

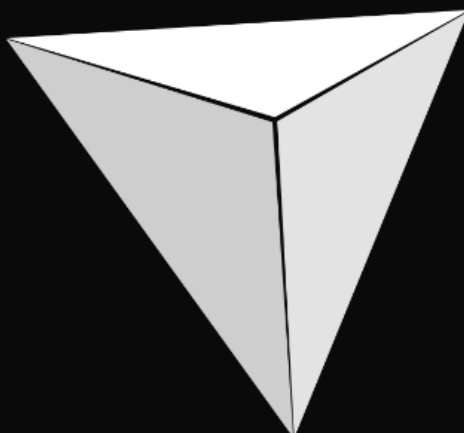
OUTBREAK

Official Documentation

Version 1.0

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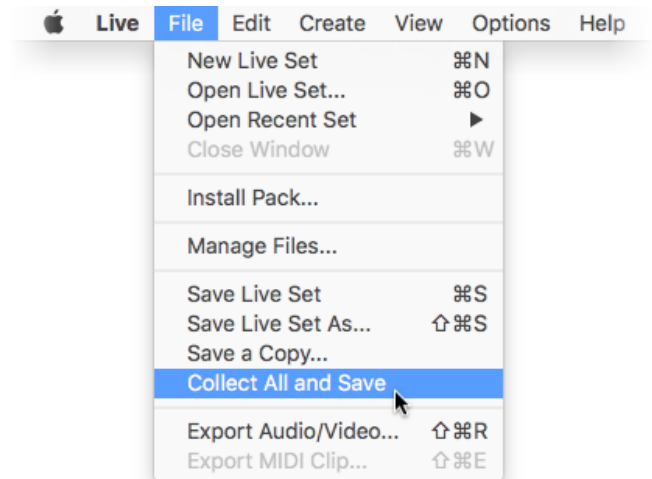


Overview

Outbreak is a set of Max for Live plugins to be used in Ableton Live 9 or newer whose purpose is to aid in quickly producing modular and responsive lightshows for the Novation Launchpad controllers with minimal effort. They can also be chained with other plugins outside the Outbreak set and the included Ableton MIDI effects. Outbreak devices are designed with performance and flexibility in mind, so they can be used for all kinds of different purposes.

Saving and Distributing

To use Outbreak devices in your own projects, simply drag and drop the device onto a MIDI Effect Rack in the device chain of your lights track. You do not need to place any device (or any additional files) in a specific folder for them to function properly, although it is recommended to keep them inside your Ableton Project folder for easier sharing. You can easily make your project folder perfectly shareable by selecting 'Collect All and Save' in Ableton Live's File menu.



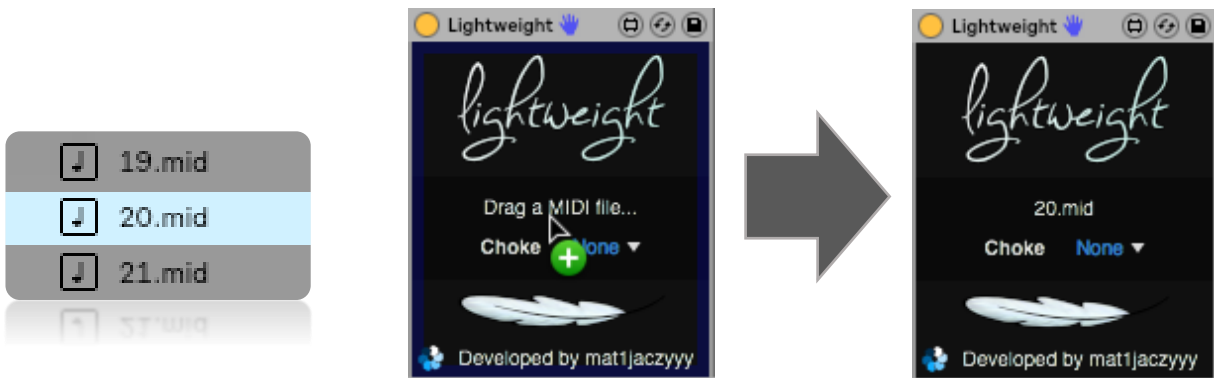
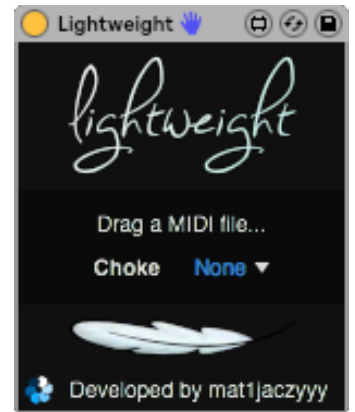
Lightweight

Lightweight adds MIDI file playback functionality from within Ableton's device chain, which is a feature that is surprisingly absent from Ableton Live's default MIDI effects.

