

# Dante

The **Dante API Device Core** lets a SKAARHOJ controller drive audio and video routing on a **Dante** network through **Dante Director** or **Dante Domain Manager (DDM)**. Rather than making the operator deal with Dante’s two-part “device + channel” addressing, you map the channels you care about to plain numbered **input** and **output** slots. The controller then routes “input N to output M”, and the core translates that into the correct Dante subscription.

A panel button works in single numbers, so the two-part Dante address has to be flattened into one. That is what the core’s **I/O Mapping** does — each row ties one Dante device + channel to a number. From then on the panel only thinks in numbers: the `routeInputToOutput` parameter looks up what each number points to, and the core asks Dante (through Director or DDM) to make or clear the connection.

## Connecting to Dante

A device is configured in Reactor’s device-core settings (these are the per-device connection details for the Director or DDM instance you are talking to):

- **Model**

*Dante Director* or *Dante Domain Manager* — which platform manages your domains. Changing the model requires a core reload.

- **URL**

The Managed-API endpoint. For Dante Director this defaults to `'api.director.dante.cloud:443/graphql'`; for DDM use your own host, e.g. `'your-ddm.example.com:443/graphql'`. The `/graphql` suffix is appended automatically if you leave it off, and HTTPS is used unless the core-wide *Use HTTP* option is enabled.

- **API Key**

Generated in the Director UI (*Settings* → *API Keys* → *Add Service Key*) or in DDM (*Settings* → *Personalization & API Keys*). Keys do not expire but can be revoked.

An API key inherits the full access of the account that created it — potentially every site and domain. Treat it like a password: don’t share it, and revoke it in Director/DDM if it is ever exposed.

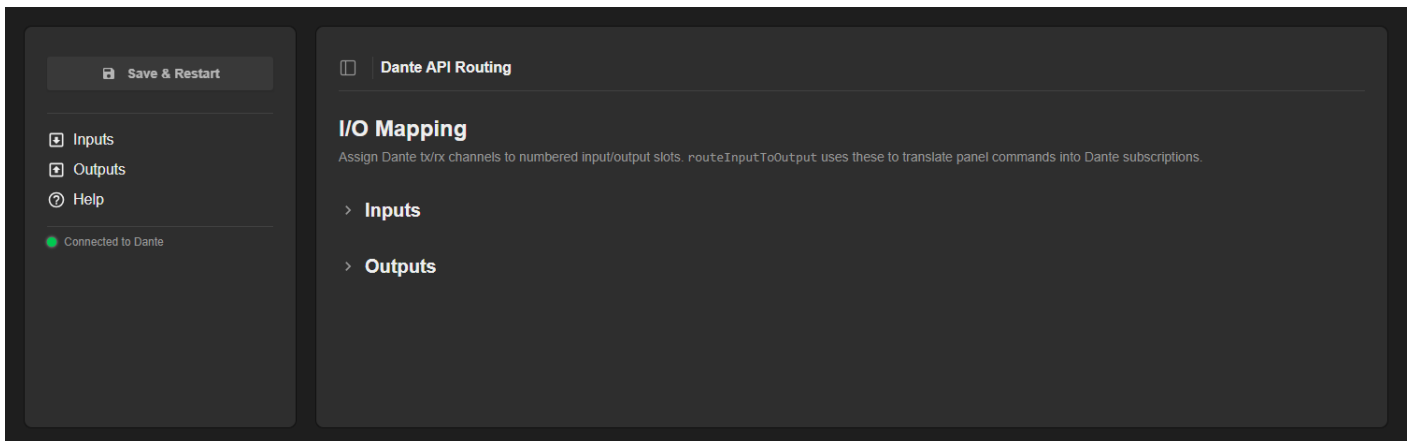
Once connected, the status pill in the lower-left of the web UI shows “*Connected to Dante*”; it polls every couple of seconds and turns red if the link to Director/DDM drops.

## Opening the web UI

Open Reactor and go to the **Packages** menu, find the Dante API package and use the button to open its UI. If the core manages several Dante devices, a **device selector** appears in the lower-left of the sidebar so you can switch between them; the connection pill sits just above it. Everything below happens in this UI.

