Trigger actions with MIDI items from within REAPER without MIDI hardware

HOW TO SET UP

1. Download and install 3d party software

A. Free LoopBe1 virtual MIDI driver
https://www.nerds.de/en/loopbe1.html
OR
http://web.archive.org/web/20250108152734/https://www.nerds.de/en/download.html (at the bottom of the page)
direct link in case the website is down:
http://web.archive.org/web/20250108131906/https://www.nerds.de/data/setuploopbe1.exe

B. Free Virtual MIDI Keyboard
http://www.granucon.com/SoftwarePages/vmk.aspx
(http://web.archive.org/web/20250112060658/http://www.granucon.com/SoftwarePages/Vmk.aspx)
OR
free Virtual MIDI Sliders
http://www.granucon.com/SoftwarePages/vms.aspx
(http://web.archive.org/web/20250114122753/http://www.granucon.com/SoftwarePages/Vms.aspx)

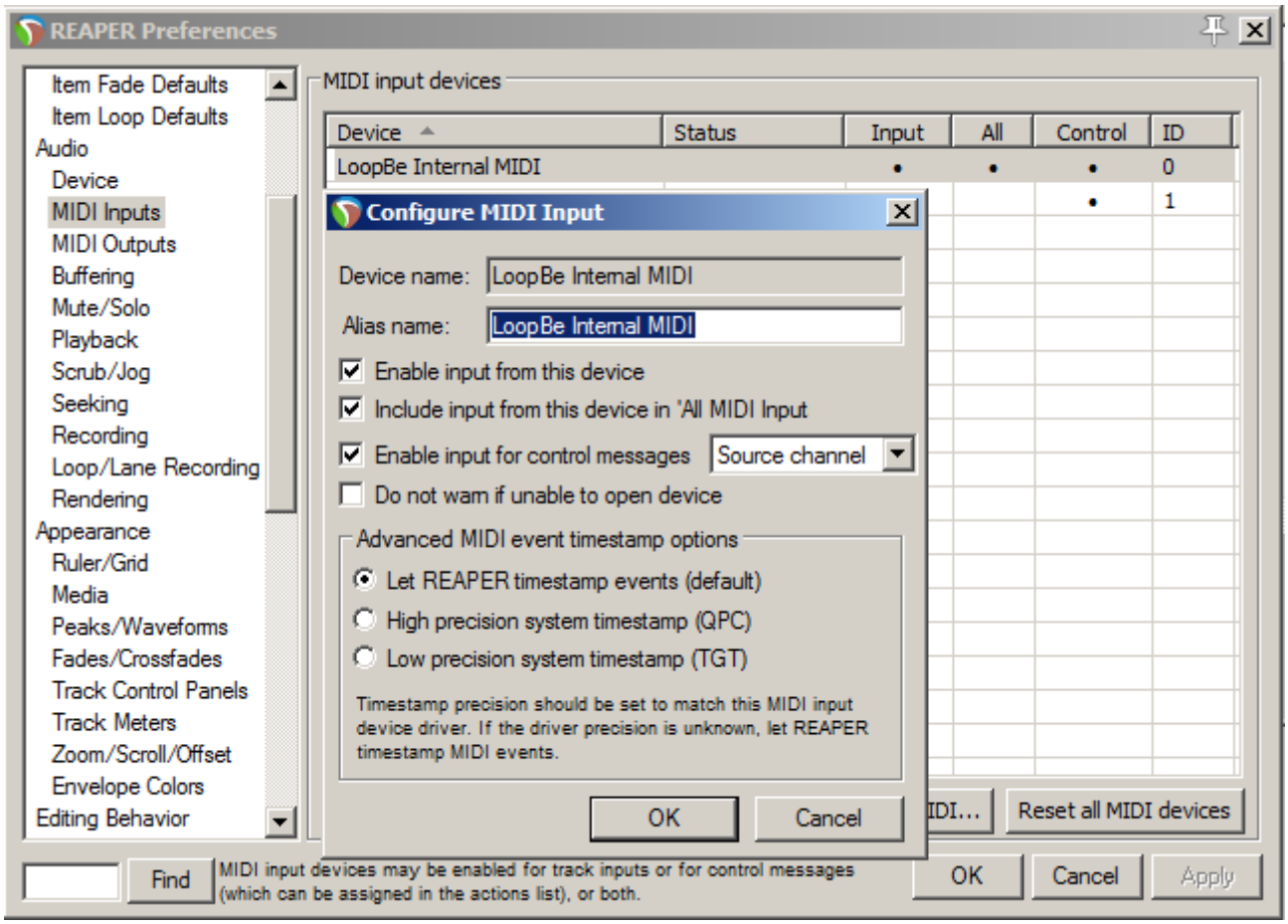
In this guide Virtual MIDI Keyboard is used but the principle is the same.

Both these pieces of software are needed to be able to bind actions to MIDI notes, CC or other messages without MIDI hardware.

