HxMIDI Tools

User Manual V05

Please read this manual completely before using this product. The software and firmware will be updated continuously. All the illustrations and texts in this manual may be different from the actual situation and are for reference only.

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Install HxMIDI Tools software

Please visit https://www.cme-pro.com/support/ and download the free HxMIDI Tools computer software. It includes MacOS, Windows 10/11, iOS and Android versions, and is the software tool for all CME USB HOST MIDI devices (such as H2MIDI Pro, H4MIDI WC, H12MIDI Pro and H24MIDI Pro etc.), through which you can get the following value-added services:

- Upgrade the CME USB HOST MIDI device's firmware at any time to get the latest features.
- Perform routing, filtering, mapping and other operations for CME USB HOST MIDI devices.

**** Note: UxMIDI Tools Pro does not support 32-bit Windows systems.***

Connect and Upgrade

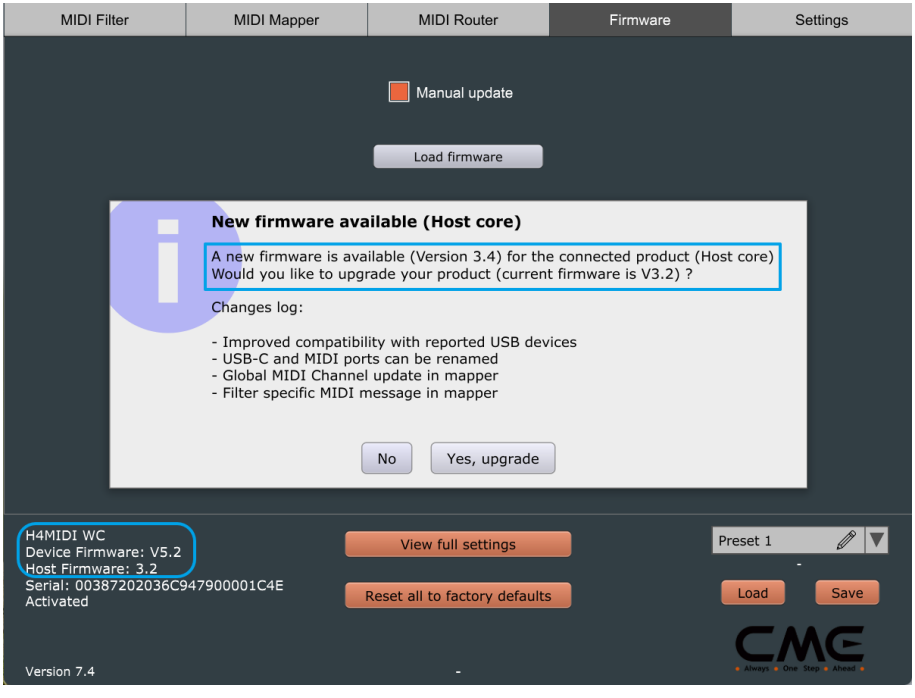
Please connect the USB-C client port of a certain model of CME USB HOST MIDI product to the computer via a USB data cable. Open the software, wait for the software to automatically recognize the device, and then start setting up the device.

**** Note: Some USB cables can only be used for charging and cannot transfer data. Please make sure that the USB cable you use can be used for data transfer.***

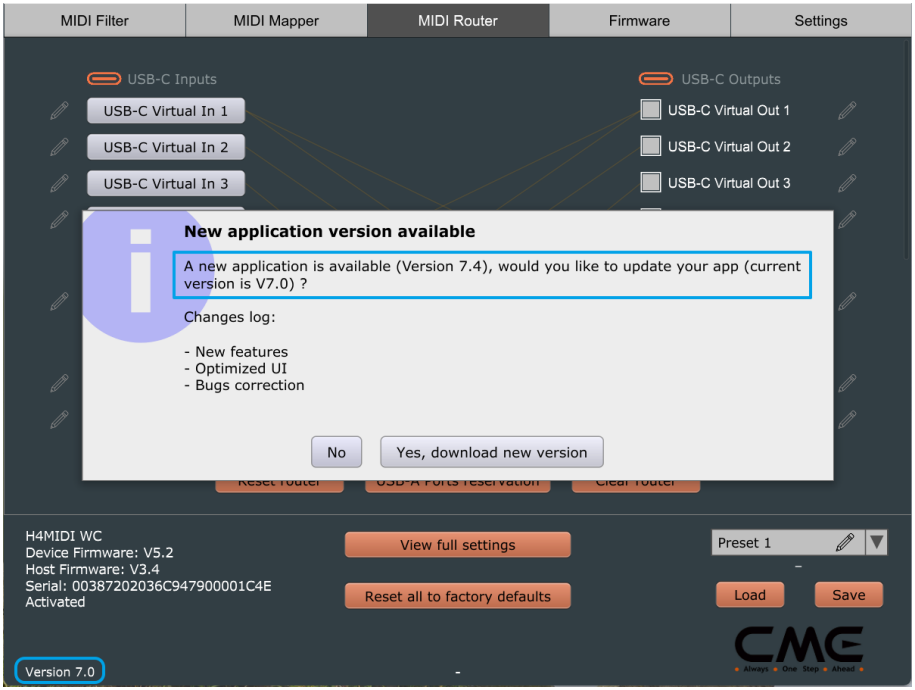
At the bottom of the software screen, the model's name, firmware version, product serial number, and software version of the product will be displayed. Currently, the products supported by HxMIDI Tools software include H2MIDI Pro, H4MIDI WC, H12MIDI Pro and H24MIDI Pro.

