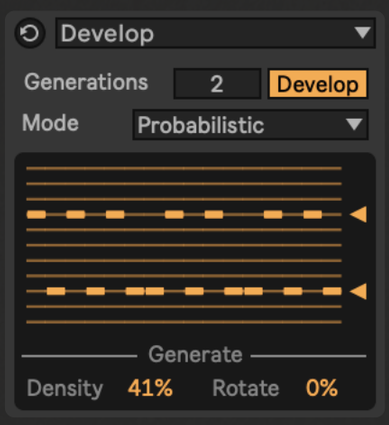
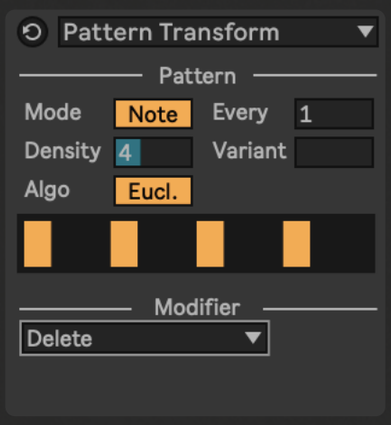
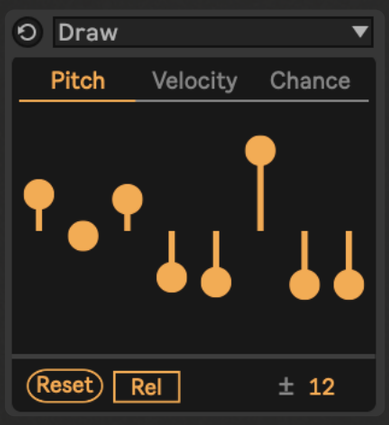
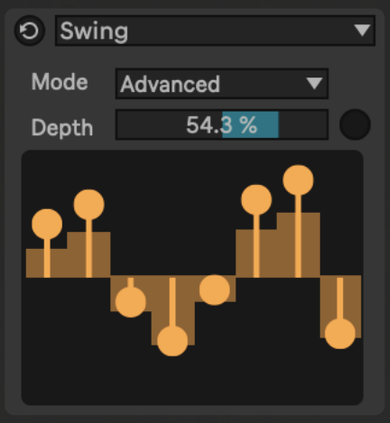
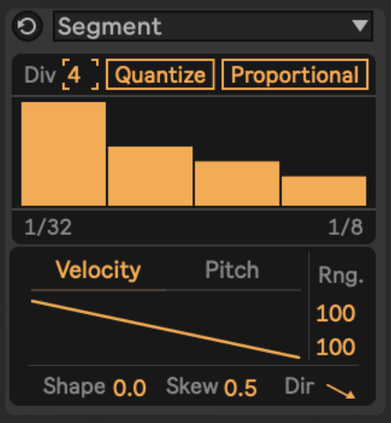
Philip Meyer MIDI Tools

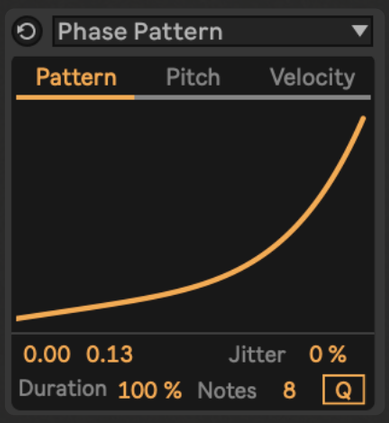












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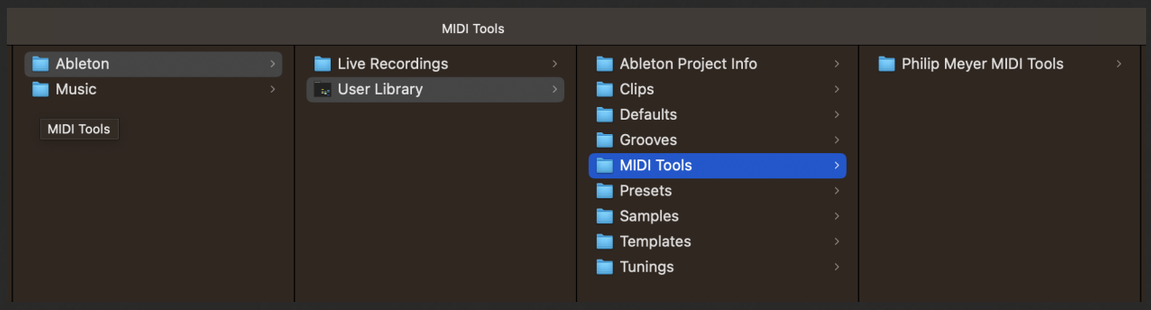
Philip Meyer MIDI Tools

Installation

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!



Questions, Feedback, Ideas

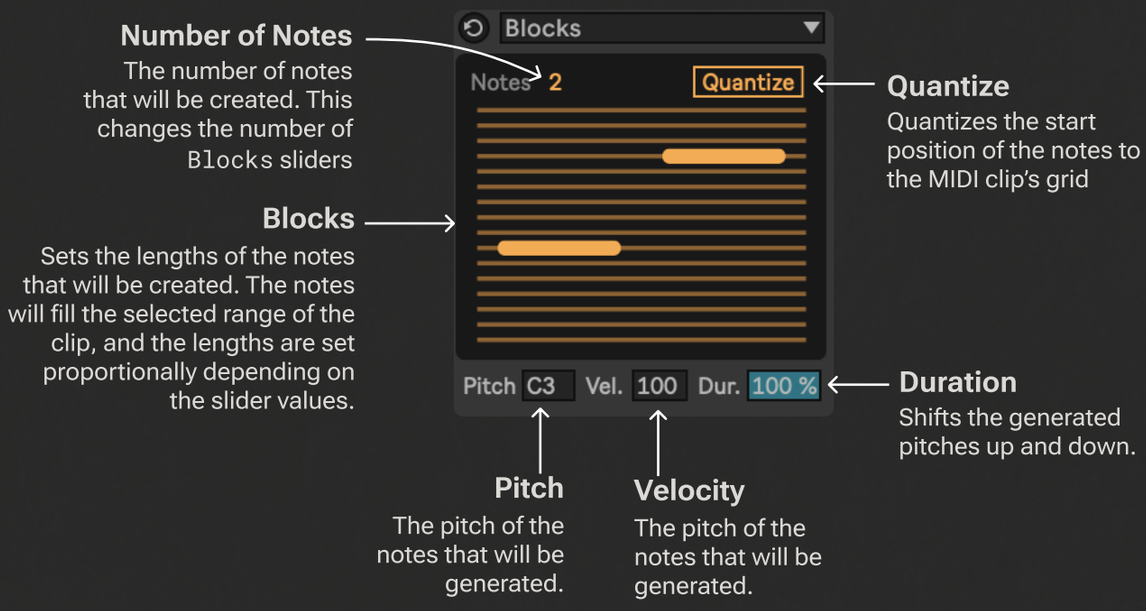
Join Rhizomic Sequencing server on Discord: **https://bit.ly/rhizomic**