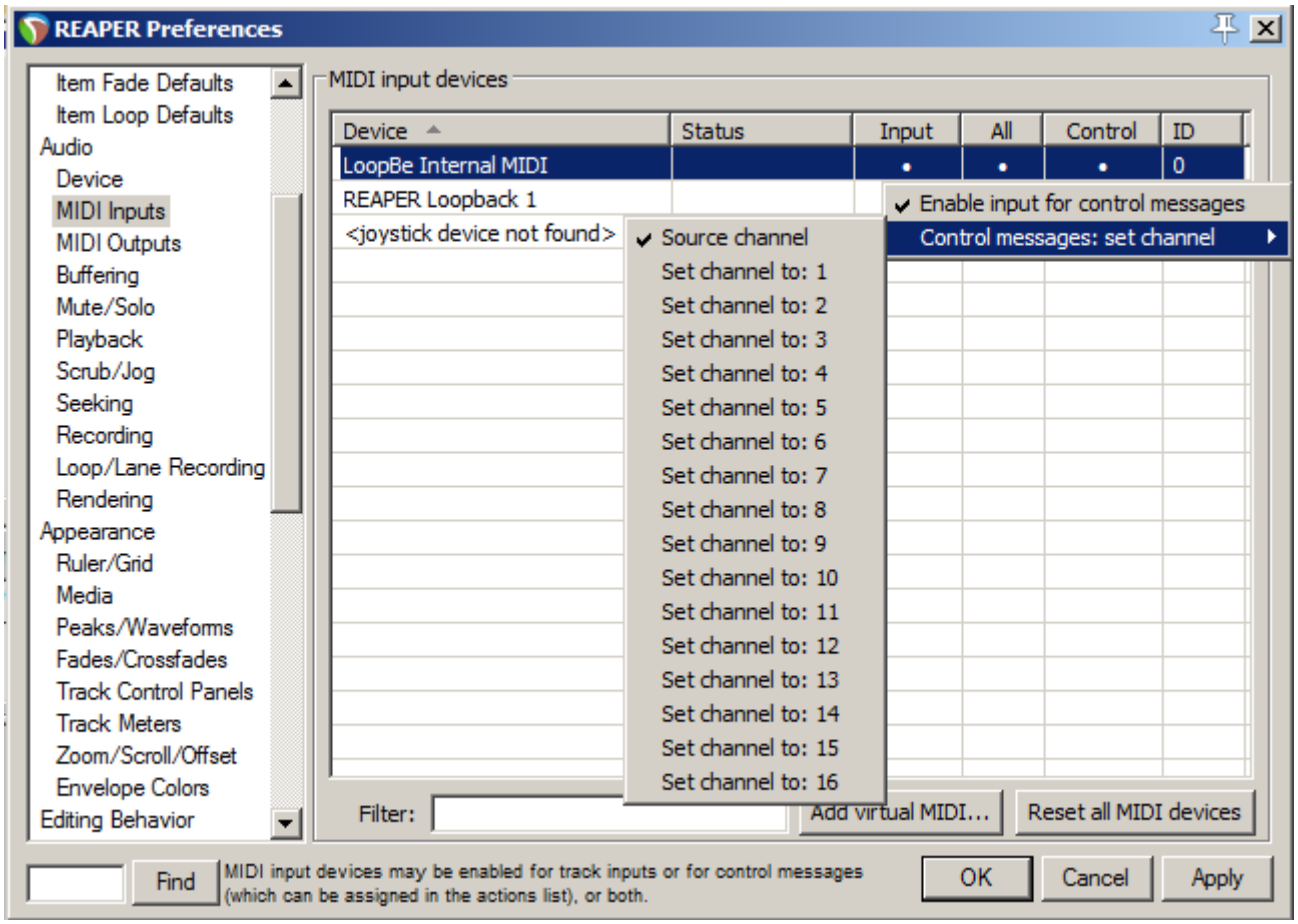
2. Configure REAPER

A. In REAPER **Preferences** go to **Audio —> MIDI Inputs**

B. Enable **LoopBe1** as MIDI input device by double clicking on its entry in the **Device** column. The 3 checkboxes are the main settings, the rest can be left as it is. Click **OK** in the **Configure MIDI Input** dialogue to submit the settings and then click **Apply** to store the preference.



