

Info - Integration PRODIGY series with Lawo HOME

Introduction

This document provides step-by-step instructions for connecting and configuring devices of the DirectOut PRODIGY series (PRODIGY.MP, PRODIGY.MC and PRODIGY.MX) in order to integrate with a Lawo HOME system and a Lawo mc² audio console.

Knowledge about the operation principles of DirectOut / globcon and Lawo / HOME gear is assumed and not part of this document.

Version Information

Document Version: August 2025

Firmware Versions / System Builds used:

- PRODIGY.MP: [System Build 25.05 beta 2; home_v0.10 or newer]
- PRODIGY.MC: [System Build 25.05 beta 2; home_v0.10 or newer]
- PRODIGY.MX: [System Build 25.05 beta 2; home_v0.10 or newer]
- RAV.IO: [rav2_hw_0_36_sw_1_25]
- HOME Server: [release-v2.2.0-271]
- Audio Production Release for mc² [10.10.2 or newer]
- Computer connected to the MGMT network and running globcon (1.20)

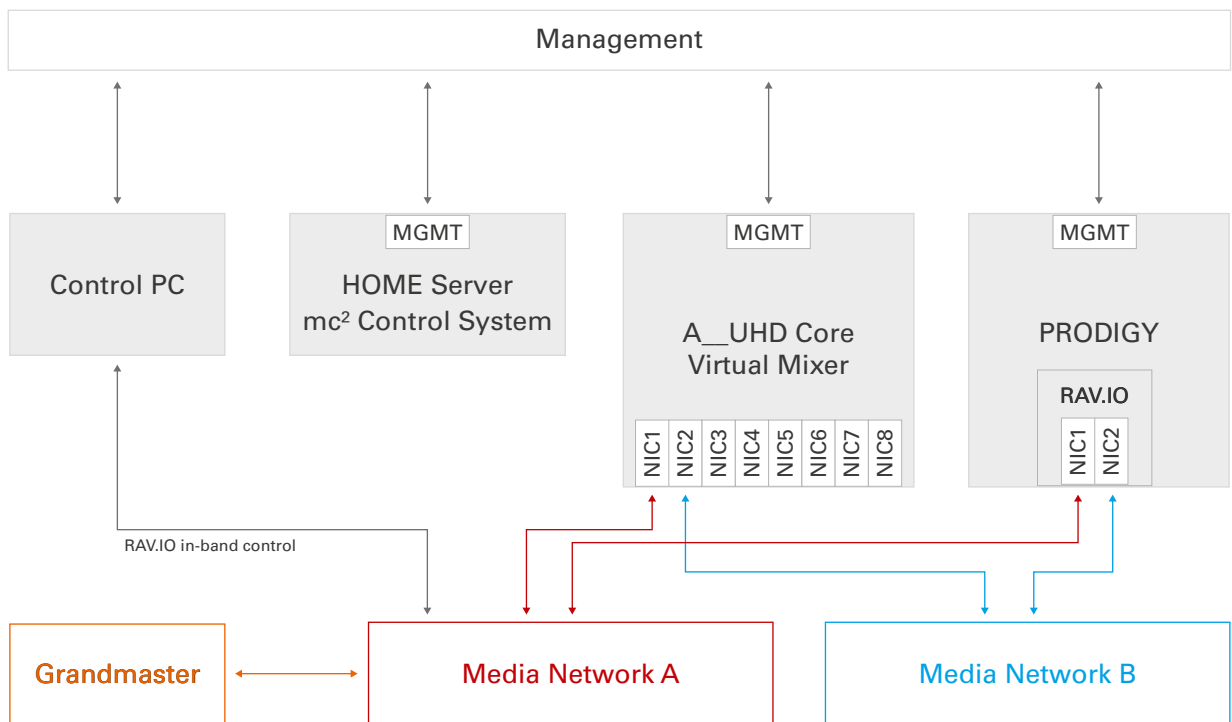
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System Requirements

- Lawo HOME Server with mc² Control System
- Lawo A__UHD Core (or HOME mc² DSP App)
- DirectOut PRODIGY.MX, PRODIGY.MP or PRODIGY.MC device with a license for HOME installed and populated with RAV.IO or RAV.SRC.IO audio network modules.
- Network infrastructure:
 - management network,
 - media network (redundant) with support for PTPv2, AES67 and ST 2110-30

