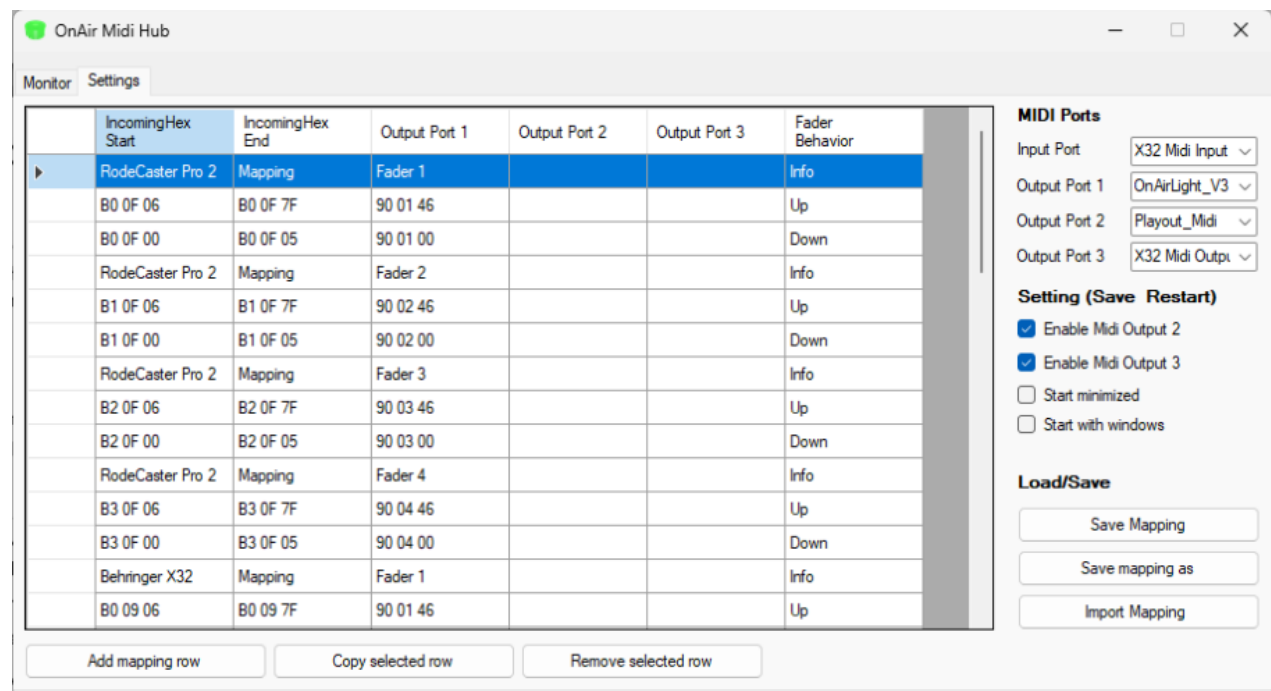


OnAir MIDI hub — User manual

Overview

OnAir MIDI hub receives MIDI input and forwards mapped MIDI messages to up to three output ports. You create mappings that trigger one or more output messages when an incoming MIDI message matches a mapping. A lightweight MIDI calculator dialog helps you build 3-byte MIDI hex messages.



Main UI (quick tour)

- Input Port — select the MIDI input device.
- Output Port 1, Output Port 2, Output Port 3 — select output devices (port 1..3). Output Port 1 has a (None) option.
- Enable Midi Output 2, Enable Midi Output 3 — enable/disable output ports 2 and 3. When a port is disabled it will be hidden and the port is closed.
- Mapping Table — mapping table (core of the app). Columns:
 - Incoming Hex Start — incoming hex (3 bytes) start of range (e.g. 90 00 40)
 - Incoming Hex End — incoming hex (3 bytes) end of range (e.g. 90 00 4F)
 - OutputPort 1 — hex to send to port 1 (e.g. B0 07 7F)
 - OutputPort 2 — hex to send to port 2

- OutputPort 3 — hex to send to port 3
- FaderBehaviour — behaviour for fader-style messages (see below)
- Tab Monitor: Incoming Midi messages and sent Midi messages. Each is truncated at 1000 entries.