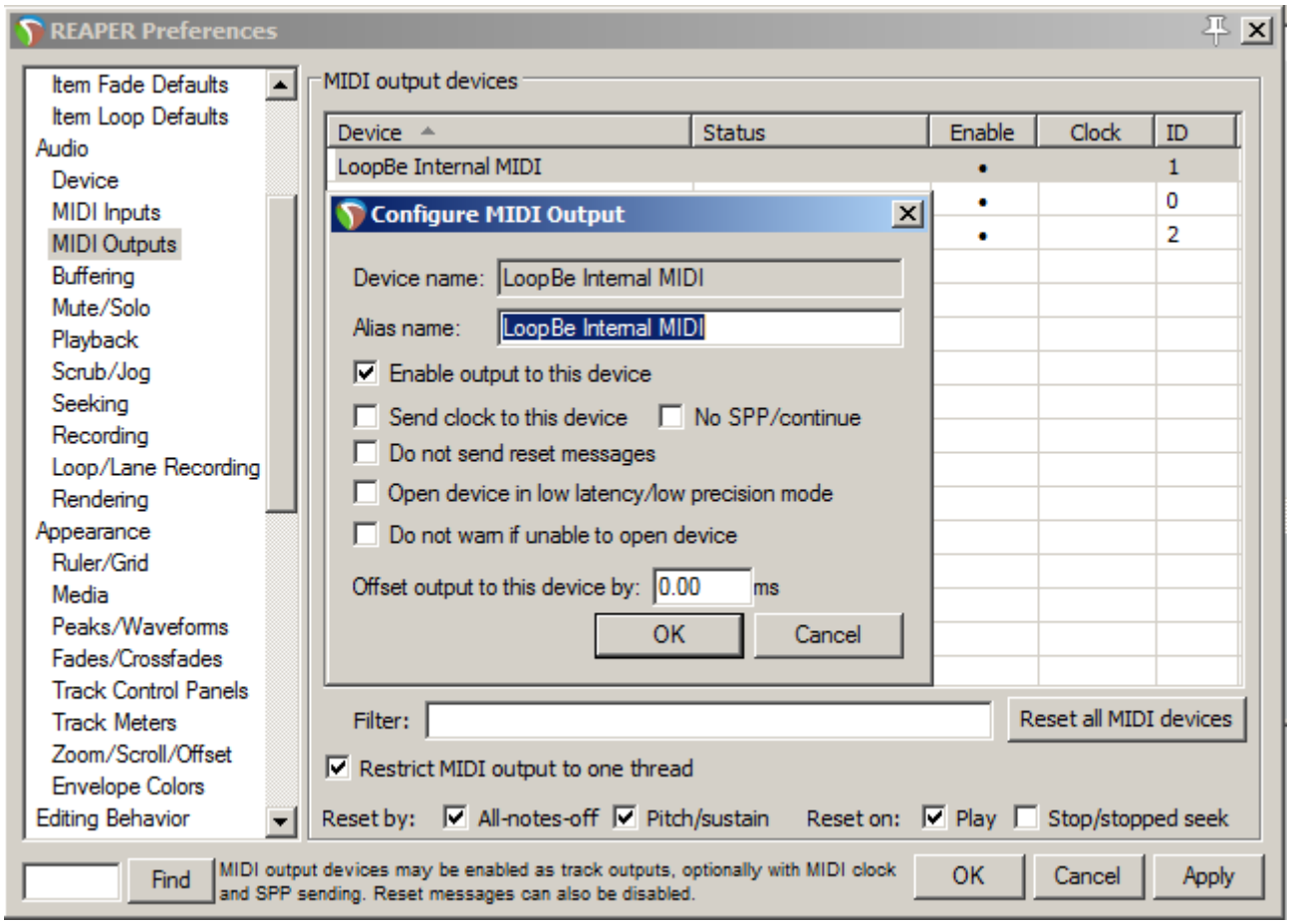
C. Configure **LoopBe1** input MIDI channel by right clicking its slot in the **Control** column. Check **Enable input control messages**. In **Control messages: set channel** submenu if Source channel is selected you'll be able to bind actions to MIDI notes and messages transmitted on any MIDI channel, otherwise the transmitted note/message will be forcibly associated with the channel selected in this menu regardless of the channel of transmission.



D. MIDI Output devices configuration

The guide describes how to enable two output devices, however for triggering actions via MIDI either one will suffice.