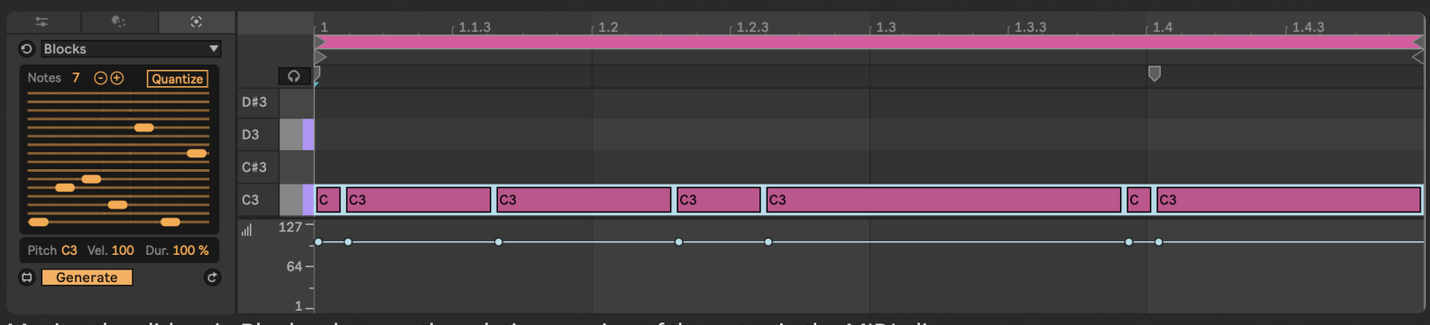
Additional Resources

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

Blocks Generator

A generator proportionally divides a clip to make rhythms. Inspired by Sam Tarakajian and Alex Van Gils' Nestup, a scripting language for creating nested tuplets and other complex rhythms.



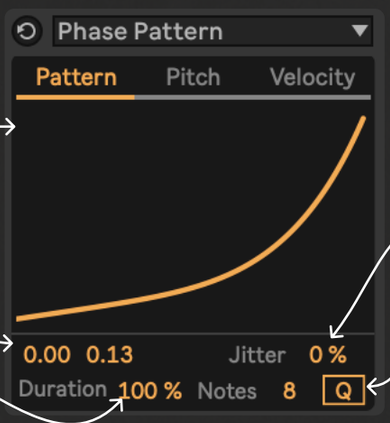


Moving the sliders in Blocks changes the relative spacing of the notes in the MIDI clip.

Phase Pattern Generator

A generator that creates rhythms by bending time.

Pattern Tab

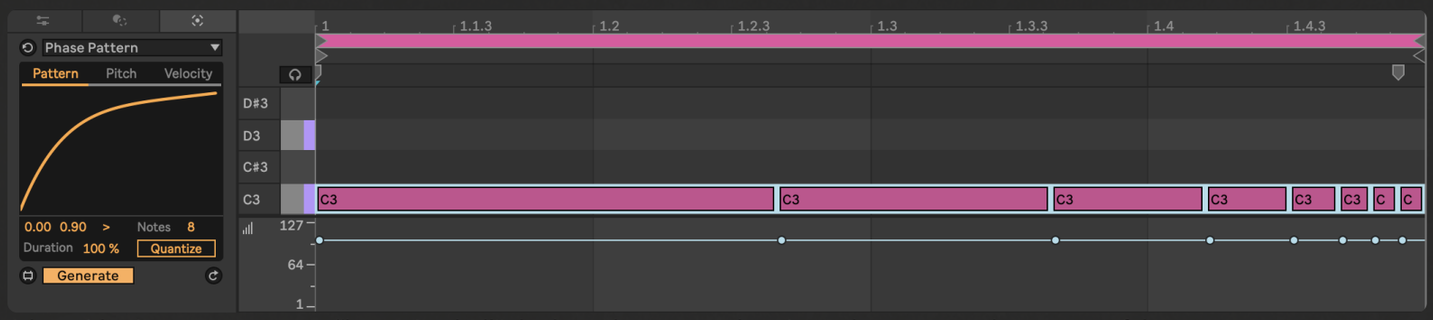


Function
Click and drag to modify the function, or use the number boxes. Its shape will control the note position. Where the curve is more steep, the note spacing will be wider.

Duration
Scales the duration of the notes without changing their starting positions

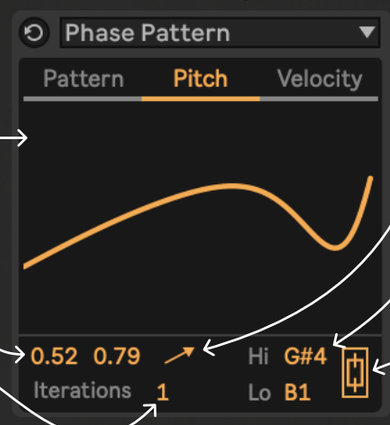
Number of Notes
Number of notes to create.

Quantize
Quantizes the note start positions to the MIDI clip's grid.



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

Pitch/Velocity Tabs



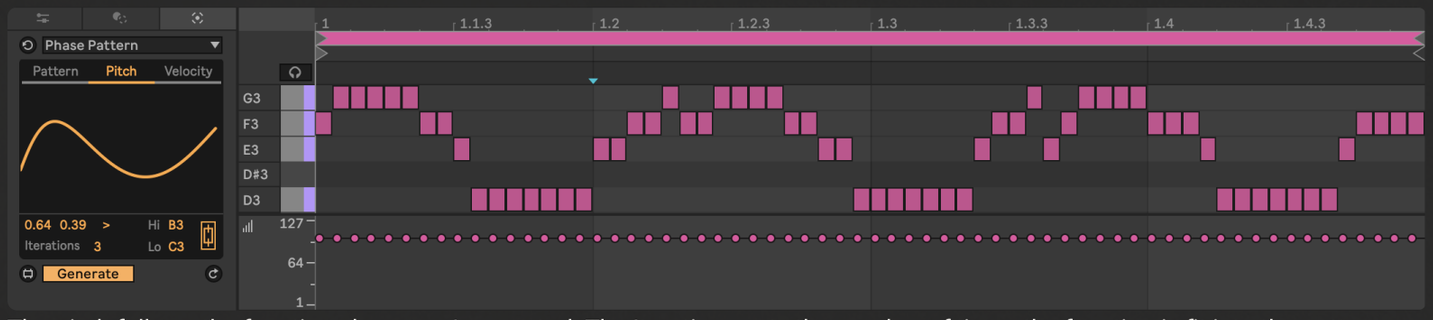
Function
Click and drag to modify the function, or use the number boxes. Its shape will control the pitch or velocity.

Iterations
The number of times the pattern should loop over the course of the notes.

Function Direction
Flips the function horizontally

Range
The range of pitches or velocities generated by the function

Link Range
Link the upper and lower bounds of the range, creating a static value



The pitch follows the function shape you've created. The Iterations sets the number of times the function is fit into the pattern.