## The I/O Mapping page

The web UI opens on the **I/O Mapping** page. The sidebar holds the **Save & Restart** button, the section navigation and the connection pill; the main area has two collapsible sections, **Inputs** and **Outputs**. This is where you decide which Dante channels each numbered slot stands for.



## Inputs

**Inputs** are Dante tx channels (sources). Each row binds a unique integer **ID** to one tx channel and shows its **Name**, the source **Device** and **Channel**, and a coloured **Type** badge (audio, video, ancillary...) reflecting the channel's media type.

Input IDs must be **unique**. Duplicates are highlighted in red and block saving until you fix them.

**ID 0 is reserved for "clear"** — routing input 0 to an output unsubscribes it.

Save & Restart

Inputs

Outputs

Help

Connected to Dante

### Dante API Routing

#### I/O Mapping

Assign Dante tx/rx channels to numbered input/output slots. `routeInputToOutput` uses these to translate panel commands into Dante subscriptions.

Inputs

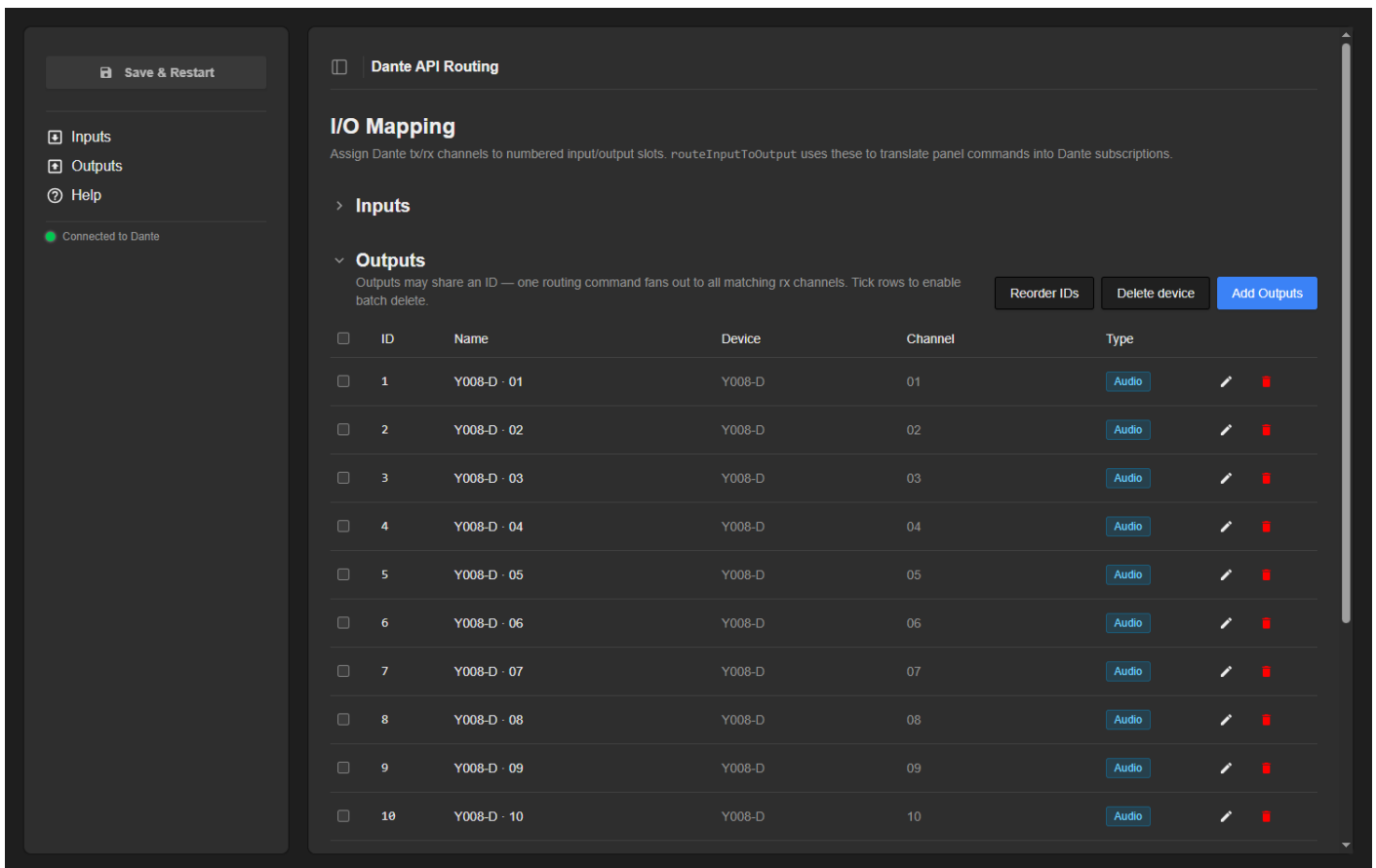
Each input ID must be unique. ID 0 is reserved for "clear". Tick rows to enable batch delete.