Lightweight stands out from its competitors because it is, as its name suggests, extremely lightweight and does not use many resources. It can also be used with any currently existing MIDIlex or MIDIFire project, though some light effects may not display as they were intended.

To load a MIDI file, simply drag it from Live's File Browser (preferably from your Current Project folder) onto the device. Lightweight automatically saves and loads with the Ableton Live project, so you do not need to keep a special "Master" device to save your effects properly.

To play your MIDI file, simply send a note to the device. You can filter by note pitch, note velocity, or Chain Selector value using the zones of the MIDI Effect Rack the device is contained in. Lightweight will always automatically sync the speed of your MIDI file to Ableton Live's current BPM.



Choke Groups

With Lightweight, you can choke your light effects just like choking samples in a Drum Rack. Only one light effect can be playing at the same time within a choke group, so playing a different light effect from the same choke group will stop the currently playing light effect. A theoretically infinite number of light effects can be playing at the same time if no choke group is selected. Unlike samples though, they are not in the scope of the enclosing Rack, but rather have a global scope and even work between tracks. You can select a choke group via the drop-down box next to "Choke".



Loading MIDlext Projects

Using the special Lightweight MIDlext Loader device, it is possible to convert ALL currently existing MIDI Extension project files to Lightweight.

Pros:

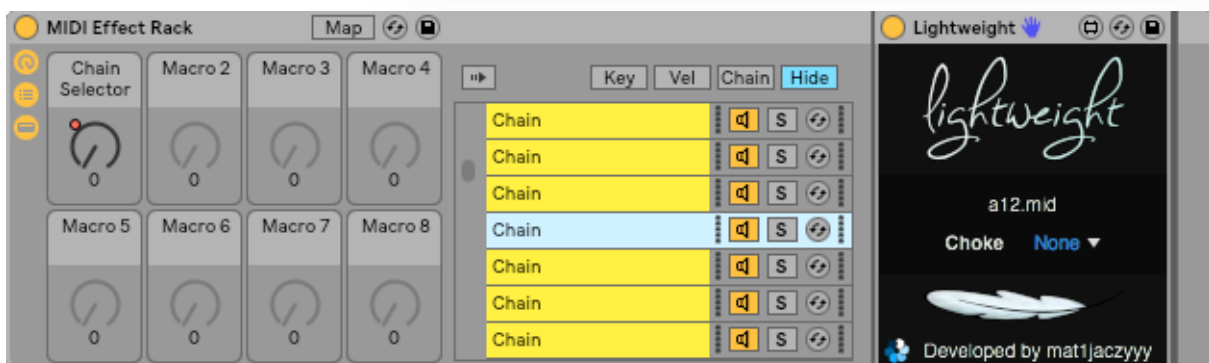
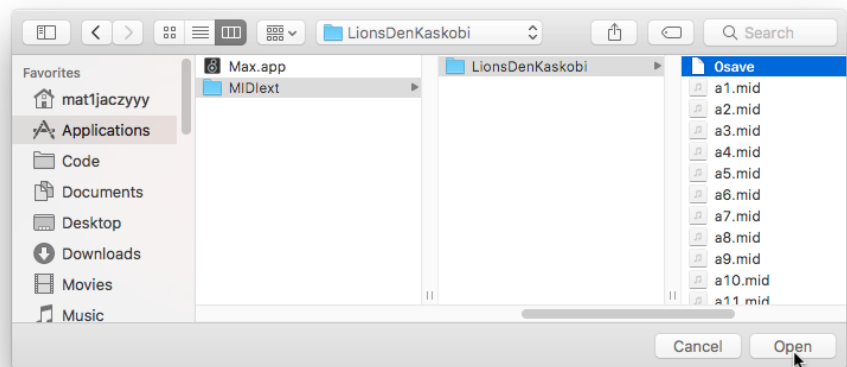
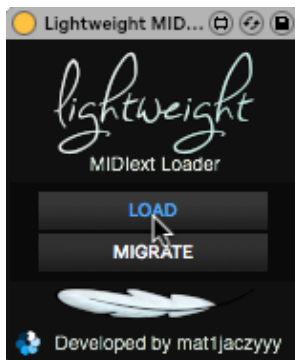
- The project file now automatically saves and loads
- The project uses slightly less memory
- Transfer MIDI files from the MIDlext folder to the project folder
- Loading time is much shorter