Turing Machine Generator

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

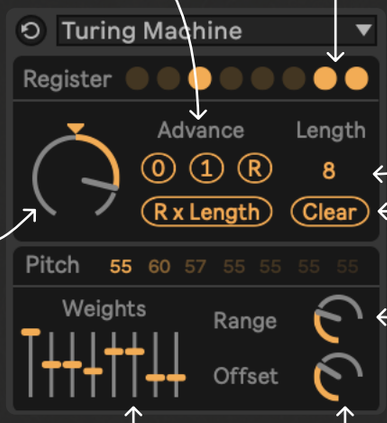
Register Viewer

Displays the first 8 bits in the shift register. These are used to determine the pitch

Advance Section

Click these buttons to generate notes by adding one or more new bits to the shift register

- `0` adds an 'off' bit
- `1` adds an 'on' bit
- `R` adds a random bit (which is controlled by the `Big Knob`)
- `R x Length` is the same as clicking `R` `Length` number of times



Length

The number of bits to loop within the shift register

Clear

Clear the internal shift register and any notes that this device created

Big Knob

Determines how the new bits in the register are created. With the knob at the center 12 o'clock, the new bit's value will be random. Turning the knob right or left reduces the amount of randomness.

Pitch Range

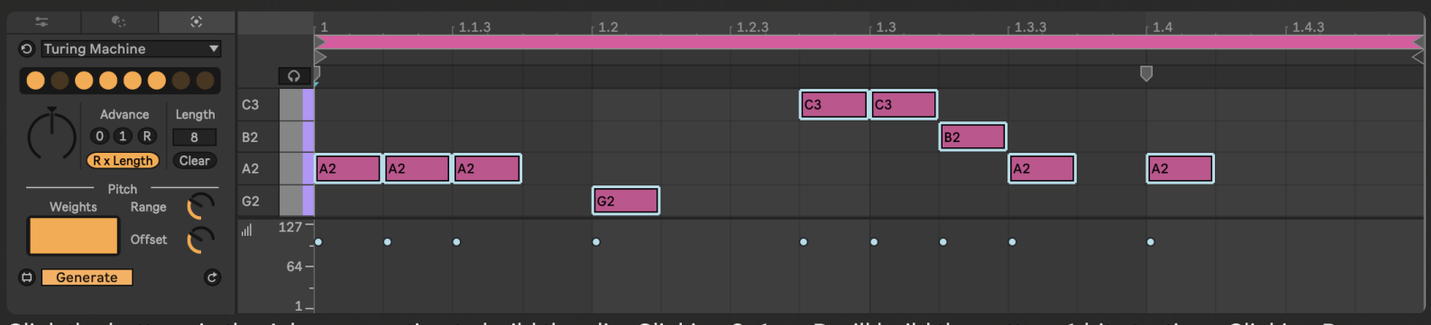
Scales the overall range of the generated pitches.

Weights

Controls how the pitch is calculated from the bit values. In general, the greater the area under the sliders, the greater the pitch range will be.

Pitch Offset

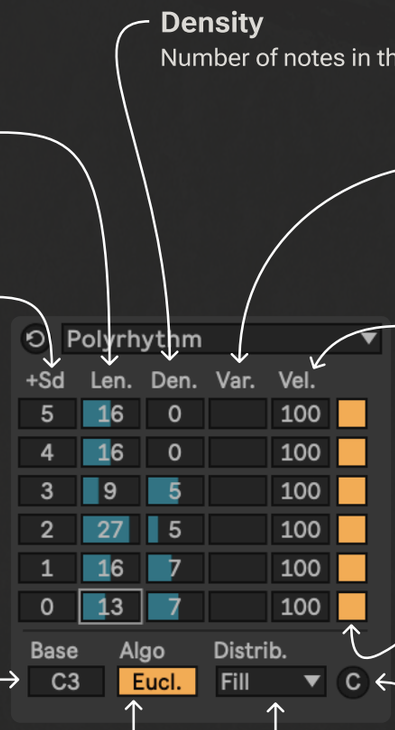
Shifts the generated pitches up and down.



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.

Polyrhythm Generator

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



Density
Number of notes in the pattern

Length
Length of the pattern in steps

Variant
Changes the pattern while keeping `Steps` and `Duration` constant.

Track Transposition
Sets the pitch of each track by offsetting `Base Pitch`. If Scale is enabled for the MIDI clip, the offset is in scale degrees. If Scale is disabled, the offset is in semitones

Velocity
Velocity of the notes in the track.

Enable Track
When disabled, notes for this track won't be generated

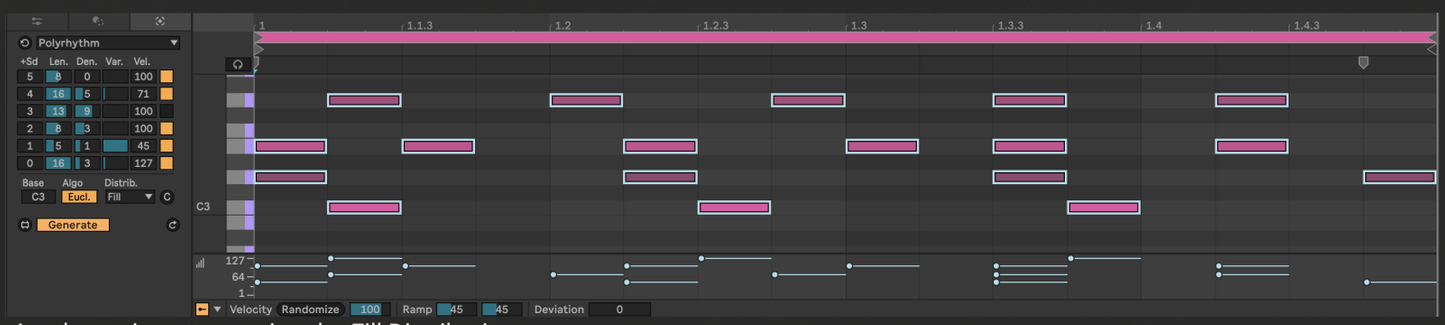
Base Pitch
The pitch from which each track will be transposed.

Clear
Resets all of the tracks to a default state.

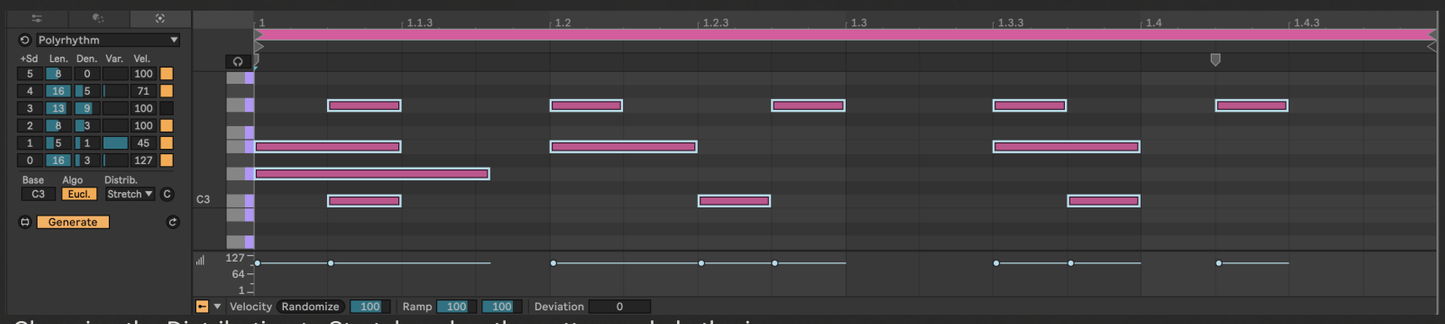
Algorithm
The algorithm used to generate the rhythms.