Topology (Example)



IP Address Mapping used in this setup

Device / Network	MGMT	Media Network A	Media Network B
PRODIGY	192.168.2.170		
RAV.IO		192.168.1.190	192.168.3.190
A__UHD Core	192.168.2.133		
strm 0 (ra0 / ra1)		192.168.1.35	192.168.3.35
HOME Server	192.168.2.130		
Control PC	192.168.2.109		
Grandmaster		192.168.1.234	

Device configuration

Access to HOME Server Web Interface

Navigate to: [http://\[HOME_SERVER_IP\]:5000](http://[HOME_SERVER_IP]:5000)

The web UI displays available and already connected hardware devices.

For this document the following hardware was used:

- A__UHD Core (DSP hardware)
- Virtual Mixer (DSP engine)
- mc² Control System

The screenshot shows the LAWO HOME web interface. On the left is a navigation menu with items: Devices, Stream Routing, Signal Ownership Groups, Snapshots, Health, Files, Licenses, and Settings. The main area is titled 'Devices' and includes a 'Filters' button. Below this are action buttons: Approve, Quarantine, Reboot, and More. A table lists the following devices:

Label ↑	Location	Status	Admissions	Device Type
A__UHD Core	DirectOut Lab	✓ Online	-	A__UHD Core
VMixer 1024 Ch.	DirectOut Lab	✓ Online	-	Virtual Mixer in A__UHD Core
mc ² Control System	DirectOut Lab	✓ Online	-	mc ² Control System

Access to A__UHD Core Web Interface

Navigate to: [http://\[UHDCORE_IP\]](http://[UHDCORE_IP]) and log in

Access the Health page for hardware status monitoring

The screenshot shows the LAWO UHD-main web interface. The top bar includes the LAWO logo, 'UHD-main', a 'Health' menu item, and system icons. The main content is divided into two sections:

Product

Type	A__UHD Core
Firmware version	3.6.0.7

Network Ports

Name	Link Status	Address	Speed
mgmt0	Up	192.168.2.133/24	1000 MBit/s
mgmt1	Down	0.0.0.0/24	-
ra0	Up	192.168.1.35/24	1000 MBit/s
ra1	Up	192.168.3.35/24	1000 MBit/s
ra2	Down	0.0.0.0/24	-
ra3	Down	0.0.0.0/24	-
ra4	Down	0.0.0.0/24	-
ra5	Down	0.0.0.0/24	-
ra6	Down	0.0.0.0/24	-
ra7	Down	0.0.0.0/24	-

Synchronization configuration

The media nodes require alignment of the particular sync settings for successful media streaming:

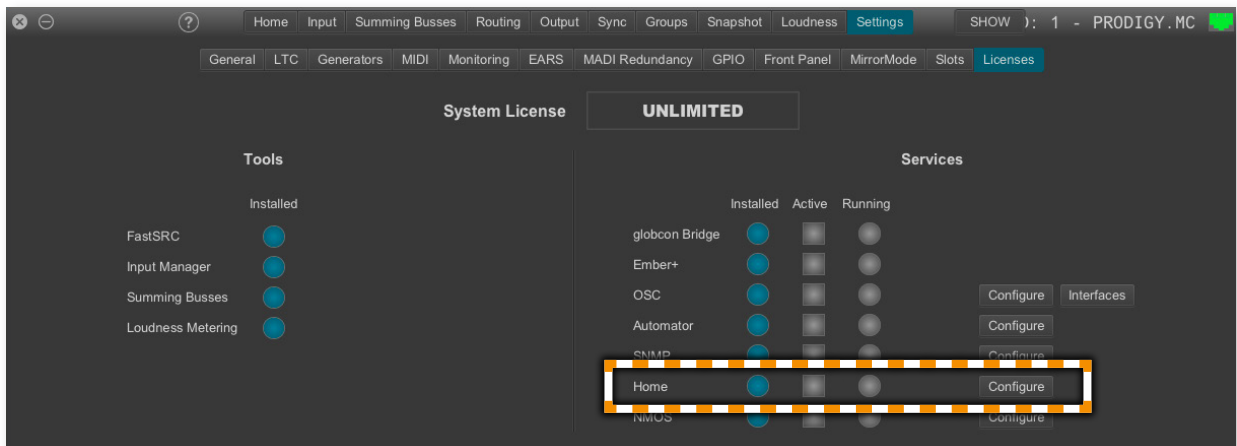
- A__UHD Core - Sync page
- RAV.IO - web ui [http://\[RAV.IO NIC1 IP\]](http://[RAV.IO NIC1 IP])

The RAV.IO is hosted in the PRODIGY mainframe, whose sync settings of the mainframe are accessible via globcon.

