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## Use of MIDI devices with DMXControl 2.8

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### Introduction

DMXControl provides the ability to control a light show either partly or completely via a MIDI interface, e.g. a MIDI controller such as [www.MIDIbox.org](http://www.MIDIbox.org).

You can also configure a normal MIDI keyboard to control a show using the keys to trigger all the usual light control functions: effects, scenes, submaster-flashes, etc. Because you can "play" the keys of a MIDI keyboard more easily than a PC keyboard, this can be a great advantage, although you could also dim and flash channels via a PC keyboard.

You can manage every conceivable application of lighting with this kind of control:

- Theatre lights: you can put the different scenes one after another on the keys.
- Disco or club lighting: you can put different effects, scenes and submasters on the different keys.
- Live music or band illumination: similar to the case for the disco lights, you can even play lighting effects in parallel to the music from the keyboard.

This article describes how to configure DMXControl for MIDI devices and gives you tips for dealing with the MIDI control.

Due to the greater availability of MIDI keyboards, these are referred to through out this document, however the statements also apply to another MIDI equipment.

### Acknowledgment

I would like to acknowledge Richard Clayton for translation support and review.

### DMX Control by means of MIDI devices

No limits are set as to how you can configure the control. If you would like to have the PC control more of the light show you can simply put several effects on the keys. If you prefer to control the lighting in a more "manual" mode you can put all of the submasters on the keys.

It is also important to assign both slow and fast automatic effects to the buttons so that you can react better to the music.

A small tip:

If you are using different MIDI configurations you should write the control names on the keys of the MIDI keyboard so that you know exactly function each key performs

Keys should be assigned in structured way.

For example:

The first 4 submasters (e.g. spot-lights) should be put on the first 4 white keys of the left site of the keyboard.

If you have pre-defined effects (running lights or similar) for use with these submasters (the spot-lights) then put them on the black keys above the first four white buttons.

So you have the manual control of the spot-lights available and can also quickly start the running light effect as necessary.

For all applications it is useful to include a key with a full blackout command. This key is invaluable as you can immediately turn off all spot-light, scanners and other lighting.

You should put the blackout scene on a key, which you can remember well, for example the outermost right key (or black key).

### **MIDI configuration at PC**

The following components are required In order to control DMXC via a MIDI interface successfully:

- A MIDI device (or keyboard)
- A sound card/DSP card fitted in the PC with MIDI/joy-stick connections and with all required drivers installed for receiving MIDI signals
- A MIDI cable from the MIDI device to the PC (as a rule, this will usually be a cable with 5 pin DIN connector on 1 end and a 15 pin Sub-D connector on the other)
- The DMXControl software.

To test whether the device is correctly set-up and signals are arriving at the PC, we recommend the MIDIOX software. You can find the program here:

<http://www.MIDIox.com/zip/MIDIoxse.exe>

You can also test the functional ability of the interface with a MIDI Sequencer program.

USB MIDI keyboards are also available which do not require a sound card with MIDI connection or the corresponding cable. However, this solution has not been tested yet. (Possibly a MIDI-USB driver must be installed which then emulates the corresponding MIDI signals).

After successful connection of the device, DMXControl should be started. To configure the settings for the keys on the MIDI keyboard click "configuration" -> "MIDI remote control" from the control centre of DMXControl (main window).

Assuming that the keyboard was installed correctly you can select the correct connection at "MIDI in port". The MIDI out port is not important for a "normal" MIDI keyboard.