`Euclidean` creates patterns that evenly distribute the activated steps across the pattern. `Omni` allows you to choose any possible pattern with just three parameters.

Distribution
Decides how the pattern is distributed within the MIDI clip. This setting allows you to toggle between polymetric and polyrhythmic patterns. `Hug` and `Fill` will give polymeters, while `Stretch` results in polyrhythms



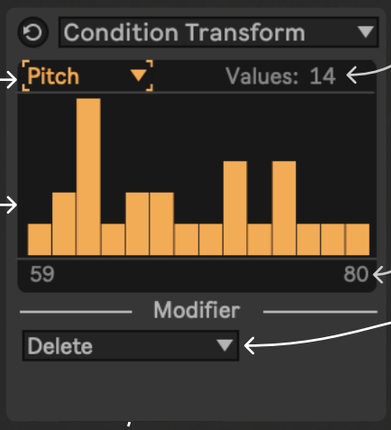
A polymetric pattern using the Fill Distribution



Changing the Distribution to Stretch makes the pattern polyrhythmic

Condition Transform Transformer

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



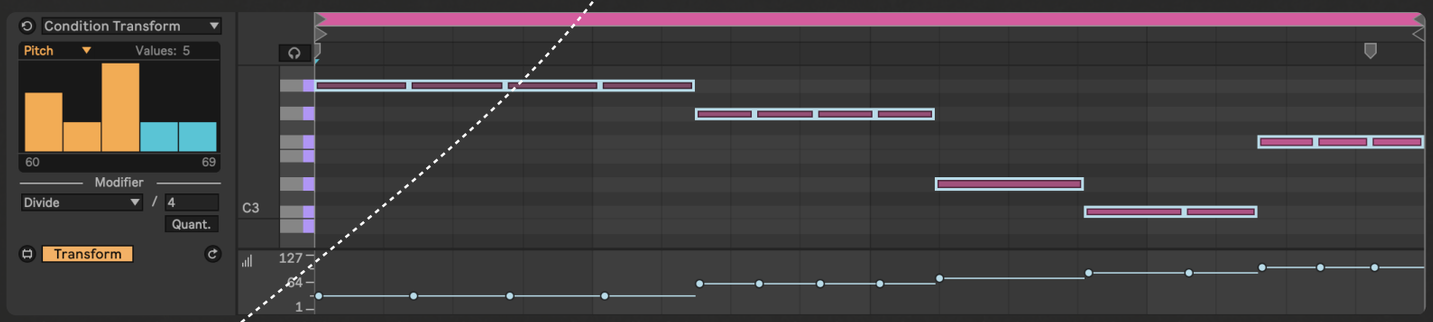
Attribute
The attribute to the analyzed.

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

Bounds (View Only)
The maximum and minimum values in the range

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

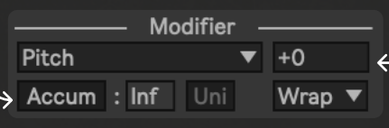


In this example, we've used the Pitch attribute to select all of the notes that have the two highest pitches. Then, we subdivided them by 4.

Modifiers

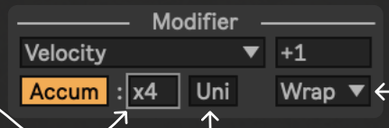
Increment Modifiers

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

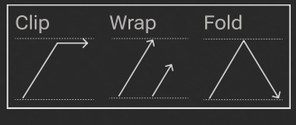


Iterations
Number of times to add to the accumulation total before clipping, wrapping, or folding.

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

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

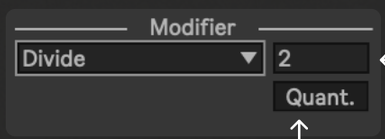
Overflow Mode
Controls how values that cross the maximum or minimum are handled.



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

Divide Modifier

Divides the selected notes.

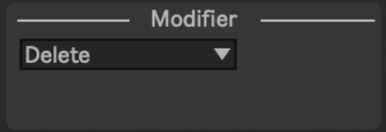


Divisions
Number of notes to divide the selected note into

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

Delete Modifier

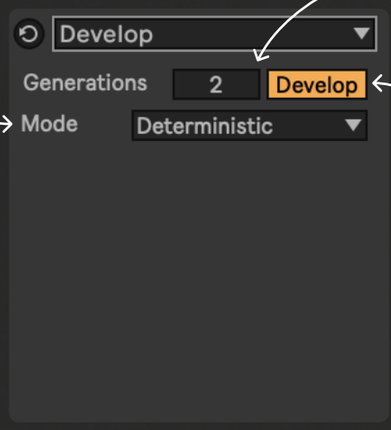
Deletes the selected notes.



Develop Transformer

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

Deterministic



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.

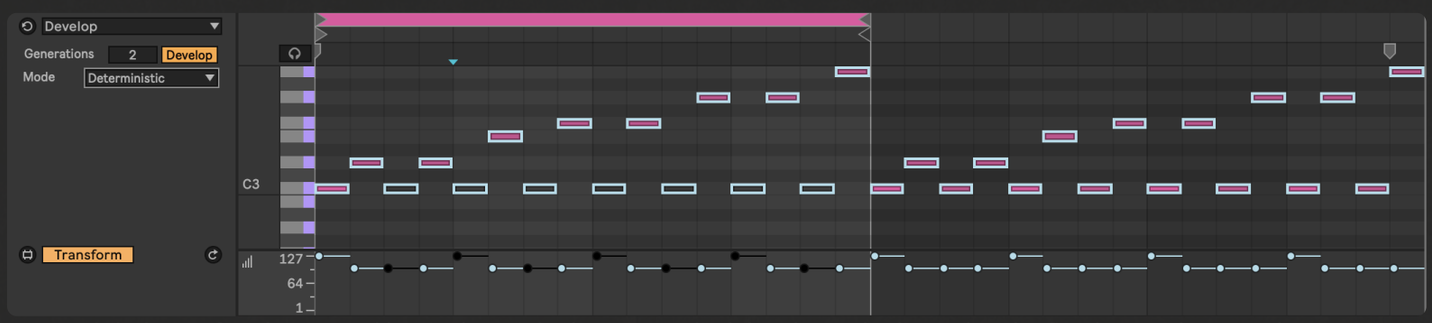
Generations

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

Build Direction

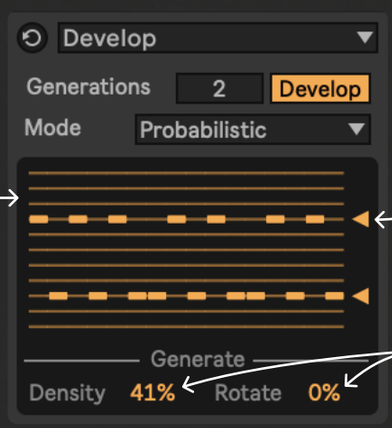
`Develop` starts with a sparse pattern and builds to the complete one

`Degrade` is the opposite!



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.

