# Automapper Manual

Description

Automapper HDA allows you to remove friction in the mapping process. It is inspired by the audio software Ableton Live mapping principle, where you can change the parameter first, then change your knob, and it will automatically create mapping.

This HDA in its current state is more of a playground for the MIDI mapping, rather than a polished tool. There might be some functionality that is out of scope of this tutorial, and was cut for the sake of simplicity. For more information please check **Known Issues** section of this manual.

Installation

Click **Assets** > **Install Asset Library,** then select **Automapper.hda** from the file examples folder, and click **Install and Create**
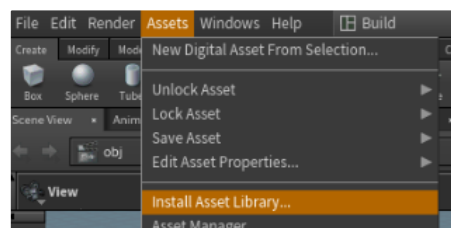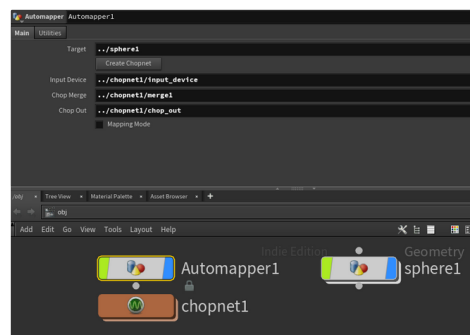

Setup

1. Drag and drop any target object you want to manipulate to the **Target**

2. Click **Create Chopnet** button. This creates Chop Network with the set of nodes.

> 💡 **Tip:** If you don't have a MIDI device yet, just replace **MIDI In** with **Constant** node, or any other input afterwards, it should work the same way.

3. Inside your Chop Network, change your **Midi In** Settings. You can select your MIDI device from the **MIDI Source** list

> 💡 **Tip:** Make sure your device is working by checking **Echo Messages to Textport.** If you don't see any messages when you move control knobs, check if you have correct **Midi Channel** and **Control Index** range (inside **Control** tab). In MIDI driver settings this number is usually corresponds to your CC range (if you have your available CC from 1 to 25, you can set up the range 1-25). Do not forget to turn off **Echo Messages to Textport** checkbox after you're done.
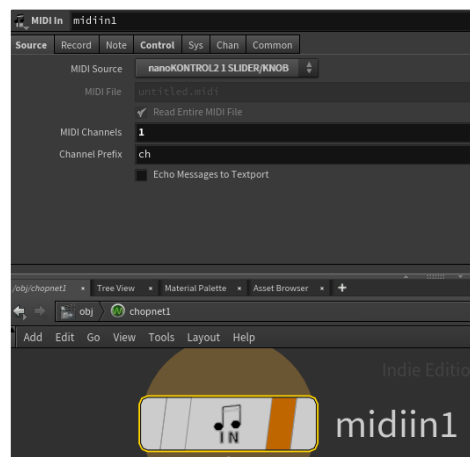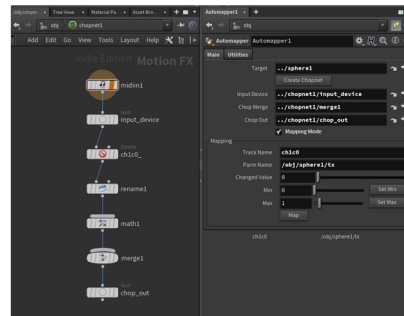
Mapping

1. To enter mapping mode, click the button **Mapping Mode**.

2. Then change your desired parameter on the target object. You will see changed parameter in the Automapper properties in the **Parm Name.**

> 💡 **Tip:** You can also set **Min** and **Max** values to set proper range. You can set current value to Min or Max by pressing **Set Min** or **Set Max** button accordingly.