Connecting PRODIGY to HOME

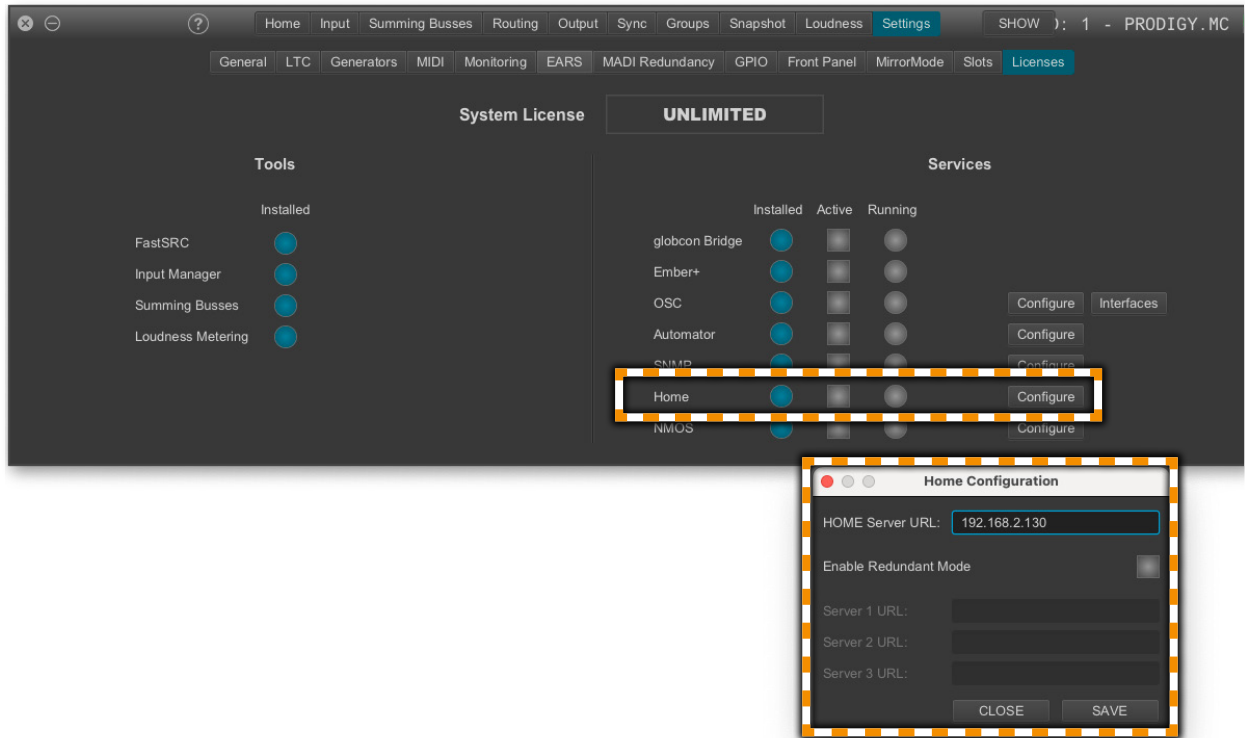
Connection Process

1. Access Device Settings
 - Connect to the Prodigy device's MGMT port via network
 - Launch globcon software
 - Navigate to Settings > Licenses (ensure 'installed' is blue)
 - Locate the HOME service configuration section