Cons:

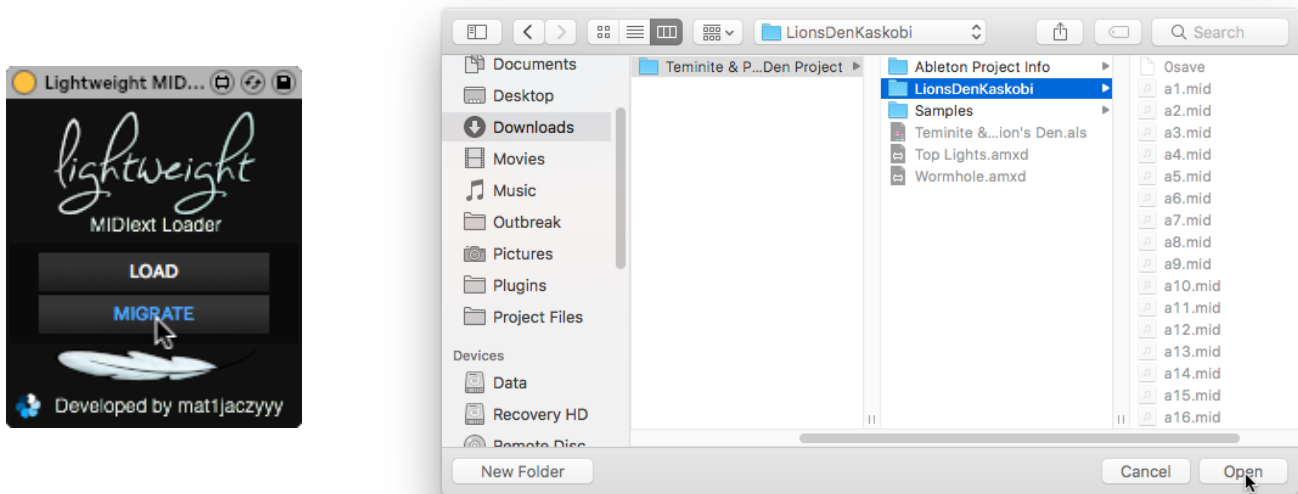
- The custom BPM setting is not supported. All light effects default to Ableton Live's current BPM (usually does not differ)
- The Poly/Mono switch is not supported. All light effects default to Mono.

Name	Location	Candidates
▶ Lightweight MIDlext Loader.amxd	External	
▼ Midi Extension.amxd	Missing	N/A
Midi Extension	Missing	Midi Extension
Midi Extension	Missing	Midi Extension
Midi Extension	Missing	Midi Extension
Midi Extension	Missing	Midi Extension

To load MIDI Extension projects with Lightweight, first, open the project file with the MIDI Extension and the MIDI Extension Master device files missing. Then, replace them with Lightweight and the Lightweight MIDlext Loader respectively from Ableton Live's missing files panel. On the Loader, select Load to load the MIDlext save file from the MIDlext folder. The project should now be fully playable. After saving the project file, you can delete the Loader, and the lights should automatically save and load with the project from now on.



You can also migrate the MIDI files from the MIDlxt folder into the project folder, and use the Loader to update all the MIDI file references in Lightweight to point to the project folder rather than the MIDlxt folder. After loading the MIDlxt save file on the Loader, manually copy the lights folder from the MIDlxt folder to the project folder, and then select Migrate on the Loader. In the dialog, select the pasted lights folder located inside the project folder, and Lightweight should update to use MIDI files from the project folder instead. Now you can safely delete the Loader, and the project will be playable, easily shareable, and will automatically save and load the lights.



Loading MIDIFire Projects

Lightweight can load in MIDIFire's place and has been tested to work on versions 1.0 and 1.01 of MIDIFire. Older versions may work, but have not been tested. This should only be used to greatly reduce the memory usage of a project file, in cases where you are unable to fully load it or are close to maxing out.