How mappings work

- Mappings are evaluated in table order.
- A mapping is matched if:
- The incoming MIDI status byte and first data byte equal the values in Incoming Hex Start / Incoming Hex End and
- The second data byte of the incoming message falls within the inclusive hex range defined by Incoming Hex Start / Incoming Hex End (3rd byte).
- Continuation rows: If a row has an empty Incoming Hex Start, it is treated as a continuation of the previous non-empty mapping. When a mapping triggers, the app sends outputs for that mapping and then cascades to following continuation rows until a row with a non-empty Incoming Hex Start is encountered.
- Deduplication: repeated identical output hex strings are not resent immediately — the app tracks the last hex sent per port to avoid redundant sends.

Fader Behaviour (allowed values)

- Info — default; sends outputs normally.
- Up — only triggers when the fader value increases (compared to the previously remembered value).
- Down — only triggers when the fader value decreases.
- Button — treat fader as a momentary button — always triggers when matched.

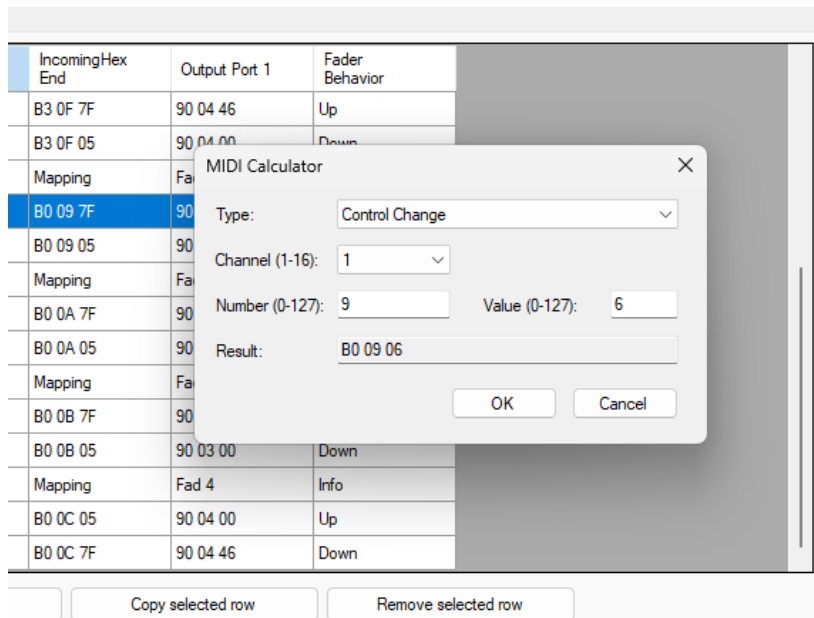
(Values are normalized when saving/loading.)

Editing mappings

- Add mapping: click Add mapping (or press the UI control).
- Remove: select a row and click Remove mapping.
- Copy: select a row and click Copy mapping to duplicate it.
- Reorder: click and drag a row to move it (drag starts only after moving the mouse beyond the system drag threshold — single clicks still open mapping dialog).

- Double-click a cell in any hex column to open the MIDI Calculator and build the value (calculator returns the final hex string and inserts it into the mapping).

MIDI Calculator (modal)



- Open: double-click the desired mapping cell.
- Fields:
 - Type — choose NoteOn or Control Change. According to the documentation of your equipment's vendor.
 - Channel — 1–16.
 - Number — 0–127 (CC or Note number)
 - Value — 0–127, (CC or Note Value)
 - Result format: 90 3C 7F. As a Note On for channel 1, Note Number 60, Value 127
 - The result text is read-only — use OK to accept or Cancel to abort.
 - The calculator accepts only decimal digits for Number and Value, and values are clamped to 0..127.

Saving / loading mappings

- Save mappings — writes current mappings and selected ports to the settings file (default stored in AppData\ApplicationName\settings.json).