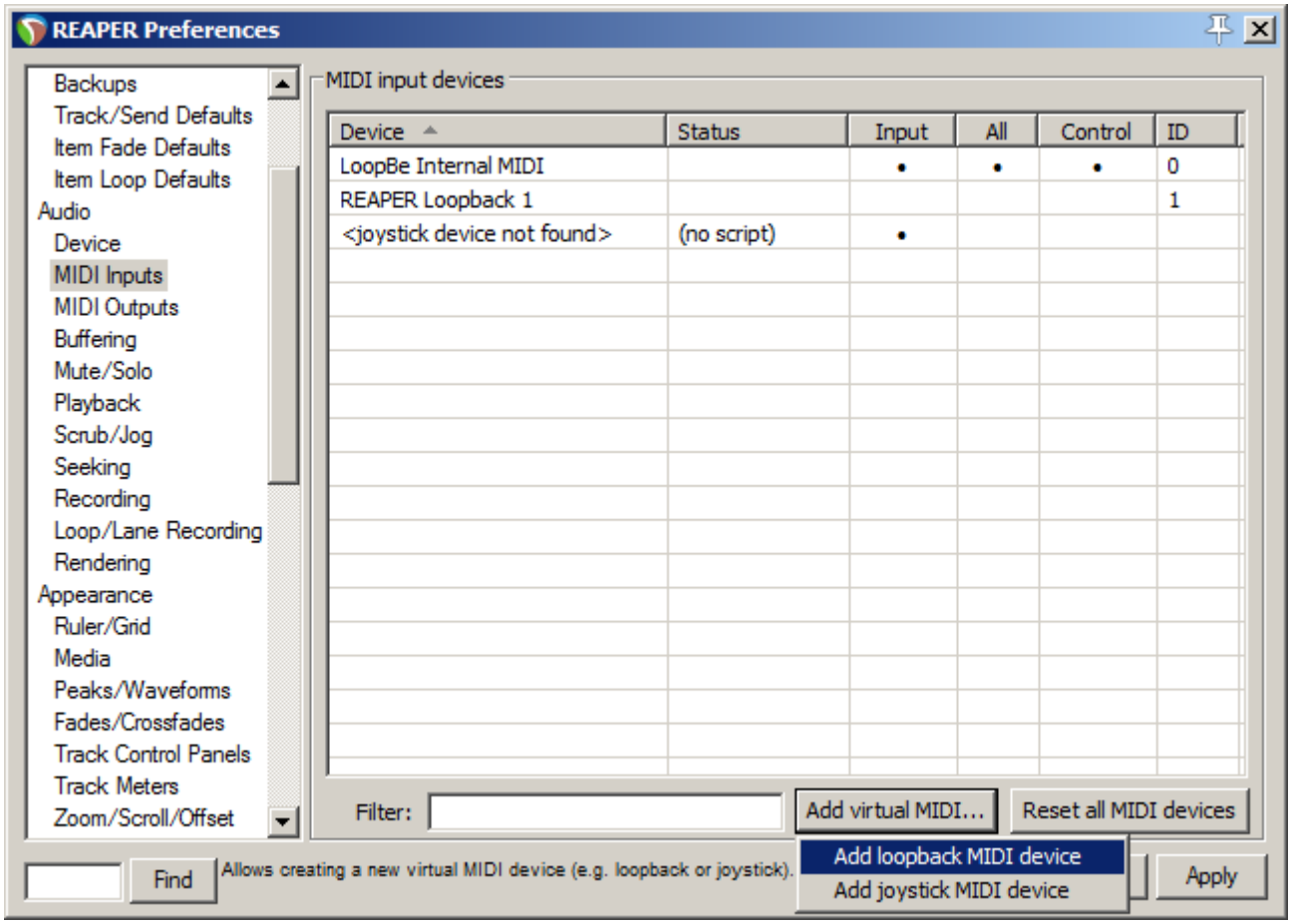
i. Switch to **MIDI Outputs** item in the **Preferences** and enable **LoopBe1** as MIDI output device by double clicking its entry in the **Device** column. The top checkbox is the main setting, the rest can be left as it is. Click **OK** in the **Configure MIDI Input** dialogue to submit the settings and then click **Apply** to store the preference.



ii. (Supported since REAPER 7)

a) Switch to **MIDI Inputs** item in the **Preferences**.

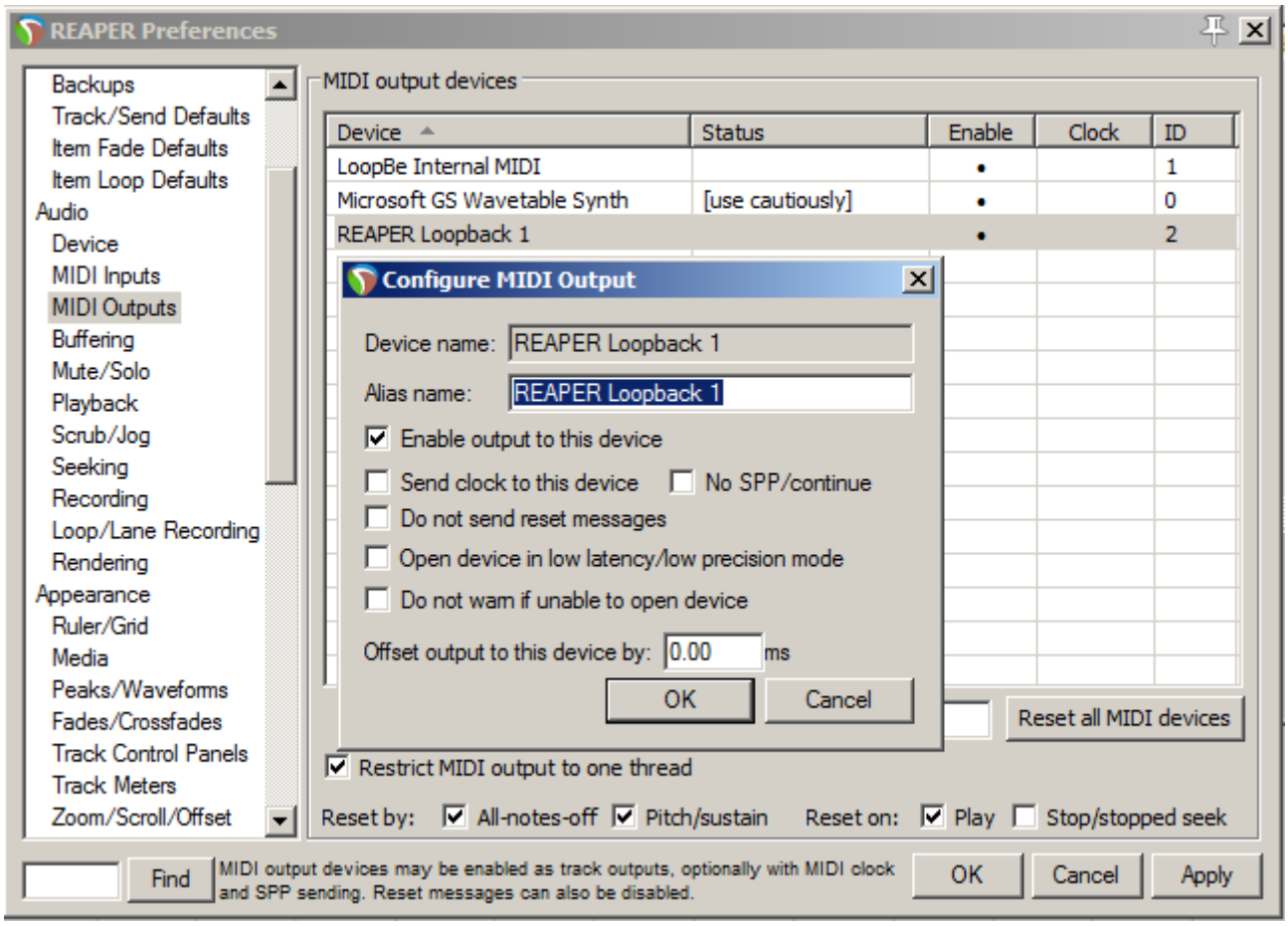
b) Click “**Add virtual MIDI …”** button —**> Add loopback MIDI device** to add a REAPER internal virtual MIDI input. A new entry **REAPER Loopback 1** will be created in the list.