Reorder IDs Delete device Add Inputs

<input type="checkbox"/>	ID	Name	Device	Channel	Type		
<input type="checkbox"/>	1	Y008-D - 01	Y008-D	01	Audio		
<input type="checkbox"/>	2	Y008-D - 03	Y008-D	03	Audio		
<input type="checkbox"/>	4	Y008-D - 04	Y008-D	04	Audio		
<input type="checkbox"/>	5	Y008-D - 05	Y008-D	05	Audio		
<input type="checkbox"/>	6	Y008-D - 06	Y008-D	06	Audio		
<input type="checkbox"/>	7	Y008-D - 07	Y008-D	07	Audio		
<input type="checkbox"/>	8	Y008-D - 08	Y008-D	08	Audio		
<input type="checkbox"/>	9	Y008-D - 09	Y008-D	09	Audio		
<input type="checkbox"/>	10	Y008-D - 10	Y008-D	10	Audio		
<input type="checkbox"/>	11	Y008-D - 11	Y008-D	11	Audio		
<input type="checkbox"/>	12	Y008-D - 12	Y008-D	12	Audio		
<input type="checkbox"/>	13	Y008-D - 13	Y008-D	13	Audio		

# Outputs

**Outputs** are Dante *rx* channels (subscribers/receivers). They use the same columns as Inputs, but with one important difference: **output IDs may repeat**. When you send a routing command for output ID 5, every row tagged 5 is updated — this is how one panel action fans out to several rx channels at once.