If the software finds that the CME server has a higher version than the built-in firmware of the connected device, the software will

prompt you to upgrade through a pop-up window. Please click the "Yes, upgrade" button, and the software will automatically download the latest firmware and install it to the connected device. After the upgrade is complete, the software will prompt the user to enable the latest firmware by re-plugging the device.



If the software version does not match the latest firmware version of the product, the software will prompt you to upgrade through a pop-up window. Please click the "Yes, download new version" button to download the latest version of the software, then unzip the downloaded file and install it to complete the software update.

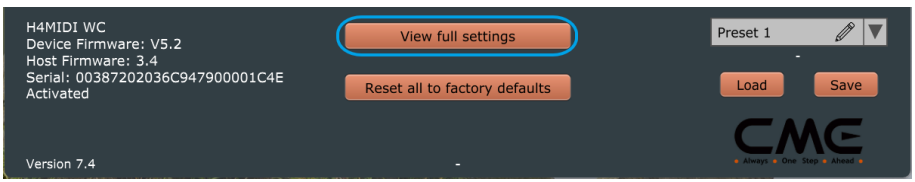


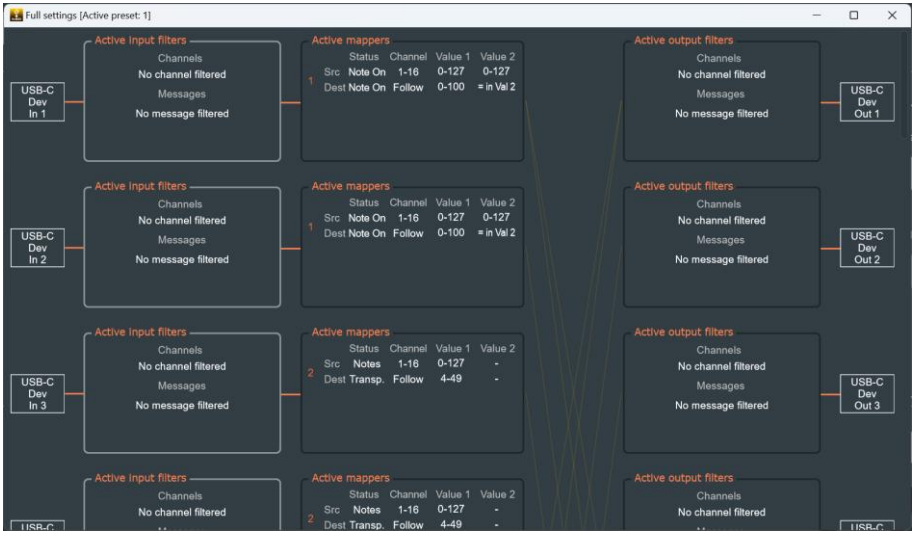
Note: Please make sure your computer is connected to the Internet.

- **[Preset]:** Custom settings for filters, mappers, routers, etc. will be stored as [Preset] in the CME USB HOST MIDI device for standalone use (even after the power is turned off). When a CME device with a custom preset is connected to the USB port of a computer and selected in HxMIDI Tools, the software automatically reads all settings and status in the device and displays them in the software interface.

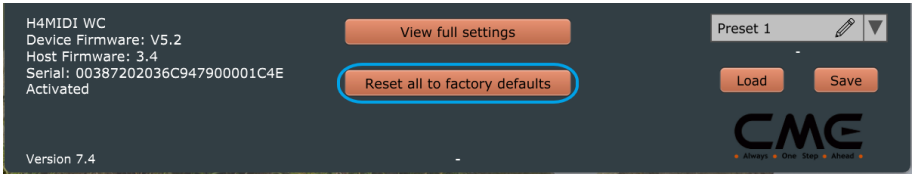
- Before setting up, please select the preset number in the lower right corner of the software interface and then set the parameters. All setting changes will be automatically saved to this preset. Presets can be switched via the multi-function button or assignable MIDI message (see [Preset settings] for details). When switching presets, the LED on the interface will flash accordingly (The LED flashes once for preset 1, flashes twice for preset 2, and so on).
- Click the **[pencil icon]** to the right of the preset name to customize the preset name. The preset name length is limited to 16 English and numeric characters.
- Click the **[Save]** button to save the preset as a computer file.
- Click the **[Load]** button to load a preset file from the computer to the current preset.

- **[View full settings]**: This button opens the overall settings window to view the filter, mapper, and router settings for each port of the current device - in one convenient overview.





- **[Reset all to factory defaults]**: This button restores all settings of the connected and selected device by the software (including Filters, Mappers and Router) to the original factory default.

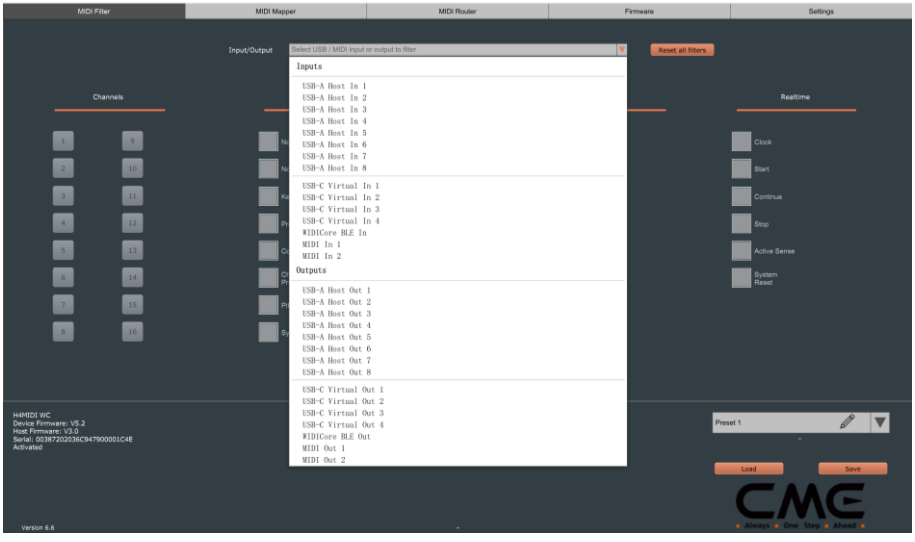


MIDI Filter

MIDI Filter is used to block certain types of MIDI message in a selected input or output port it no longer is passed through.

