

# MIDIcon 2 Mapper

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## Version 1.2

### Overview

This program when connected to the MIDIcon 2 will allow you to map MIDI commands to each of the buttons, faders and wheels so that you can customize it to work with your lighting software. The MIDIcon 2 has its own internal default map and memory available for one additional user defined map. When you power on the MIDIcon 2 for the first time, it will be configured with the default map. For most users, this map is sufficient. With this program you will be able to create, save and upload your own user map. After you have uploaded a new map to the MIDIcon 2, it will be saved in the MIDIcon 2's memory and will become the map used on power up replacing the default map.

To use this program you simply click on the image of each control and use a dialog to select the desired MIDI command. Once you have programmed each control you can upload the new map to the MIDIcon 2 using the "Connect" pull-down menu.

### Program Installation

The program can be run directly from the folder without installation. Double click the "MIDIcon 2 Mapper.exe" (application) file to start.

### Menus

Along the top of the application window are four pull-down menus as described below. These menus are used to do things like save a map or send a map to the MIDIcon 2.

#### File

Click to see the following pull-down list.

#### New

This will reset the entire map to the default values. This only affects the settings in the program, the MIDIcon 2 will not be updated until you send the file.

#### Open

Open a saved map file. The map files are MIDI system exclusive message files (\*.syx) that can also be opened by other MIDI applications.

#### Save

Save the current map you created as a MIDI system exclusive file.

#### Save As

Save the current map under a new name.

#### Rename Map

Change the name of the map as it appears at the top of the window. This name is also stored in the map data for later identification.

#### Exit

Exit the program.

## Connect

### *Upload Map to MIDIcon 2*

This will transmit the edited MIDI map to the MIDIcon 2 over USB. The MIDIcon 2 uses MIDI system exclusive messages to transmit and receive maps. The new map will be stored in the MIDIcon 2's memory.

### *Turn On Default Map*

This will tell the MIDIcon 2 to use the factory default map in memory on power up.

### *Turn On User Map*

This will tell the MIDIcon 2 to use the user map in memory (if one exists) on power up.

## Tools

### *Global MIDI Channel*

Use this to set the MIDI channel of all controls to the same channel.

## Help

### *Guide*

Will launch this guide.

### *About*

Version and other info about this program.

Revision 1.2 is compatible with firmware revision 1.2 on the MIDIcon 2. This revision adds fader emulation support for the rotary encoders.

## Creating a Map

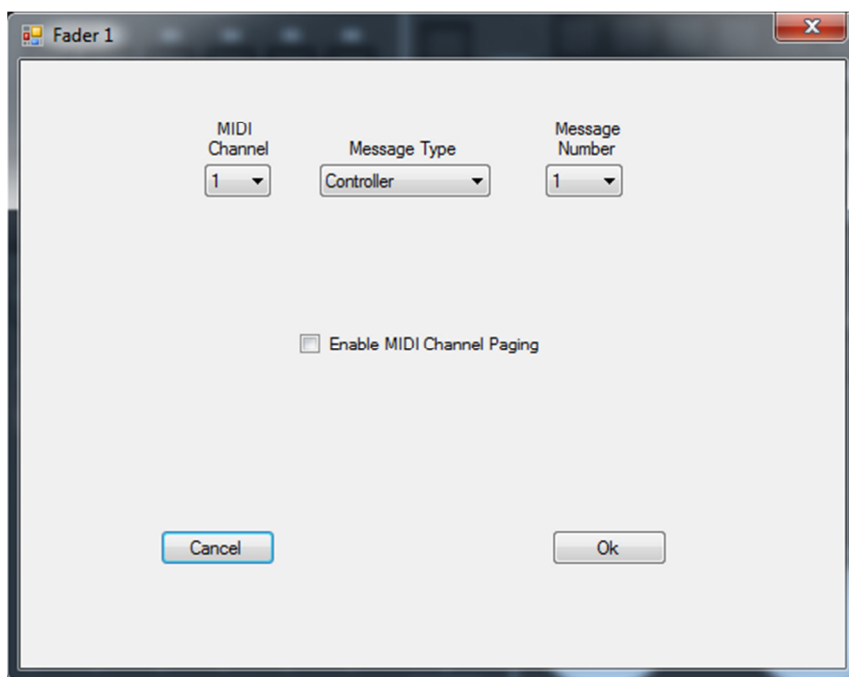
The main window of this program shows a rendering of the controls on the MIDIcon 2.