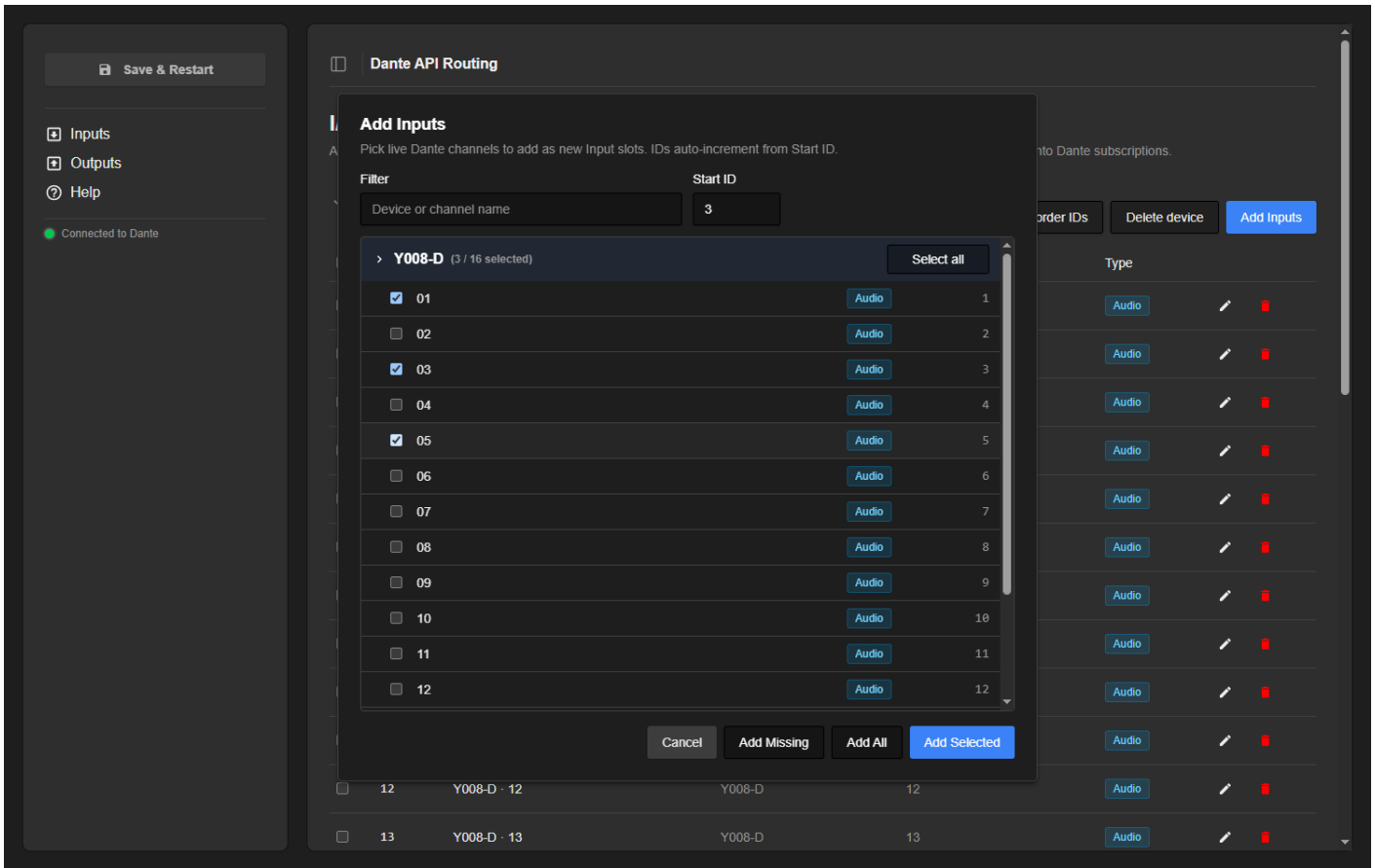


## Adding channels

Use **Add Inputs** / **Add Outputs** to pick from the channels seen *live* on the network. Channels are grouped by device into collapsible blocks; type in the **Filter** box to narrow by device or channel name, and set a **Start ID** that the new slots auto-increment from. Each device block has a **Select all** toggle, and every channel carries its media-type badge.

- **Add Selected** — adds the channels you ticked.
- **Add All** — adds every live channel in the list.
- **Add Missing** — adds only channels that are not already mapped, so you can top up after new devices appear.

If the dialog reports *“No live channels found”*, the core is not connected to a domain (or the domain has no API-visible devices) — check the connection pill.



## Editing, reordering & deleting

Rows can be tuned individually or in bulk:

- **Edit** (pencil) — edit a row's **ID** and **Name** inline; the green check saves, the red cross cancels. The device and channel themselves are fixed by the channel you picked.
- **Reorder IDs** — renumbers the slots `1, 2, 3, ...` in their current row order, handy after adds/deletes have left gaps. For outputs this makes every ID unique, so it splits any shared-ID fan-out groups.
- **Delete device** — removes every slot belonging to one device in a single step. It is per-section: the button under Inputs only clears that device's inputs, the one under Outputs only its outputs.
- **Batch delete** — tick the row checkboxes (or the header checkbox to select all) and a bar appears with a **Delete selected** button. Individual rows also have a trash icon.

**Delete device, Delete selected** and the row trash icon remove slots from your draft with no undo button. The change only becomes permanent when you **Save & Restart** — until then the saved configuration on the device is untouched.