c) Repeat step 2. C. this time with **REAPER Loopback 1** device

d) Switch to **MIDI Outputs** item in the **Preferences**.

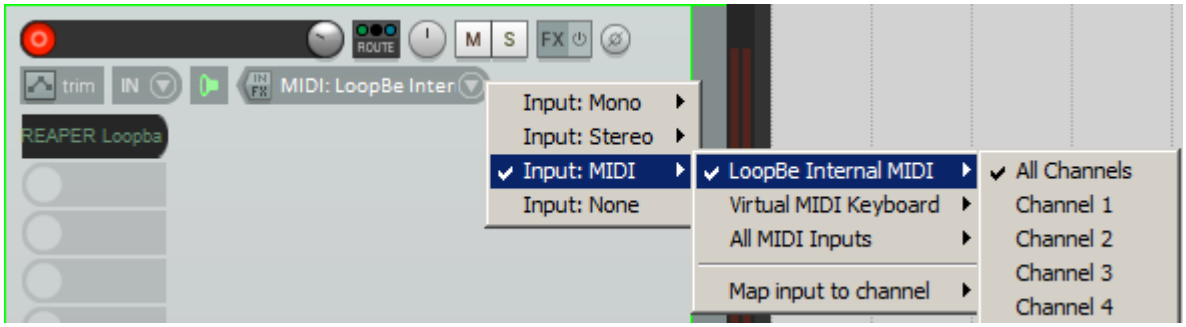
e) Repeat step 2. D. i. this time with **REAPER Loopback 1** device.



Regardless of which output device is preferred it must be enabled in the **Control** column under **MIDI Inputs** item in the **Preferences** and in the **Enable** column under **MIDI Outputs** item in the Preferences.

3. Bind an action to a MIDI message using the downloaded and installed pieces of software.

A. In the **MIDI inputs menu** of any track enable **LoopBe Internal MIDI —> All channels** and record arm the track so it receives MIDI input.