To select an item (button, fader, etc.) to program, click on that item and a dialog box will appear. From the dialog box you will be able to choose from drop-down lists of settings that are available for that control. The name of the selected control will appear at the top of each dialog.

### Fader

When you click on any fader, the fader dialog box looks like this:



You can change the MIDI channel, the MIDI message type and the message number for the selected fader. The message value will be determined by the position of the fader. The MIDIcon 2 supports the MIDI message types: note, continuous controller and aftertouch. The MIDI message will be used by the fader to send position data to the lighting software. Typically faders use continuous controller messages, shortened to “controller” here.

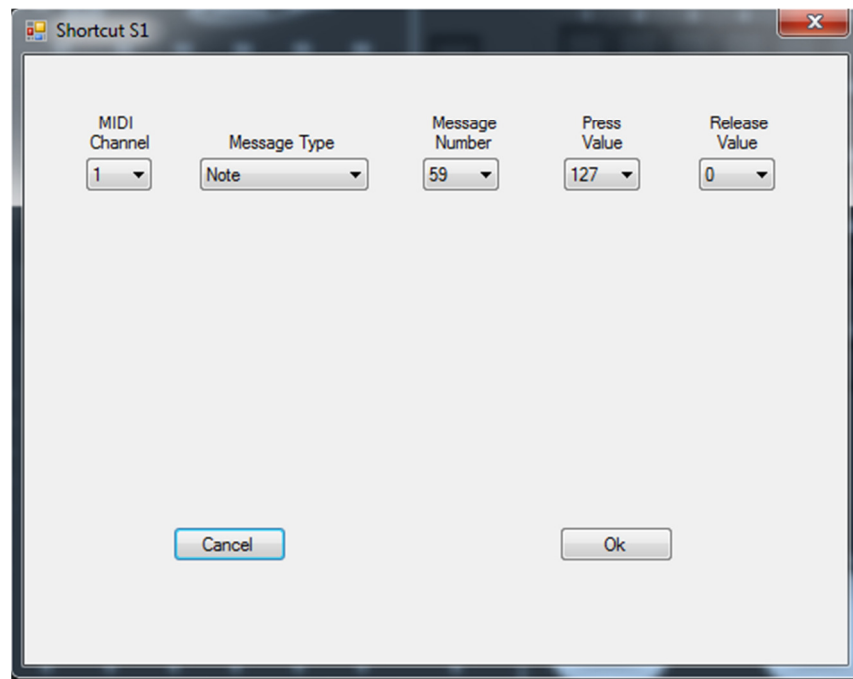
If you check the “Enable MIDI Channel Paging” box, the fader page will determine the MIDI channel of the message. The fader page display is directly above and to the left of the faders on the MIDIcon 2. This feature is used when the lighting software doesn’t support paging internally. This will give you 16 pages of fader messages where each page will cause the faders to send messages on a different MIDI channel. You will notice that when the box is checked the MIDI channel selection is no longer available because the channel will be controlled by the page number.

**Note:** The “Master” fader doesn’t support channel paging.

Channel paging is a global setting. If you set it for one fader it will be enabled for all.

## Shortcut Buttons

When you click on a shortcut button the dialog looks like this:

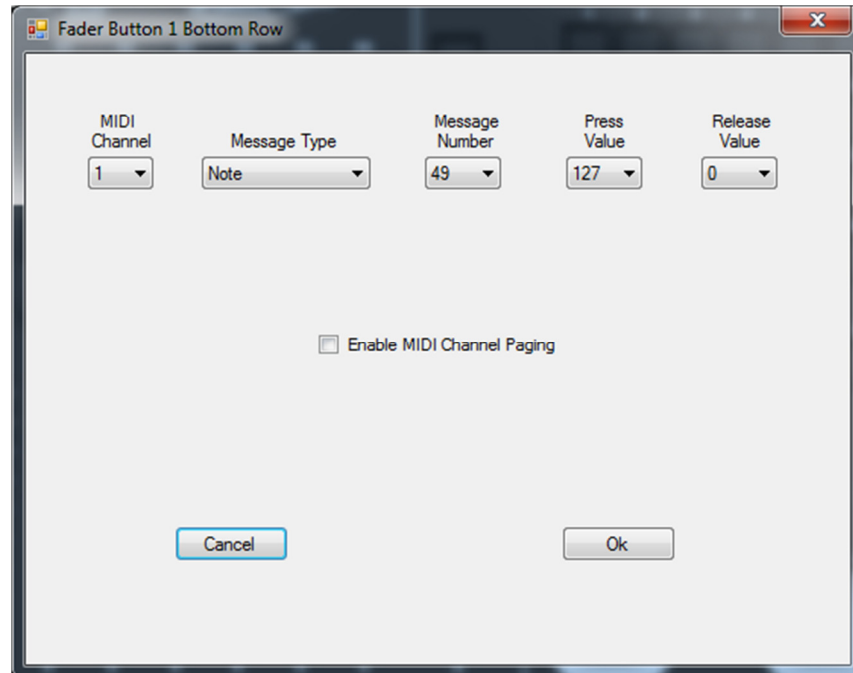


This is the dialog for shortcut buttons S1-S6 and A-H. These buttons don’t allow channel paging. This dialog is also used for the page inc and dec buttons as well as the blackout button.

You can assign the MIDI channel, the MIDI message type, the message number, press and release values to the each button. The MIDIcon 2 supports the MIDI message types: note, continuous controller and aftertouch. The MIDI message is what will be sent to the lighting software when the button is pressed or released. Typically buttons use note on and off messages with a value of 127 for on (press) and 0 for off (release).

## Fader Buttons

There are two buttons above each fader. The fader buttons dialog looks like this:



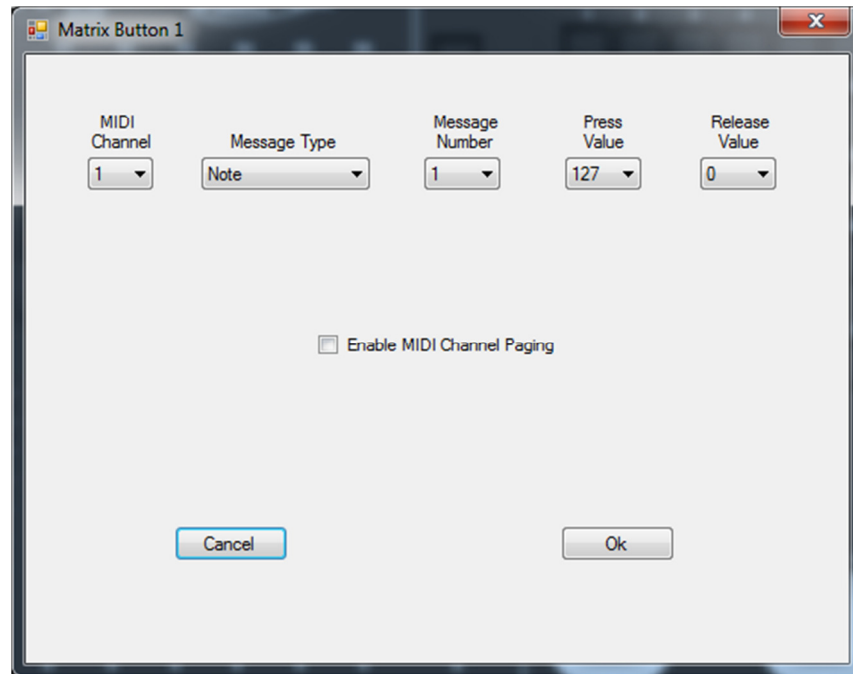
It is similar to the shortcut button dialog except that there is a checkbox; "Enable MIDI Channel Paging".

Channel paging works the same as with the faders, where the fader page controls the MIDI channel of the buttons above the faders. This feature will allow you to send 16 pages of button messages on 16 different MIDI channels. Configure the MIDI message the same as with any button. You will notice that the MIDI channel selection will be disabled if the paging box is checked.

Channel paging is global. If you enable it for one button it will be enabled for all fader buttons and faders.

## Matrix Buttons

The matrix buttons dialog looks like this:



It is similar to the fader button dialog with a checkbox for channel paging.

Channel paging works the same as with the faders, where the matrix page (upper left of matrix buttons) controls the MIDI channel of the 32 buttons. This feature will allow you to send 16 pages of button messages on 16 different MIDI channels. Use this when your software doesn't handle paging internally. Configure the MIDI message the same as with all other buttons. You will notice that the MIDI channel selection will be disabled if the paging box is checked.

Channel paging is global. If you enable it for one matrix button it will be enabled for all matrix buttons.

## Encoder Wheels

When you click on one of the four large wheels the dialog looks like this:

The 'Wheel 1' dialog box is shown with the following settings:

Encoder Turn					
MIDI Channel	Message Type	Inc Message Number	Inc Value	Dec Message Number	Dec Value
1	Note	78	127	79	127

Encoder Push In				
MIDI Channel	Message Type	Message Number	Press Value	Release Value
1	Note	102	127	0

At the bottom, there are two checkboxes: ☐ Emulate Fader and ☐ Rollover. The 'Cancel' button is on the left and the 'Ok' button is on the right.