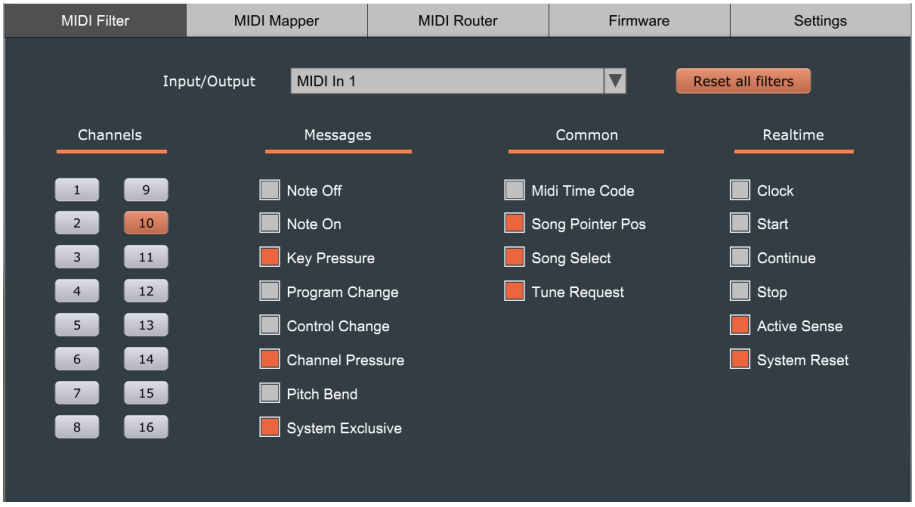
- **Use filters:**

- First, select the input or output port that needs to be set in the [Input/Output] drop-down window at the top of the screen. The input and output ports are shown in the figure below.



***Note:** The following diagram shows the connections of the various input and output ports in the HxMIDI Tools software. The Inputs port is used to receive data from the computer and connected MIDI devices, and the Outputs port is used to send data to the computer and connected MIDI devices.*

- Click the button or checkbox below to select the MIDI channel or message type that needs to be blocked. When a MIDI channel is selected, all messages of this MIDI channel will be filtered out. When certain message types are selected, those message types will be filtered out in all MIDI channels.

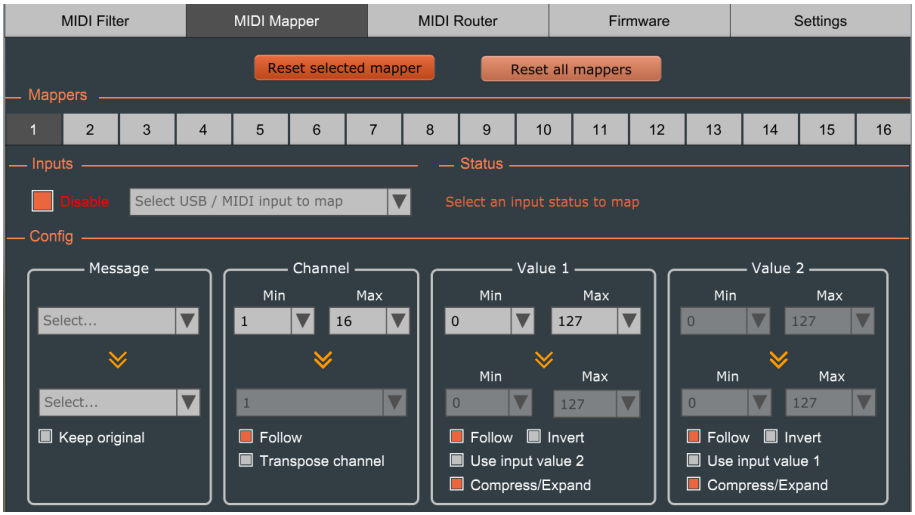


- **[Reset all filters]**: This button resets the filter settings for all ports to the default state, in which no filter is active on any channel.

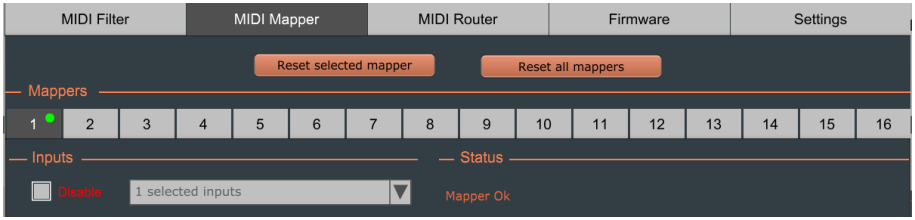
MIDI Mapper

On the MIDI Mapper page, you can remap the input data of the connected and selected device so that it can be output according to custom rules that are defined by you. For example, you can remap a

played note to a controller message or another MIDI message. Besides this, you can set the data range and MIDI channel, or even output the data in reverse.



