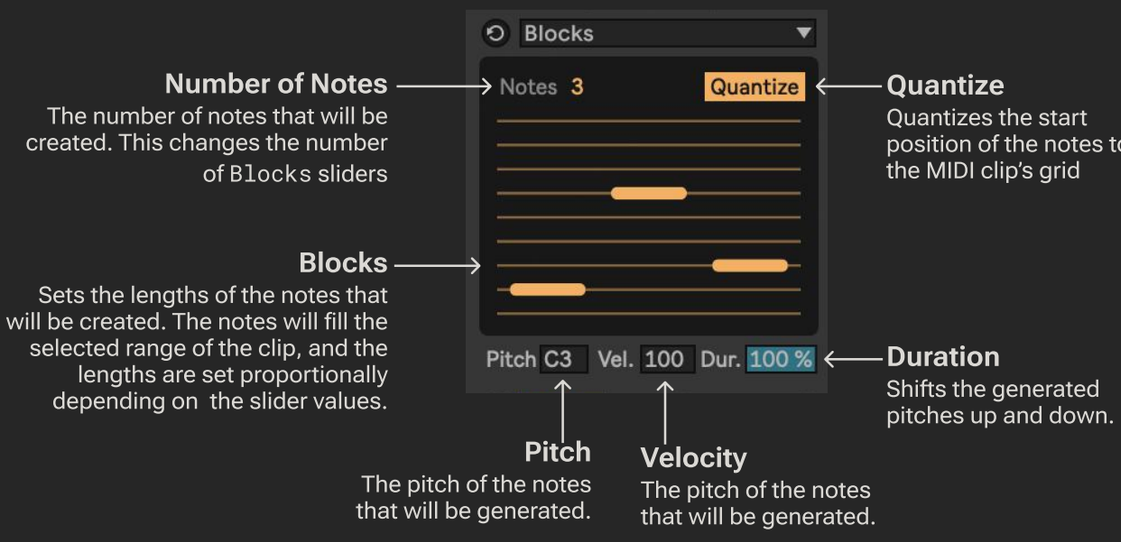
The original chord, untransformed

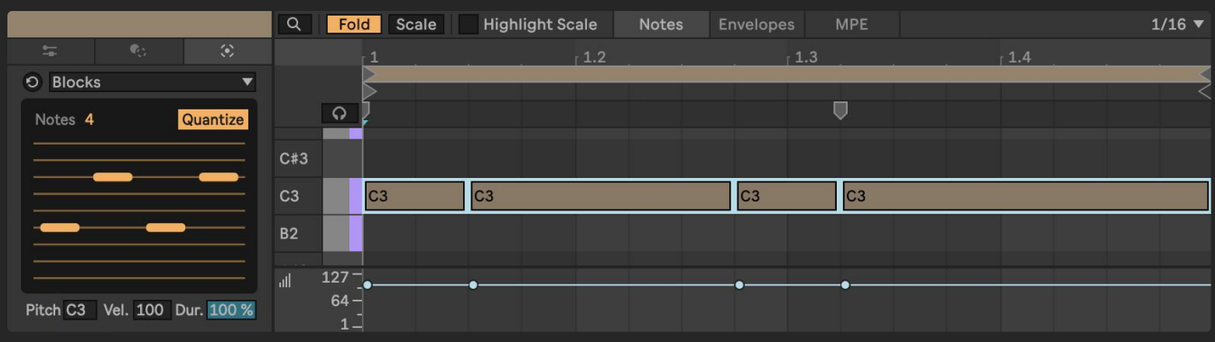


Using the Bass Mode removes all but the lowest note in each chord

Blocks Generator

A generator proportionally divides a clip to make nested rhythms.

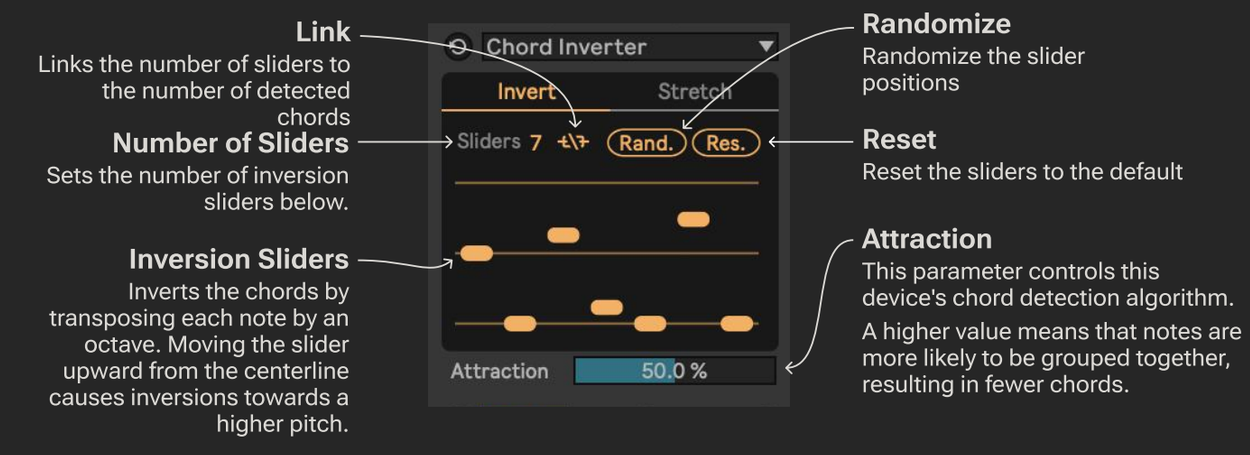


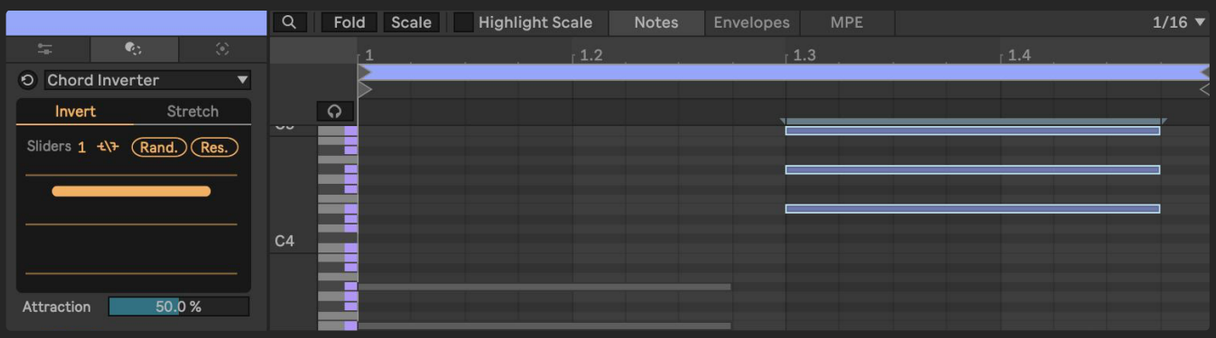


Moving the sliders in Blocks changes the relative spacing of the notes in the MIDI clip.

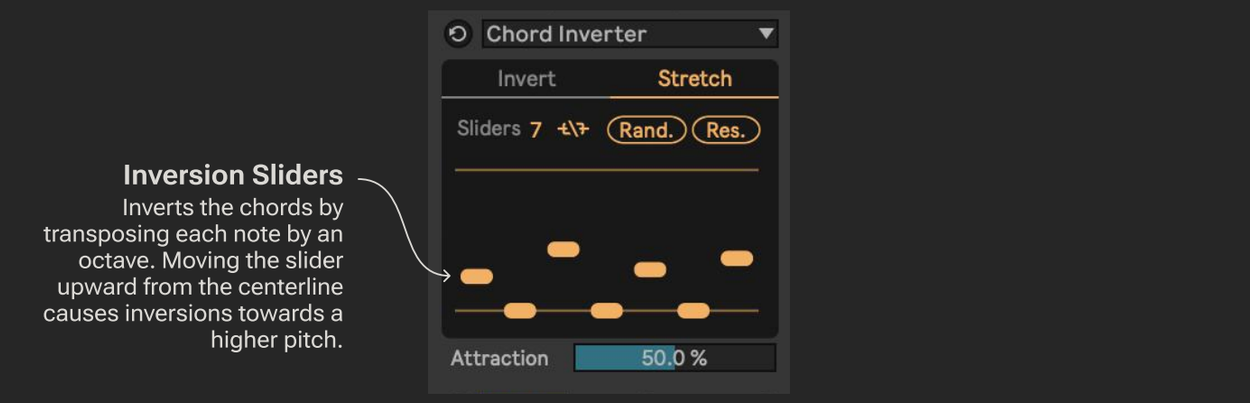
Chord Inverter Transformer

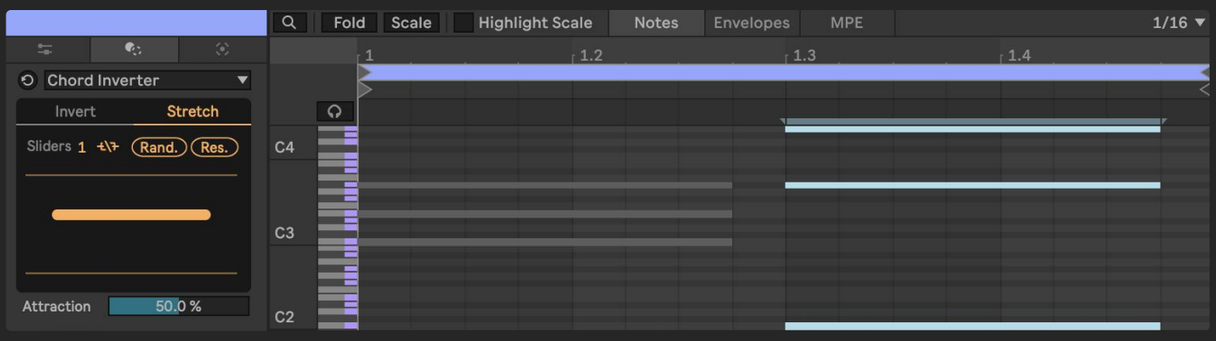
Quick and painless chord manipulation





Inverting the chord allows it to “roll” up or down the clip.





`Stretch` spreads the pitches in both directions.

Condition Transform Transformer

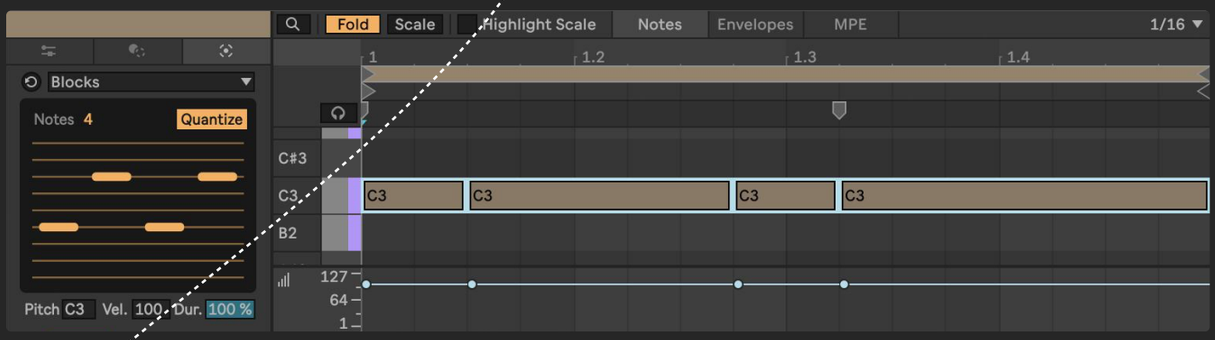
A multi-function transformer that modifies certain notes according to a rule.