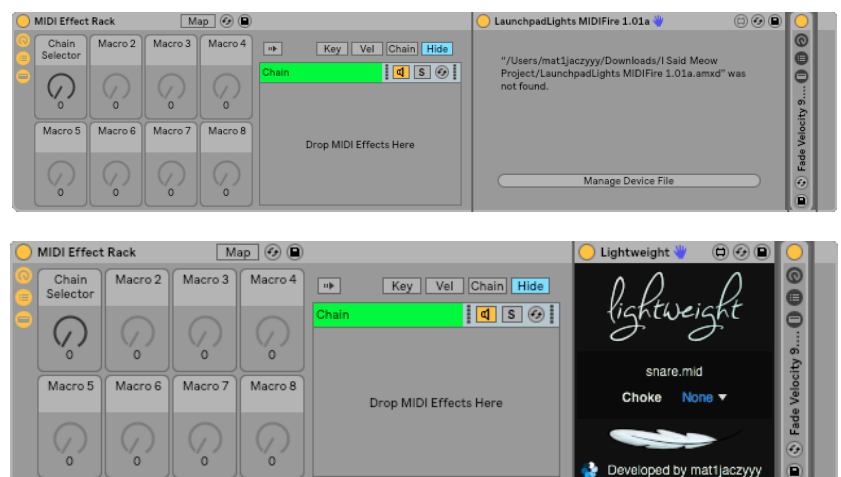
Pros:

- The project uses significantly less memory
- The device doesn't take up the whole screen
- More convenient method of stopping effects

Cons:

- Start, Speed, Remix Colors and Stop are not supported. While most light effects should work, some might display or play incorrectly.
- All light effects default to Ableton Live's current BPM.

To load MIDIFire projects with Lightweight, first, open the project file with the MIDIFire device file missing. Then, replace it with Lightweight from Ableton Live's missing files panel. The project should now be fully playable.



Depths

Depths allows you to stack light effects on top of each other using layers similar to those found in image processing software. For example, this would allow you to play some light effects on the background layer while keeping other effects on top of it in the foreground.

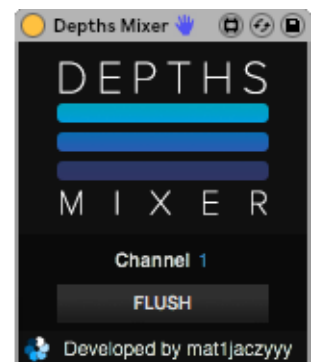
It functions using a Selector and a Mixer device. The Mixer device receives your MIDI notes and draws them on the layer you specified with the Selector device while rendering the final effect. In other words, the light effect received by the Selector will have a layer index assigned to it and will be teleported to your Mixer for rendering and output.



The Mixer

As mentioned earlier, the Mixer device receives data directly from the Selector devices, without any MIDI notes passing between them. In the case that the Mixer receives a light effect to its MIDI input, it will treat the incoming data as if it was assigned the layer index 0. If you're using Depths with any M4L Top Lights solution, the Mixer should be placed before the Top Lights device.

The clickable Flush button clears all layers into a blank state, thus releasing any stuck notes. Notes commonly get stuck if you're playing around with the Selector while a light effect is playing.



The Selector

The Selector device is responsible for assigning the layer index to your notes before sending them directly to the Mixer. As such, you should place the Selector after your light effect. The layer index can be specified by changing the number next to "Layer".

When the Bypass toggle is enabled, the device will also send notes to the next device in the chain, in addition to sending notes directly to the Mixer. This is useful if you want to slightly alter the light effect before outputting it somewhere else in addition to the track output.



Using with Multiple Tracks

When sending data to the Mixer, each Selector needs to know where it should send the data to, especially when using multiple tracks (and thus multiple Mixers). In order to support multiple tracks, each Mixer can listen to data on a specific channel. This channel can be specified by changing the number next to "Channel" on the Mixer. The channel specified on any Selector device should match the channel of the Mixer device you want that particular Selector to send light effects to.

This makes it particularly easy to develop cross-Launchpad light effects because you can use the Selector to send any light effect to the other track's output instead of the track's own output. This eliminates the need for the additional "L to R" and "R to L" tracks.