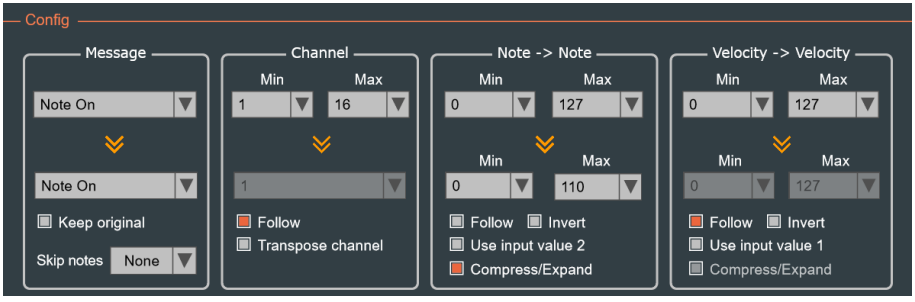
- **[Reset selected mapper]:** This button resets the currently selected single mapper, and the mapper settings saved in the connected and selected CME USB HOST MIDI device to the default state, allowing you to start a new setup.
- **[Reset all mappers]:** This button resets all setup parameters of the MIDI Mapper page, and the mapper settings saved in the connected and selected CME USB HOST MIDI device to the default state.



- **[Mappers]**: These 16 buttons correspond to 16 independent mappings that can be set freely, allowing you to define complex mapping scenarios.
  - When the mapping is being configured, the button will be displayed in reverse color.
  - For mappings that have been configured and are in effect, a green dot will be displayed in the upper right corner of the button.

- **[Inputs]**: Select the input port for mapping.
  - **[Disable]**: Disable the current mapping.
  - **[USB-A Host In]**: Set the data input from the USB-A port.
  - **[USB-C Virtual In]**: Set the data input from the USB-C port.
  - **[WIDICore BLE In]** (H4MIDI WC only): Set the data input from the optional WIDI Core Bluetooth MIDI port.
  - **[MIDI In]**: Set the data input from the DIN MIDI port.

- **[Config]**: This area is used to set the source MIDI data and the user-defined output data (after mapping). The top row sets the source data for input and the bottom row sets the new data for output after mapping.



- Move the mouse cursor to each key area to display function explanations.
- If the set parameters are incorrect, a text prompt will appear above the function area to indicate the cause of the error.

- **[Message]:** Select the source MIDI message type to be mapped at the top, and select the target MIDI message type to be mapped at the bottom. When a different [Message] type is selected, the titles of other data areas on the right will also change accordingly:

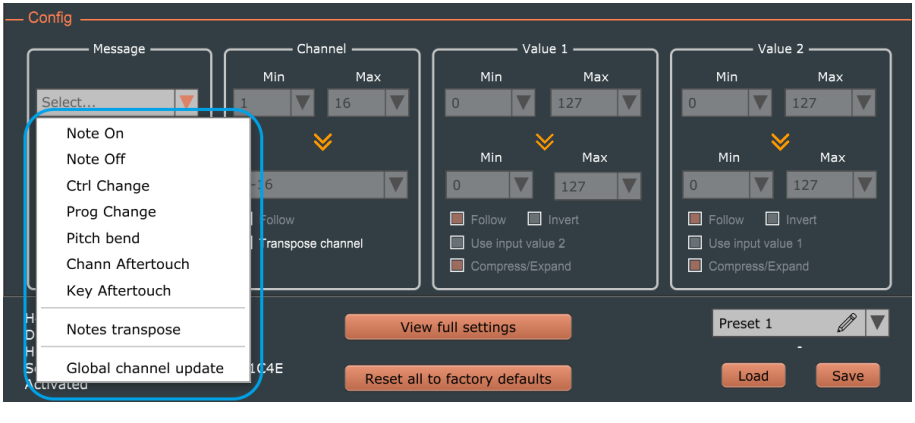


Table 1: Source data type

Message	Channel	Value 1	Value 2
Note On	Channel	Note #	Velocity
Note Off	Channel	Note #	Velocity
Ctrl Change	Channel	Control #	Amount
Prog Change	Channel	Patch #	Not used
Pitch bend	Channel	Bend LSB	Bend MSB
Chann Aftertouch	Channel	Pressure	Not used
Key Aftertouch	Channel	Note #	Pressure
Notes Transpose	Channel	Note->Transpose	Velocity
Global Channel Update	Channel	N/A	N/A

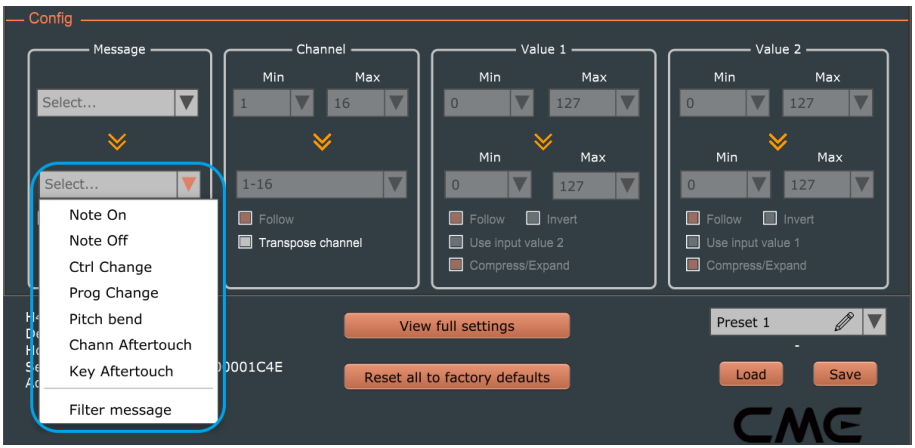


Table 2: New data type after mapping

Note On	Notes open message
Note Off	Note off message
Ctrl Change	Control change message
Prog Change	Timbre change message