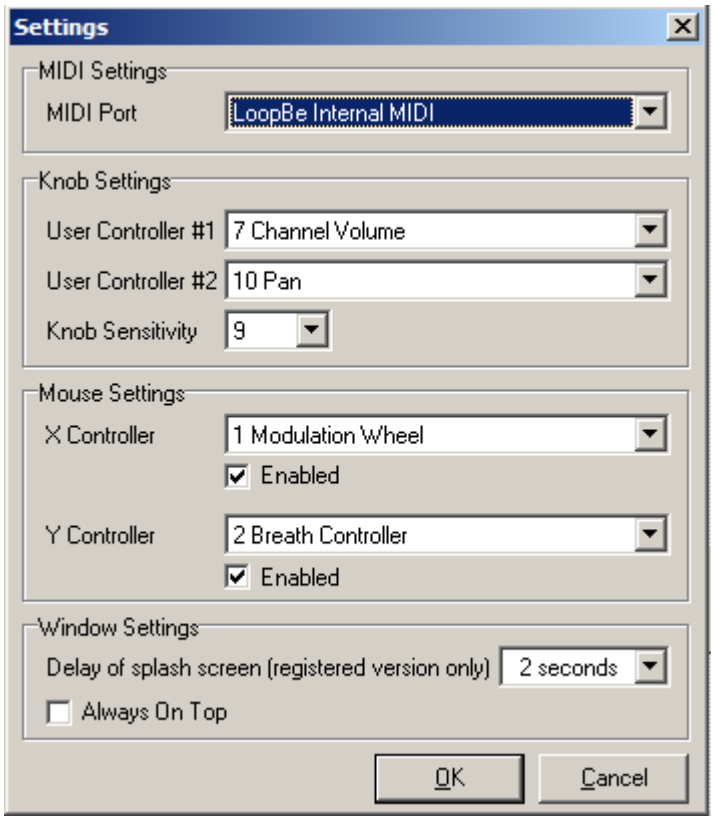


B. Open the installed Virtual MIDI keyboard.

C. Click **Settings** button.

D. Under **MIDI Settings** in the **MIDI Port** drop-down list select **LoopBe Internal MIDI**.

If you wish to bind an action to a CC or other type of message, enable the corresponding messages in the settings below **MIDI Port** setting. To bind actions to MIDI notes, activation of a **MIDI Port** is enough.

