

# fbs\_impact

## getting started

Copy the fbs\_impact.axmd and the 16 .adv preset files into your User Library:

**\User Library\Presets\Midi Effects\Max Midi Effect\**

The device and presets are now accessible from Ableton Live's Browser.

Note: If the presets fails to locate the MaxForLive Device, just drag the Device onto the missing File dialog once to resolve this.

I hope you enjoy the fbs\_impact,  
Ryan

## reference



### 1 impact loop

when highlighted, this button enables looping the „impact function“ - as long as the incoming midi note is held.

### 2 infinite loop

an infinite loop that continues, even if the incoming midi note is released. As soon as the „voice“ maximum is reached, the newest incoming midi notes will replace the oldest ones.

### **3** impact function

here is where one major part of the magic happens.

This function will be executed from left to right - at the speed set with the „high/low velocity time“ dials - as soon as a midi note is received.

Depending on the velocity value of the incoming midi note, the y-axis of the „impact function“ will be scaled accordingly, causing a greater or smaller overall effect. This dependency can be adjusted by the „impact“ dial, which will change the factor between the incoming velocity and the „impact function“ y-axis.

### **4** note through

choose if the original incoming midi note should be heard or only the resulting structures of the fbs\_impact effect. By activating „note through“, the note can only sustain as long as the same note isn't being re-triggered.

### **5** same note repetitions

this mode will allow the output to play repetitions of the same note.

### **6** high velocity time

sets how long it takes the „impact function“ to execute (from left to right) for the highest incoming midi note velocity of 127.

### **7** low velocity time

sets how long it will take the „impact function“ to execute for the lowest incoming midi note velocity of 1.

### **8** release mode

one-shot:

As soon as the incoming midi note is released, fbs\_impact will still complete the entire „impact function“.

instant:

As soon as the note is released, the „impact function“ will stop immediately.

## **9** time mode

free:

The output of the „event density“ is individual for all voices, and the exact timing itself won't be as precise as when switching to „sync/quantised“ mode, due to the nature of M4L. This mode works best for textural results.

sync/quantised:

This mode only works when ableton is playing, if stopped there will be no output (signified by the blinking press play message). In this mode all outputs from each voice will be quantised and the fbs\_impact will output the notes simultaneously. This mode works best for rhythmical results.

## **10** impact

scale this value to in-/decrease the „impact functions“ y-axis values. Low values result in less additional structures, higher values in more lovely madness.

This parameter can also effect the outgoing velocity. See "velocity by impact" for further information.

## **11** impact randomness

adds and subtracts random impact values. This avoids repetitions and makes each output an individual - a one of kind!

## **12** event density

determines how frequently a note is being output - you can think of this as the overall speed. The „event density“ dial acts as a gate, picking a note from a stream of MIDI every x ms.

## **13** event density by impact

modulates the „event density“ according to the „impact function“. Starting from the „event density“ value and outputting more or less notes, the higher the impact values become, depending on where you set the „e.d. by impact“ dial. If the dial ist set to 12 o'clock there is no effect.

Keep in mind that this will override the „time mode“: sync/quantised.

## **14** event density randomness

adds and subtracts random milliseconds to the „event density“. Creating unevenness.

## **15** voices

choose how many voices you can trigger at the same time - each voice operating individually. This feature also comes in handy when using „infinite loop“ - limiting the total amount of repeating voices and therefore replacing the oldest notes with every new incoming midi note.

## **16** velocity by impact

determines how the „impact function“ affects the output velocity.

- 100 % = the impact values are inverted and result in the opposing velocity output. Therefore, a minimum impact results in the highest output velocity and vice versa.

0 % = the output velocity is independent from the impact values.

+ 100% = the impact values are equal to the output velocity. Minimum impact results in the lowest output velocity and a maximum impact value results in the highest output velocity.

## **17** velocity

sets the overall velocity output of fbs\_impact. Basically working like a master volume fader.

## **18** x-size

sets the amount of x-axis steps for the "impact scale".

## **19** y-range/expansion

sets the y-axis steps for the "impact scale".

If expansion mode is turned on, this will set the offset from what pitch the „impact scale“ will repeat itself. For further information see the „impact scale“ object.

## 20 boundary mode

idealist:

only plays full frames. Meaning that the entire „y-range/expansion“ of the „impact scale“ in combination with the incoming midi note, must be within the pitch boundaries of 0 - 127. If no full frame can be executed, fbs\_impact will not react.

practicalist:

adds one frame in the „expansion direction“, which can cause values to exceed the pitch boundaries of 0 - 127. Exceeding values will be lost - hence minor dropouts can occur. Even if no full frame can be executed, fbs\_impact will react and play all notes within the pitch boundaries of 0 - 127.

hedonist:

also adds one frame in the „expansion direction“. Any value that exceeds the boundaries of 0 - 127 will be subtracted or added by the „y-range/expansion“ value, to always stay within the the boundaries - hence no dropouts can occur. Even if no full frame can be executed, fbs\_impact will react.

## 21 impact scale

this is the second major magical thing of the fbs\_impact:

The „impact function“ values (a stream of numbers) will trigger this scale. The lowest impact values will start on the left and move further to the right the higher they get.

If „expansion mode“ is turned off, the impact values will move along the x-axis, step by step according to the "impact function" values. Hereby adding / subtracting each defined pitch (set y-value) to the originally played midi note.

If „expansion mode“ is turned on, the impact values will also pass through the x-axis of the scale but will continue to repeat themselves on a next shifted „y-range/expansion“ frame, according to the "impact function" values . Hereby aiming for the boundaries of 0 (expansion direction = down) or 127 (expansion direction = up).

## 22 expand on / off

determines if additional frames will be added (= the entire impact scale is offset by the „y-range/expansion“ value) and repeats itself until it reaches the pitch boarders of 0 or 127 (depending on the „expansion direction“).

off:

the incoming pitch's velocity (triggering the „impact function“) will only be mapped to the x-axis of the impact scale. With the lowest impact value being the first note on the left and the highest impact value being the farthest note to the right.

on:

The absolute maximum value of the „impact function“ (= incoming midi velocity of 127 and an „impact function“ value of 1) will be scaled to reach the pitch boundary of 0 („expansion direction“ = down) or 127 („expansion direction“ = up). This takes place by duplicating the impact scale (a frame) with the offset of the „y-range/expansion“. As soon as the impact function has passed through the x-axis of the first frame, the process repeats on a lower/higher frame - aiming for the border of 0 / 127 (depending on the „expansion direction“).

## **23** expansion direction

determines whether the expansion should happen upwards (aiming for Pitch = 127) or downwards (Pitch = 0).