Save & Restart

Inputs

Outputs

Help

Connected to Dante

### Dante API Routing

## I/O Mapping

Assign Dante b/rx channels to numbered input/output slots. routeInputToOutput uses these to translate panel commands into Dante subscriptions.

**Inputs**  
Each input ID must be unique. ID 0 is reserved for "clear". Tick rows to enable batch delete.

Reorder IDs
Delete device
Add Inputs

ID	Name	Device	Channel	Type		
<input checked="" type="checkbox"/>	1	Y008-D - 01	Y008-D	01	Audio	<span>✓</span> <span>✗</span>
<input type="checkbox"/>	2	Y008-D - 03	Y008-D	03	Audio	<span>✎</span> <span>✗</span>
<input type="checkbox"/>	4	Y008-D - 04	Y008-D	04	Audio	<span>✎</span> <span>✗</span>
<input type="checkbox"/>	5	Y008-D - 05	Y008-D	05	Audio	<span>✎</span> <span>✗</span>
<input type="checkbox"/>	6	Y008-D - 06	Y008-D	06	Audio	<span>✎</span> <span>✗</span>
<input type="checkbox"/>	7	Y008-D - 07	Y008-D	07	Audio	<span>✎</span> <span>✗</span>

Save & Restart

Inputs

Outputs

Help

Connected to Dante

### Dante API Routing

## I/O Mapping

Assign Dante b/rx channels to numbered input/output slots. routeInputToOutput uses these to translate panel commands into Dante subscriptions.

**Inputs**  
Each input ID must be unique. ID 0 is reserved for "clear". Tick rows to enable batch delete.

Reorder IDs
Delete device
Add Inputs

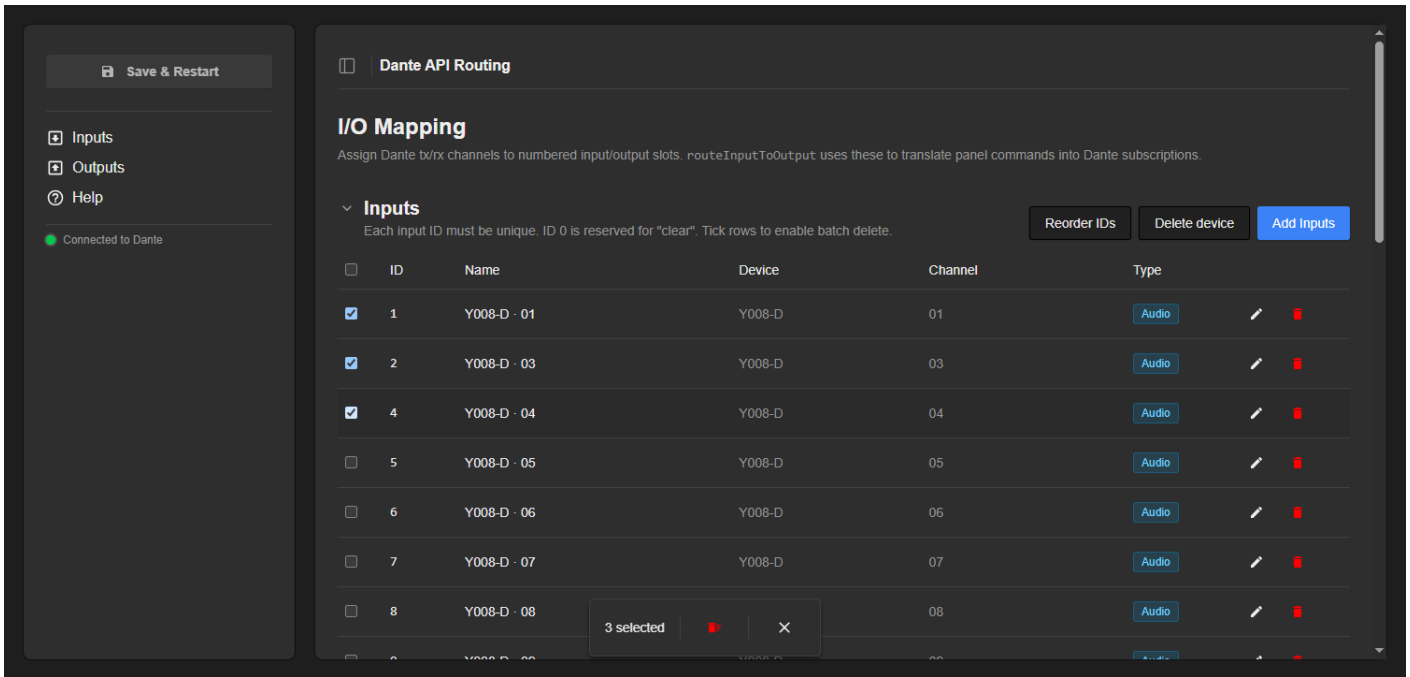
ID	Name	Device	Channel	Type		
<input type="checkbox"/>	1	Y008	Y008-D	01	Audio	<span>✎</span> <span>✗</span>
<input type="checkbox"/>	2	Y008	Y008-D	03	Audio	<span>✎</span> <span>✗</span>
<input type="checkbox"/>	4	Y008	Y008-D	04	Audio	<span>✎</span> <span>✗</span>
<input type="checkbox"/>	5	Y008-D - 05	Y008-D	05	Audio	<span>✎</span> <span>✗</span>
<input type="checkbox"/>	6	Y008-D - 06	Y008-D	06	Audio	<span>✎</span> <span>✗</span>
<input type="checkbox"/>	7	Y008-D - 07	Y008-D	07	Audio	<span>✎</span> <span>✗</span>
<input type="checkbox"/>	8	Y008-D - 08	Y008-D	08	Audio	<span>✎</span> <span>✗</span>