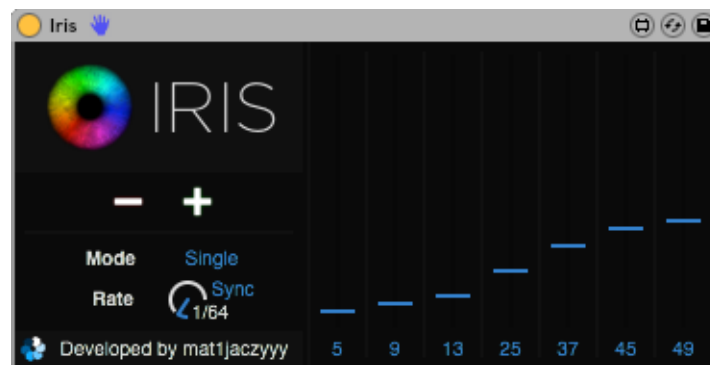
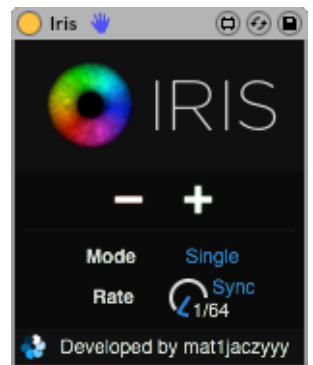


Iris

Iris is an extremely simple to use, but powerful plugin which allows you to easily generate a sequence of velocities, commonly called 'color fades'. It works with a list of user-specified velocities, playing notes with those velocities upon receiving a note.

The "Mode" toggle changes the way the device responds to notes it receives. In Single mode, it will play the velocity sequence once regardless of how long the note is held for. If the same note triggers playback again while the sequence is already playing, the currently playing sequence will be stopped before it plays again, completely eliminating overlapping. In Loop mode, the sequence will be replayed for as long as the note is held, and stopped once the note is released.

The "Rate" dial allows you to specify after how long the playback should advance to the next velocity in the list, effectively controlling the speed and length of the sequence. The playback rate is synced to your Live set's BPM at all times, and the dial can be changed to a Free dial in which case you can select an arbitrary amount of time.

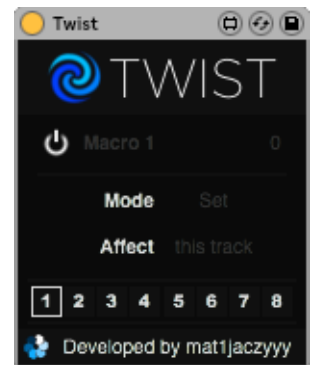


The minus and plus icons are buttons that remove and add an entry in the list of velocities. As you change the number of velocities in the list, the device will change its size to accommodate the list. To adjust the velocities in the sequence, you can use the slider for each entry or input the exact number below the slider.

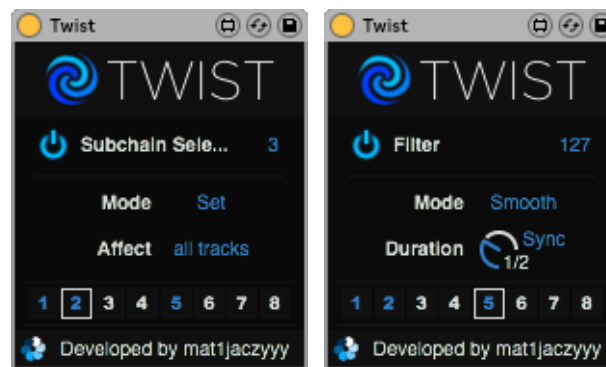
Twist

Twist is a robust solution for managing Macros during a live performance. Even though Ableton Live does allow you to MIDI map notes and knobs to Macros and other parameters, in most cases the functionality is very limited and forces you to use those controls exclusively for the mapping. Twist expands on that idea and gives you a lot more room to work with, making the performance smoother than ever.

Twist can control the 8 Macros commonly found on MIDI Effect Racks, Instrument Racks and Drum Racks. It will control the Macros found on its highest parent rack. From there, you can easily control any other parameter simply by mapping the parameter to the Macro. The navigation bar is located on the bottom of the device, where you can select which Macro you want to work with.



The power button indicates whether the value of this Macro should be affected by incoming notes. When Twist receives a note on its input, it will apply the specified values to the Macros it is controlling. Macros that aren't turned on won't be affected by the device. The navigation bar makes it easy to know which Macros are enabled which aids in configuration.



