Table of Contents

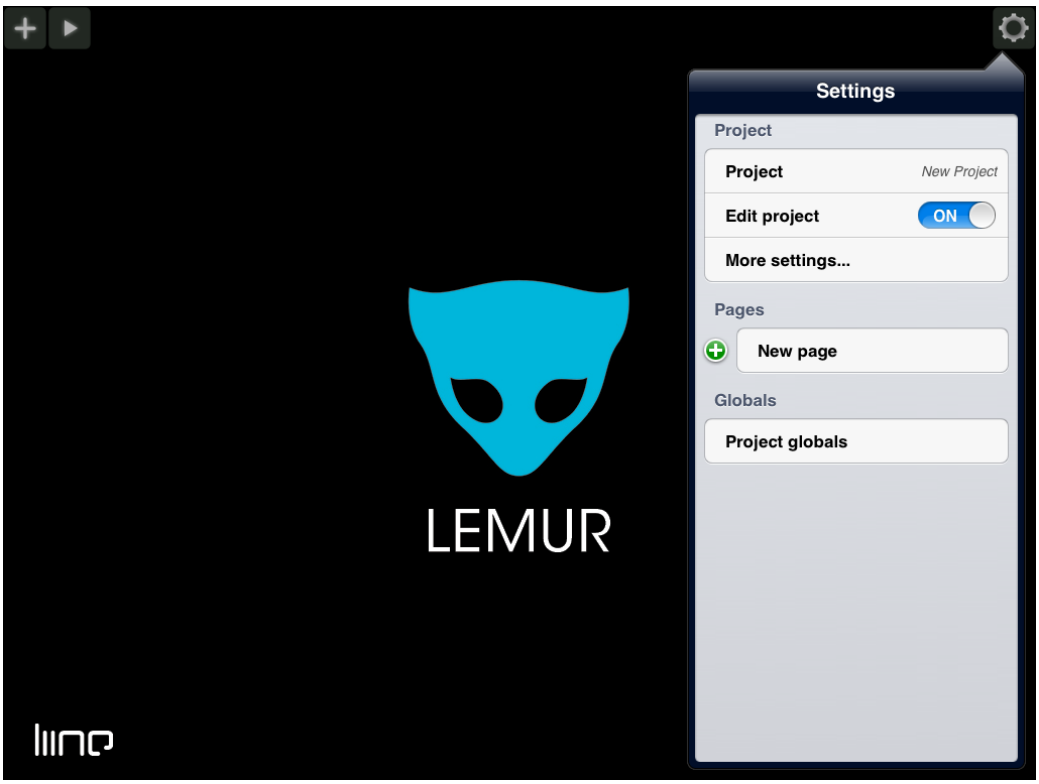
Introducing the Lemur In App Editor

It's easy to get started with the In App Editor. Tap the Lemur Settings icon and switch on **Edit Project** to start editing. Virtually all editing and building can now be done via the **Lemur In App Editor**. Of course, you can still use the Lemur Editor software on your computer if you wish. You can always transfer your work from one to the other, but the Project must first be saved on your iPad before you can edit it with the In App Editor.

1.1 Overview

The **Lemur Settings** panel is reached by tapping the Settings icon in the top right corner of the Lemur app. It allows you to quickly select the Project you wish you to use or edit, as well as providing access to **More settings**.

If **Edit project** is selected then additional sections are shown to either Add New pages or inspect and edit Project Globals. Project Globals are expressions or scripts placed at the root of your Project, and therefore accessible by any object. See notes about hierarchy in Chapter 9 of the Lemur User Guide for more details.