Attribute
The attribute to the analyzed.

Histogram
The graph shoes the distribution of values across the selected attribute. Click and drag to highlight specific values and select notes to be transformed.

Number of Values (View Only)
Total number of unique values in the range

Modifier
The algorithm that will be used to transform the selected notes



In this example, we've used the Pitch attribute to select all of the notes that have the two highest pitches. Then, we subdivided them by 4.

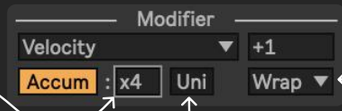
Modifiers

Increment Modifiers

Adds or subtracts from the selected notes' pitch, velocity, or chance.

Accumulate
When enabled, adds Increment to a running total before adding to the attribute value

Increment
Amount to add

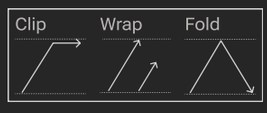


Iterations
Number of times to add to the accumulation total before clipping, wrapping, or folding.

Overflow Mode
Controls how values that cross the maximum or minimum are handled.

Polarity
Sets the maximum and minimum for the accumulation value.*

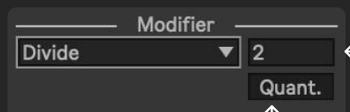
- Uni : 0 ↔ Iterations x Increment
- Bi : -Iterations x Increment ↔ Iterations x Increment



* When Accumulate is enabled and the Overflow Mode is Wrap or Fold.

Divide Modifier

Divides the selected notes.

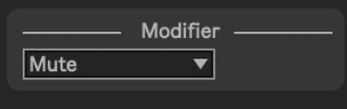


Divisions
Number of notes to divide the selected note into

Quantize
Quantizes the start position of the divisions to the MIDI clip's grid

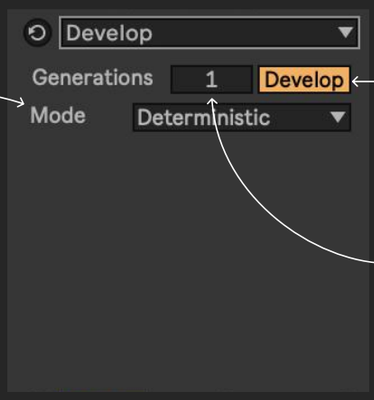
Mute Modifier

Deletes the selected notes.



Develop Transformer

A transformer that can make a pattern gradually appear or fade away.



Mode

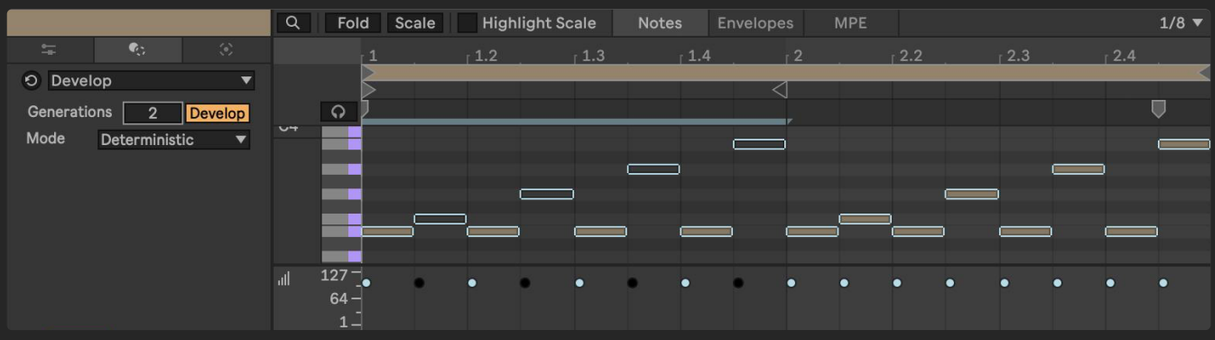
- Deterministic: Develops or degrades the pattern in a predictable fashion, using an evenly-spaced Euclidean algorithm and note muting.
- Probabilistic: Uses the chance attribute of notes to develop or degrade the pattern.

Build Direction

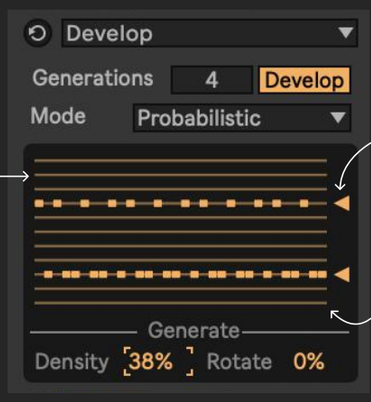
`Develop` starts with a sparse pattern and builds to the complete one. `Degrade` is the opposite.

Generations

The number of loops of the pattern over which the development/degradation occurs.



Deterministic mode. The second bar is the original pattern, which has been duplicated to the first bar, and every other note in the first bar has been muted.



Probabilities

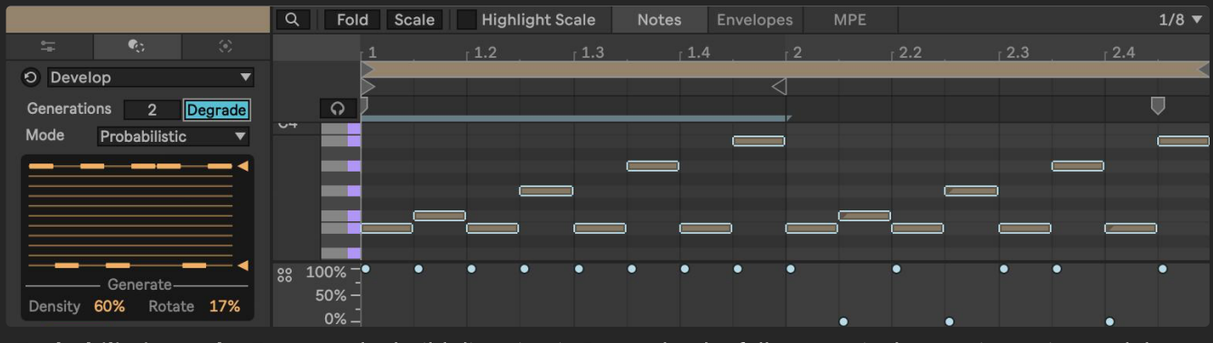
Sets the chance for each note at the 'most sparse' state, depending on the Build Direction. At the pattern's 'least sparse' state, the chance will be 100% for all notes.

Range Control

Adjusts the maximum and minimum range by clipping the slider values.

Generate Sliders

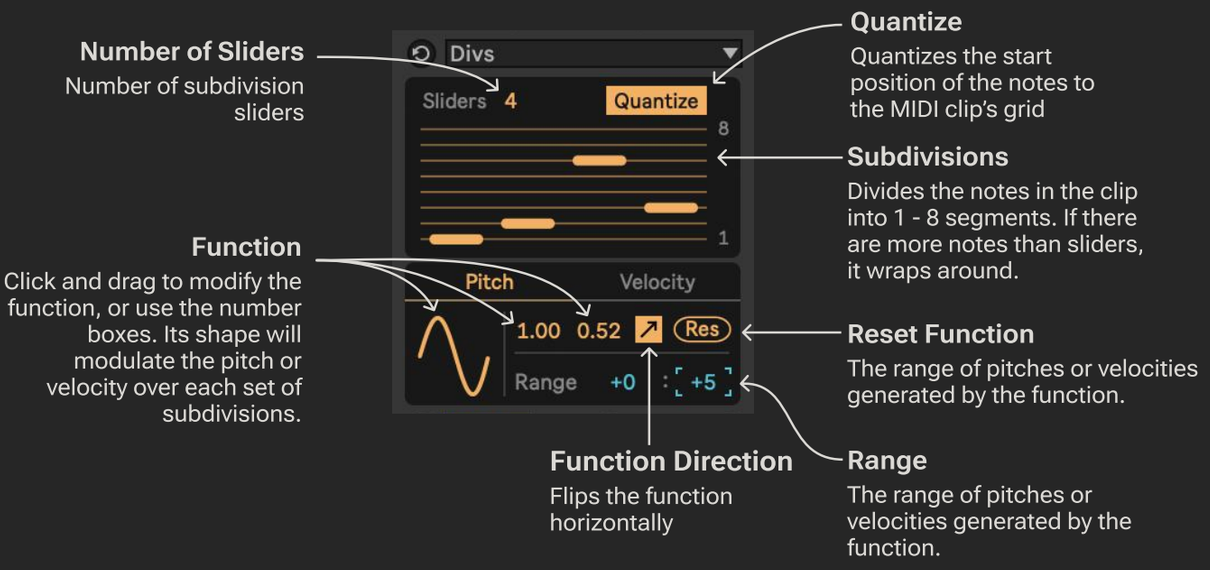
Modifying these parameter overwrites the slides with a Euclidean pattern

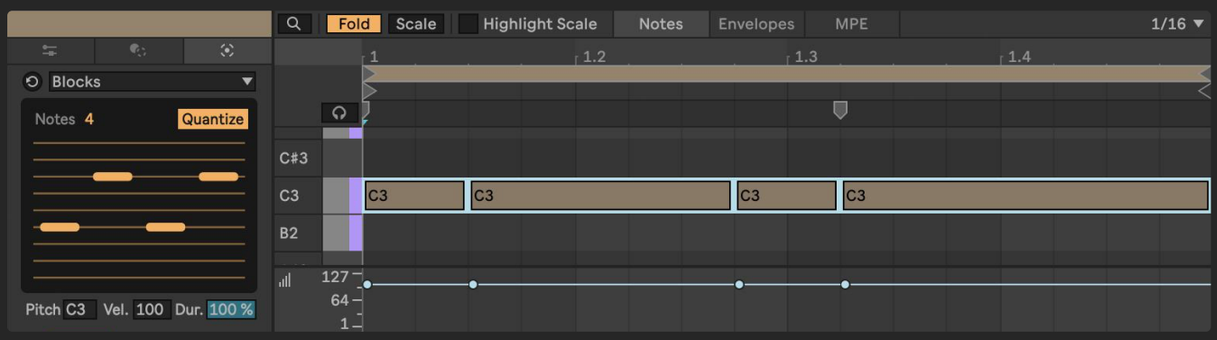


Probabilistic mode. Because the build direction is `Degrade`, the full pattern is the starting point, and the ending point is the same pattern with chance set by the sliders in the Develop device.

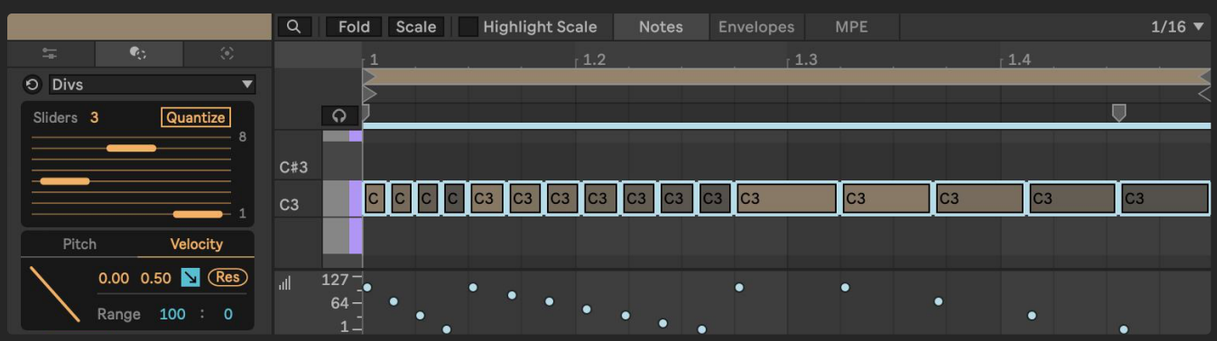
Divs Transformer

Subidivide a list of notes. Designed to be used in conjuction with Blocks to make nested rhythms.