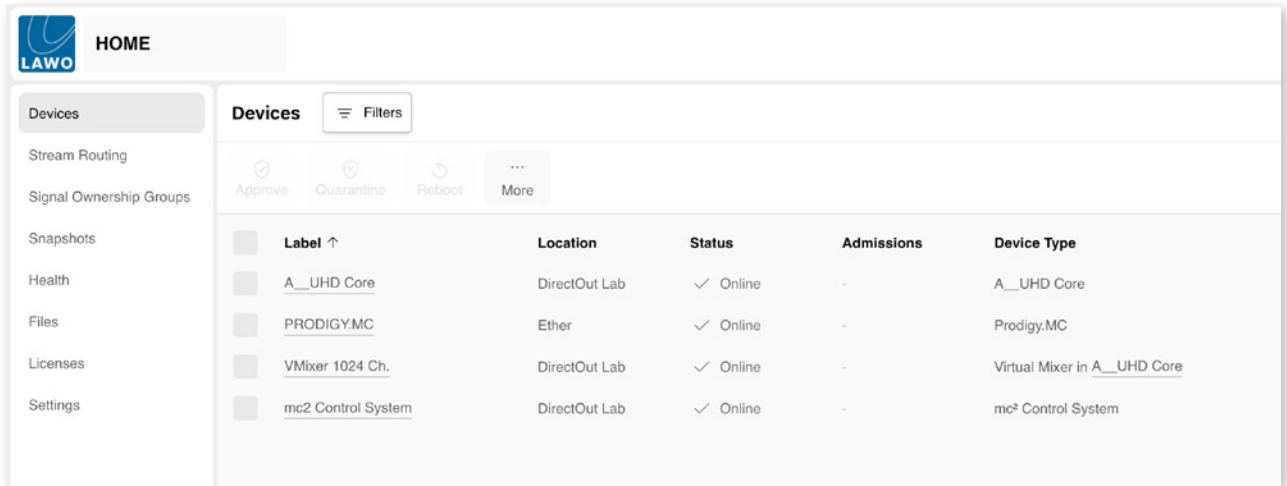
2. Configure HOME Connection

- Enter HOME server IP address
- Click **Save** to close 'Home Configuration'
- Click **Activate** (square button) on the licenses tab to activate the Home service

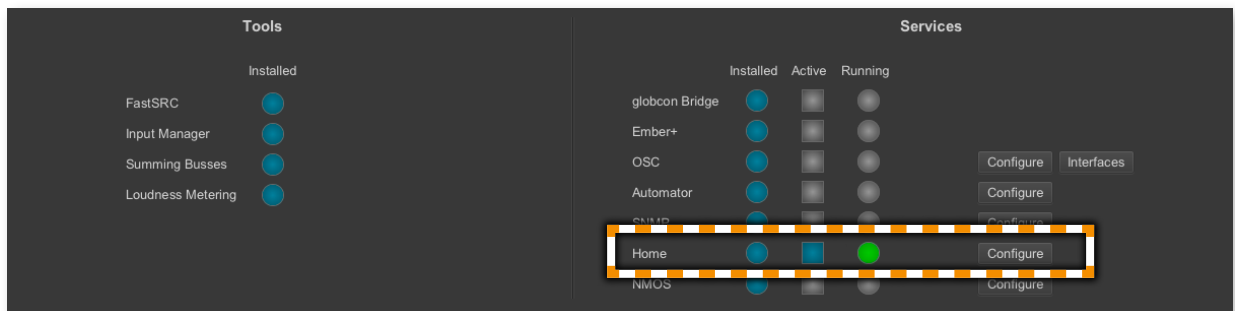


3. Verify Connection

- Device appears in HOME devices list (home_server_ip:5000/devices)



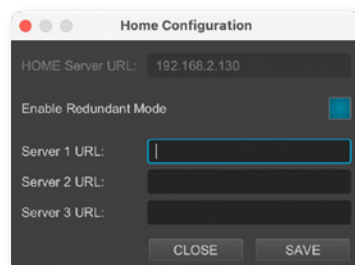
- Service status displayed in column 'Running'
- led green solid = active connection



Redundant Mode (optional)

For redundant HOME server setups:

1. Enable Redundant Mode



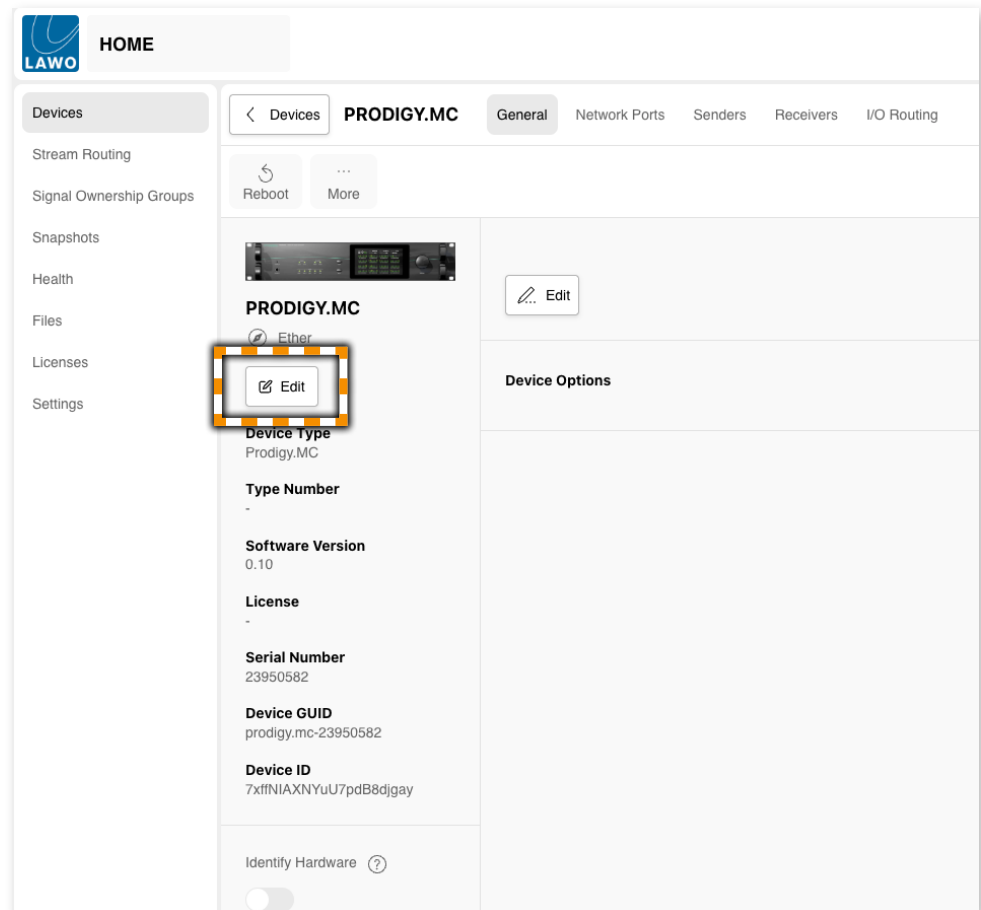
2. Add all cluster unit IP addresses

Device management of PRODIGY via HOME Server UI

Device view - General

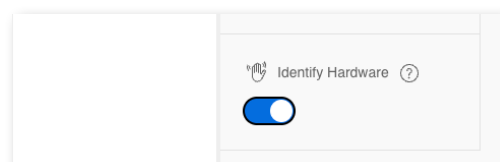
In the devices view select PRODIGY to enter the device configuration settings

Edit device name



Identification

- Click 'Identify Hardware'
- Front panel LEDs of the PRODIGY will flash for location identification
- Click again to deactivate



Device view - Network Ports

- Management NIC status information
- Media NICs status information

Label	Description	ID ↑	Media Stream	Link Speed	MAC Address	IP Mode	IP Address	Subnet Mask	Default Gateway
MGMT	Management Port	mgmt	-	1 Gbps	00:14:2d:a0:27:ac	Static	192.168.2.170	255.255.255.0	
net1 Port 1	net1 Port 1	net1-port1	net1	1 Gbps	A0-BB-3E-20-28-F6	Static	192.168.1.190	255.255.255.0	192.168.1.1
net1 Port 2	net1 Port 2	net1-port2	net1	1 Gbps	A0-BB-3E-20-28-F7	Static	192.168.3.190	255.255.255.0	192.168.3.1

Device view - Senders

Label ↑	Essence	Redundancy	Media Interface	Status	Stream Information
mx1_08_tx01	Audio 8ch	DualRedundant	net1	✓	SMPTE2110_30: 48 kHz, L24, 125 µs

Senders will only show up in the HOME control UI if activated = 'play' condition. HOME does not display senders and receivers in 'stop' condition.

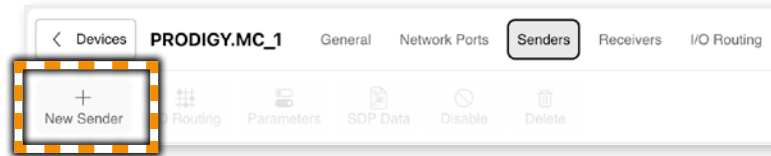
A RAV.IO module offers 32 senders which are visible on the control UI of the RAV.IO.