Pitch bend	Pitch bending wheel message
Chann Aftertouch	Channel after-touch message
Key Aftertouch	After-touch keyboard message
Filter Message	Message to be filtered

- **[Keep original]:** If this option is selected, the original MIDI message will be sent at the same time as the mapped MIDI message. **Please note that the original MIDI information is kept and cannot be used for mapping again.**
- **[Skip notes]:** Skip notes randomly. Click the drop-down option to set the percentage of notes to be randomly filtered out within the specified note range.

- **[Channel]**: Select the source MIDI channel and destination MIDI channel, range 1-16.
  - **[Min]/[Max]**: Set the minimum channel value / maximum channel value range, which can be set to the same value.
  - **[Follow]:** When this option is selected, the output value is the same as the source value (follow) and is not remapped.
  - **[Transpose Channel]:** After selecting this option, the selected channel value can be increased or decreased.

- **[Value 1]**: Based on the selected [Message] type (see table 2), this data can be Note # / Control # / Patch # / Bend LSB / Pressure / Transpose, ranging from 0-127 (see table 1).

- **[Min]/[Max]**: Set the minimum / maximum value to create a range or set them to the same value for an exact response to specific value.
- **[Follow]:** When this option is selected, the output value is the same as the source value (follow) and is not remapped.
- **[Invert]**: If selected, the data range is executed in reverse order.
- **[Use input value 2]**: When selected, the output Value 1 will be taken from the input Value 2.
- **[Compress/Expand]**: Compress or expand the values. When selected, the source value range will be proportionally compressed or expanded to the target value range.

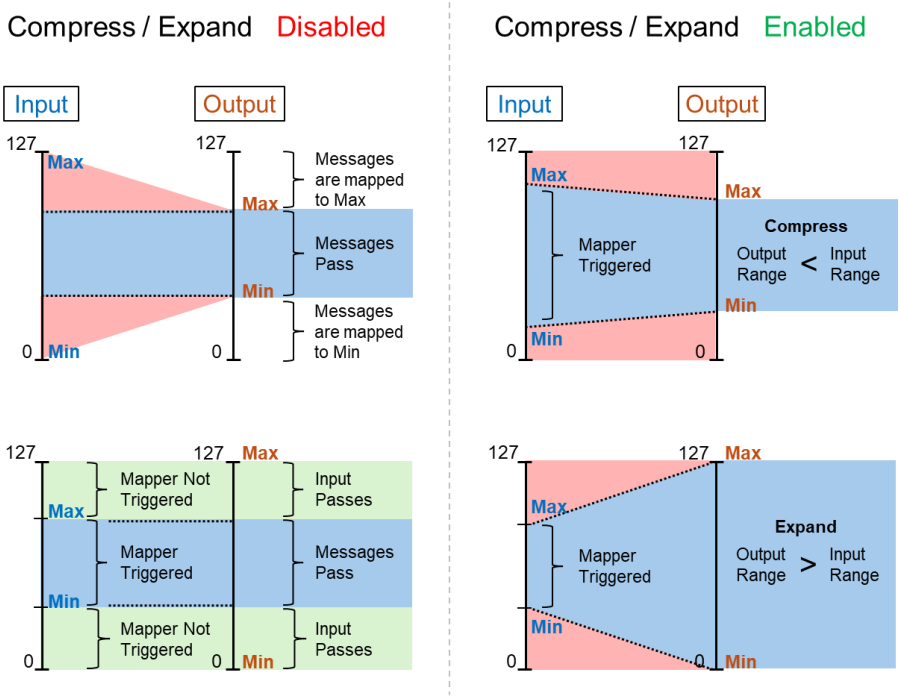
◆ **[Value 2]**: Based on the selected [Message] type (see table 2), this data can be Velocity / Amount / Not used / Bend MSB / Pressure, ranging from 0-127 (see table 1).

- **[Min]/[Max]**: Set the minimum / maximum value to create a range or set them to the same value for an exact response to specific value.
- **[Follow]:** When this option is selected, the output value is exactly the same as the source value (follow) and is not remapped.
- **[Invert]**: When selected, the data will be output in reverse order.
- **[Use input value 1]**: When selected, the output Value 2

will be taken from the input Value 1.

- **[Compress/Expand]**: Compress or expand the values. When selected, the source value range will be proportionally compressed or expanded to the target value range.