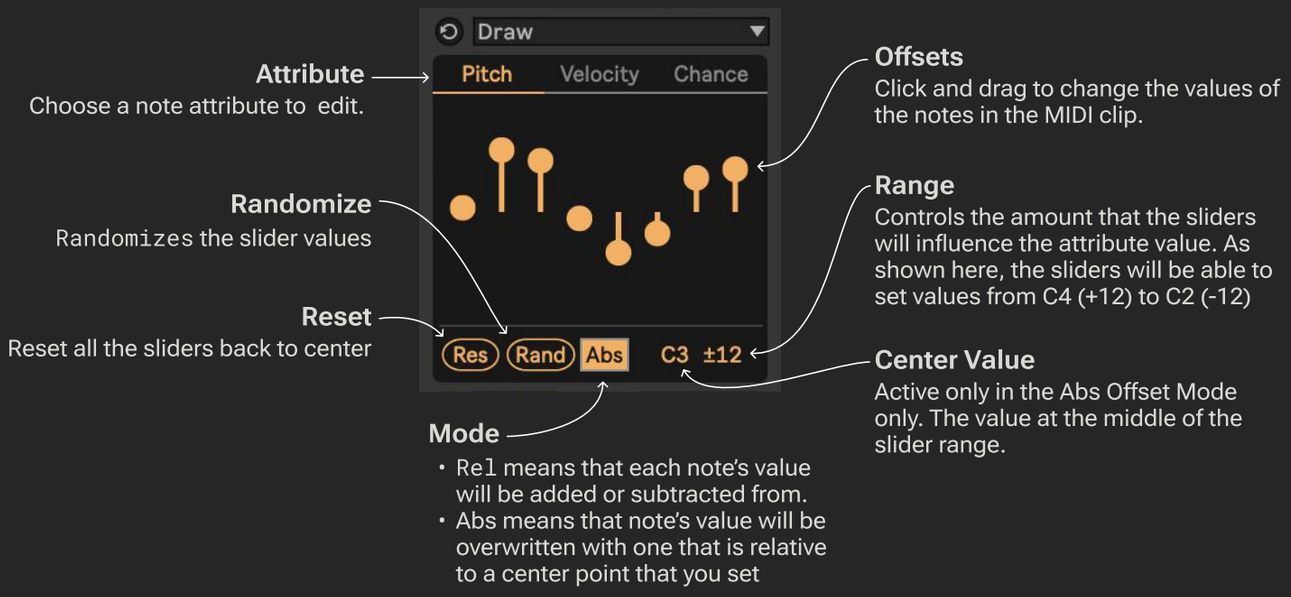
We'll start with a pattern generated by blocks.

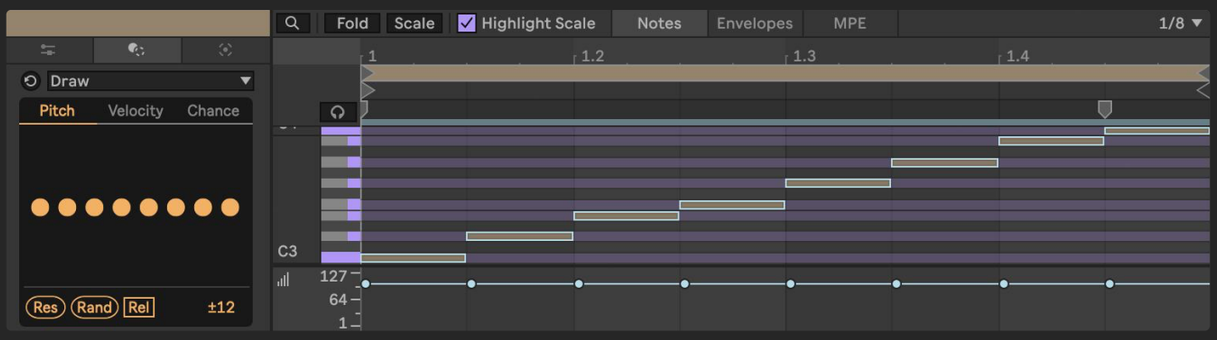


Next, we'll use three dividers to divide the first, second, and fourth note with a falling velocity. The third note is not divided because the third slider's value is 1.

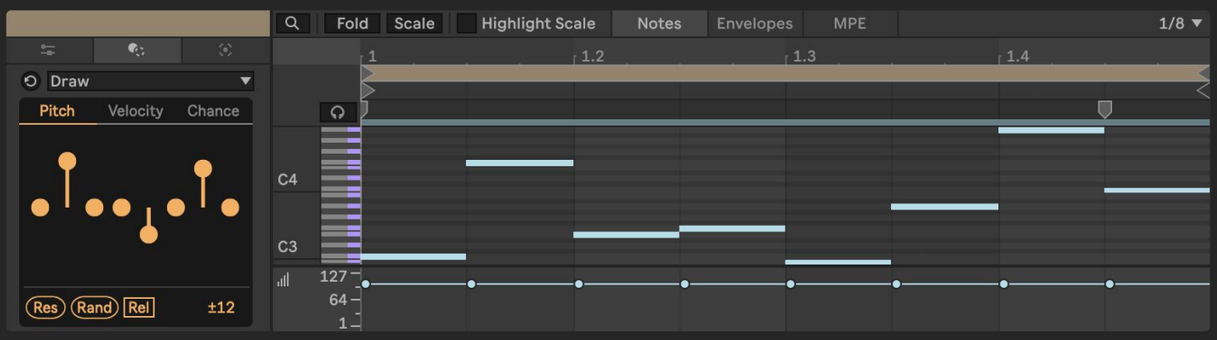
Draw Transformer

Quickly manually edit note pitch, velocity, and chance.





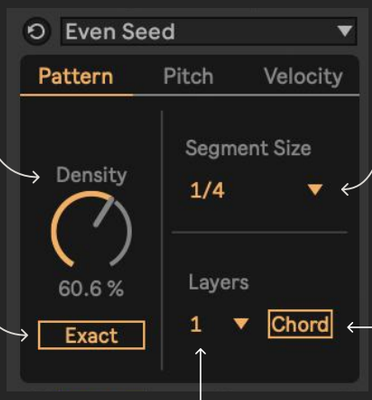
To start, we have a clip with a simple rising pitch. Next, we'll transform it with Draw.



Adjusting the sliders in Draw in Rel mode offsets the pitches of the notes relative to their original position.

Even Seed Generator

A better approach to random



Density

Determines the number of notes per segment to create based on the Segment Size and the MIDI Clip grid interval.

Exact

Because the density is probabilistic, it won't always create the same number of notes in each segment. Enable Exact to force the device to create the same number of notes in each segment.

Segment Size

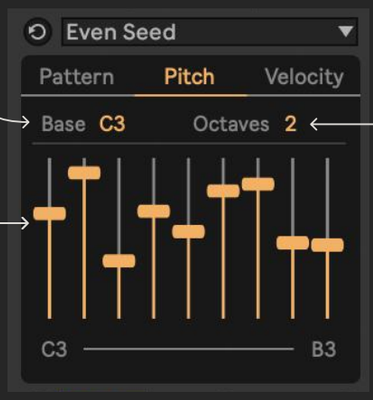
The length of each of the slices that the clip will be divided into before generating notes. Smaller slices results in even distribution of notes across the MIDI clip.

Chord

When enabled, layers will create notes at the same positions, resulting in chords.

Layers

This effectlvely multiplies the density, creating new notes at new pitches and allowing chords to be created.



Base Pitch

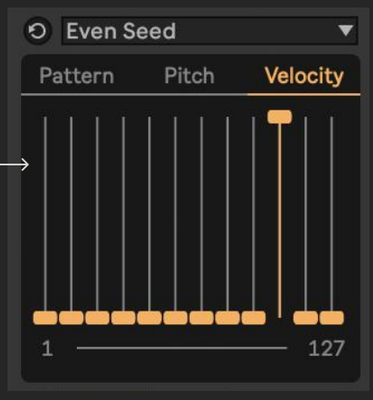
The lowest pitch that can be generated and the start of the distribution below

Pitch Distribution

The sliders set the probability that each note within the octave will be generated. When a scale is enabled, the number of sliders will adjust to reflect the number of notes in the scale

Octaves

The number of octaves over which notes will be randomly generated.

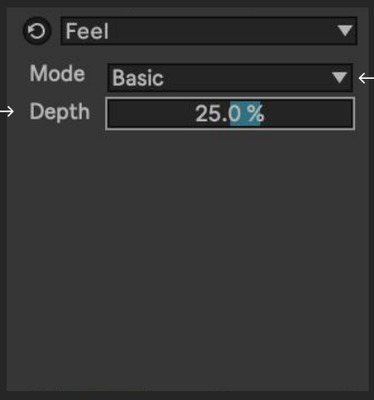


Velocity Distribution

The sliders determine the velocity of the generated notes using a probability distribution. The distribution is grouped into 12 buckets to represent the MIDI velocity range of 0 - 127.

Feel Transformer

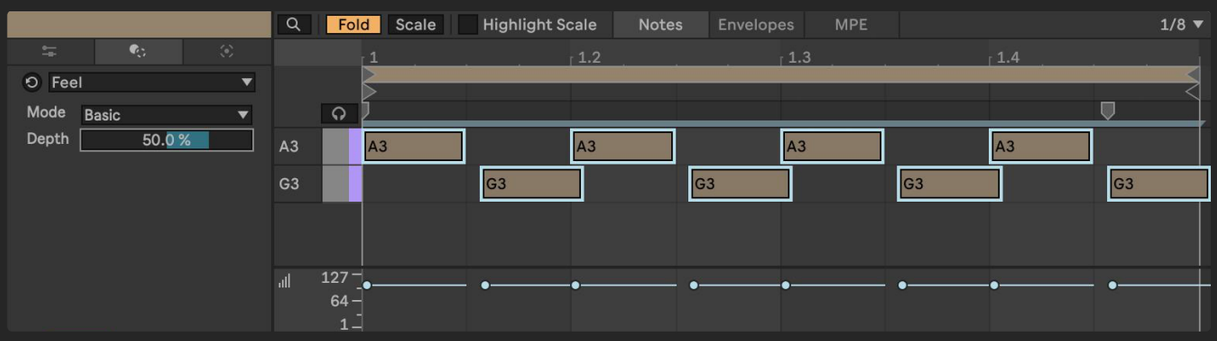
A transformer for creating swing, grooves, and microtiming



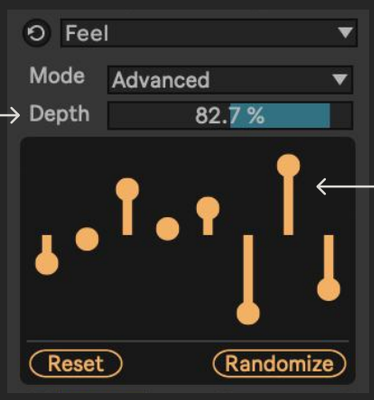
Swing Depth
Amount of swing to apply to the pattern. Swing is applied using the clip's grid. Positive values shift every second note back, negative values shift them forward

Mode

- `Basic` is the typical swing we all know and love.
- `Advanced` allows you to fine-tune the timing for each step in the grid independently.