3. Turn the knob you want to map this parameter to, and Automapper property **Track Name** will show your changed track.

4. Press the **Map** button. This creates set of nodes inside Chop Network based on the values you entered.

5. Exit mapping by turning off the **Mapping Mode** checkbox. This should turn on the export flag on the **chop_out** node. If for some reason it is off just press it manually.

> ⚠️ **Warning:** After you hit **Map,** you can't modify **Min** and **Max** value of created track. You can change range manually in Math node or delete this set of nodes (Delete, Rename, Math), and then create them again with the map button.
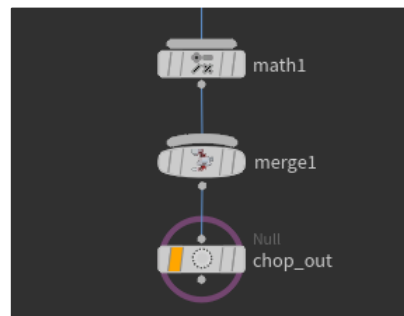
> 💡 **Tip:** To make Automapper pane always visible, divide the interface tabs. To do that, you need to move mouse to the Automapper interface then press `ALT` + `[` , then click on the pin icon in the top right corner.

Utilities

Midi In

If you use Automapper often, you can specify MIDI parameters on creating Chop Network like Midi Device Name. You can find your device name in **Midi In** node. After you choose your Device from the dropdown list in Midi In node, you can right-click on **Midi Source > Copy Paramete**r then go to Automapper **Midi Device Name** field, click inside the field and right-click **Paste Values.** To make the value default, right-click on the label and select **Make Current Value Default**. So the next time you create Automapper, it will have this device name. **Midi Channels** and **Controller Index** correspond to Midi In parameters, and you can make your own defaults as well.
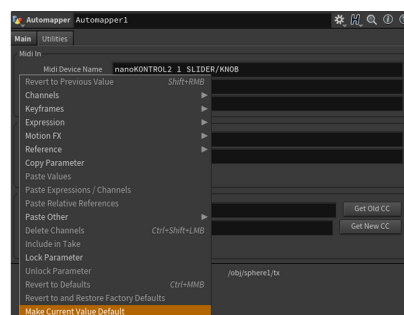
Midi Channel

Houdini links track name to the MIDI channel name. If you have two of the same MIDI devices, and want to switch channels, your mapping will not work. To fix that, you have to change Delete node name and its Channel Names field. Luckily this utility does it for you! Set **Old Channel** name and **New Channel** and all channels that match the naming pattern inside Chop Network will be renamed, like ch1c0 → ch2c0.

Midi Control Change

You can remap current MIDI control by just renaming it, especially if you have the same channel controlling different parameters. One way is to type your old and new channel value. You can also press the button **Get Old CC,** move knob on your MIDI device, press **Get New CC,** then move the knob you want to remap to, and, finally, press **Rename CC**

⚠ **Warning:** Make sure the New CC does not exist already in your network, because you might end up with the duplicates that you'll have to rename manually.

Known Issues

- If you are manually changing Nodes inside your Chop Network, then you can potentially forget to delete wire coming from input_device, and change export flag on chop_out; it will cause error.
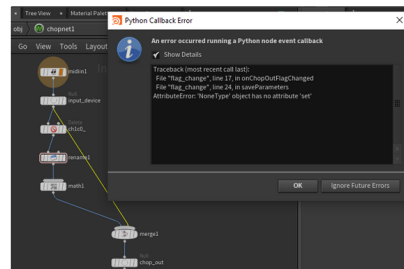
- If you enter Mapping Mode, delete Chop Network6 and exit Mapping Mode, it will cause an error.
- If you enter Mapping Mode, delete Automapper, and change knob on MIDI device, it will cause an error.

Best practices

- Always turn off **Mapping Mode** if you want to change Target object, delete or move related nodes.
- Delete HDA first, then delete network .
- Undo actions might cause errors. It is better to delete and remap again.
- When you manually deleting nodes, make sure you removed wire coming from **input_device** to **merge1** node.

Limitations

- You can't have one object parameter controlled by two different tracks, but you can have one track that controls two object parameters.