- ** **Notes** on the [Compress/Expand] option: This option can compress or expand the set value to the target value range when the mapper's target value range is different from the source data range.*

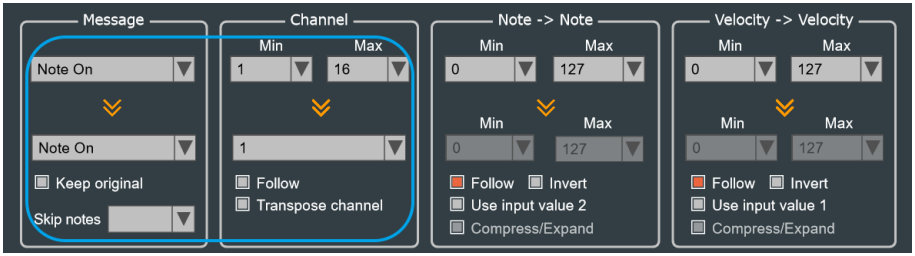


If the output range set by the mapper is smaller than the input range, for example, 0-40 is mapped to 10-30, when the [Compress/Expand] option is disabled, only 10-30 will be output through the mapper accordingly, while 0-9 will be mapped

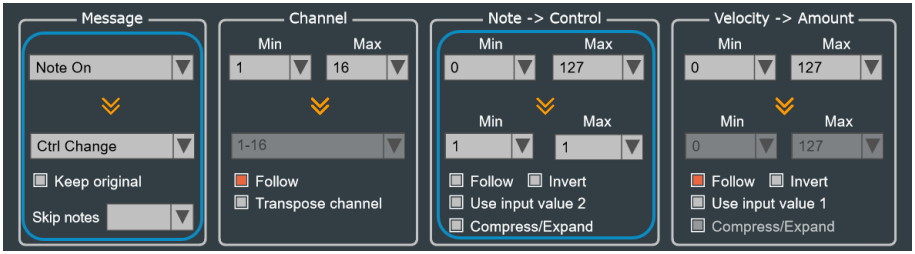
to 10, and 31-40 will be mapped to 30; when the [Compress/Expand] option is enabled, the compression algorithm will work on the entire set range, 0 and 1 will be mapped to 10, 2 and 3 will be mapped to 11... and so on, until 39 and 40 are mapped to 30.

If the output range of the mapper setting is larger than the input range, for example, mapping 10-30 to 0-40, when the [Compression/Expansion] option is disabled, 0-10 and 30-40 will pass directly without through the mapper, while 10-30 will be output through the mapper accordingly; when the [Compression/Expansion] option is enabled, the expansion algorithm will work on the entire set range, 10 will be mapped to 0, 11 will be mapped to 2... and so on, until 30 is mapped to 40.

- **Mapping examples:**
  - Map all [Note On] of any channel input to output from channel 1:



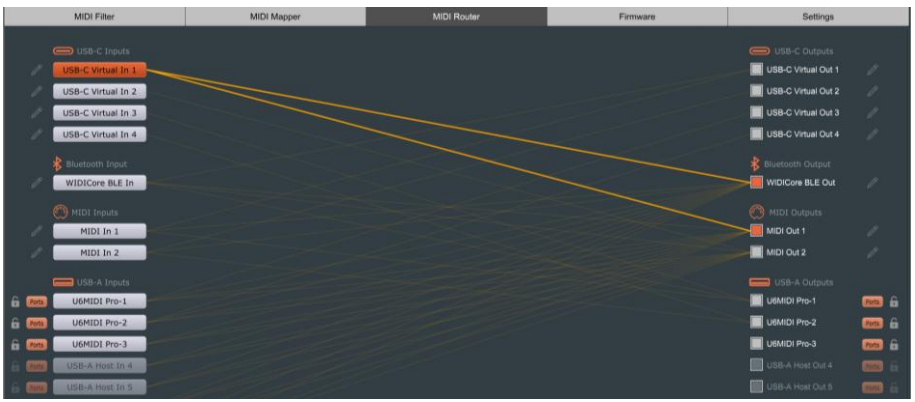
  - Map all [Note On] to CC#1 of [Ctrl Change]:



MIDI Router

MIDI routers are used to view and configure the signal flow of MIDI messages in your CME USB HOST MIDI device.

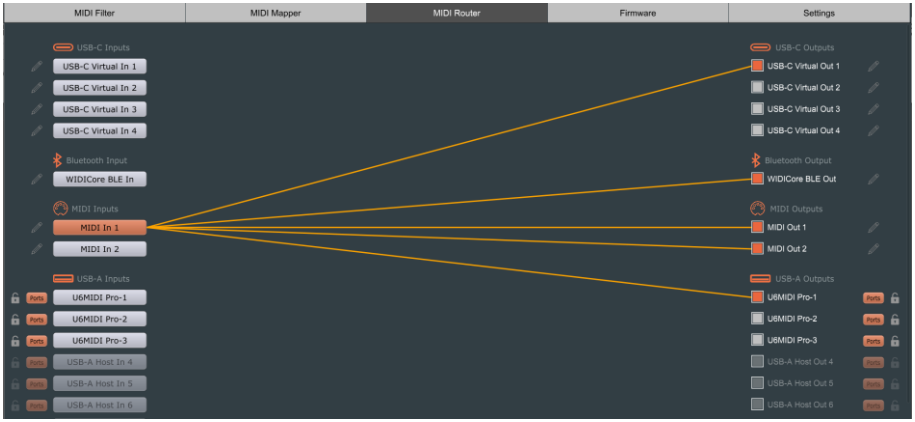
- **Change the direction of the routing:**
  - First, click on an input port button on the left, and the software will use a connection to display the signal direction of the port (if any).
  - Click on a checkbox on the right to select/cancel one or more checkboxes as needed to change the signal direction of the port. At the same time, the software will use a connection to give a prompt. The currently selected port connection is highlighted, and the rest of the connections are dimmed.