The encoder wheels can generate MIDI messages three ways; clockwise turning (inc), counterclockwise turning (dec) and push in. Turn messages share the same message type and channel but can use a different message number or value for inc or dec. When turning, the wheels will send 96 messages per revolution. Pushing in on the encoder is similar to a button press and release. Additionally you can configure any rotary to emulate a fader (potentiometer). Checking the “Emulate Fader” box will make the dialog appear similar to the one below. Faders will always use MIDI controller messages so all that’s needed is to select the controller number to assign to the fader. The controller value will emulate the position of a potentiometer as you inc or dec the encoder. If you would like the position value to rollover when reaching the top or bottom, check the “Rollover” box. This will cause the position to rollover to 0 rather than stick at 127 (top of fader).

The 'Wheel 1' dialog box is shown with the following settings:

Encoder Turn		
MIDI Channel	Message Type	Fader Number
1	Controller	78

Encoder Push In				
MIDI Channel	Message Type	Message Number	Press Value	Release Value
1	Note	102	127	0

At the bottom, there are two checkboxes: ☒ Emulate Fader and ☐ Rollover. The 'Cancel' button is on the left and the 'Ok' button is on the right.

## Fader Rotaries

When you click on one of the small rotary knobs above each fader the dialog looks like this:

The screenshot shows a dialog box titled "Small Rotary 1" with a close button (X) in the top right corner. The dialog is divided into two main sections: "Encoder Turn" and "Encoder Push In".

**Encoder Turn Section:**

MIDI Channel	Message Type	Inc Message Number	Inc Value	Dec Message Number	Dec Value
1	Note	86	127	87	127

**Encoder Push In Section:**

MIDI Channel	Message Type	Message Number	Press Value	Release Value
1	Note	68	127	0

At the bottom of the dialog, there are three checkboxes: "Enable MIDI Channel Paging" (unchecked), "Emulate Fader" (checked), and "Rollover" (unchecked). Below these checkboxes are two buttons: "Cancel" and "Ok".

The dialog is similar to the one for the wheels with the addition of a checkbox for MIDI channel paging. Channel paging works the same as with the faders, where the fader page controls the MIDI channel of these rotaries. This feature will allow you to send 16 pages of rotary messages on 16 different MIDI channels. Use this when your software doesn't handle paging internally. Configure the MIDI message the same as with the wheels. You will notice that the MIDI channel selection will be disabled if the paging box is checked.

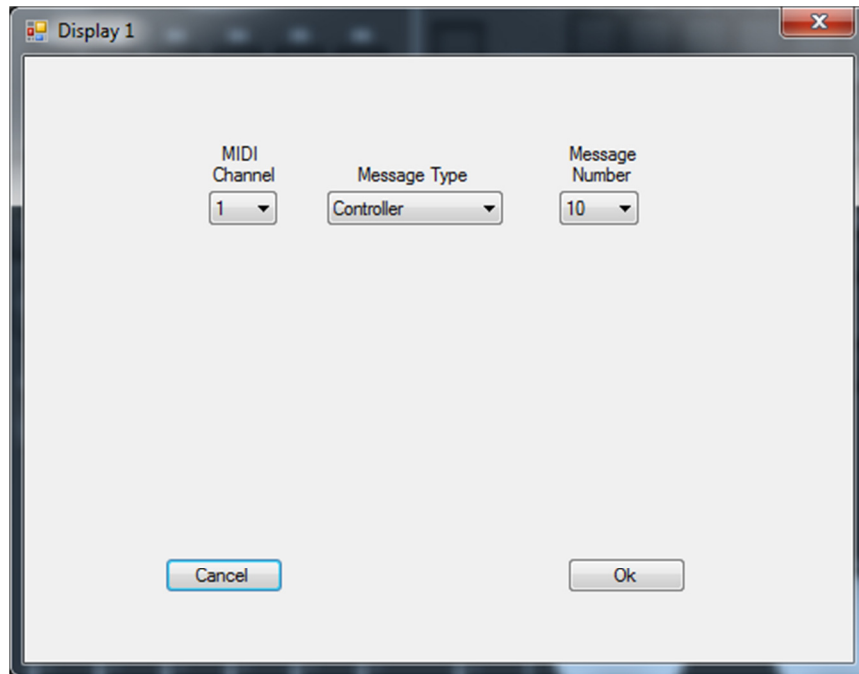
Channel paging is global. If you enable it for one rotary it will be enabled for all rotaries, faders and fader buttons.