1. Project: Open or Save a Lemur Project stored on your device.

2. Edit Project: Toggle On to enable editing. You will be prompted to first save the Project.

3. More settings: Access basic Lemur settings.

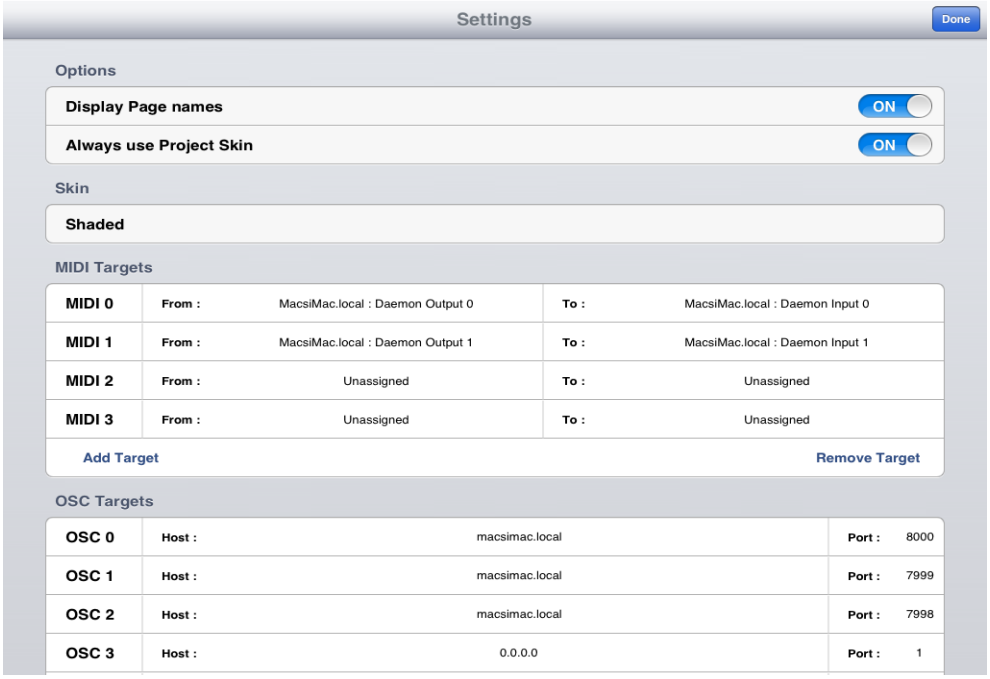
4. Pages: Add, delete, rename and reorder Pages in your current Project.

5. Globals: View or edit globally defined expressions or scripts.

6. History: History list for Undo operations.

1.2 More settings . . .

The **More settings ...** section provides access to a series of options and settings such as **MIDI** and **OSC Targets**.



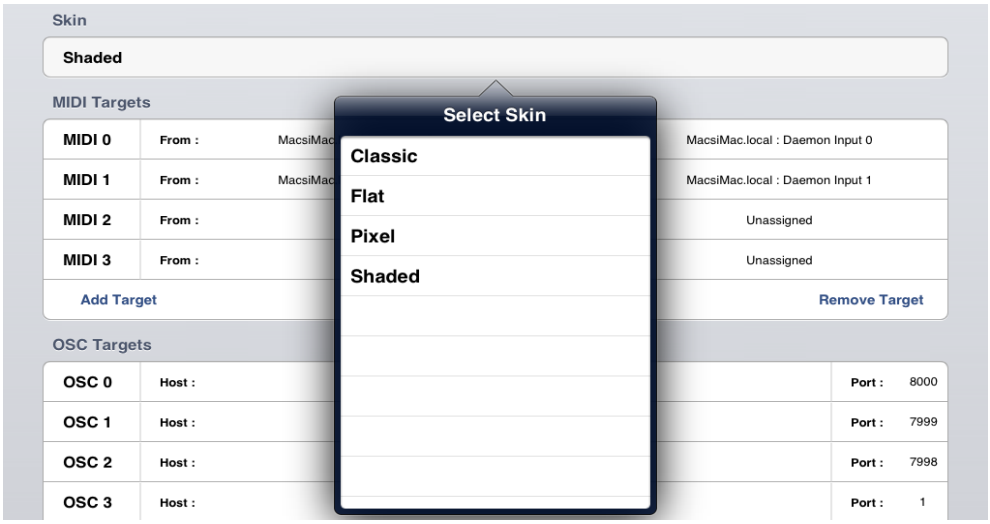
1. Options:

Display Page names allows you to choose whether or not Page names are displayed on the tabs for Interfaces in Lemur. This is a global setting that persists when you load a new Project.