Probabilistic



Probabilities

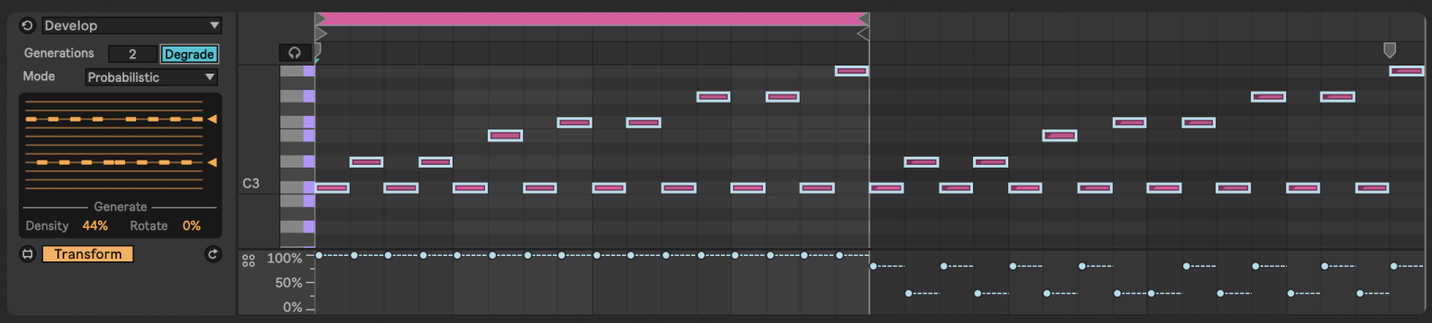
Sets the chance for each note at the 'most sparse' state, depending on the `Build Direction`. At the pattern's 'least sparse' state, the chance will be 100% for all notes.

Range Control

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

Generate Density and Rotation

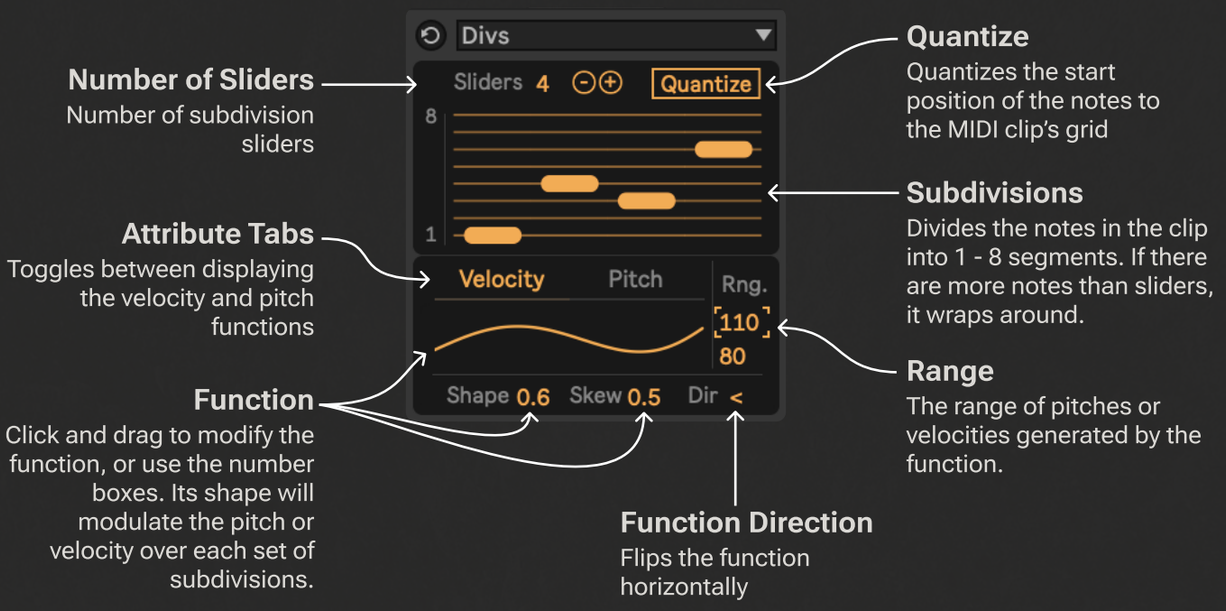
Modifying these parameter overwrites the slides with a Euclidean pattern



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.



Number of Sliders
Number of subdivision sliders

Attribute Tabs
Toggles between displaying the velocity and pitch functions

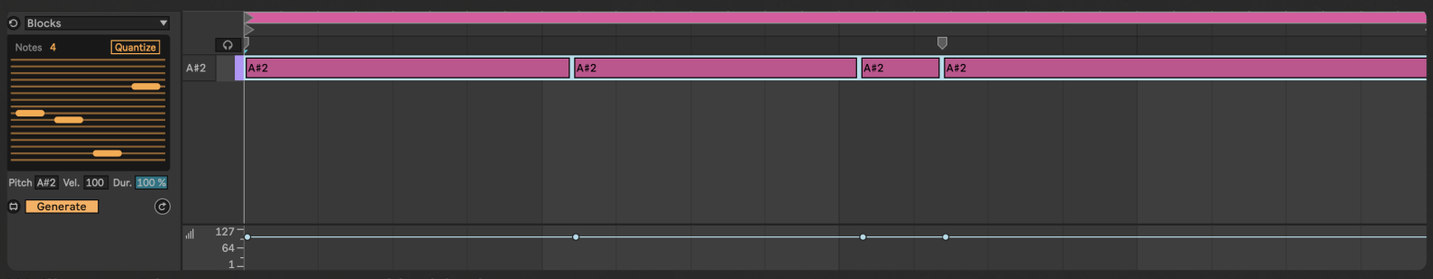
Function
Click and drag to modify the function, or use the number boxes. Its shape will modulate the pitch or velocity over each set of subdivisions.

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

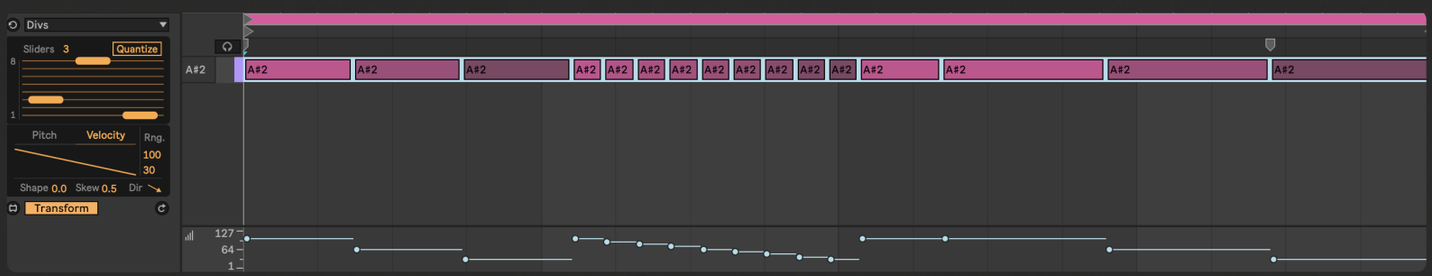
Subdivisions
Divides the notes in the clip into 1 - 8 segments. If there are more notes than sliders, it wraps around.

Range
The range of pitches or velocities generated by the function.