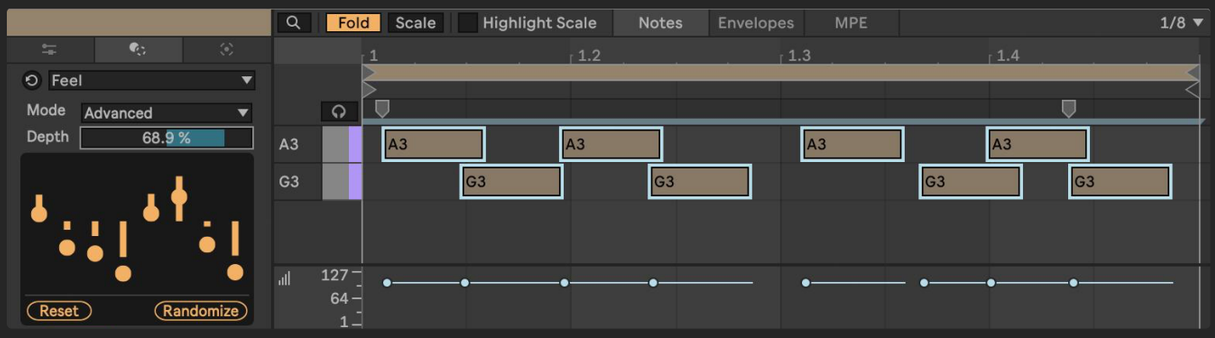


Basic swing



Depth
Controls the extent to which the sliders shift the notes.

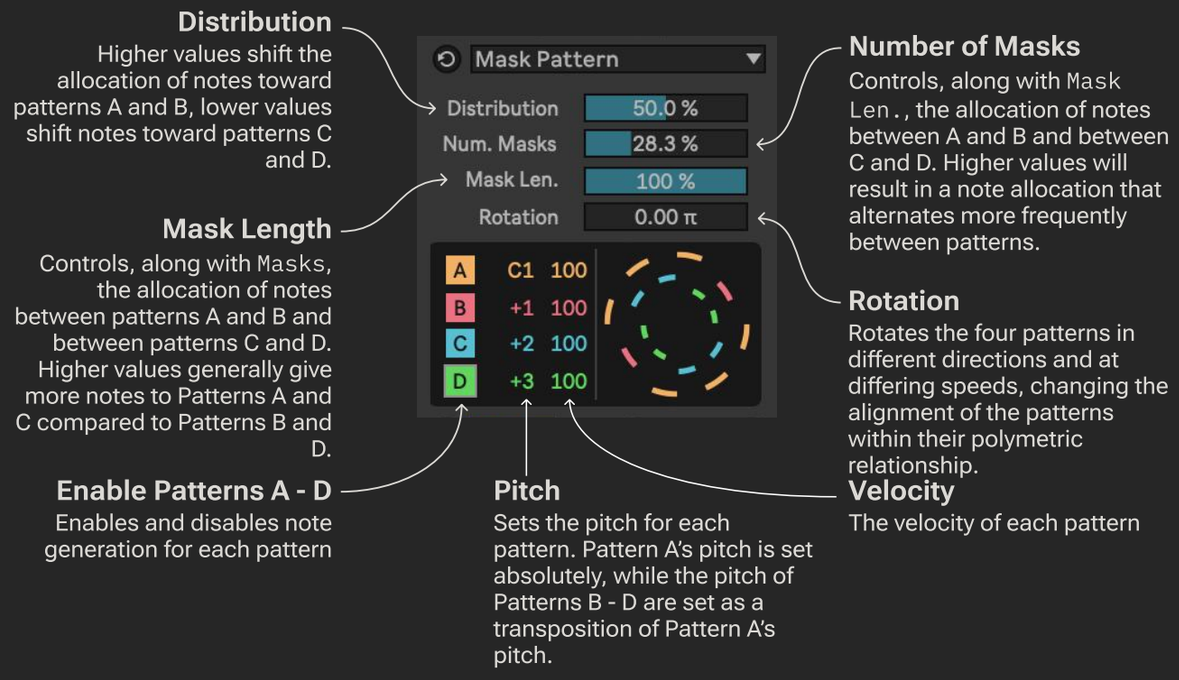
Microtiming
There's one slider for each grid line in the MIDI clip. Dragging the slider in the positive direction (upward) shifts the note back (to the right). The highlighted bars show the actual adjustment, after normalizing and applying `Depth`

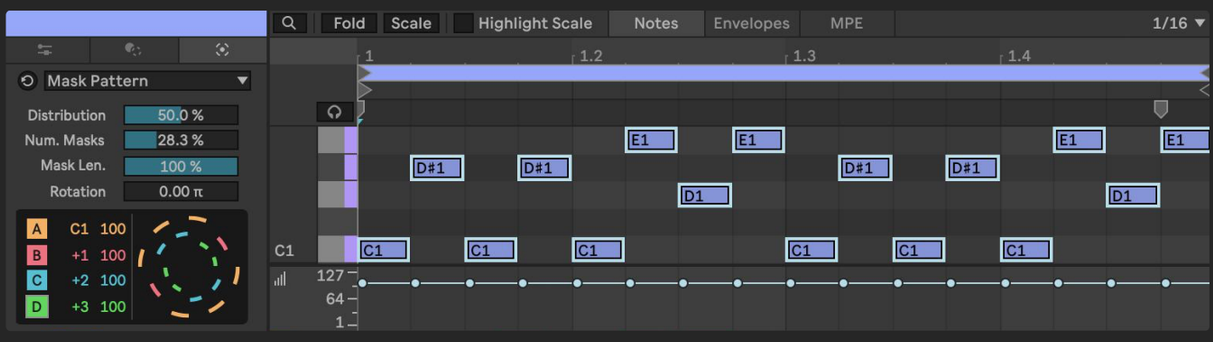


Microtiming with advanced mode

Mask Pattern Generator

Idiosyncratic polyrhythmic pattern generator





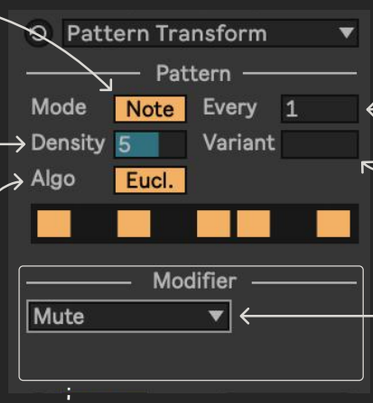
Pattern Transform Transformer

A multi-function transformer that uses a pattern to choose which notes to modify.

Advance Mode
Determines whether the pattern's steps are determined by a count of notes (Note) or an interval the clip's grid (Grid)

Pattern Density
Percentage of the steps in the pattern that are active

Pattern Algorithm
Determines how the pattern is generated. Eucl. always distributes the events evenly. Omni is a more flexible algorithm.

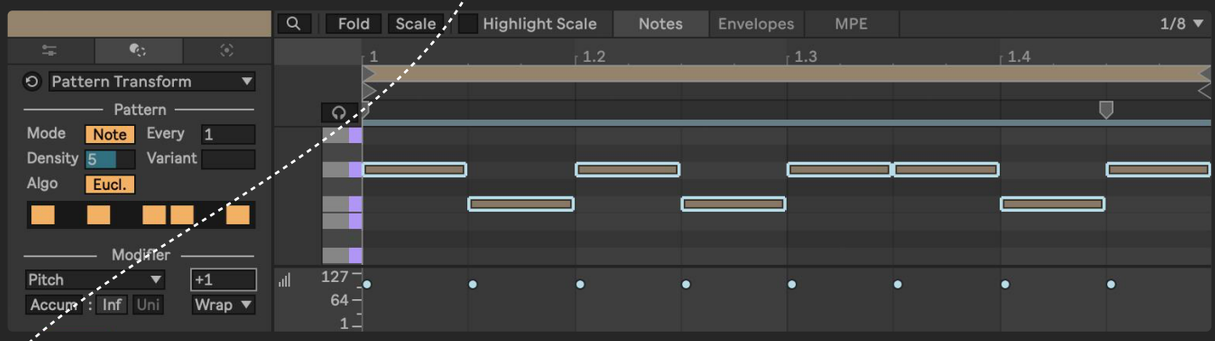


Every
Determines whether the pattern's steps are determined by a count of notes (Note) or an interval the clip's grid (Grid)

Variant
Eucl. mode: rotates the pattern.

Omni mode: selects from among all possible patterns for the density.

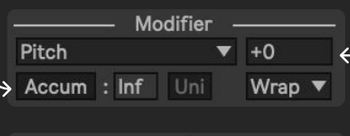
Modifier
The algorithm that will be used to transform the selected notes



Here, we started with a 8th notes at a constant pitch of C3. Using Pattern Transform, we applied a Euclidean pattern and increased the pitch by 1 scale degree of any notes that fall into the active steps of the pattern.

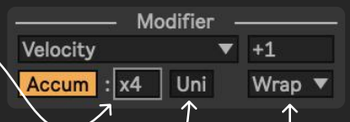
Modifiers

Increment Modifiers
Adds or subtracts from the selected notes' pitch, velocity, or chance.



Increment
Amount to add

Accumulate
When enabled, adds Increment to a running total before adding to the attribute value



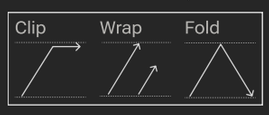
Iterations
Number of times to add to the accumulation total before clipping, wrapping, or folding.

Polarity
Sets the maximum and minimum for the accumulation value.*

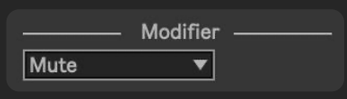
- Uni : 0 ↔ Iterations x Increment
- Bi : -Iterations x Increment ↔ Iterations x Increment

* When Accumulate is enabled and the Overflow Mode is Wrap or Fold.

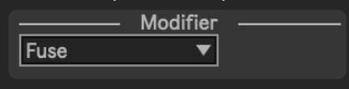
Overflow Mode
Controls how values that cross the maximum or minimum are handled.



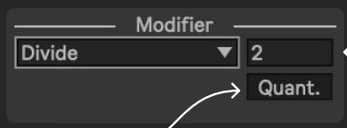
Mute Modifier
Deletes the selected notes.



Fuse Modifier
Joins the selected notes that fall within the pattern step



Divide Modifier
Divides the selected notes.