Always use Project Skin allows you to choose whether Lemur uses the Skin setting saved in the Project or whether it uses the default Skin set here. It is generally useful to leave this on as many template designers specifically choose a skin to suit their Project.

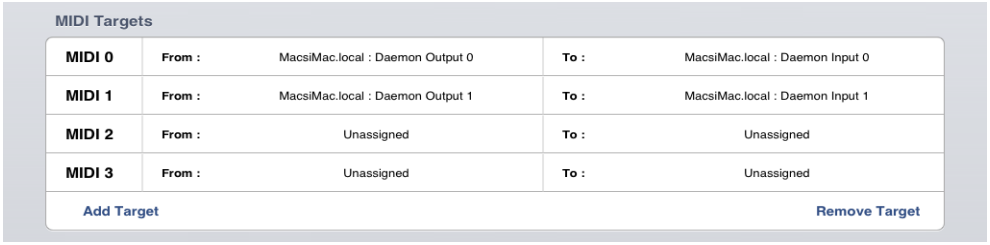
2. Skins:

Presents you with a dialog for selecting a Skin. There are currently four available skins.



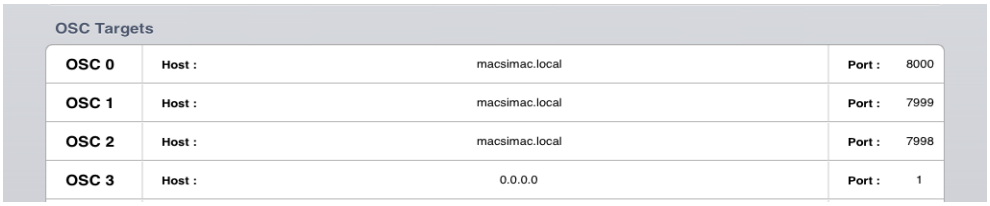
3. MIDI Targets:

This section allows you to setup your Lemur MIDI Targets. There are 8 possible Targets. See the Lemur User Guide for further details.



4. OSC Targets:

This section allows you to setup your Lemur OSC Targets. There are 8 possible Targets. See the Lemur User Guide for further details.

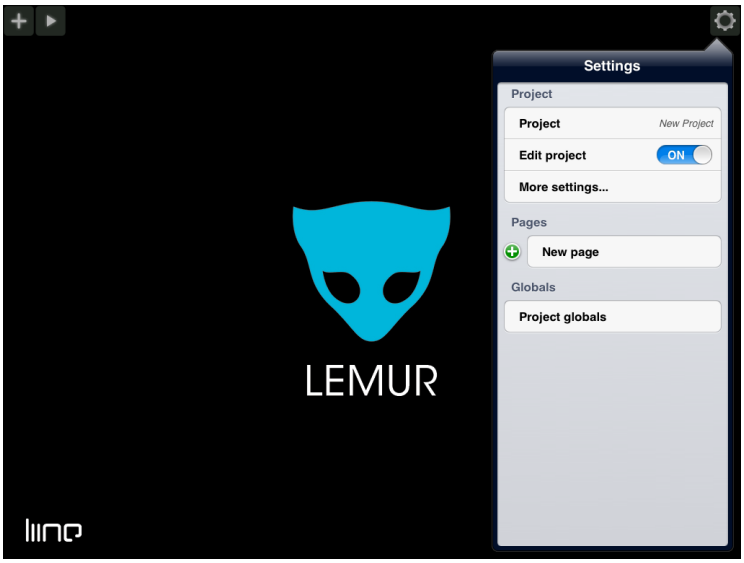


5. Info:

Provides a link to view online help in Safari on your device, as well as Lemur version information.

Creating a New Project

To create a **New Project** just tap on the **Lemur Settings** button,  located in the top-right corner of the Lemur screen. Tap '**New Project'** in the Project List and then tap '***Create new project…***' at the top of the list.



This opens a small dialog asking for the name of the new Project. You can type in any name you like. Click **Return** and your new Project is created.

If you wish to edit an existing Project simply select it and turn on the **Edit Project** switch.

Beginning a new project will automatically create a Page named "New Page". You can rename it, add or edit new pages with the controls here. When you add a **New page** you must give it a unique name. Pages are ordered alphabetically.