Label	Channels	Status	Label	Channels	Status
01 mc_08ch_tx01	8 Ch	▶	17 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
02 mc_08ch_tx02	8 Ch	▶	18 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
03 mc_08ch_tx03	8 Ch	▶	19 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
04 mc_08ch_tx04	8 Ch	▶	20 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
05 mc_08ch_tx05	8 Ch	▶	21 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
06 mc_08ch_tx06	8 Ch	▶	22 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
07 mc_08ch_tx07	8 Ch	▶	23 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
08 mc_08ch_tx08	8 Ch	▶	24 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
09 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	25 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
10 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	26 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
11 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	27 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
12 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	28 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
13 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	29 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
14 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	30 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
15 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	31 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
16 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	32 PRODIGY-RAV-IO-190-2028f...	8 Ch	■

▶ = stream activated - 'play'
 ■ = stream deactivated - 'stop'

Creating sender / output streams

Click the ,+' button to add senders.



Multiple senders can be created at the same time.

The 'New Sender' dialog box contains the following fields and options:

- How many Senders do you want to create?**: Input field with value 4.
- Media Interface**: Input field with value net1.
- Number of audio channels per Sender**: Input field with value 8.
- Advanced Settings**: A dropdown menu currently showing 'Advanced Settings'.
- Protection**: Dropdown menu with value 'Dual Redundant'.
- Frame Size**: Dropdown menu with value 6.
- Codec**: Dropdown menu with value 'L24'.
- RTP Payload Type**: Input field with value 98.
- TTL**: Input field with value 16.
- Buttons**: 'Next' (blue) and 'Cancel' (white) buttons at the bottom.

RAV.IO supports:

- 32 senders (output streams)
- 32 receivers (input streams)
- channel count per stream: 1 to 128
- channel count total @1 FS: 128
- network redundancy (ST 2022-7)

New Sender

Labels ending in numbers will be incremented automatically. You can overwrite automatically generated labels if they are not what you want. If you want a range to be incremented automatically, wrap it in double braces. For example Mic Inputs {{1-8}}.

Sender Labels	Primary Multicast	Secondary Multicast	Destination UDP Port
mc_08ch_tx01	239.1.190.1	239.3.190.1	5004
mc_08ch_tx02	239.1.190.2	239.3.190.2	5004
mc_08ch_tx03	239.1.190.3	239.3.190.3	5004
mc_08ch_tx04	239.1.190.4	auto	5004
mc_08ch_tx05	auto	auto	5004
mc_08ch_tx06	auto	auto	5004
mc_08ch_tx07	auto	auto	5004
mc_08ch_tx08	auto	auto	5004

Previous Create Cancel



NOTE

If ,auto' is selected for the multicast address assignment of senders, the default settings of RAV.IO are used. This may cause multicast duplicates if several RAV.IOs are used in the system.

To avoid duplicates please use manual multicast assignment for senders.

Display of Senders / Output streams:

- in the HOME UI

Label ↑	Essence	Redundancy	Media Interface	Status	Stream Information
mc_08ch_tx01	Audio 8ch	DualRedundant	net1	✓	SMPTE2110_30: 48 kHz, L24, 125 μs
mc_08ch_tx02	Audio 8ch	DualRedundant	net1	✓	SMPTE2110_30: 48 kHz, L24, 125 μs
mc_08ch_tx03	Audio 8ch	DualRedundant	net1	✓	SMPTE2110_30: 48 kHz, L24, 125 μs
mc_08ch_tx04	Audio 8ch	DualRedundant	net1	✓	SMPTE2110_30: 48 kHz, L24, 125 μs
mc_08ch_tx05	Audio 8ch	DualRedundant	net1	✓	SMPTE2110_30: 48 kHz, L24, 125 μs
mc_08ch_tx06	Audio 8ch	DualRedundant	net1	✓	SMPTE2110_30: 48 kHz, L24, 125 μs
mc_08ch_tx07	Audio 8ch	DualRedundant	net1	✓	SMPTE2110_30: 48 kHz, L24, 125 μs
mc_08ch_tx08	Audio 8ch	DualRedundant	net1	✓	SMPTE2110_30: 48 kHz, L24, 125 μs

