Heap MIDI Tools 1 Bundle
By Heaps of Bleeps

Product Manual

Introduction

This pack of 6 MIDI transformation tools focuses on rhythmic and melodic experimentation. The different tools can help you unlock polyrhythmic, polytempic, non dyadic, and generative rhythms and melodies from your existing rhythms and melodies.

If you ordered just 1 tool, scroll down to your tool.

Note: Individual descriptions of each parameter of all of these tools can be read in Live's info view by clicking the "i" button on the bottom left corner of the screen to open the info view and then mousing over the parameters on the device itself to display the descriptions.

Contents

"Weird" Tools

There are 4 different tools that have the word "Weird" in them, each of these tools helps you work with polyrhythmic, tuplet, polymetric, and non dyadic grids. These tools have very similar interfaces and are meant to be used together.

Weird Tools Shared Parameters:

Each of the "Weird" tools works with customizable time values set in the top half of the devices. The different tools will perform their various functions with this time value.

You generate these values by setting the "Beat Unit"parameter and then using math to alter it. The Beat Unit can be set with fixed time values, or to Live's grid (default). You can then alter this "Beat Unit" with 2 different modes.

To get polyrhythmic, polymetric, or tuplet time values, use polyrhythm mode. This allows you to set your time value with the "Beat Unit" parameter, which is divided by the "Subdivision" parameter and multiplied by the "# of Beats" parameters. For example when the beat division is 1/4, the "# of Beats" is 5, and the "Subdivision" parameter is set to 3, the time value is three evenly spaced notes between 5 quarter notes, a 3/5 polyrhythm.

In "Decimal" mode, the "# of Beats" parameter multiplies the "Beat Unit" by a decimal value, this mode is for non dyadic rhythms. So for example if the time value is 1/8 and the "# of Beats" knob is set to 3.14, the time value will be 3.14 1/8th notes.

"Weird" Tools Individual Information:

Weird Quantizer
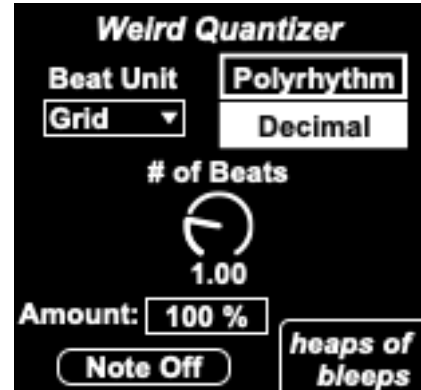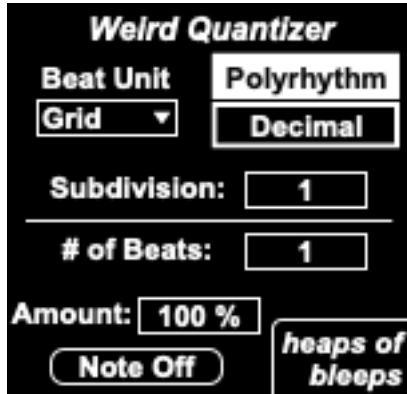
This tool allows you to quantize your MIDI to polyrhythms and other odd beat divisions. This is great for generation off tempo and experimental rhythms.

The time value you pick, through the process described above in the **Weird Tools' Shared Parameters** section, sets the quantization grid.

The "Note Off" toggle sets whether you want to quantize note offs to that same grid or leave the note's duration as is.
The "Amount" parameter controls the quantization amount, allowing you to fade between unquantified and quantized MIDI

Weird Swing
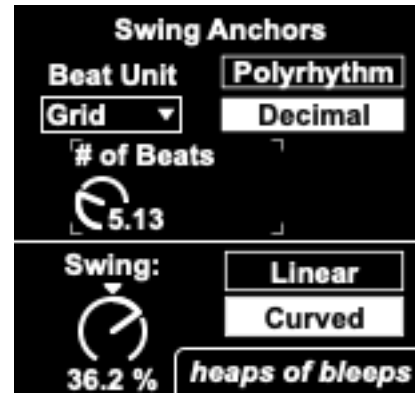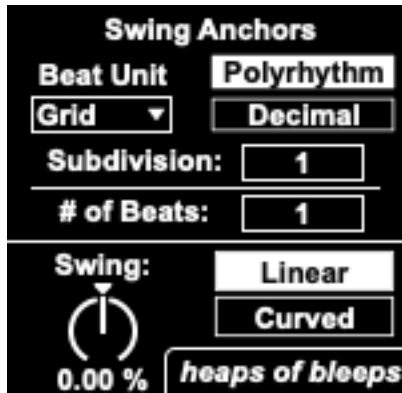
This MIDI tool adds swing to your MIDI by by stretching and squishing all the notes between the Swing Anchors you set forward to the next beat division (positive swing), or backward to the previous one (negative swing). Unlike most swings, this device allows you to set these anchor points as polyrhythmic, polymetric, non dyadic or tuplet values. This allows for non conventional swing patterns, and rhythms that, while they are based on the concept of swing, bear little resemblance to traditional swing rhythms.