1.3 Lemur in Edit-Mode

There are two modes available for interaction with objects in the Lemur In App Editor.

In **Edit** mode, you can add, remove, move, resize and configure objects.

In **Play** mode, you can use the objects as usual to send MIDI/OSC messages.

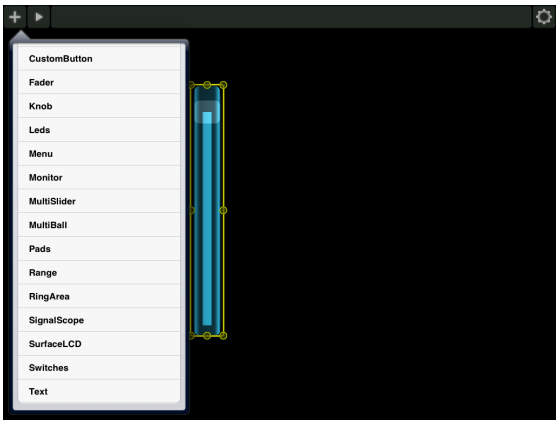
The Play  button lets you quickly switch between **Edit** and **Play** mode. As long as the arrow is lit you can use your virtual Interface. This comes in very handy when debugging your work.

Edit Mode features **Object Inspectors** which are displayed by tapping and holding an Object. This panel allows you to easily edit the Object's various parameters.

Objects can overlap in the Interface. Newer objects will cover older objects. Some Objects (like the Monitor) can have a transparent background.

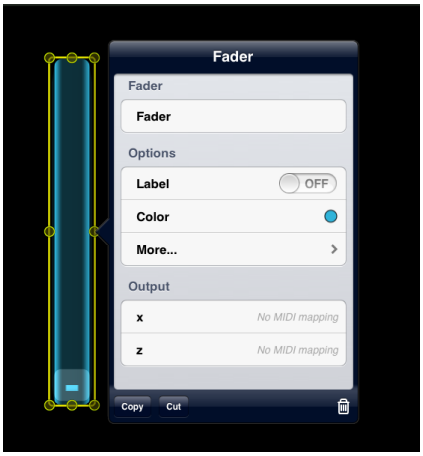
You will notice that when you have an Object selected, its corners and outline highlight. Simply grab a corner and move it to resize the Object. Multiple Objects cannot currently be selected in the In App Editor.

1.4 Objects List



The Creation button  is for used to bring up a list of objects. To create an object, tap in the list and the object will appear in the Project. It will be highlighted, ready to be moved, resized or edited.

1.5 Object Inspector



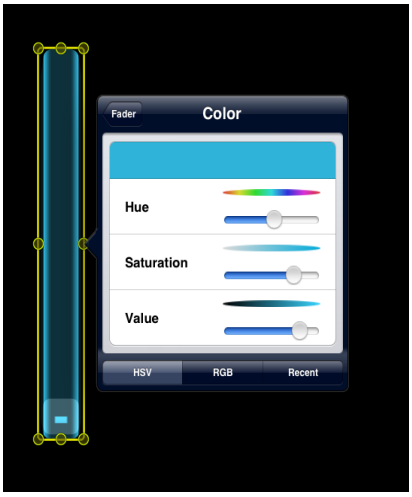
Tap and hold an Object whilst in **Edit** mode to bring up the Object Inspector.

The Object Inspector contains two sections: **Options** and **Output**. The **Options** section provides access to the basic options of Lemur's objects, while the **More...** section provides deeper access to Properties, Behaviour and User tabs.

Details of the Properties, Behaviour and User tabs are provided further in this document. Details of all the Objects' parameters can be found in the Lemur Object Reference manual.