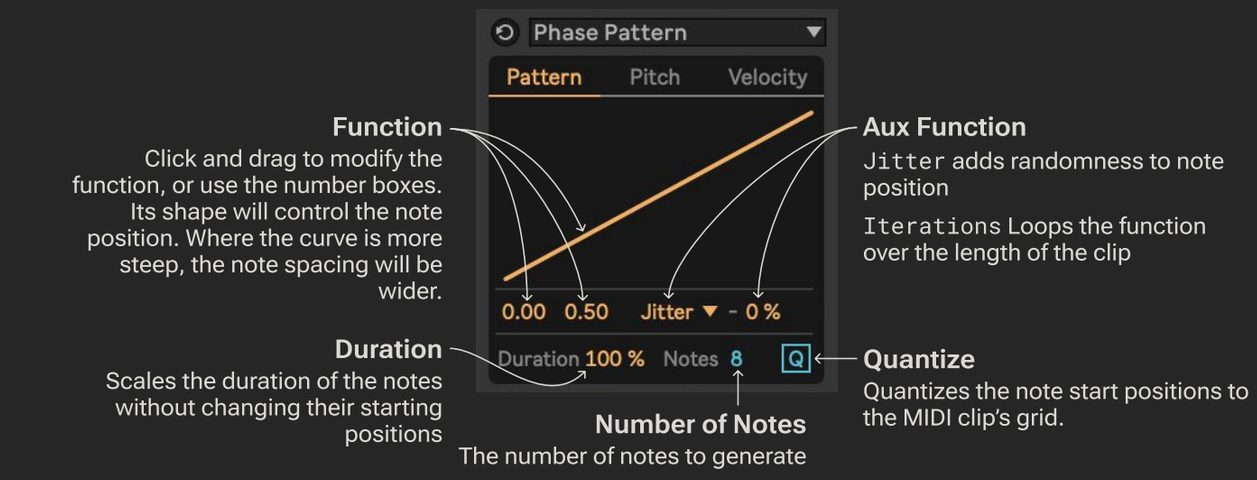
Divisions
Number of notes to divide the selected note into

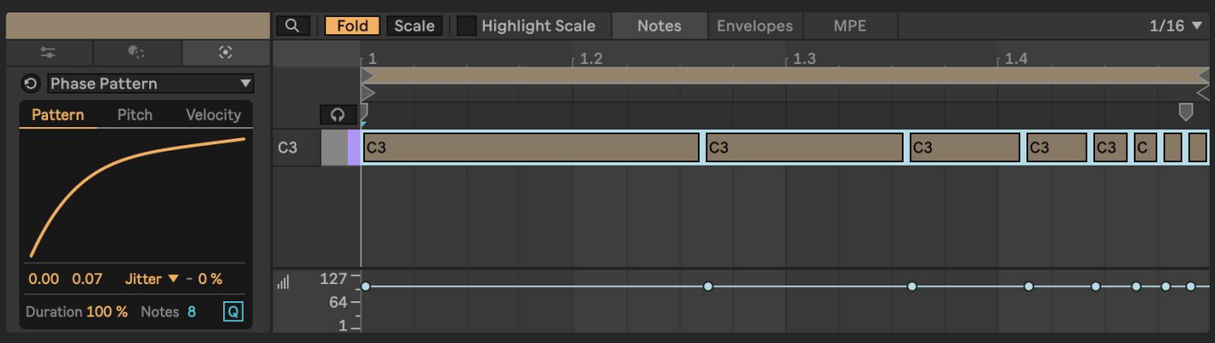
Quantize
Quantizes the start position of the divisions to the MIDI clip's grid

Phase Pattern Generator

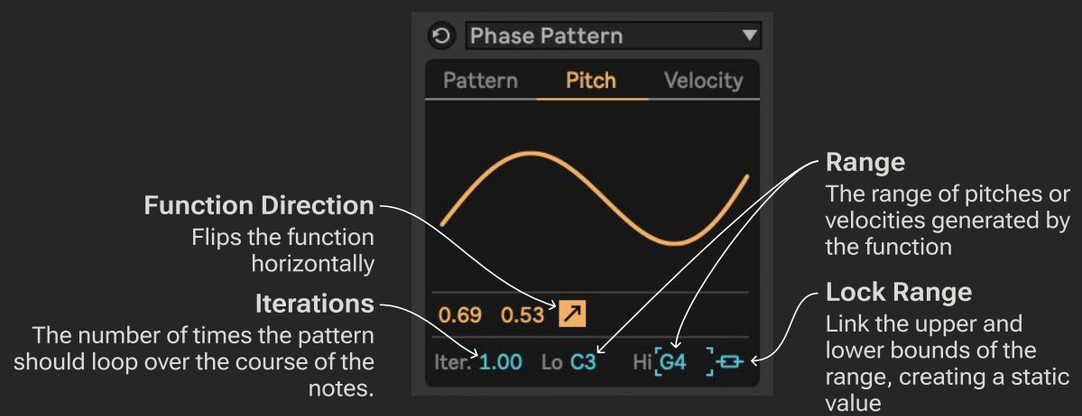
A generator that creates rhythms by bending time.

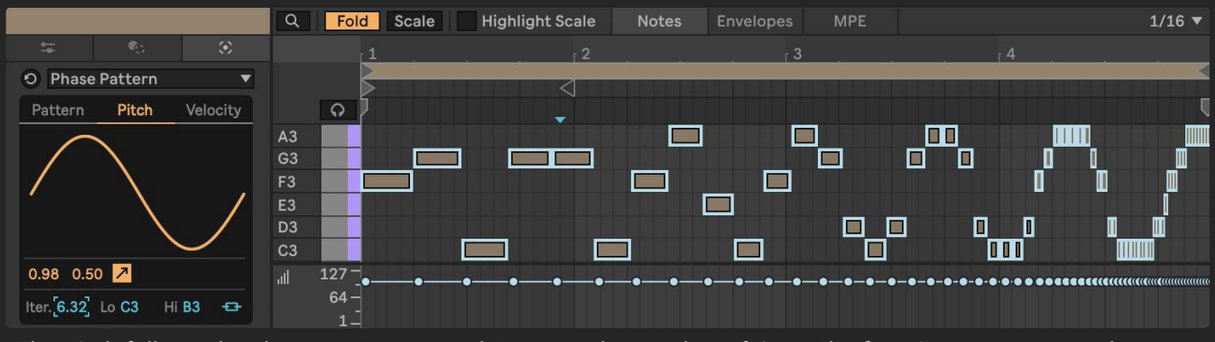
This device is available through a free Ableton Pack.





A logarithmic curve creates a "bouncing ball" rhythm whose note durations shorten over the course of the pattern.



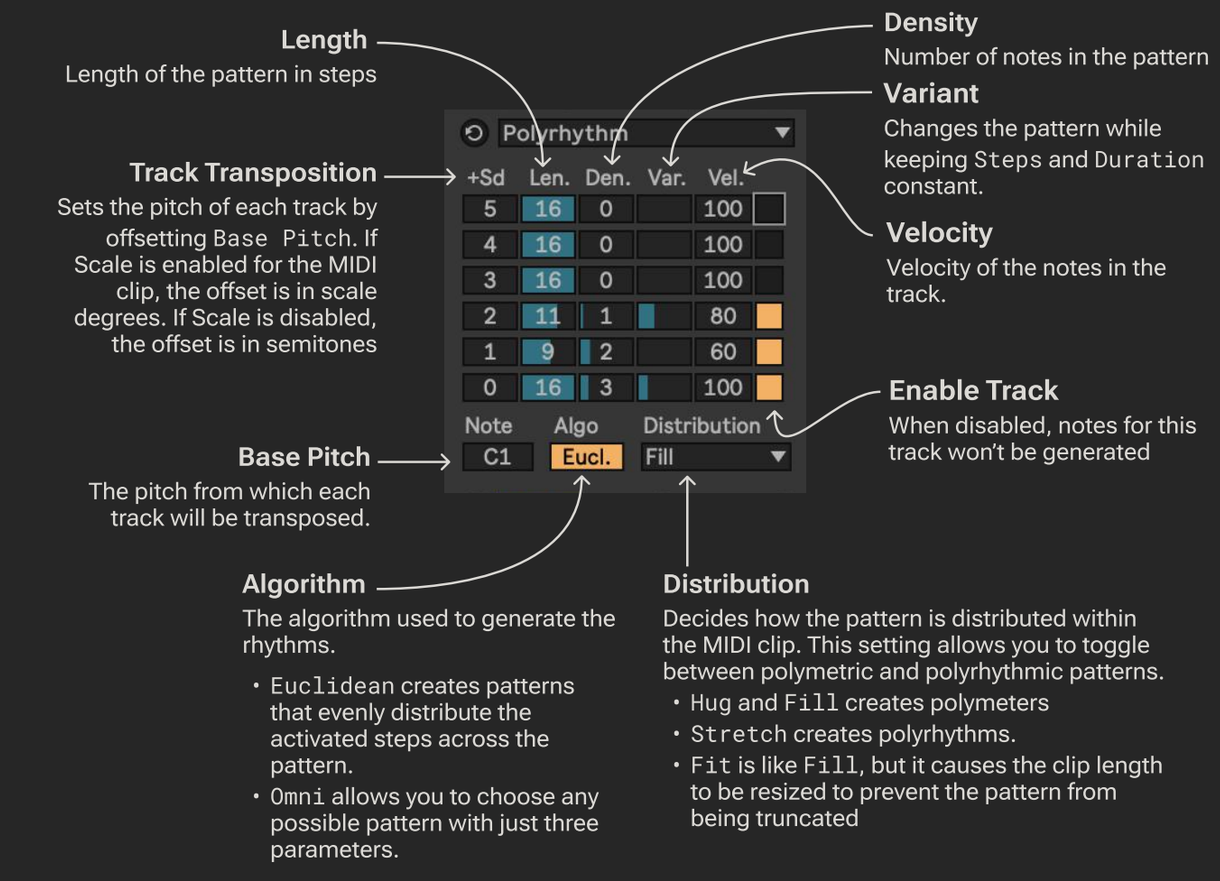


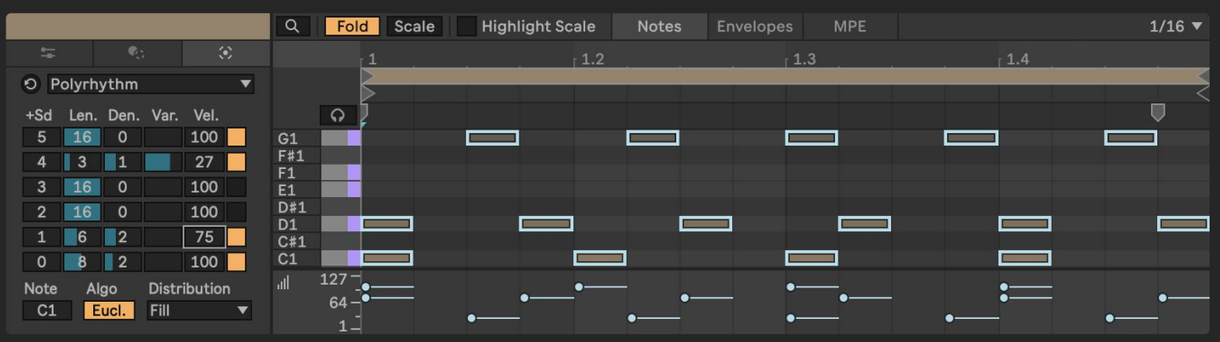
The pitch follows the shape you've created. Iter sets the number of times the function repeats over the course of the notes.