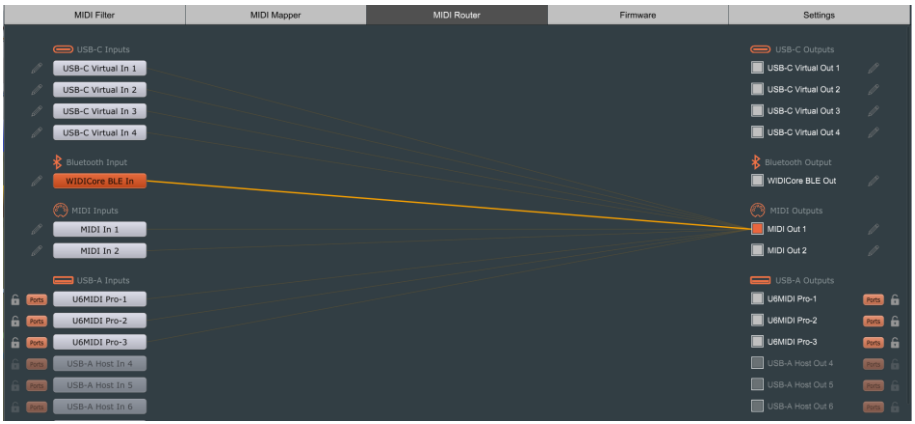
  - Click the pen icon next to the port to customize the name of the port displayed in this software (but this name will not affect the port name displayed in the DAW software).

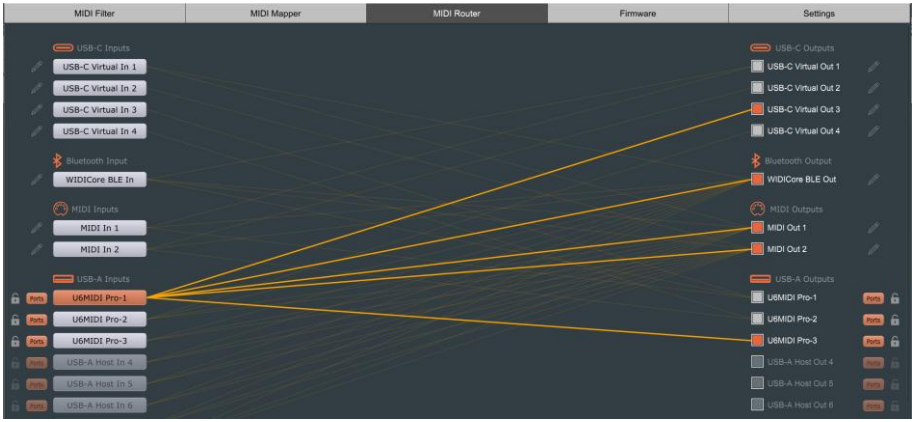
- **Examples on H4MIDI WC:**

MIDI Split/Thru

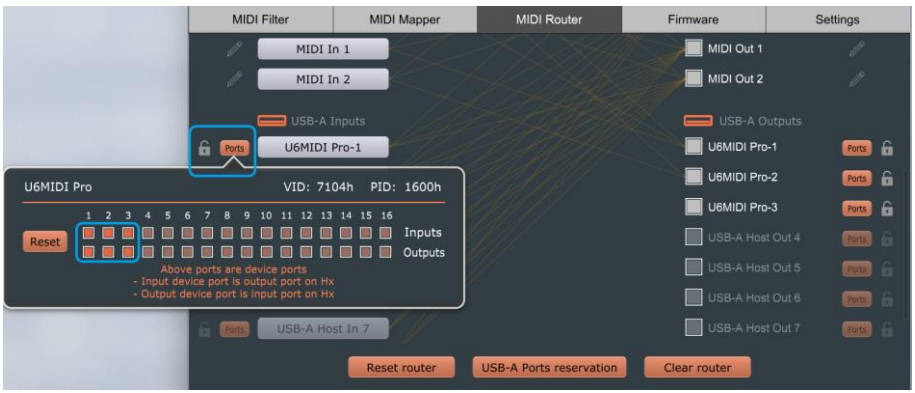


MIDI Merge





- **[Port]**: Click this button to enable or disable multiple USB virtual ports of the same device, thereby saving unnecessary device ports from occupying the USB-A host port.



  - Click the selection box of the input or output port as required. Please note that the "input" here actually refers to the USB MIDI virtual input port of the connected device,

which is the USB-A output port displayed on the HxMIDI Tools software, while the "output" is the USB-A input port of HxMIDI Tools.

- Select a port to enable it, and its selection box will be displayed in orange. Deselect a port to disable it, and its selection box will be displayed in white. Click the [Reset] button to reset the port selection status.
- After selecting a port, click the mouse in other areas of the software interface to close the port selection window, and the disabled port will disappear from the USB-A port list.

- **[Reset router]**: Click this button to reset all router settings of the currently preset to the default state.

- **[USB-A Ports reservation]**: Click this button to reserve a port for a specific USB MIDI device in the USB host virtual port position so that the next time you start, multiple connected USB MIDI devices will maintain their original order.
  - First select the device under the input and output labels, then select the port, and so on. After you select the device and port, a lock icon will appear next to the USB-A port, indicating that the port has been reserved.
  - Click the [Reset] button to reset all current selections to the default state. If no port reservation settings have been changed, click the [USB-A Ports reservation] button again to exit the settings interface and return to the routing settings.
  - Click the [Apply ports reservation] button, and the reserved port settings will automatically save to the flash memory of the hardware interface. At the same time, the connected

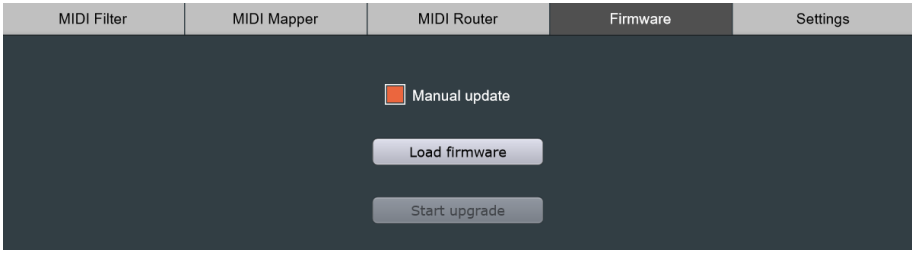
hardware interface will automatically restart, and the software interface will be refreshed and display the latest reserved port settings.