The top of the MIDI tool is the "Swing Anchor" section. Set your swing anchor's time values here with the process described above in the **Weird Tools' Shared Parameters** section.

Keep in mind that the Swing Anchors are the points that stay the still, meaning they're twice the length of the note value that is swung. For example to get swung 16th notes, you would set your anchor points to 1/8th notes. Since it moves all notes between the anchors, not just the odd notes on the grid, it can also be used for interesting stretched and squished rhythms when swing anchors are set to a larger time values.

This tool has two swing modes.

In "Linear" mode it swings all notes between the Swing Anchors by moving them linearly toward the beat divisions on either side of it. At 100% or -100% it quantizes the notes forward or backward to the next beat division.

In "Curve" mode it swing all notes between beat divisions by applying a curve, moving some notes more than others based on their position between the anchors. This can make for even wonkier swings.

This device is great for generating unique rhythms out of simple rhythms. Irregular rhythms with some logic behind them.

Weird Shifter

The "Weird Shifter" MIDI tool allows you to rhythmically shift your MIDI along non traditional polyrhythmic, polymetric, tuplet, and non dyadic grids.

Use the top section of the device to set your shift value with the process described above in the **Weird Tools' Shared Parameters** section.

Use the "Direction" tab at the bottom to control whether notes shift forwards or backwards when you hit the apply button.

To shift your MIDI you must hit Live's "Apply" button, under the MIDI tool, after setting the devices parameters.

Weird Duration

The Weird Duration tool allows you to set selected MIDI notes to durations based on polyrhythmic, polymetric, tuplet, and non dyadic time values.
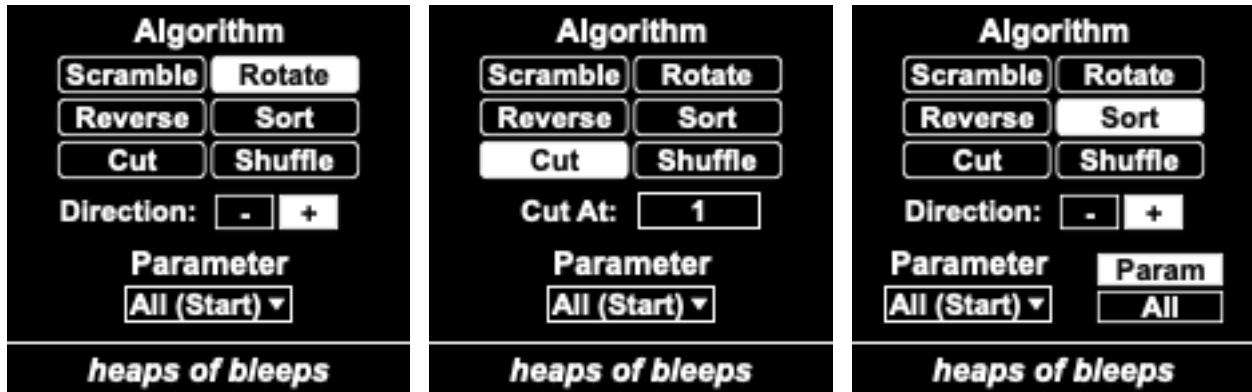
Use the top section of the device to set your duration value with the process described above in the **Weird Tools' Shared Parameters** section.

When the "Duration Mode" tab on the bottom is set to "Fixed", all MIDI notes will be set to the duration value. When it's set to "Rounded" the tool rounds all durations to the closest multiple of that duration value.

Other Included Tools

These other devices each have their own different functions and interfaces.