Polyrhythm Generator

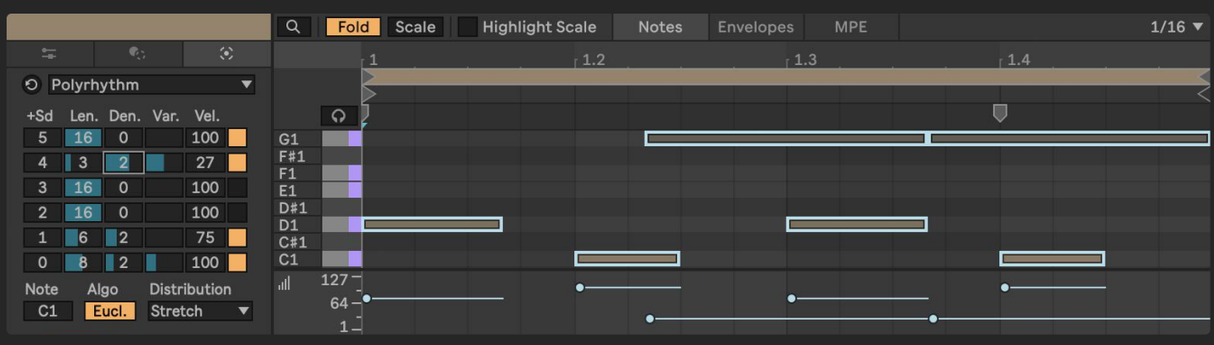
A multi-track generator for creating polymetric and polyrhythmic patterns.

This device is available through a free Ableton Pack.





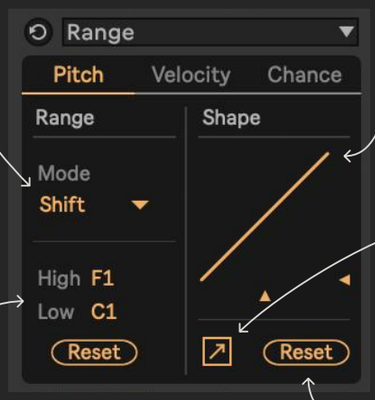
A polymetric pattern using the `Fill` distribution.



A polyrhythmmic pattern using the `Stretch` distribution.

Range Transformer

Stretch, compress, and shift the range of pitch, velocity and chance.



Mode

Changes how the `High` and `Low` parameters transform the range of values in the MIDI clip.

- `Shift`: The difference between `High` and `Low` remains fixed, and the entire range is shifted.
- `Stretch`: The range of values is stretched or compressed
- `Wrap`: Reduces the range and wrap the overflow
- `Fold`: Reduces the range and folds the overflow
- Clip: Reduces the range and clips the overflow

Shaping Function

Re-maps the values according to the function shown. Click and drag or use the sliders to modify the function.

Function Direction

This parameter controls this device's chord detection algorithm.

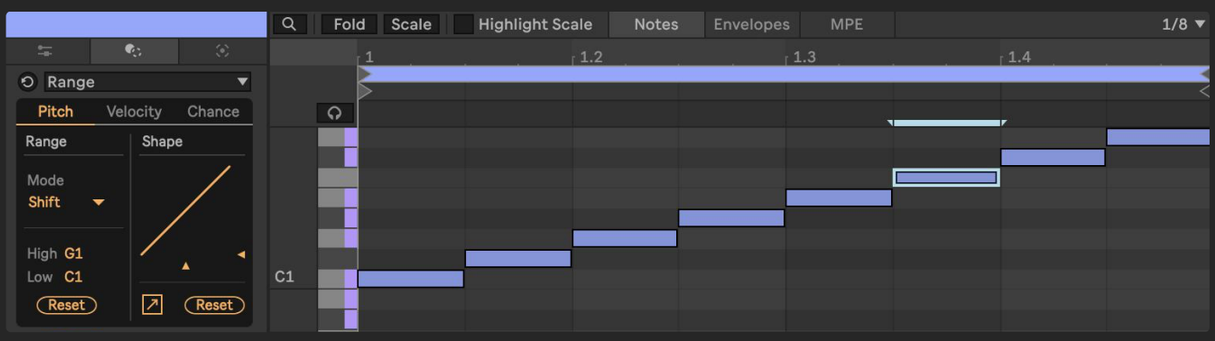
A higher value means that notes are more likely to be grouped together, resulting in fewer chords.

Range High and Low

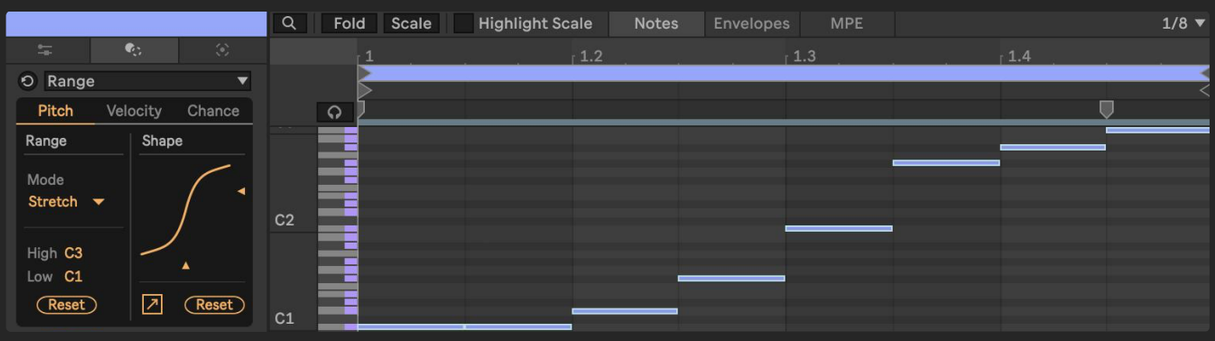
Sets the new upper and lower bound of the range of pitch, velocity, or chance values. The `Reset` button resets `High` and `Low` to the original state of the clip

Function Reset

Resets the function to the default state.



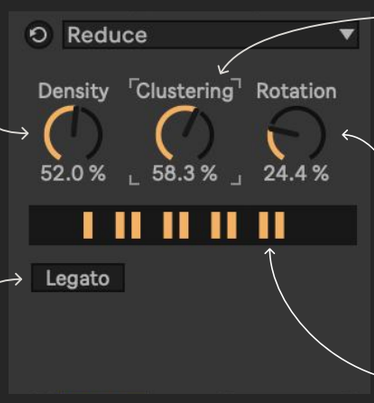
Starting with a simple staircase for the untransformed clip...



Then, stretch the clip by about an octave and apply an S-shaped curve.

Reduce Transformer

Subtract notes from a clip



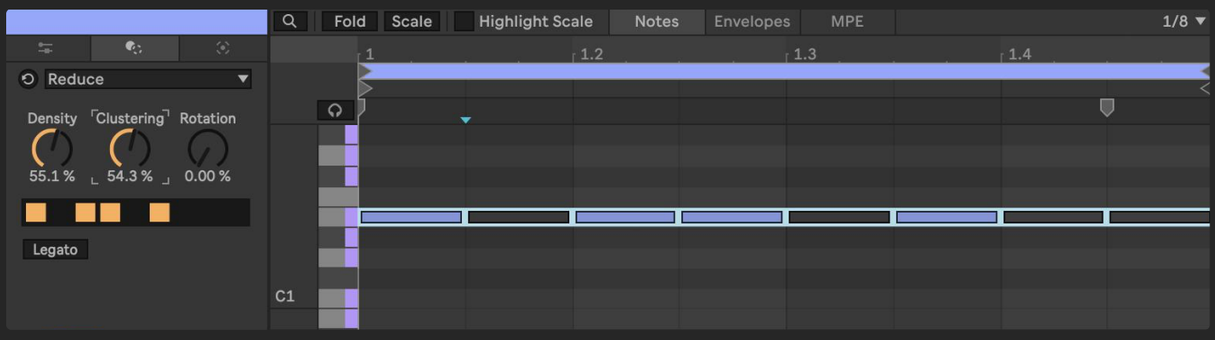
Density
Determines the number of events in the masking pattern. The masking pattern will then be used to determine which notes are muted, and which aren't.

Legato
When enabled, the duration of unmuted notes will be extended (or, in unusual cases, shorted) to end when the next unmuted note begins.

Clustering
Lower values result in an evenly-distributed euclidean pattern. Higher values result in a pattern with events grouped together.

Rotation
Shifts the events in the pattern left and right

Masking Pattern (View Only)
Displays the masking pattern that results from the Density, Clustering, and Rotation dials. This pattern will decide which notes in the MIDI clip are muted.

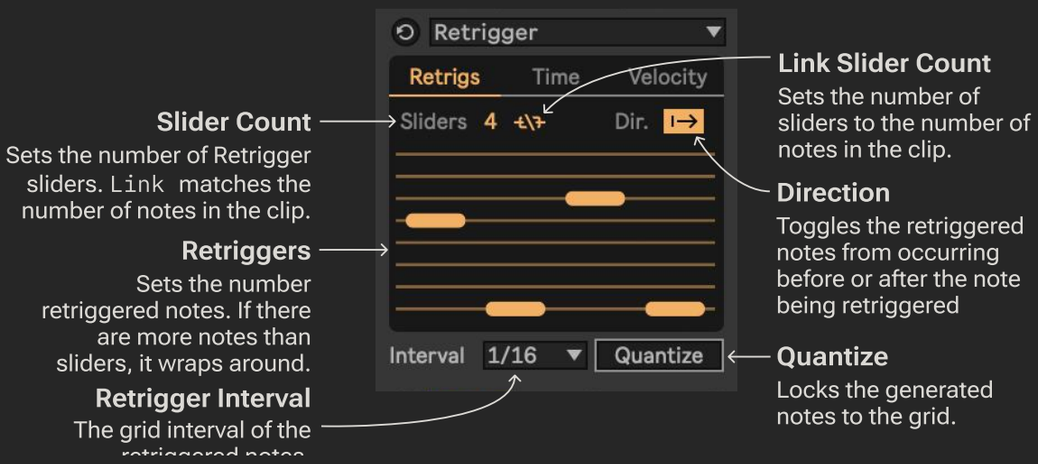


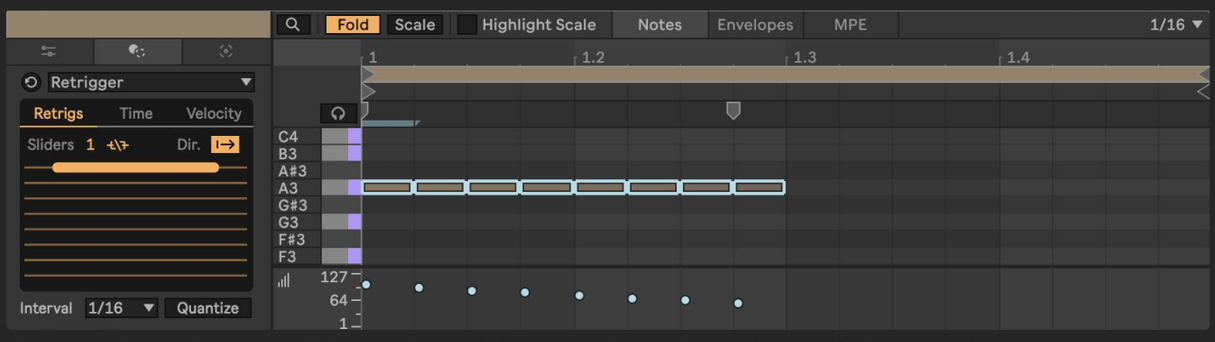
Density and clustering of about 50% keeps most of the notes toward the beginning of the clip.

Retrigger Transformer

A transformer for repeating notes.

This device is available exclusively through a free Ableton Pack.