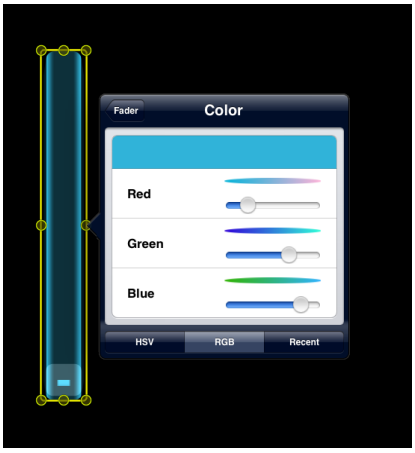
1.6 Color Panel

The **Color** parameter of your Objects is set through standard color pickers, which appear when you click on the square color sample:



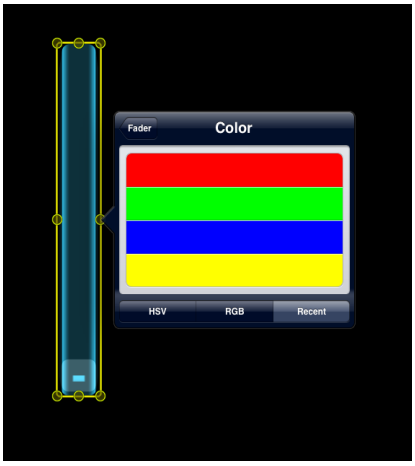
HSV stands for **H**ue, **S**aturation, **V**alue,

Choosing **HSV** gives you a traditional color selection tool where the Hue slider lets you pick the "pure" color; Saturation, the perceived "intensity"; and Value, the "lightness".



RGB stands for **R**ed, **G**reen, **B**lue.

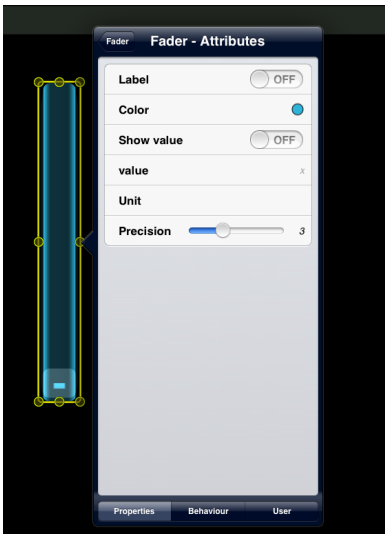
Choosing **RGB** gives you a standard RGB additive color selection tool, in which the Red, Green and Blue sliders are added together to produce the desired color.



Choosing **Recent** will give you selection tool for recently used colors.

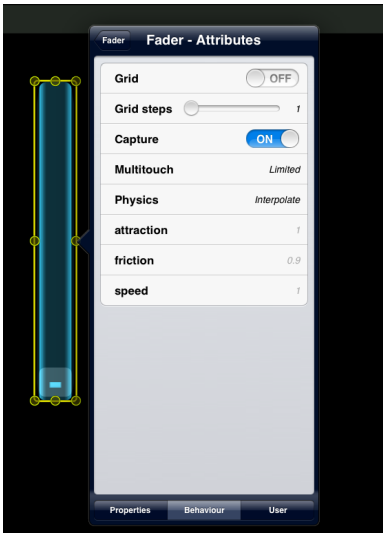
1.7 More... Panel

1.7.1 Properties Tab



The Properties tab deals with the most basic appearance, such as the object's color and name. Additional parameters vary depending on the object.

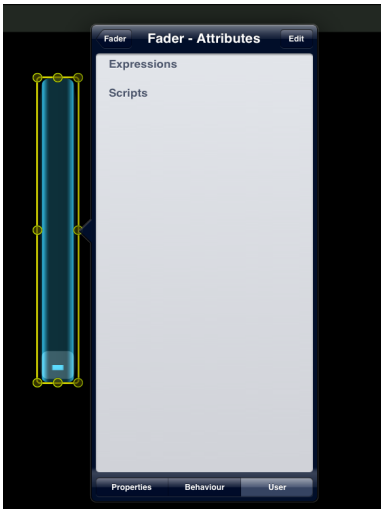
1.7.2 Behavior Tab



The Behavior tab deals with the physical characteristics of the Objects.

Here you can find the more advanced parameters such as Physics and Capture. Please refer to Chapter 12 / Appendix II in the Lemur User Guide for details about each Object's properties and behaviours.