## MIDI banks in DMXControl

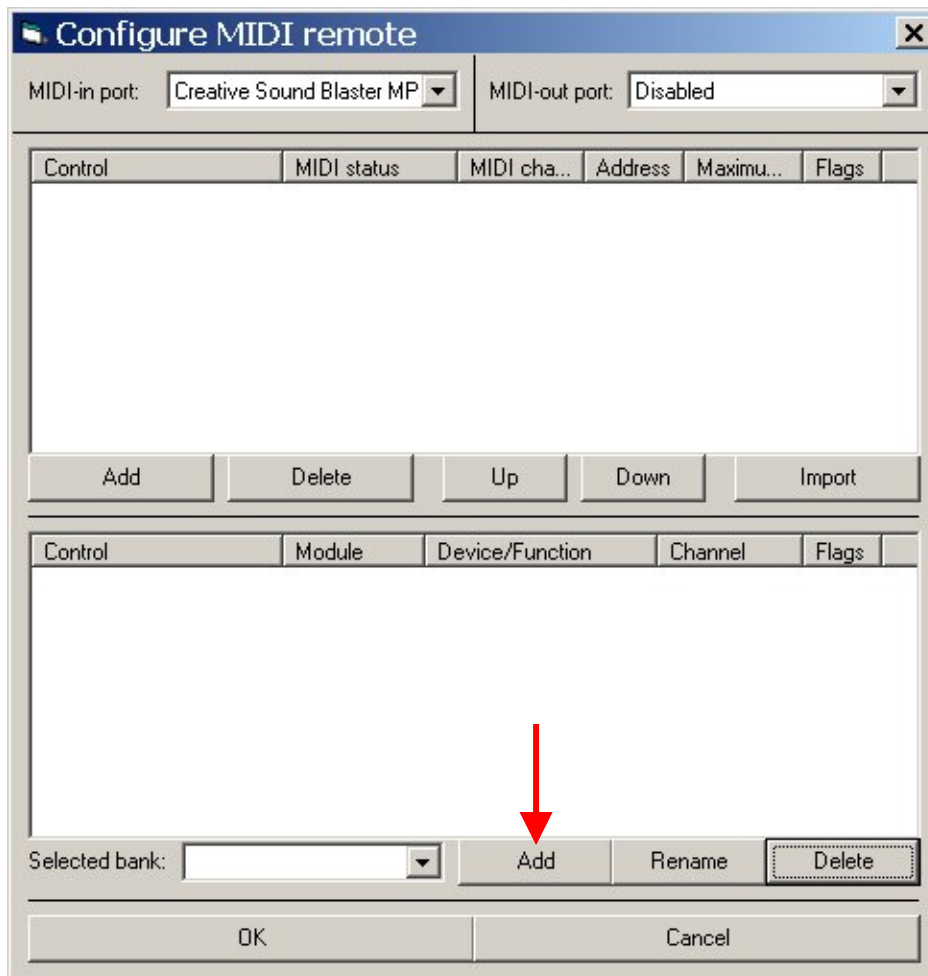
Several MIDI banks can be configured to select different configurations quickly. For example you can define a bank in which the keys of the keyboard will be used to illuminate a band.

On the other hand, another bank can be defined for different scenes in a theatre play. Or you can use different banks because you would like to use different MIDI equipment at different events. In this case every device has its own configuration, which is its own MIDI bank.

Finally you can simply use the different banks for changing between different area's at the same event because you have prepared so many effects, scenes, submasters etc. that you have more settings than available keys (e.g. 49 key music keyboard). It is left to the user how he would like to use the keyboard.

A new MIDI bank must be created first.

Click "add" and allocate a name for the new bank. This name can be selected directly under "selected bank" later.



Once this has been done, you can close and test the MIDI remote control, to ensure that data from the MIDI keyboard actually arrives at DMXControl.

To do this open the MIDI remote control window from the main window of DMXControl by clicking "window" > "MIDI remote control".

The MIDI bank you just made should be shown in this window. If this isn't the case, select the current bank from the drop down menu. There may be several MIDI banks shown.



To activate the MIDI remote control put a tick in the "MIDI remote active" check box. Different values should be shown at the bottom of this window when a key is pressed on the MIDI keyboard.

The following values are displayed:

**Message:**

The first number, indicates information about the MIDI event (e.g. note on/off ), the second number displays the used MIDI channel, starting at "0" to "15".

To control commands with a normal MIDI keyboard in DMXC, only one type of MIDI event is needed:

Note on/off.