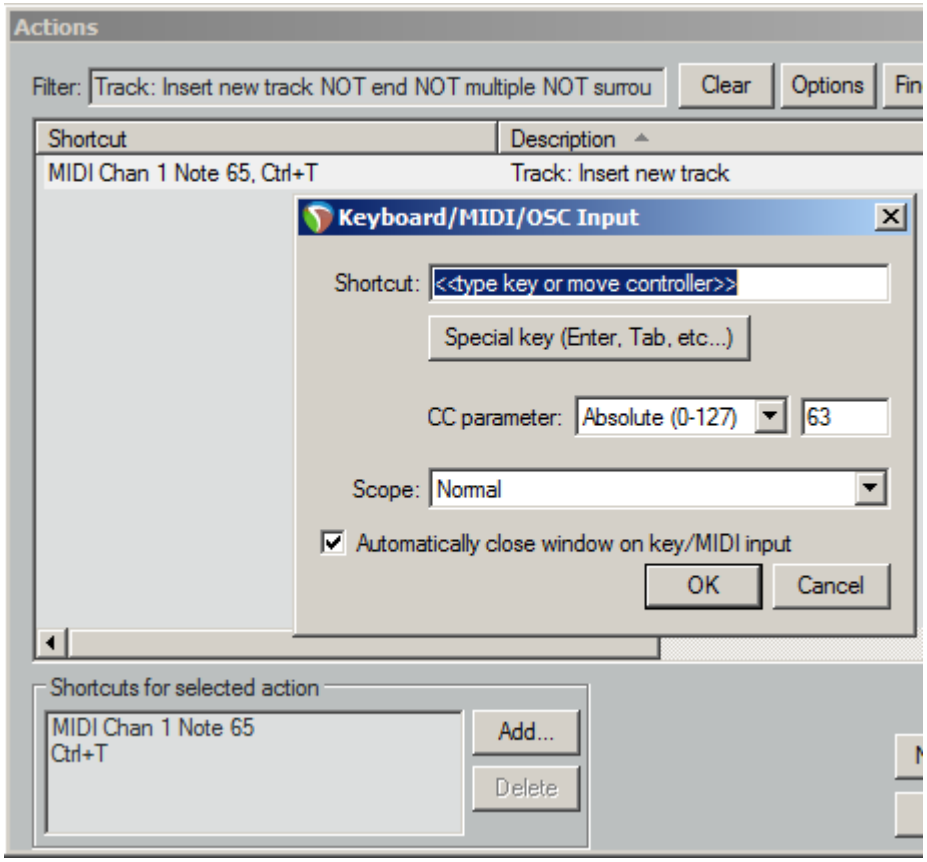


E. Click **OK** to store the settings.

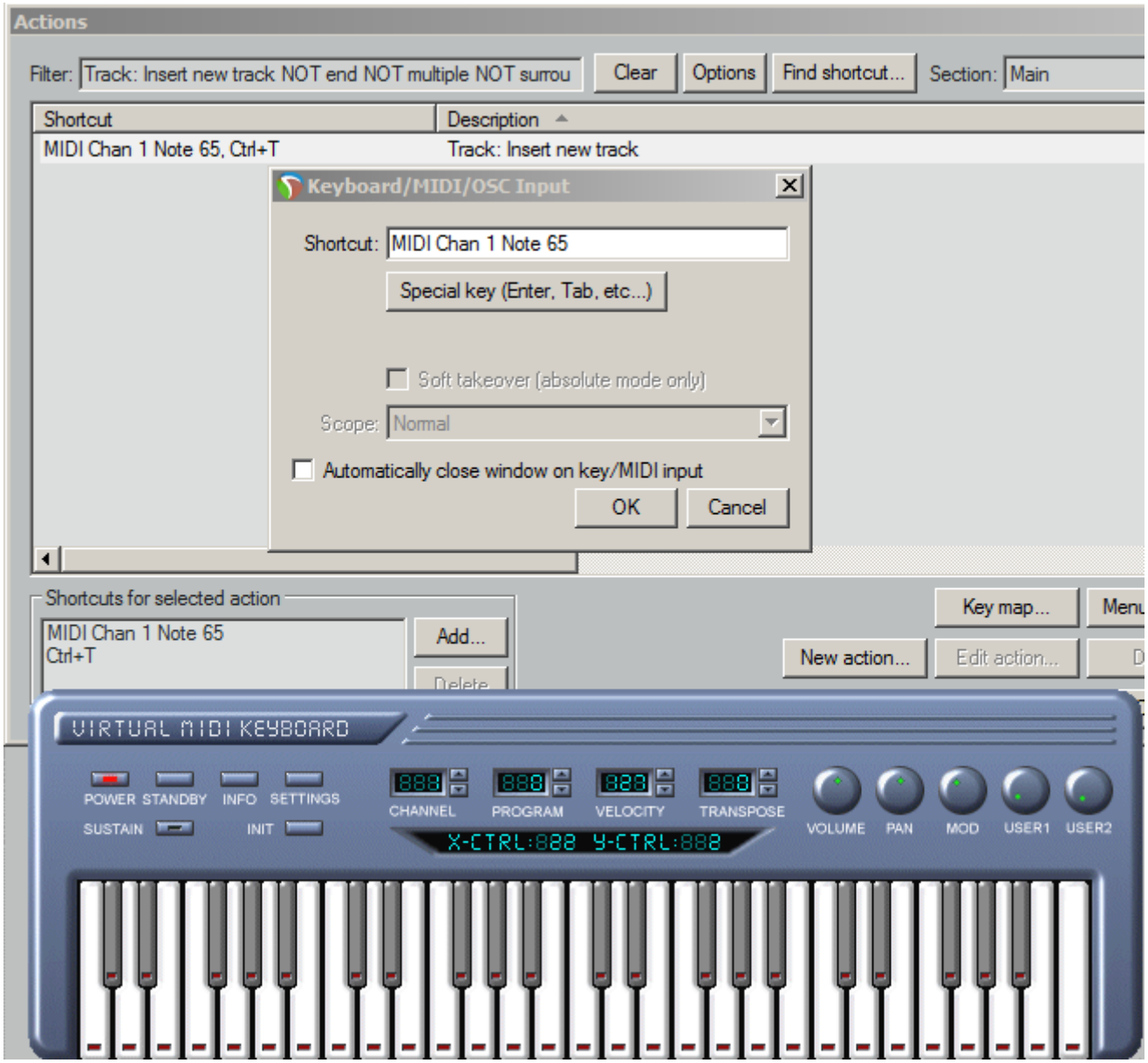
F. Open REAPER **Action list**.

G. Find the action you wish to bind to a MIDI note or message and select it.

H. Click **Add** button to open **Keyboard/MIDI/OSC Input** dialogue.



I. On the Virtual MIDI keyboard front panel either click a keyboard key or rotate knobs linked to CC messages (on the right hand side of the panel) all the while the track armed in step 3. A. stays record armed.



On the image Channel 1 is selected and the registered MIDI shortcut is associated with Channel 1 because **LoopBe Internal MIDI** input device channel was set to **Source channel** in step 2. C. If another channel were selected in the Virtual MIDI Keyboard such another channel would be associated with the Note 65 instead, regardless of the Channel selected in the Virtual MIDI Keyboard.

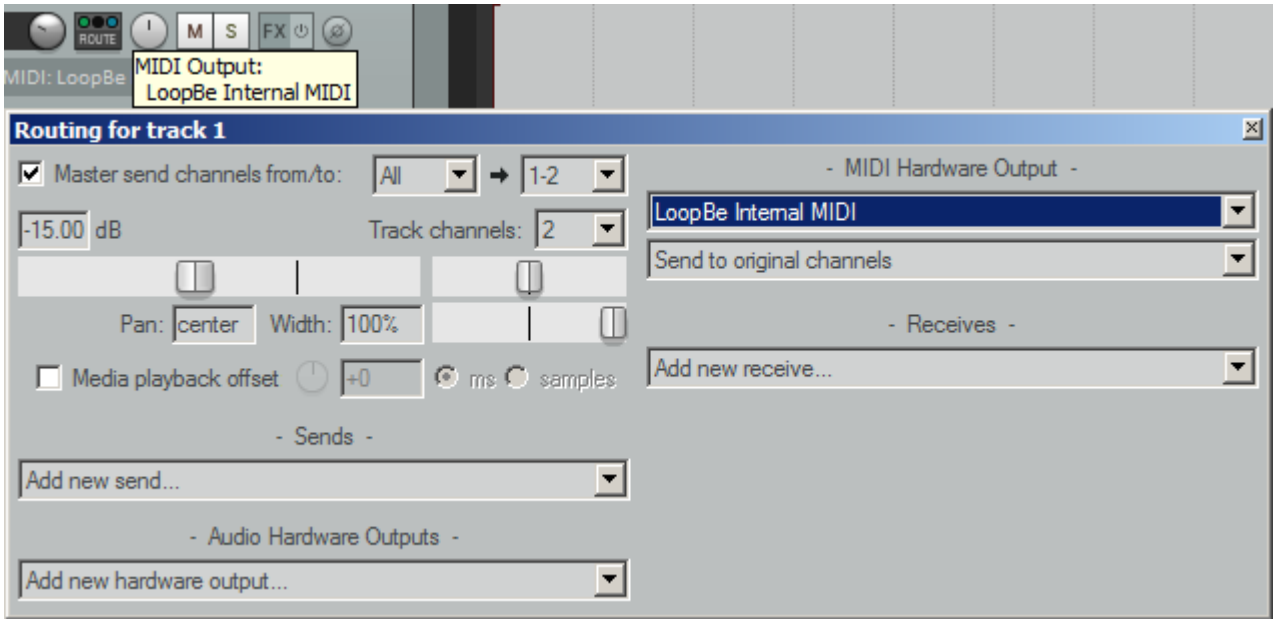
J. Unarm the track you armed for the sake of binding the action to a MIDI note or a message.