1.7.3 User Tab

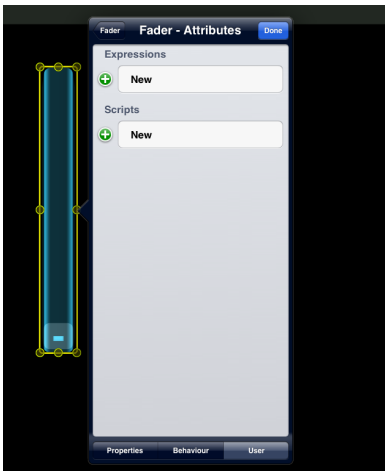


The User tab deals with the User-defined Expressions and Scripts. Here you can create, edit, view and delete your own expressions and scripts.

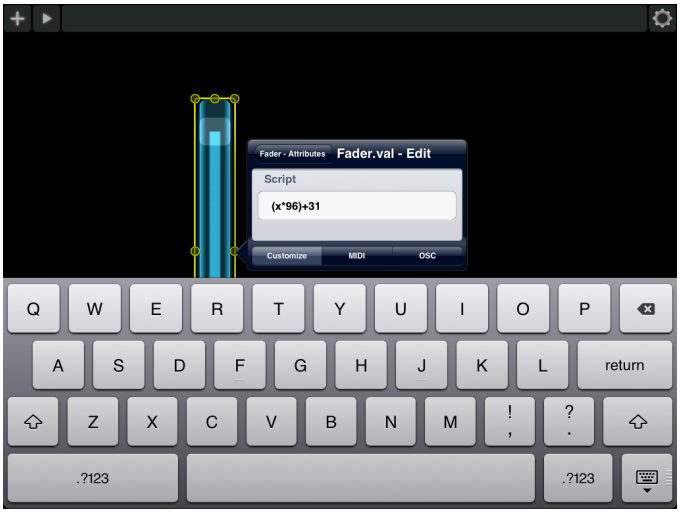
1.8 Script Panel

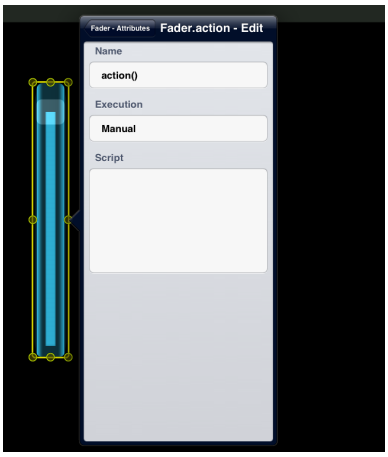
The User panel is multi-purpose. It allows you to define single-line expressions and also to edit multi-line scripts. Please refer to Chapter 10 of the Lemur User Guide for more details.

Tap the **Edit** button to add, delete or edit any expression or script. Tap on **New** to create a new Expression or Script and name it appropriately. Or tap on an existing name to edit it.

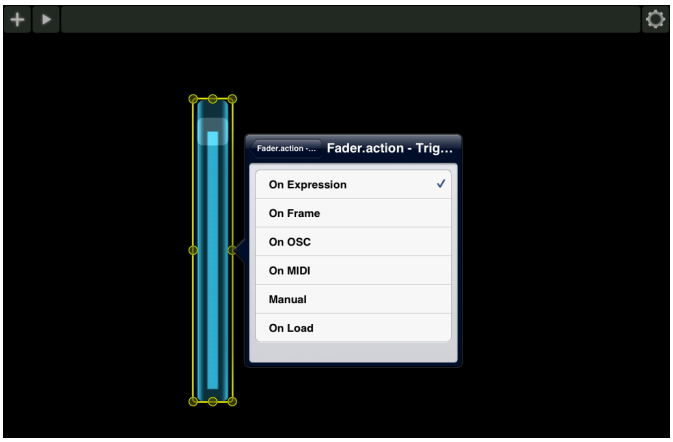


You can define the expression by typing with the standard keyboard.





The script panel contains three fields: Name, Execution and Script. Scripts cannot be renamed, if you wish a different name you must create a new script. The Execution field is very important, it allows you to choose when and how your script will be executed.