Function Direction
Flips the function horizontally



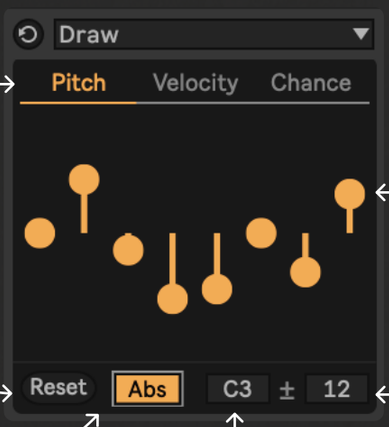
We'll start with a pattern generated by blocks.



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.



Attribute
Choose a note attribute to edit.

Reset
Reset all the sliders back to center

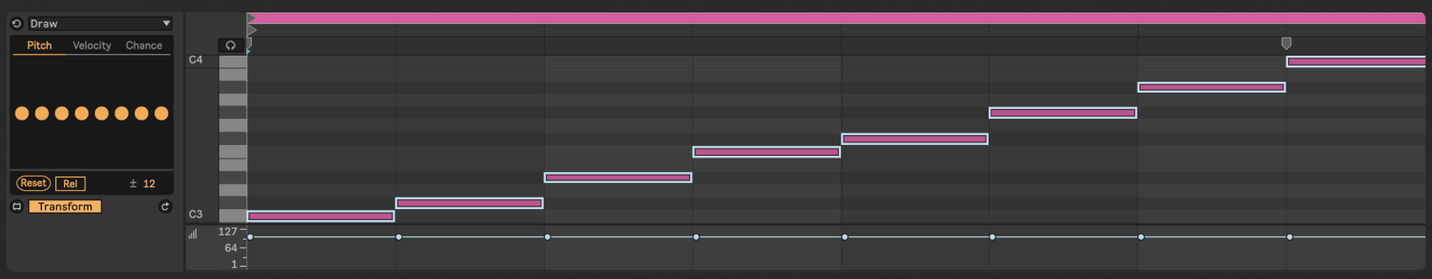
Values
Click and drag to change the values of the notes in the MIDI clip.

Range
Controls the amount that the sliders will influence the attribute value. As shown here, the sliders will be able to set values from C4 (+12) to C2 (-12)

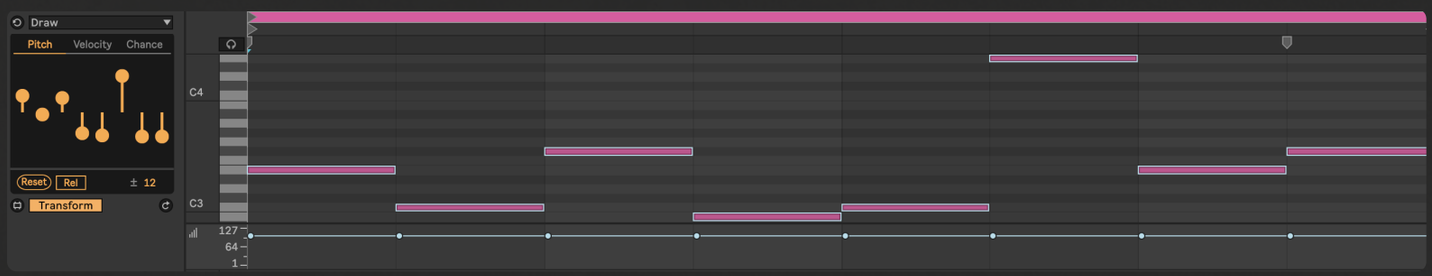
Offset Mode

- `Rel` means that each note's value will be added or subtracted from.
- `Abs` means that note's value will be overwritten with one that is relative to a center point that you set

Center Value
Applies to `Abs` mode only. The value at the middle of the slider range.



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.

Pattern Transform Transformer

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

Advance Mode

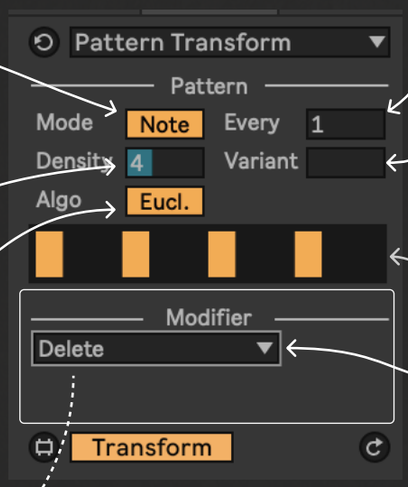
Determines whether the pattern's steps are determined by a count of notes (`Note`) or an interval the clip's grid (`Grid`)

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 the size of each step. In `Note` mode, this is a number of notes. In `Grid` mode, it's a timing interval

Variant

Rearranges the active steps.

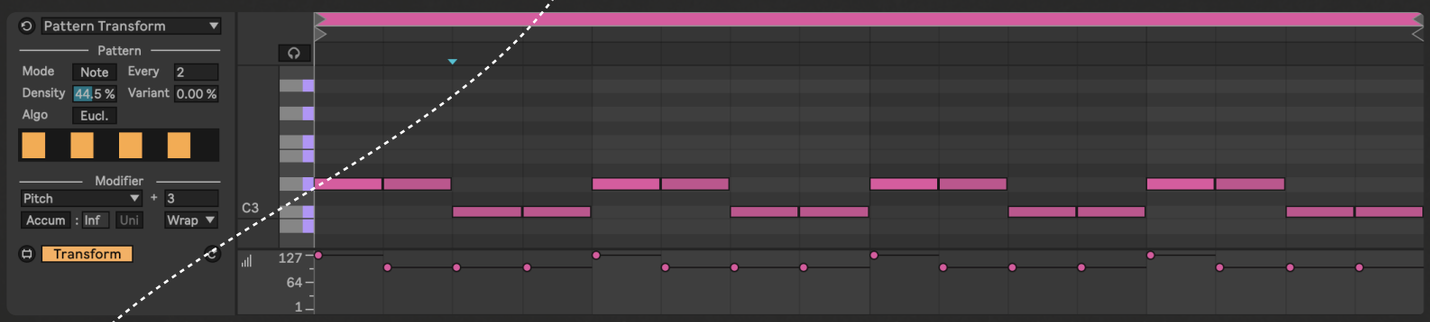
- `Eucl.` mode: rotates the pattern.
- `Omni` mode: selects from among all possible patterns for the density.

Pattern (View Only)

The pattern you've created.

Modifier

The algorithm that will be used to transform the selected notes

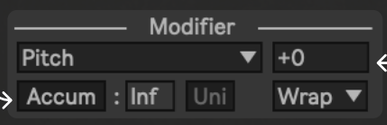


Here, we started with a 16th notes at a constant pitch of C3. Using Pattern Transform, we applied a Euclidean pattern and increased the pitch by 3 of any notes that fall into the active steps of the pattern.

Modifiers

Increment Modifiers

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

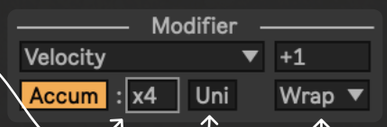


Accumulate

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.

Polarity

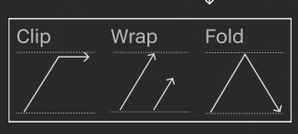
Sets the maximum and minimum for the accumulation value.*

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

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

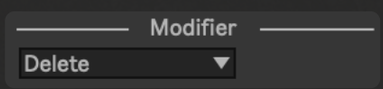
Overflow Mode

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



Delete Modifier

Deletes the selected notes.