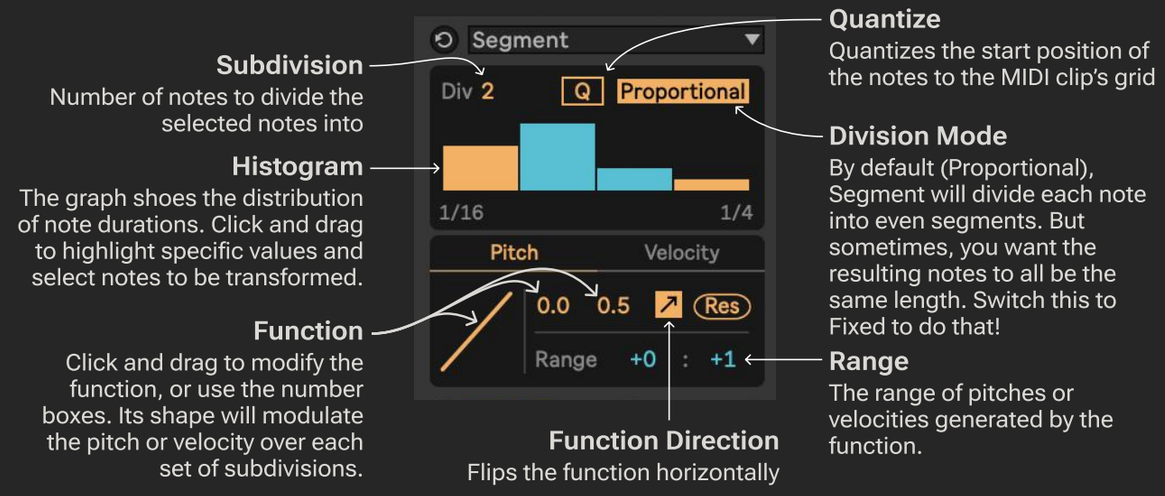


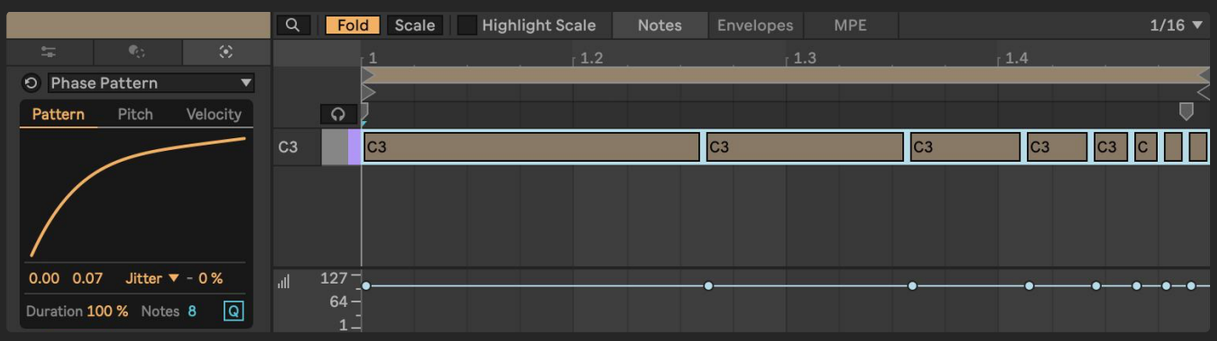


Retriggering a single note 8 times with a 16th-note retirgger interval and a falling velocity.

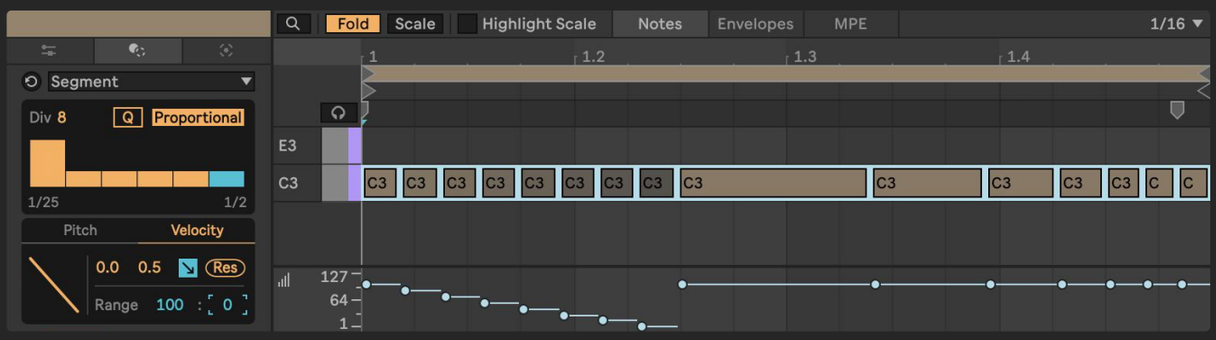
Segment Transformer

Subdivide conditionally based on note duration.





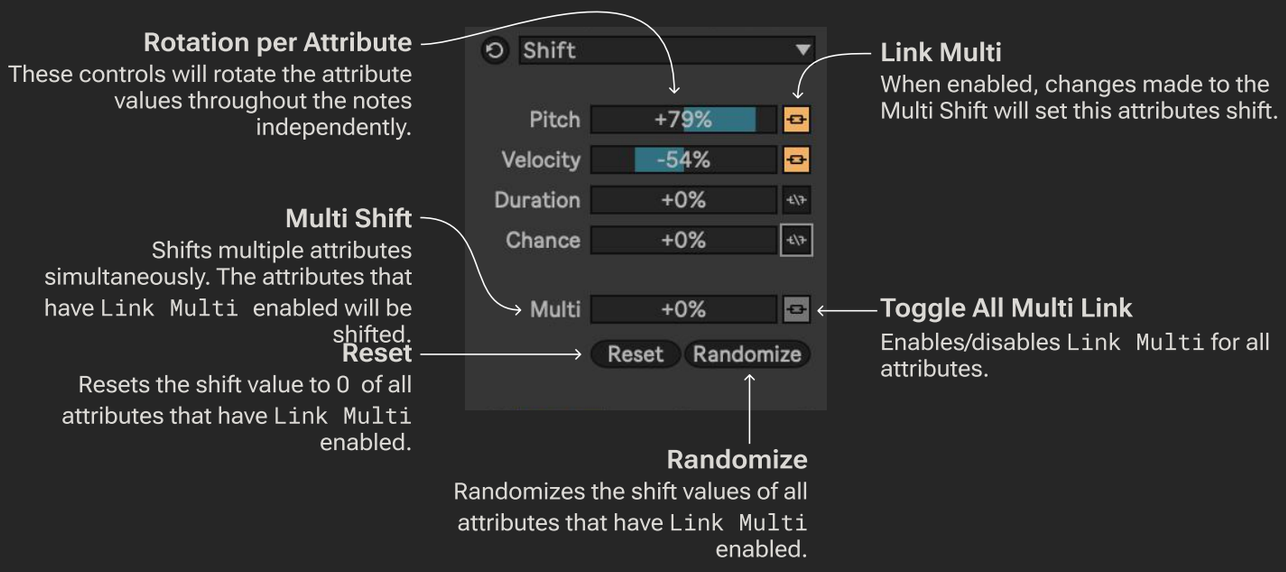
Here, we started with a 8th notes at a constant pitch of C3. Using Pattern Transform, we applied a Euclidean pattern and increased the pitch by 1 scale degree of any notes that fall into the active steps of the pattern.

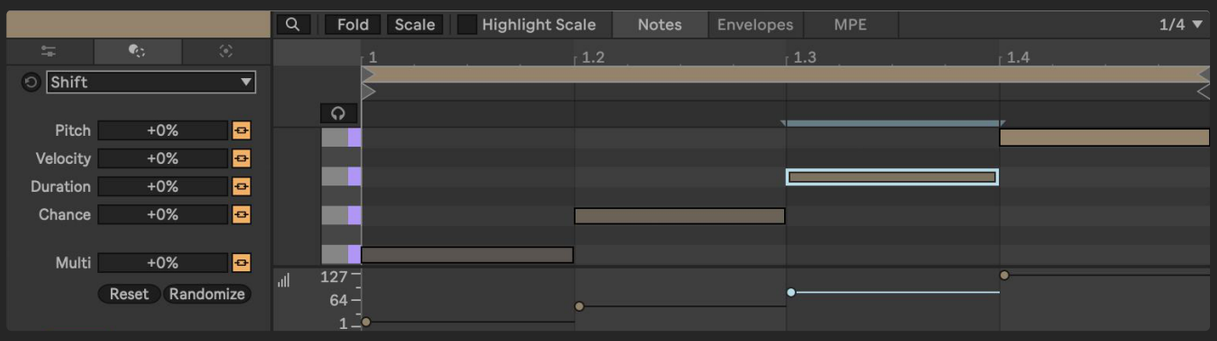


Then, we'll select the longest note note by clicking on the histogram in Segment. Segment will divide only this note into 8 segments with a declining velocity, creating an echo effect.

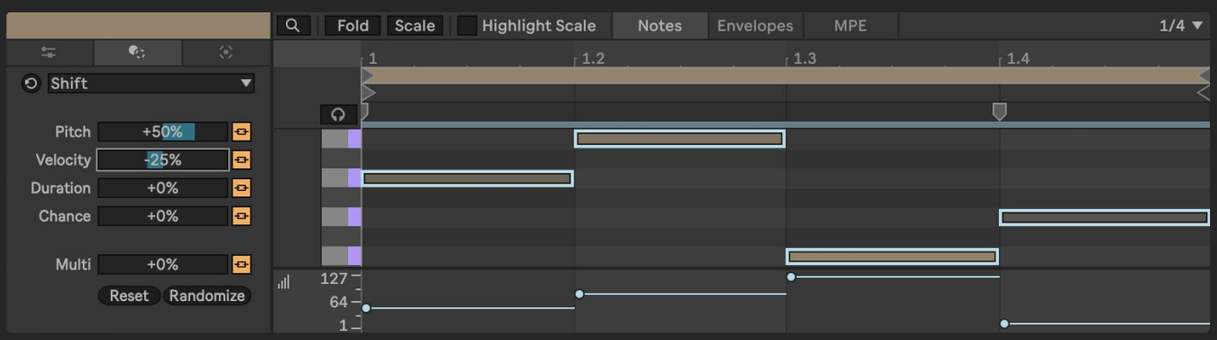
Shift Transformer

Create variation by shifting note attributes across notes.





In this original, untransformed clip, we have both a rising pitch and a rising velocity.

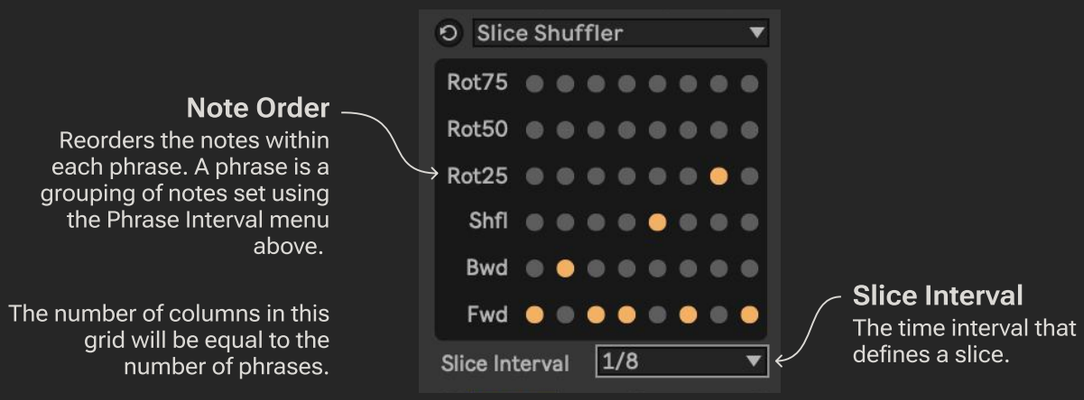


Here, with the Pitch Rotation set to 25%, the pitches have shifted rightward and wrapped around, but the velocities have not. This is because each attribute can be shifted independently of the other attributes.