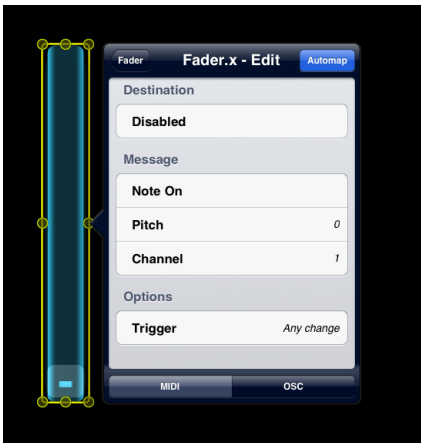
Finally, the **Script** panel also allows for the multi-line coding of a script. Multi-line scripts can be used, in conjunction with a set of powerful built-in functions, to instruct Lemur to perform specific tasks at specific times. A typical application of this powerful feature could be the real-time manipulation of an object's attributes, such as its dimensions, color or physics. You could also, for example, instruct a Switch to activate a MultiBall's grid on or off. See Chapter 10.6 in the Lemur User Guide for more details.

Mapping

1.9 Mapping Panels

The **Object Inspector** makes it very easy to select the standard Object variables for mapping. The **Output** section lists the default Output Variables for the selected Object, and tapping on any of these variables brings up the **Mapping Panel**, which is divided into two panels, **MIDI** and **OSC**.

1.9.1 MIDI Tab



The MIDI panel lets you assign **MIDI messages** to your Variables and route them to the MIDI Targets.

This panel also serves for controlling Lemur objects via MIDI.

1.9.2 OSC Tab

On the OSC Panel you can define the routing of the different Variables to OSC **Targets**.

You have a menu for the Variables and one for the eight possible OSC Targets.

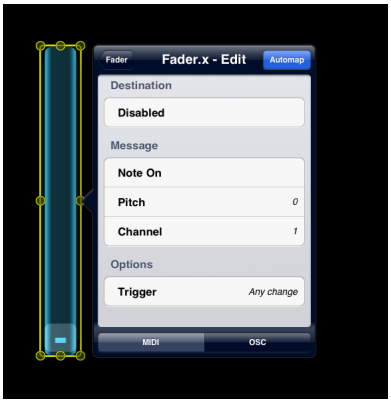
This panel also serves for controlling Lemur objects via OSC.

1.10 MIDI messages

The simplest way to assign MIDI messages is through the **Output** section of the Object Inspector.

First, tap and hold on an object to bring up its Object Inspector. The section at the bottom it called **Output** and lists the object's built-in variables. Tap on a variable to bring up the MIDI panel.

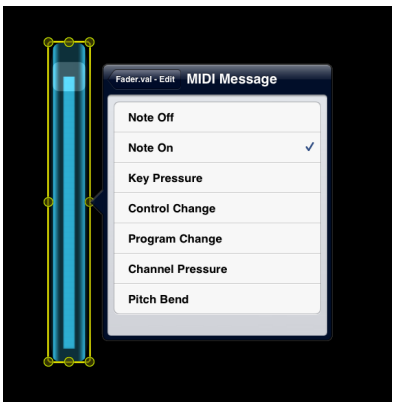
User defined Variables can be accessed via the **More...** selection in the **Options** section.



The top of the MIDI panel features the **Destination** menu, which lets you select a MIDI Target for this variable. You can choose Disabled, or any of the 8 available MIDI Targets.

Tapping on the **Automap** button (blue, in the top-right corner) automatically sets the selected variable's Target and MIDI message selection to MIDI 0, and incrementally assigns CC numbers starting at 0 on MIDI Channel 1. This is a handy semi-automatic mapping function. Use it!

Below the **Destination** section, you will find the **Message** section. Here you can see what MIDI message was automatically mapped, or you can manually enter your own message.



There are three fields in the **Message** section which, together, will define what type of MIDI Message gets sent and received by the currently selected variable. Messages range from Note On and Control Change to Pitch Bend and Program Change. Typical usage will generally be Note On or Control Change. The last two fields of the **Message** section change depending on the type of message you selected.

Finally, the **Options** section lets you define when the message is triggered. Please see Section 1.12 further down for a detailed explanation of message triggering.