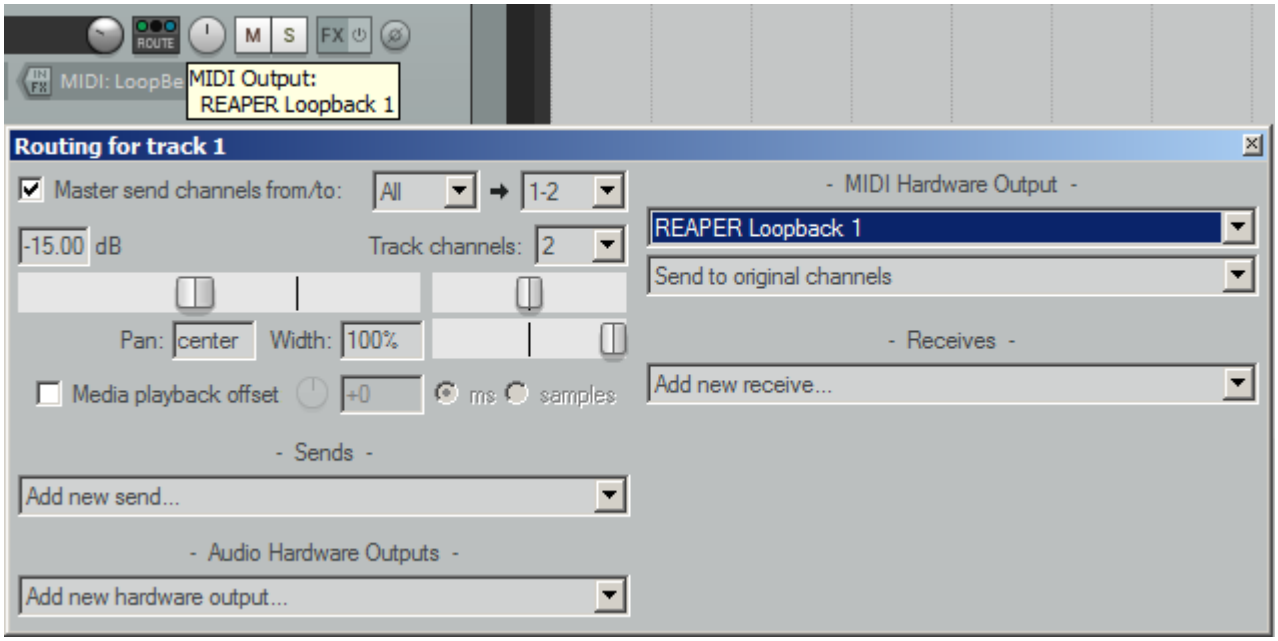
4. Triggering action via MIDI from inside REAPER

In the track you intent to run control MIDI events on (hereinafter **Control track**)

A. Click the **I/O (routing) button**

B. In the top drop-down list under **- MIDI Hardware Output -** title select **LoopBe Internal MIDI** device output you enabled in the **Preferences** in Step 2. D. i. OR **REAPER Loopback 1** device output you added and enabled in the **Preferences** in Step 2. D. ii, as the track output device.





The Control track needs not to be record armed.

C. On the Control track create a MIDI item with MIDI events which the action was bound to.

D. Hit Play. The action will be triggered as soon as the playhead reaches the MIDI event within the MIDI item.

WARNING. If you select **LoopBe Internal MIDI** as the output in step 4. B. make sure that either **LoopBe Internal MIDI** is NOT enabled as MIDI record input in the Control track (see image in step 3. A.) or that if it's enabled – the track is NEVER record armed. That's because when input and output are routed to the same device a feedback loop is created which will cause LoopBe to auto-mute.