**Data 1:**

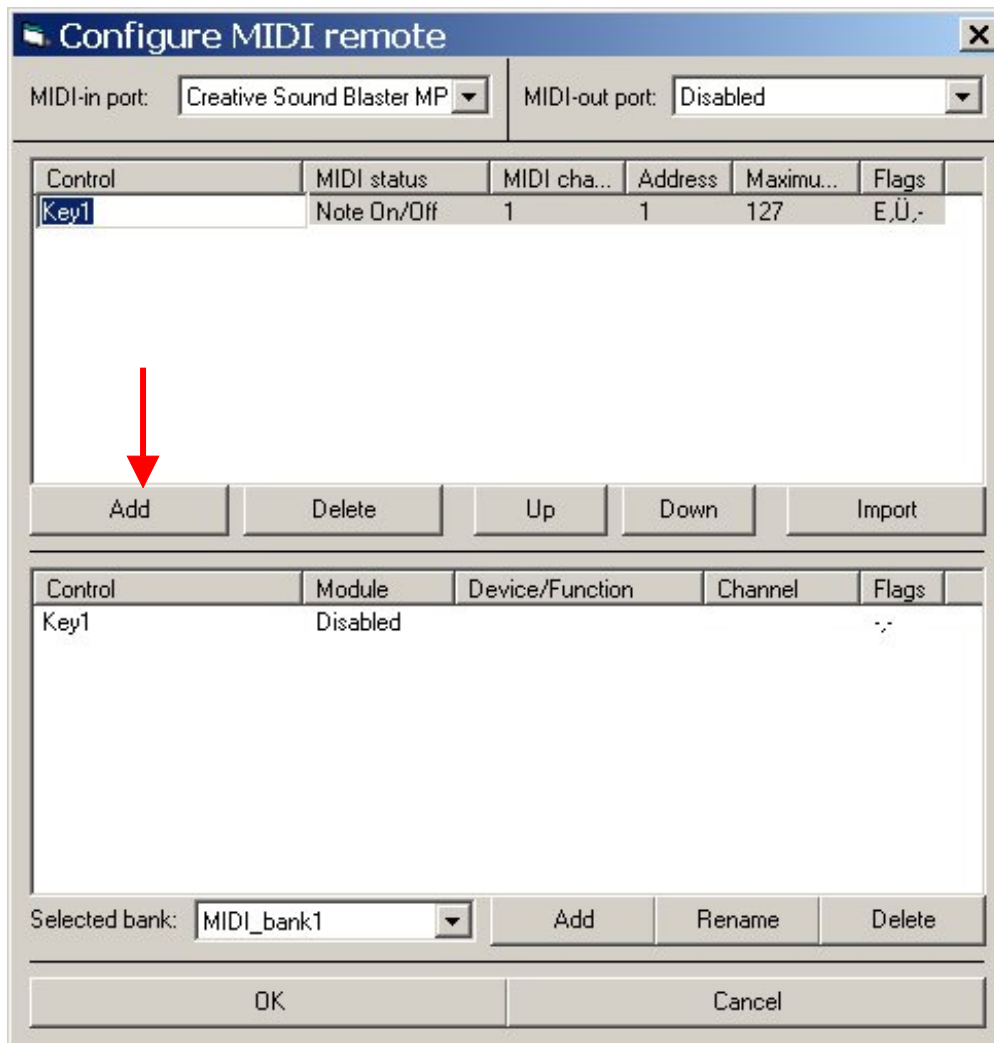
This value indicates the actual key, which is pressed at the MIDI keyboard.

**Data 2:**

This value indicates the maximum value, which this key can accept, i.e. the value at which the channel is "fully" on.

These values are important for the MIDI configuration and for the configuration of keys with different events.

To configure a key, which is indicated under data 1, you have to remember the value of data 1 and change to the MIDI remote control window again and click on control element "add":



After this you can rename the new control element.  
To avoid confusion, it is advisable to choose clear and meaningful names.