Slice Shuffler Transformer

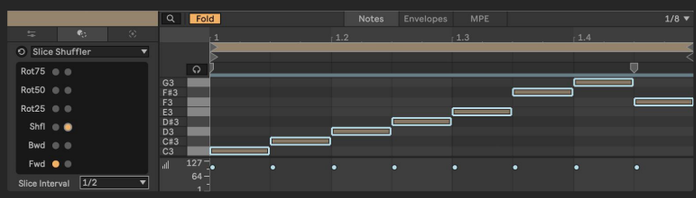
Create groupings of notes, then reorder the notes within each group.

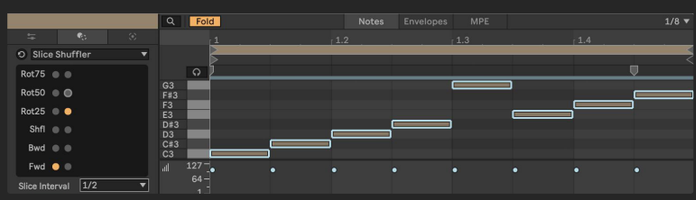
This device is available exclusively through a free Ableton Pack.

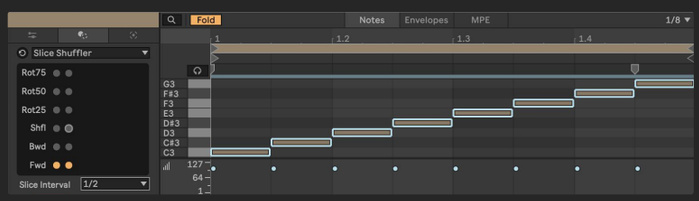


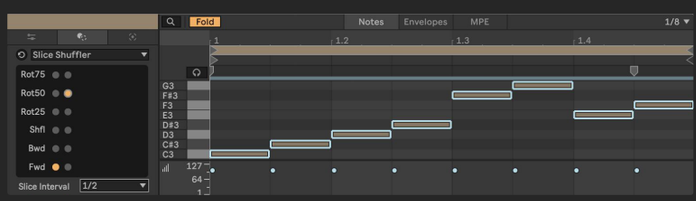
Note Orders

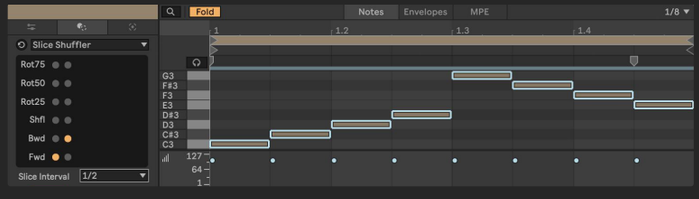
- **Fwd: Forward.** Won't reorder the notes
- **Bwd: Backward.** Reverses the note order
- **Shfl: Shuffle.** Randomized order
- **Rot25: Rotate 25%.** Shift rightward by 25%
- **Rot50: Rotate 50%.** Shift rightward by 50%
- **Rot75: Rotate75%.** Shift rightward by 75%\

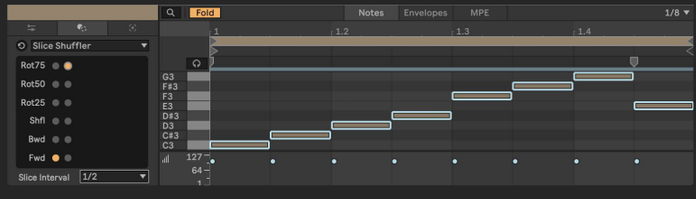








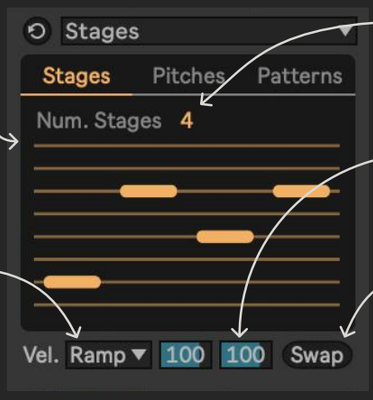




Stages Generator

A generator for punchy, Drexciyan beats and basslines

This device is available exclusively through a free Ableton Pack.



Stage Lengths
The number of notes that will be created for each stage. The total clip length is also affected by these sliders

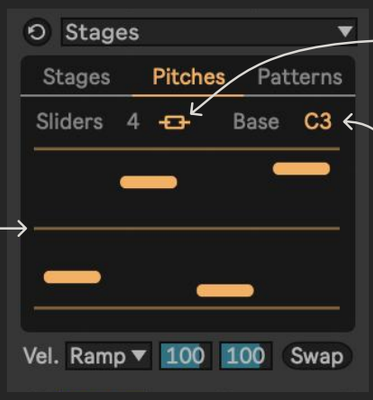
Velocity Mode
The algorithm that generates velocity values for the notes. `Ramp` makes the velocity steadily increase or decrease over the length of the stage, while `Rand`. randomizes the velocity values.

Number of Stages
Changes the number of Stages and the number of Stage Length sliders

Velocity Range
The lower and upper bounds of the velocity range.

Swap / Refresh
Depends upon Velocity Mode.

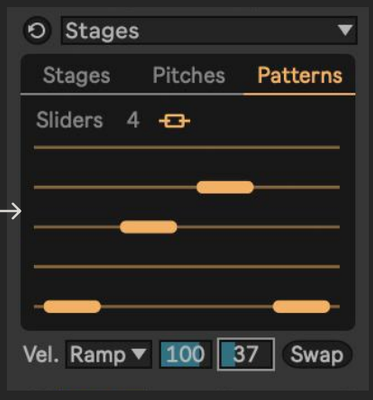
- In `Ramp` mode, this button swaps the upper and lower bound values.
- In `Rand` mode, this button regenerates velocities with new random values.



Link Slider Count
Links the number of sliders to the number of Stages

Base Pitch
Sets the default stage pitch. The sliders offset each stage's pitch relative to this default.

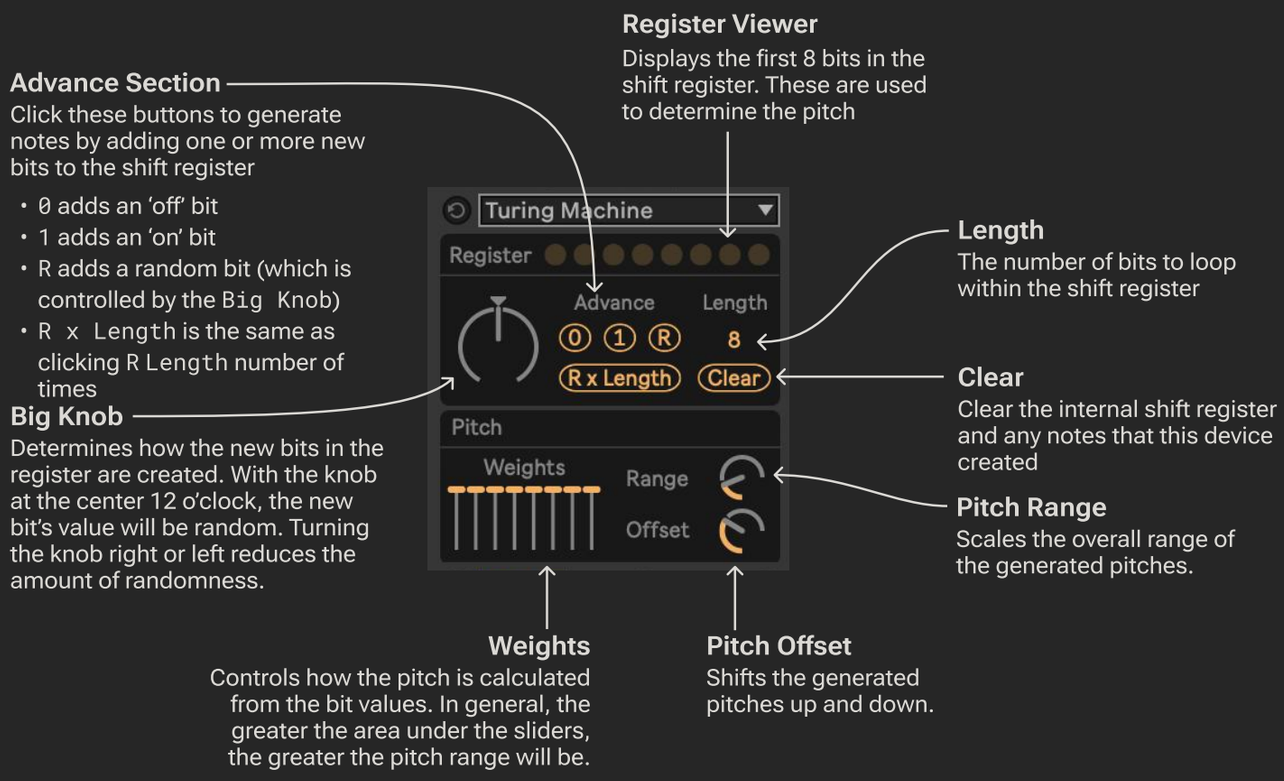
Stages Pitches
Sets the pitch of each stage relative to the base pitch (+/- 1 octave)

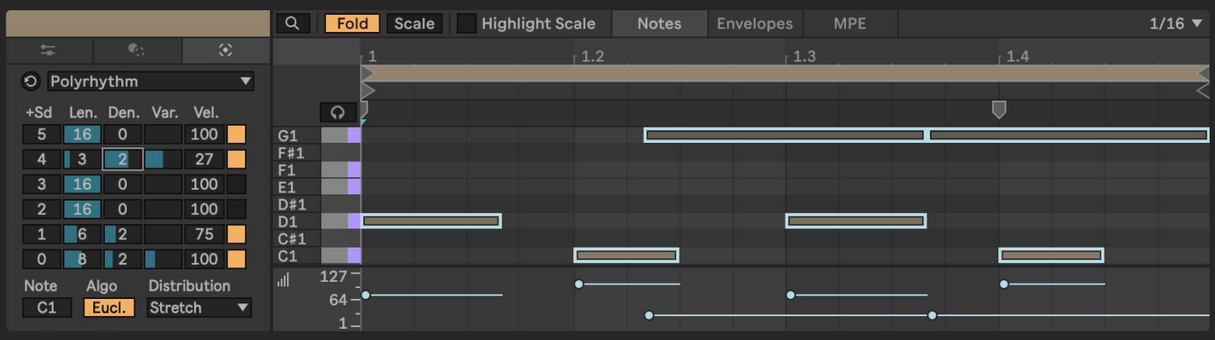


State Patterns
Chooses a rhythmic pattern for each stage.

Turing Machine Generator

A generator based on the Music Thing Modular Turing Machine Eurorack sequencer module.





Click the buttons in the Advance section to build the clip. Clicking 0, 1, or R will build the pattern 1 bit at a time. Clicking R x Length builds the entire pattern from Length bits.