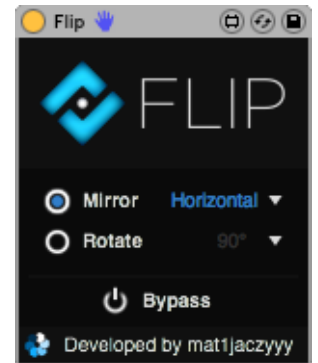
The "Mode" toggle determines whether Twist will immediately set the value of the Macro to the desired value, or whether it will smoothly glide from the current value on the Macro to the desired value. When working in Set mode, an additional option is to affect all tracks instead of just the parent on the current track. In that case, the change will affect the Macros on the first device on every track. When working in Smooth mode, this option is replaced with the "Duration" dial which specifies the amount of time the Macro will spend gliding from the current value to the desired value, and will always affect the highest parent of the device.

Flip

Flip aids in developing light effects by mirroring them in the context of your Launchpad. Its purpose is to speed up workflow and eliminate the need to create a wide range of light effects twice (for example, a normal and mirrored version), but also to generate almost entirely new and complex light effects from currently existing and simpler ones.

The radio buttons on the left determine whether the light effect will be mirrored or rotated. Depending on your selection, you can select the mirror direction or rotation angle from the drop-down box on the right.

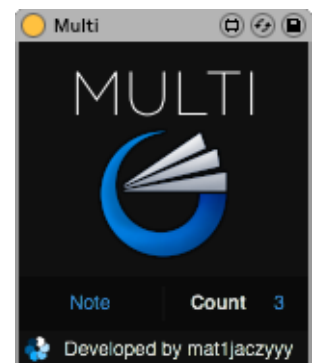
When the "Bypass" toggle is enabled, the original light effect will be outputted alongside the mirrored one.



Multi

Multi functions similarly to the built-in "Random" MIDI effect in Alt mode. It holds an internal counter by which it shifts the pitch of the incoming note. This counter is also incremented on every shift, effectively enabling easy multisampling just by specifying the shift count. The counter jumps back to zero after it has reached the final shift amount. The total count can be changed with the "Count" number box.

In addition to working traditionally in Note mode, there is also a new Macro mode which will shift the Macro value instead of the note. The Macro that is shifted is the first Macro on the device immediately next to the Multi device (to the right in the chain). This can be an Instrument Rack, Drum Rack or MIDI Effect Rack.



Reset

The main difference between the built-in Random and Multi is the ability to reset the internal counter to zero at any time. This is especially useful while practicing or creating a cover. Simply clicking the "Reset All" button or sending a note to the Multi Reset device will reset all Multi devices in the Live set.



Infinity

Infinity is a really simple plugin that is relatively minor compared with other devices in the set. It ignores all note offs sent to the device, allowing only note ons to pass through. This is extremely useful if you want certain effects to stay on the Launchpad until they are cleared away by another effect because the notes will stay held forever without any note offs to release them.

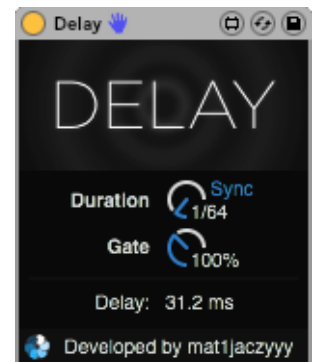
If you need to manually flush the held notes, you can do so by clicking the "Flush" button, or by clicking the "Flush All" button which will tell all other Infinity devices to flush their notes as well.



Delay

Delay holds any MIDI messages for a specified amount of time before allowing them to go through. With it you can add artificial latency (input lag) to your notes to slightly delay an effect or create an echo, triggering a second effect.

The duration of the hold can be adjusted with the "Duration" knob. This duration can then be fine-tuned with the "Gate" knob. The final absolute delay is visible on the bottom of the device, so you can be sure you're delaying for the right amount of time.



Credits

LaunchpadLights – for inspiring me to begin developing Max for Live plugins and helping me out from time to time, as well as designing a few logos for the devices and numerous other things.

rpg.aleksy – for helping me out with the design theme and designing logos for most plugins.

Recuest, Nyrk and other M4L developers – for sharing their knowledge as we develop useful devices together.

T4sh, StrikerFeed and many more – for testing the plugins for regressions and leaving feedback on possible improvements.

everyone else – for the support over the years :)