It is important to understand that MIDI messages are bidirectional. An object's variable will respond to the same type of message that it sends. This is useful to create a controller which is always in sync with the software it is controlling.

1.11 OSC messages

The **Open Sound Control** protocol specifies the transmission of messages between two devices. Rather than attaching specific meanings to these messages - as with MIDI - Open Sound Control allows you to define your own messages. In Lemur, the names of objects and their 'path' in the project constitute their default "address" for OSC messages.

As in the MIDI panel, the top of the **OSC** panel features the **Destination** menu which lets you select a default OSC Target (communication path to an application) for all built-in or User defined Variables local to the Object. From the OSC Targets menu, choose the Target that you have set up in the general OSC Settings.

Next are the **Messages section** and the address edit field, which shows the default address for the Object. If you want to change the OSC address use the **Custom Address** switch and type in whatever address you need.

Default parameters of Objects (such as the x variable of a Fader) range between 0 and 1.

The communication with OSC Targets is **bidirectional**. You define the pairing for both incoming and outgoing OSC data with the various parameters of your Objects on the OSC tab. That's why you also find Variables on the menu that don't output values: they can be remote controlled from the displayed OSC address.

1.12 Options / Trigger Modes

The purpose of the Trigger Mode menus for both MIDI and OSC is to define when a message should be transmitted with respect to a change in a Variable's state.

Note: ("**Never**") means that a change in the attached value or expression will not trigger a transmission of the message. It might, however still get triggered by values or expressions associated with other parameters that don't have their Trigger Mode set to Never.

Any change: The message is sent whenever the parameter changes.

Leave zero: The message is sent each time the value rises from 0 into the positive value range.

Reach zero: The message is sent each time the value reaches 0 from the positive value range.

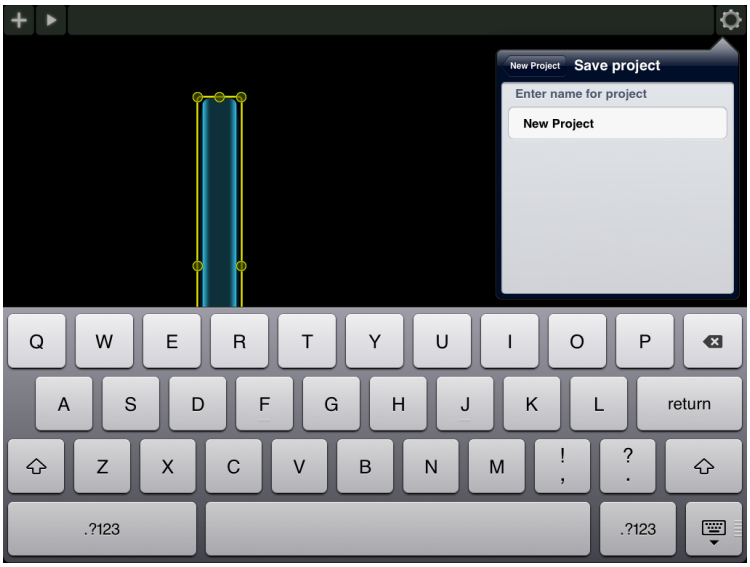
Leave or reach zero The message is sent each time the parameter reaches 0 OR rises from 0.

Increase: The message is sent each time the parameter increases above its previous value.

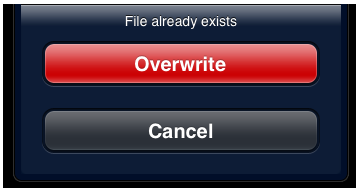
Decrease: The message is sent each time the parameter decreases below its previous value.

1.13 Saving your Project

You might want to keep your work for future easy loading and editing. Just tap the **Settings** button in the toolbar, tap the **Project** section and tap **Save as**.



Enter a name for your Project. If you have been editing a Project you can choose to **Overwrite** your existing Project



All files saved in Lemur are saved on your iPad. Make sure to save your work in the app before closing the Project.

Your Project can be transferred to your computer via the Lemur Editor by using the Download button in the Lemur Editor Connection panel. Projects can also be transferred via iTunes App File Management.

Be careful when you download with the Lemur Editor, as this will overwrite any work you had in progress on the computer.