Clip Manip

Algorithm	Algorithm	Algorithm
Scramble / **Rotate**	Scramble / Rotate	Scramble / Rotate
Reverse / Sort	Reverse / Sort	Reverse / **Sort**
Cut / Shuffle	**Cut** / Shuffle	Cut / Shuffle
Direction: - **+**	Cut At: 1	Direction: - +
Parameter	Parameter	Parameter **Param**
All (Start) ▼	All (Start) ▼	All (Start) ▼ **All**
heaps of bleeps	*heaps of bleeps*	*heaps of bleeps*

This MIDI tool allows you to generate variation in your MIDI clips by swapping around different parameters of your MIDI notes in a variety of ways.

Select the notes you want to manipulate. Choose which parameter to manipulate, then choose the algorithm that manipulates that parameter.

The parameters you can manipulate are: Pitch, Velocity, Duration, Mute, Probability, Velocity Deviation, Release Velocity, and All.

The algorithm you set will switch around the values of that MIDI parameter between the notes in different ways. The different algorithms are:

Scramble: Randomly scramble the values of the selected parameter.
Rotate: Rotate parameter values forward (+) or backward (-).
Reverse: Reverse parameter values.
Sort: Sort parameter values from low to high (+) or high to low (-).
Cut: Cuts notes at a selected note number (the "Cut At" parameter) and switches the 2 parts around.
Shuffle: Cut's and shuffles the notes, like a perfect shuffle of a card deck. (Ex. 123456=142536)

The sorting algorithm has an additional tab which lets you choose whether you sort all of the properties of the notes by the selected parameters values (All), or just the parameter you are sorting by, keeping the other parameters as they were (Param).

To apply the algorithm you must hit Live's "Apply" button, under the MIDI tool, after setting the device's parameters.

Fractional Stretch
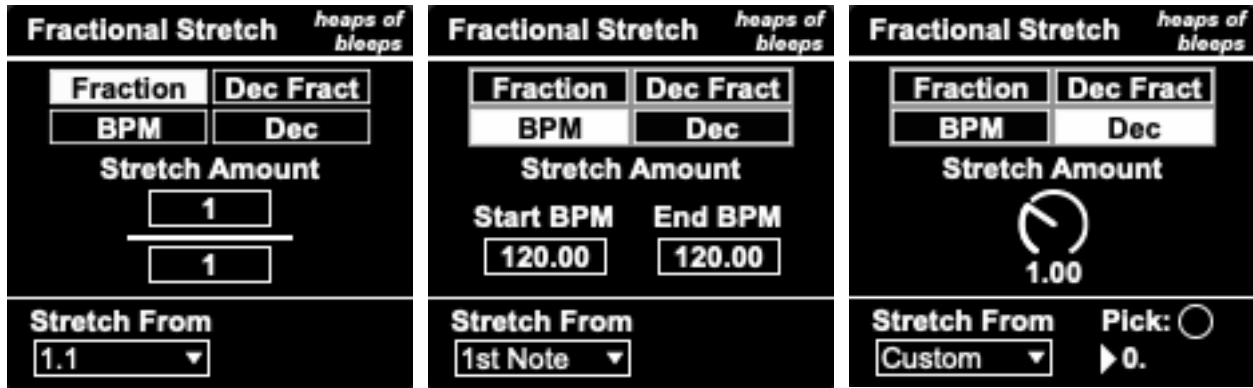
This MIDI tool functions like the built in MIDI Stretch tool in Live but it allows you to set the stretch ratio with in different ways allowing for interesting forms of polyrhythmic, polymetric, polytempic and non dyadic stretching, unlocking new forms of rhythmic experimentation within Live 12.

The different stretching modes are:
• Fraction: Stretch MIDI by fraction set with whole numbers.
• Decimal Fraction: Stretch MIDI by a fraction set with decimal numbers.
• BPM Shift: Stretches the MIDI from one BPM to another.
• Decimal: Basically the same as live's built in stretch function but with a wider range.

You can also set the center point of the stretching to stretch to be either: 1.1, the start of the 1st note, the end of the last note, or a custom location with the "Stretch From" parameter. This custom location is set by selecting one note, then hitting the "Pick" button (preferred), or by setting a custom beat count.

To stretch your MIDI you must hit Live's "Apply" button, under the MIDI tool, after setting the device's parameters.