**Delete Input Device**

Remove every inputs slot belonging to a device. Takes effect after Save & Restart.

**Y008-D**  
31 inputs

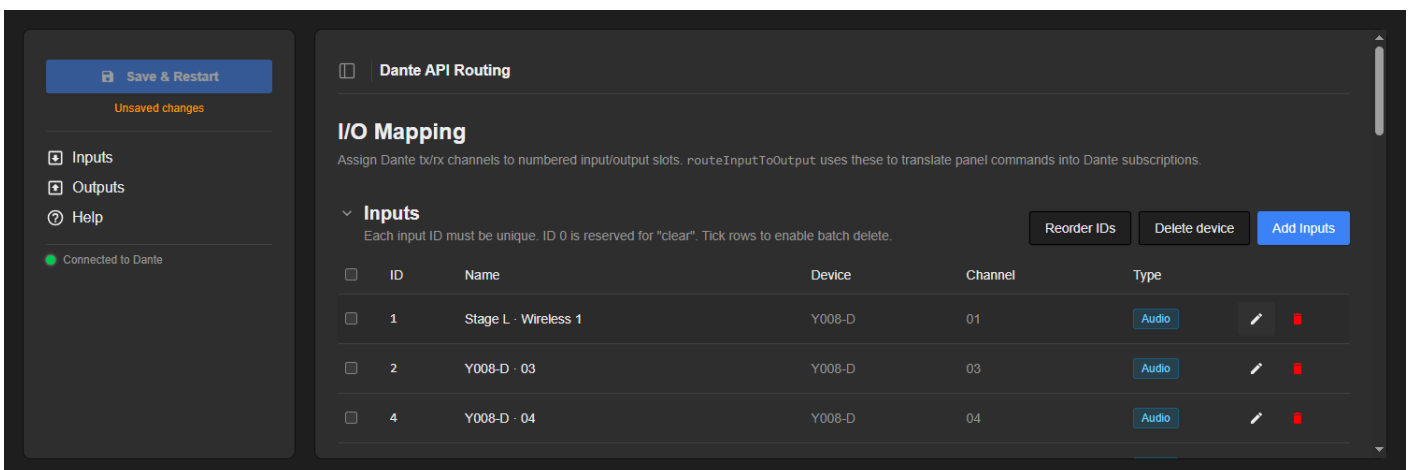
Close



## Save & Restart

Edits are kept in a **draft** until you press **Save & Restart**. While there are unsaved changes the button turns blue and pulses and an *"Unsaved changes"* note appears.