- **[Clear router]**: Click this button to clear all router connection settings of the currently preset, that is, there will be no routing settings.

Firmware

When the software cannot be updated automatically, you can manually update it on this page. Please go to www.cme-pro.com/support/ webpage and contact CME Technical Support for the latest firmware files. Select [Manual update] in the software, click the [Load firmware] button to select the downloaded firmware file on

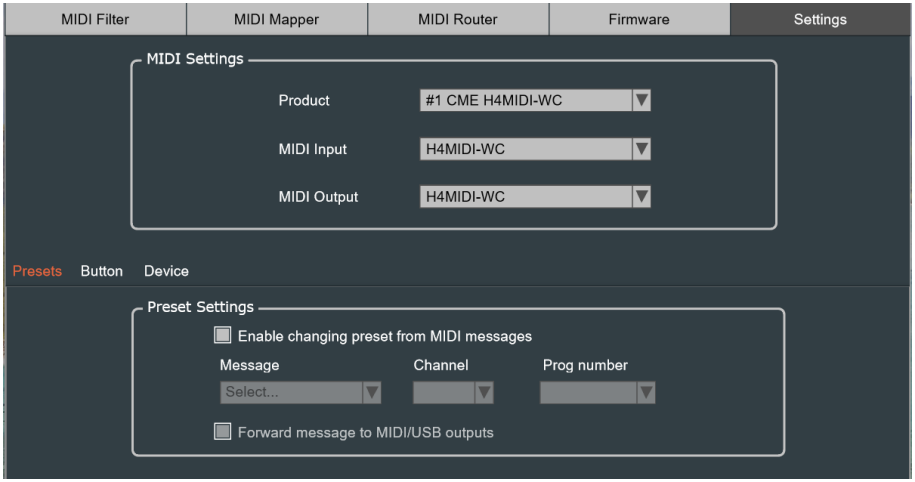
the computer, and then click [Start upgrade] to start the update.



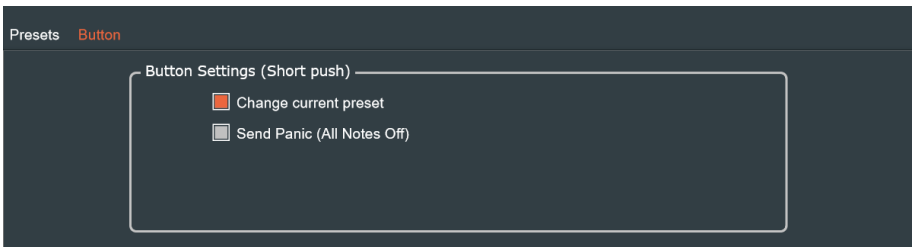
Settings

The Settings page is used to select the CME USB HOST MIDI device model and port to be set up and operated by the software. If you have multiple CME USB HOST MIDI devices connected at the same time, please select the product and port you want to set up here.

- **[Presets settings]:** By selecting the [Enable changing preset from MIDI messages] option, the user can assign Note On, Note Off, Controller or Program Change MIDI messages to remotely switch presets. Selecting the [Forward message to MIDI/USB outputs] option allows the assigned MIDI messages to be sent to the MIDI output port as well.



- **[Button]:** The User can choose to set the button to change the current preset or send an All Notes Off message.



- **[Device]:** This function is used to extract the USB description of the USB device with compatibility issues and send it to the CME support team for help.
  - First, please unplug all USB hubs and devices connected to USB-A port of the CME USB HOST MIDI interface, and then click the [Start device dump] button.
  - Next, connect the previously unrecognized USB device to

the USB-A port of the interface, and the USB descriptors of the device will be automatically extracted to the gray area in the window.

- Click the copy icon to the right of the [Start device dump] button, and all USB descriptors will be automatically copied to the clipboard.
- Create an email, paste the USB descriptors into the email, and send it to support@cme-pro.com. CME will try to resolve the compatibility issue through a firmware upgrade.

**** Note: Since the software version is updated continuously, the above graphical interface is for reference only, please refer to the actual display of the software.***

FAQ

- **My CME USB MIDI device is not recognized by my computer.**
  - **On Windows 10/11:**
    Sometimes, if your computer has been idle (sleep or other power saving modes) for a while, the software may not detect the CME USB MIDI interface on the first launch. However, restarting the software usually resolves the issue.

- **Multi-client on Windows:**
  Another music application than CME software is already using the USB MIDI port. Since Windows does not support multi-client MIDI, this can block access to CME software.
- **Changed device name on MacOS:**
  If you renamed the CME USB MIDI device, the CME software may not recognize it, as it requires the original device name to establish a connection.
- **Routing via MIDI Studio on MacOS:**
  If you manually route the CME USB MID interface in macOS MIDI Studio (e.g., via IAC or another configuration), this may occupy the first USB port of the interface. The CME software relies on that first port being available, so this can cause conflict.
- **Check your USB cable:**
  Make sure to use high-quality USB (data) cables and a reliable USB hub, to prevent interrupted communication.

Contact

Email: support@cme-pro.com
Website: www.cme-pro.com