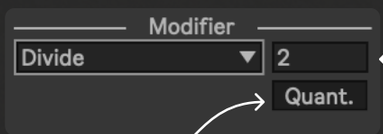


Fuse Modifier

Joins the selected notes that fall within the pattern step

Divide Modifier

Divides the selected notes.



Divisions

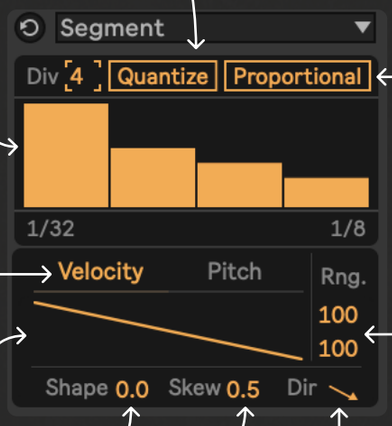
Number of notes to divide the selected note into

Quantize

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

Segment Transformer

Subdivide conditionally based on note duration.



Quantize

Quantizes the start position of the notes to the MIDI clip's grid

Histogram

The graph shoes the distribution of note durations. Click and drag to highlight specific values and select notes to be transformed.

Division Mode

By default (`Proportional`), Segment will divide each note into even segments. But sometimes, you want the resulting notes to all be the same length. Switch this to `Fixed` to do that!

Attribute Tabs

Toggles between displaying the velocity and pitch functions

Range

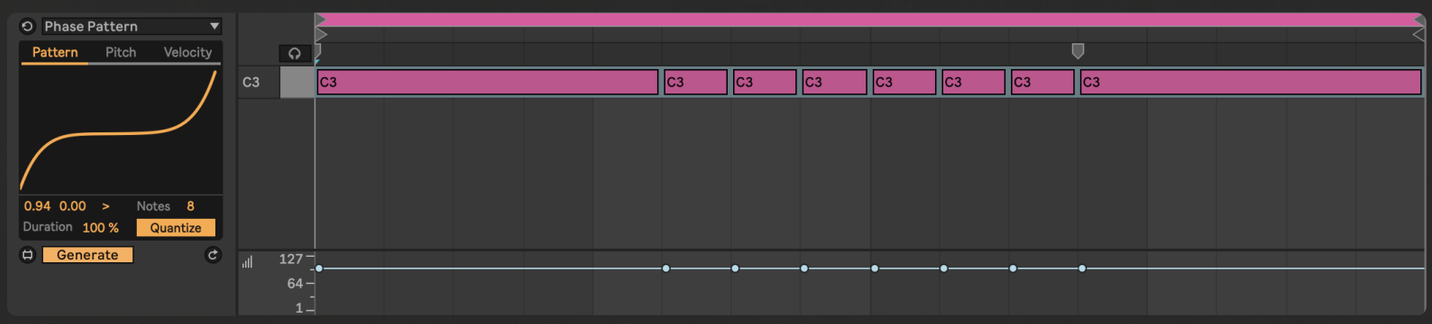
The range of pitches or velocities generated by the function.

Function

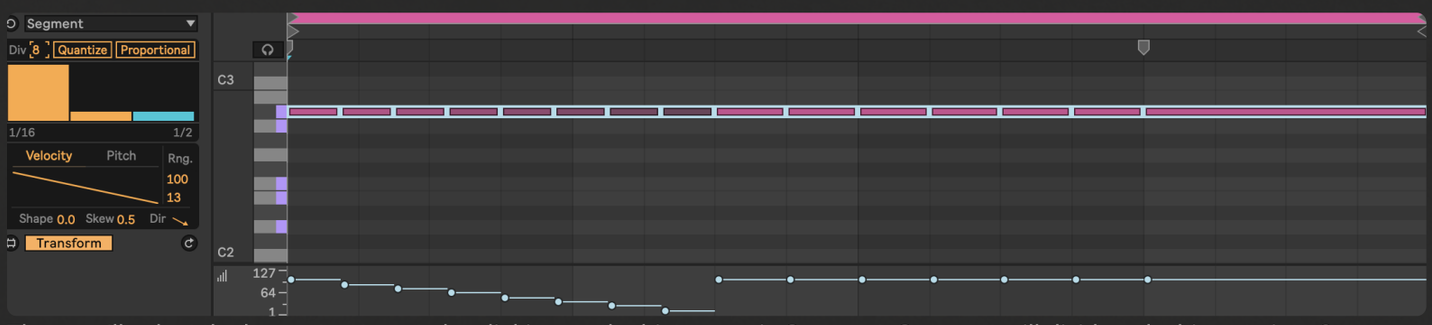
Click and drag to modify the function, or use the number boxes. Its shape will modulate the pitch or velocity over each set of subdivisions.

Function Direction

Flips the function horizontally



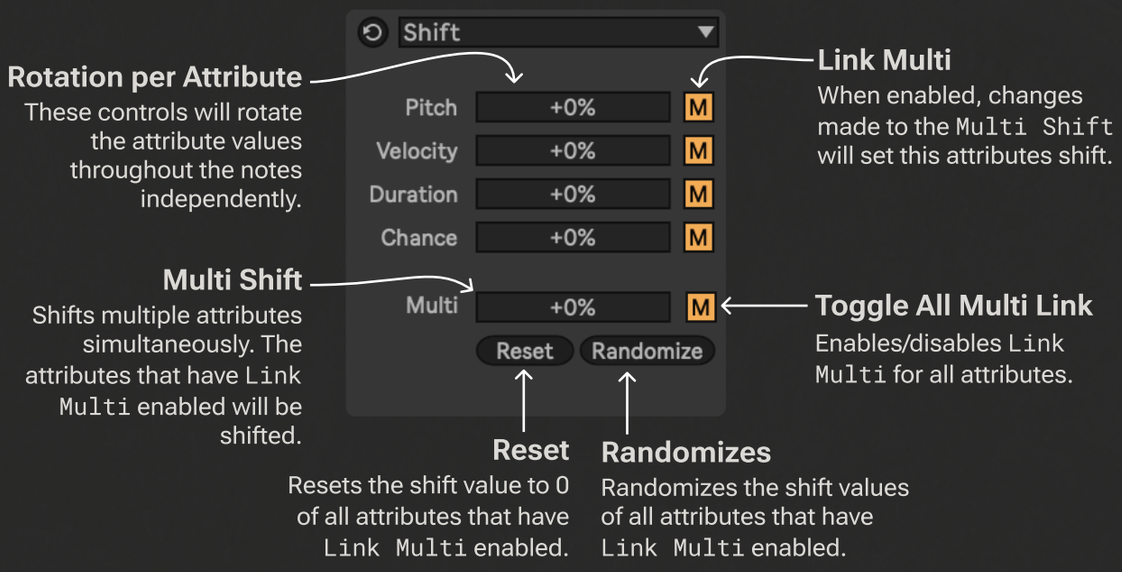
We'll start with a quantized pattern generated by Phase Pattern.