**Save & Restart restarts the core.** The numbered-routing parameters are sized and labelled from your mapping, so their shape only updates on restart. Make all your edits first, then save once.



## Using it from a panel

Once a mapping is saved, the core exposes two parameters under `routing` for everyday operation:

- `routeInputToOutputOpt` — **recommended**. Routing as an **option list**, so the operator can pick the input *by name* instead of by number. The dimension index is the *output ID*. Option 0 is *N/A* (clears the output), and any gaps in your input numbering show up as “(unused N)”.
- `routeInputToOutput` — the same routing as a plain **integer**. The value is the *input ID*; the dimension index is the *output ID*. Send `0` to clear that output. The value range and dimension count are sized to the highest input / output IDs you configured.

For everyday operation reach for `routeInputToOutputOpt` — picking the input by name reads far more clearly on the panel than a raw number.

The output dimension’s element labels are taken from the names you gave the outputs (when several outputs share an ID, their names are joined with “ + ”), so the routing reads clearly in Reactor.

## Direct routing (advanced)

For ad-hoc routing without a numbered map, the core also exposes a manual selection workflow. You browse the domain directly and connect any receiver channel to any transmitter channel:

- **Domain** — `current_domain` selects which domain to control, with read-only `domain_name` and status read-outs (`domain_status_clocking`, `..._connectivity`, `..._latency`, `..._subscriptions`, `..._summary`).
- **Receiver** — `rx_device` then `rx_channel` choose the receive channel to change (`rx_channel_type` reports each channel’s media type).
- **Transmitter** — `tx_device` then `tx_channel` choose the source to feed it (`tx_channel_type` per channel; `current_tx_device` / `current_tx_channel` read back what is currently feeding the selected receiver).
- **Control** — `mode` switches between *Take Mode* and *Direct Mode*. In *Take Mode* changes are staged and committed with `take` (or rolled back with `revert`); `take_or_clear` commits pending changes or, if none, clears the selected receiver. In *Direct Mode* each selection applies immediately.