- Save mapping as — opens a Save File dialog so you can save a copy to a different file/location.
- Load mappings — open a saved JSON file to replace current mappings and port selections.

Tray behaviour & startup

- Start minimized checkbox (if present) minimizes app to tray on start.
- Start with Windows toggles if the app should start on Windows startup.

Monitors & limits

- Monitors show hex strings; new entries auto-scroll to the latest. Each monitor keeps a maximum of 1000 entries and removes the oldest when the limit is reached.

Drag & drop / editing notes

- Row drag starts only after moving past the system drag threshold — this preserves single-click and double-click behaviours.

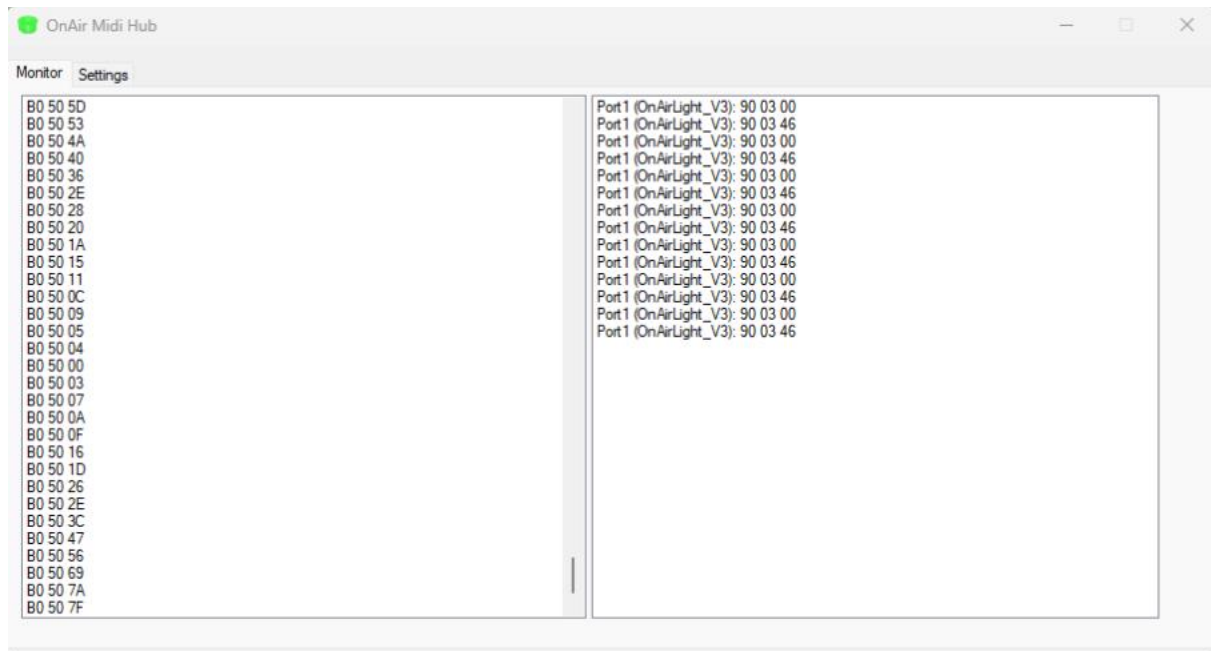
Troubleshooting

- No MIDI input/output:
- Confirm device names appear in the respective fields.
- If the app cannot open a port, it shows a MIDI Error message and that port remains closed.
- Saved file not loading:
- Confirm JSON file is valid and created by this app.
- Use Load mappings and choose the JSON explicitly.
- App crashes on MIDI open:
- Close other apps using the same MIDI device or select a different MIDI port.

Tips & best practices

- Use full 3-byte hex strings with spaces, e.g. 90 3C 7F. The UI expects three bytes (status+data1+data2).
- To send the same output to multiple ports, fill Output Port 1 ...3

- Use continuation rows (leave Incoming Hex Start blank) to create multiple outputs for a single incoming mapping.
- Keep Fader Behaviour set appropriately to avoid noise from fader jitter.



Midi Monitor