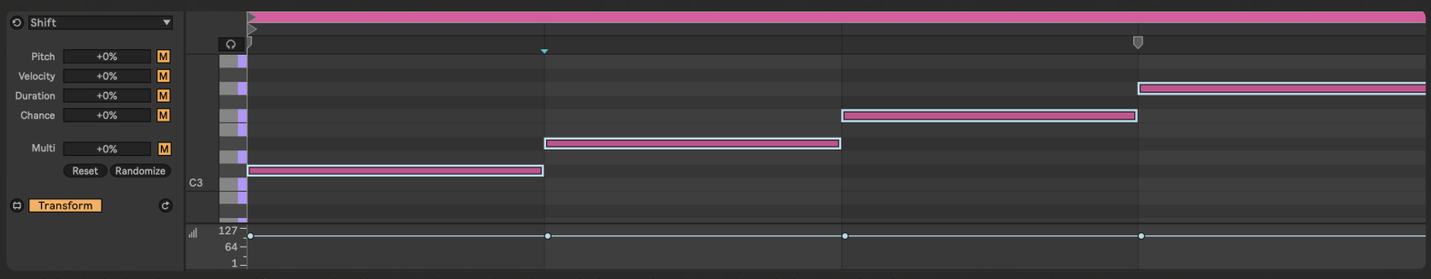


Then, we'll select the longest note note by clicking on the histogram in Segment. Segment will divide only this note into 8 segments with a declining velocity, creating an echo effect.

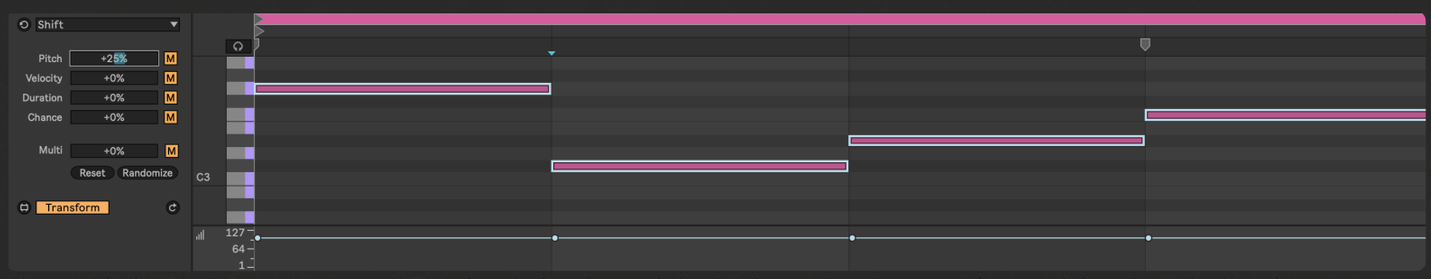
Shift Transformer

Subidivide a list of notes.





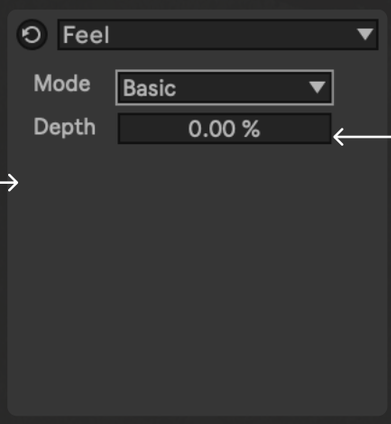
In this original, untransformed clip, we have both a rising pitch and a rising velocity.



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!

Feel Transformer

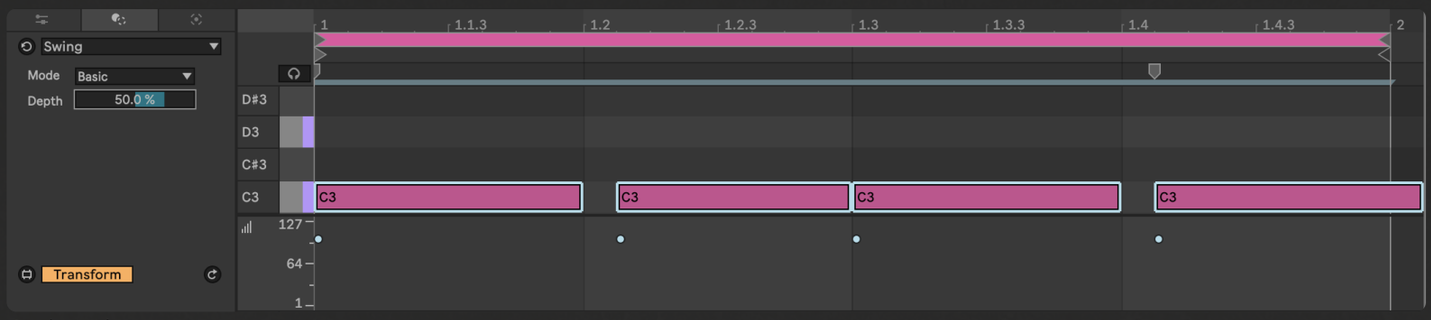
A transformer for creating swing, grooves, and microtiming



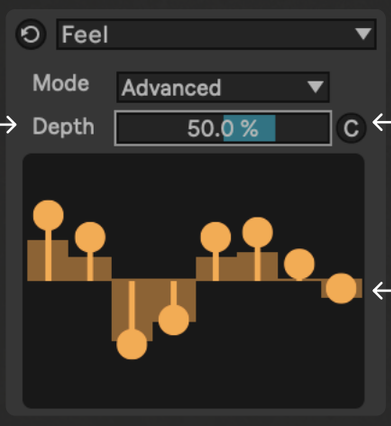
Swing Depth
Amount of swing to apply to the pattern. Swing is applied using the clip's grid. Positive values shift every second note back, negative values shift them forward

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.



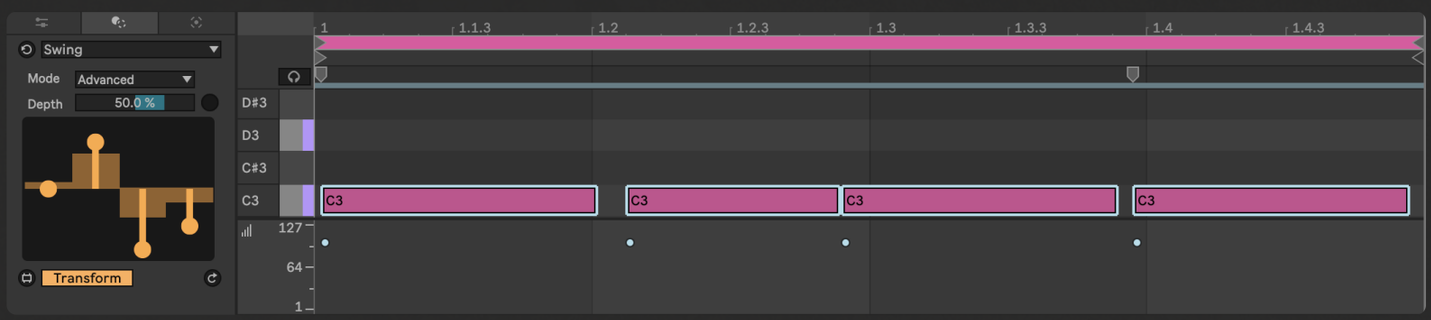
Basic swing



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

Clear Microtiming
Sets all `Microtiming` sliders to 0.

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`



Advanced swing