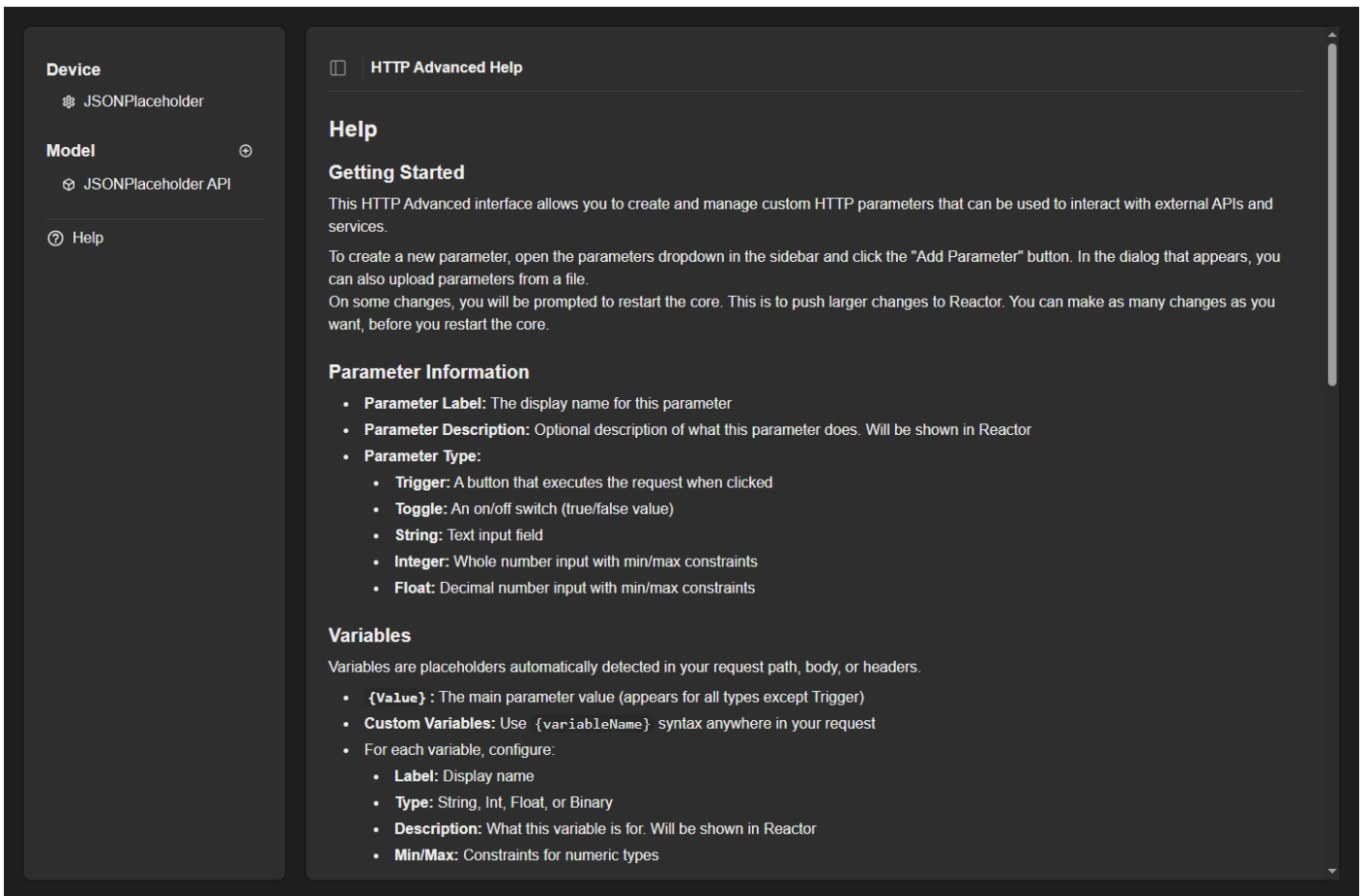
## Troubleshooting

- **Pill shows “Disconnected”** — check the URL, that the API key is valid and has access to the relevant site/domain, and that Director/DDM is reachable. Only enable *Use HTTP* for a non-TLS endpoint.
- **“No live channels found” in the Add dialog** — the core is not connected to a domain, or the domain has no API-visible devices. Note that the Dante Managed API does not expose legacy (pre-4.0) devices, the virtual devices used for Shared Audio Groups, or AES67 / SMPTE 2110 subscriptions.

- **Duplicate input IDs (red rows)** — two inputs share an ID; saving is blocked until you fix or remove one (or use *Reorder IDs*).
- **A change isn't visible in Reactor** — mapping edits only reach the controller after **Save & Restart**, because they change the routing parameters' shape.

## Built-in Help

The web UI has a built-in **Help** page summarising what the core does, how to configure the mapping for AV technicians, and the routing parameters for integrators — a quick reference while you work.



## Reference

**Routing parameters (numbered):** `routeInputToOutputOpt` (option list; input by name — recommended) and `routeInputToOutput` (integer; value = input ID, dimension = output ID, 0 = clear).

**Direct parameters:** `current_domain`, `domain_name`, `domain_status_*`; `rx_device`, `rx_channel`, `rx_channel_type`; `tx_device`, `tx_channel`, `tx_channel_type`, `current_tx_device`, `current_tx_channel`; `take`, `take_or_clear`, `revert`, `mode` (Take / Direct).

**Concepts:** Inputs = Dante tx channels (unique IDs; ID 0 = clear); Outputs = Dante rx channels (IDs may repeat for fan-out). Mapping changes take effect after **Save & Restart**.

---

Revision #3

Created 16 June 2026 12:38:47 by Samuel Jakobsen

Updated 16 June 2026 13:21:39 by Samuel Jakobsen