As with the large encoder wheels, you can also configure any small rotary to emulate a fader.



## Page Displays

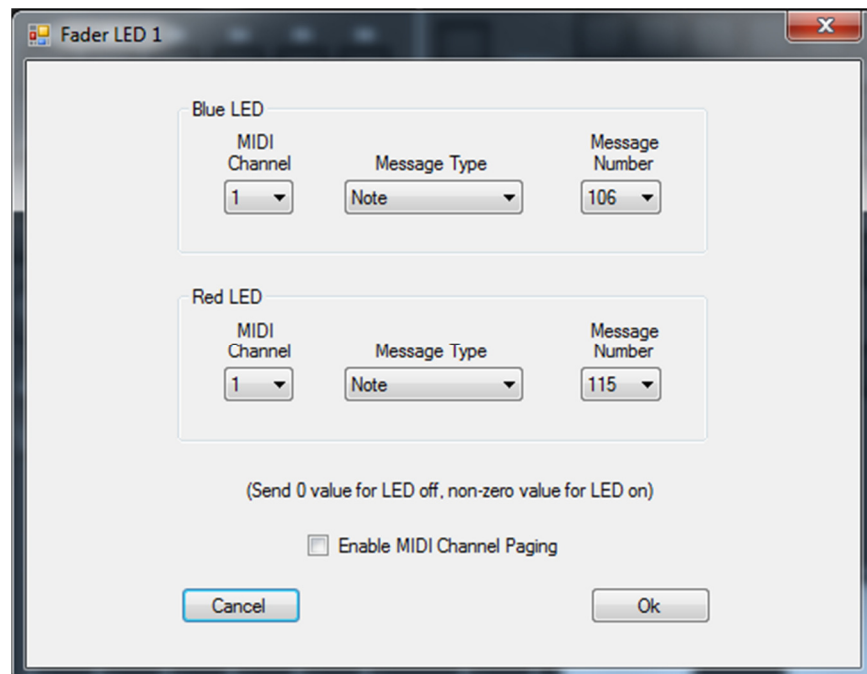
When you click on a page display the dialog looks like this:



This dialog lets you select the message that the page displays will send and receive. For paging, the message will be sent to your lighting software by the MIDIcon 2 whenever the page is changed. Likewise, the software can control the page display by sending this same message to the MIDIcon 2. If channel paging is enabled the MIDI channel for the faders or matrix buttons will be changed as long as a value from 1 to 16 is used, otherwise the message is ignored. If channel paging is not enabled, any value between 0 and 99 can be sent to the page displays.

## LEDs

When you click on an LED above a fader the dialog looks like this:



This dialog lets you select the message that the LEDs will respond to. The LEDs are bi-color and as you can see from the dialog there are separate messages for turning the red or blue LED on. The software can control the LED state by sending the message to the MIDIcon 2. A value of 0 will turn the LED off and any non-zero value will turn it on. If channel paging is enabled the MIDI channel must match the current page for the faders, otherwise the message is ignored. If channel paging is not enabled, you can select the MIDI channel in the dialog.

## Saving and Sending a Map

After you have created a new MIDI map, you can save it as a file. Use the "Save As" or "Save" selections from the "File" pull-down menu. The files are saved as .syx files that are compatible with other MIDI applications.

Maps can be sent to a MIDIcon 2 from the "Connect" pull-down menu. The MIDIcon 2 must be connected to your computer via USB. Choose "Upload Map to MIDIcon 2" to send the new map. The map currently displayed in the application will be stored in the MIDIcon 2 internal user map memory. It will replace any previous user map stored there and will be the map used on power on.

Choose "Turn On Default Map" to tell the MIDIcon 2 to switch to its internal factory default MIDI map. The default map becomes the power on map.

Choose "Turn On User Map" to tell the MIDIcon 2 to switch from its internal map to the user installed map in memory (if one exists). It will also become the power on map.

Information and specifications in this document are subject to change without notice. Elation professional assumes no responsibility or liability for any errors or inaccuracies that may appear in this manual.

Elation Professional  
6122 S Eastern Ave.  
Los Angeles, CA. 90040  
323-582-3322 / 323-832-9142 fax  
Web site: [www.ElationLighting.com](http://www.ElationLighting.com)  
Email: [Info@ElationLighting.com](mailto:Info@ElationLighting.com)

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