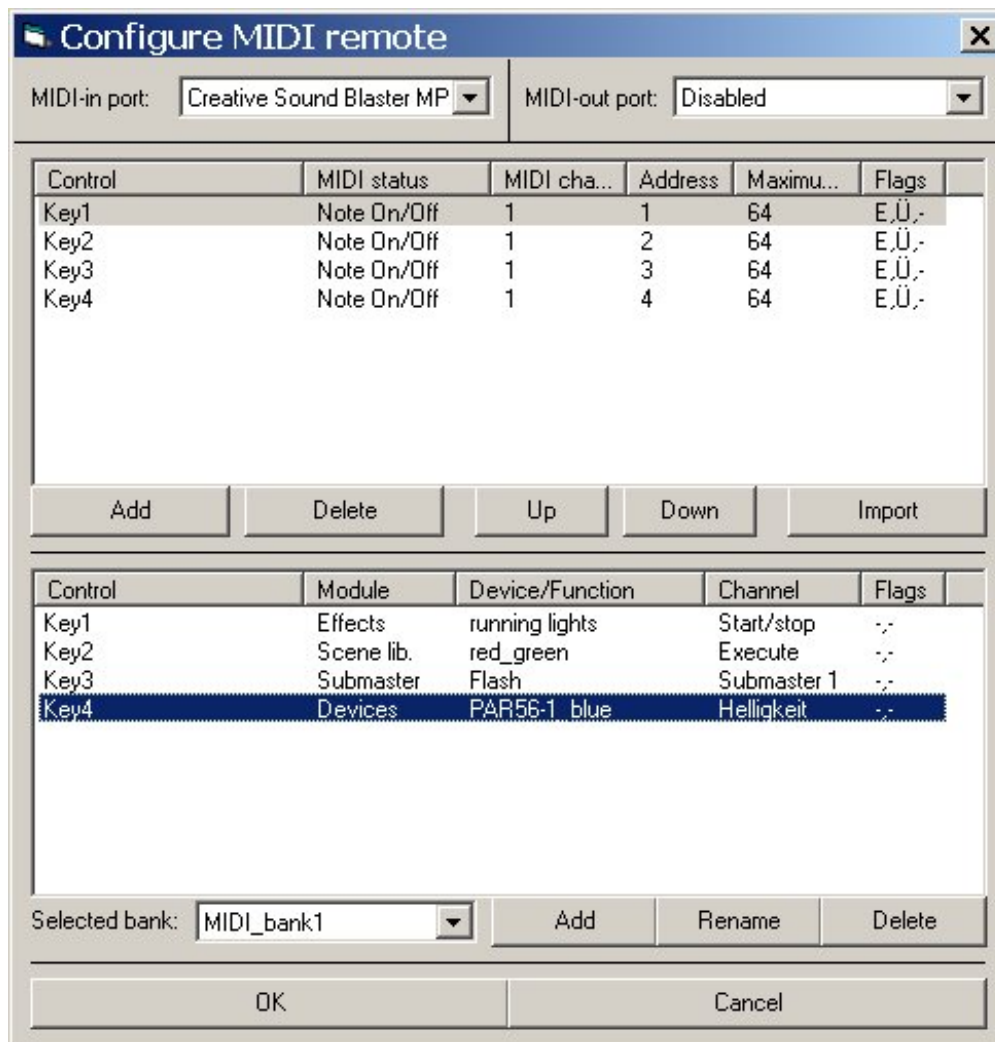
Now select "note on/off" under "MIDI status". The "MIDI channel" is the number, that was noted in the remote control window as the first number after "message".  
The "address" is the number that was noted at data 1.  
The "max. value" is the value of data 2. DMXControl should now "know" which key of the keyboard will be used, although no command (effect etc.) is assigned to it yet.

### Assignment of commands to MIDI elements

You assign commands to MIDI elements in the lower part of the configuration window. Here the newly created control element is listed, however, it is still disabled. Click on the word "disabled" and select from the different choices in the drop down. You should select the module, you would like to assign to the key of the keyboard. Depending on the choice of module the choices of "equipment/function" and "channel" change.

For example, if you select the "scenes library" module, you can choose from your scenes (if you have made scenes within DMXControl) under "equipment/function" and only one option "execute" remains in the list under "channel".

However, if you select the "effect" module, you can choose an effect under "equipment/function" and select from the list under "channel" whether the function assigned to the key is started and stopped or is started or stopped only. Here a small example:



When you have finished the configuration, click on "Ok" and confirm that "MIDI remote active" is ticked in MIDI remote control. The command configured should be executed correctly when pressing a key of the MIDI keyboard.

We wish you success in using the MIDI device.

Any notes and suggestions for this topic please send to [info@dmxcontrol.de](mailto:info@dmxcontrol.de).