- in the RAV.IO UI

Label	Status	Channels
01 mc_08ch_tx01	ON (Green)	8 Ch ▶
02 mc_08ch_tx02	ON (Green)	8 Ch ▶
03 mc_08ch_tx03	ON (Green)	8 Ch ▶
04 mc_08ch_tx04	ON (Green)	8 Ch ▶
05 mc_08ch_tx05	ON (Green)	8 Ch ▶
06 mc_08ch_tx06	ON (Green)	8 Ch ▶
07 mc_08ch_tx07	ON (Green)	8 Ch ▶
08 mc_08ch_tx08	ON (Green)	8 Ch ▶

After the creation of 'senders' in HOME, the 'output stream' will go into 'play' mode and show a green led on the status tab.

State of outgoing streams	
<input type="radio"/> (OFF)	= stream not activated
<input checked="" type="radio"/> (ON)	= stream activated, sending data
<input checked="" type="radio"/> (ON)	= stream activated, stream output via both NICs selected, but one NIC is not linked to the network.

Checking sender configuration

Access sender configuration (Output Stream Settings) by clicking the stream name (hyperlink) on the status tab of the RAV.IO UI.

01 - OUTPUT STREAM SETTINGS

Activate Stream:

Stream Output: **NIC 1 & 2**

Stream name (ASCII): **mc221_8ch_tx01**

RTSP URL (HTTP tunnel) (by-name): **rtsp://PRODIGY-RAV-IO-220-2009be.local:80/by-name/mc221%5F8ch%5Ftx01**

RTSP URL (HTTP tunnel) (by-name) (NIC 1): **rtsp://192.168.1.220:80/by-name/mc221%5F8ch%5Ftx01**

RTSP URL (HTTP tunnel) (by-name) (NIC 2): **rtsp://192.168.3.220:80/by-name/mc221%5F8ch%5Ftx01**

RTSP URL (HTTP tunnel) (by-id): **rtsp://PRODIGY-RAV-IO-220-2009be.local:80/by-id/1**

RTSP URL (HTTP tunnel) (by-id) (NIC 1): **rtsp://192.168.1.220:80/by-id/1**

RTSP URL (HTTP tunnel) (by-id) (NIC 2): **rtsp://192.168.3.220:80/by-id/1**

RTSP URL (by-name): **rtsp://PRODIGY-RAV-IO-220-2009be.local/by-name/mc221%5F8ch%5Ftx01**

RTSP URL (by-name) (NIC 1): **rtsp://192.168.1.220/by-name/mc221%5F8ch%5Ftx01**

RTSP URL (by-name) (NIC 2): **rtsp://192.168.3.220/by-name/mc221%5F8ch%5Ftx01**

RTSP URL (by-id): **rtsp://PRODIGY-RAV-IO-220-2009be.local/by-id/1**

RTSP URL (by-id) (NIC 1): **rtsp://192.168.1.220/by-id/1**

RTSP URL (by-id) (NIC 2): **rtsp://192.168.3.220/by-id/1**

SDP:

```
v=0
o=- 1 1000400891 IN IP4 192.168.1.220
s=mc221_8ch_tx01
t=0 0
a=group:DUP S1 S2
```

Unicast:

RTP payload ID: **98**

Samples per Frame (packet time): **6 (0.125 ms)**

Start channel: **1**

NIC 1

RTP dst port: **5004**

RTCP dst port: **5005**

Dst IP address (IPv4): **239.1.220.1**

NIC 2

RTP dst port: **5004**

RTCP dst port: **5005**

Dst IP address (IPv4): **239.3.220.1**

The 'start channel' is dynamically selected by HOME, depending on the number of audio channels occupied in the previous streams.

Edit Audio Sender

Label: **mc221_8ch_tx1**

Media Interface: **net1**

Protection: **Dual Redundant**

Channels: **8**

Sample Rate: **48000**

Frame Size (Packet Time): **6 (125 µs)**

Codec: **L24**

TTL: **128**

RTP Payload Type: **98**

Primary Multicast Address: **239.1.221.1**

This sender produces a stream that conforms to SMPTE 2110-30 Receiver Level B.

Device view - Receivers



Receivers will only show up in the HOME control UI if activated = 'play' condition. HOME does not display senders and receivers in 'stop' condition.

A RAV.IO module offers 32 receivers which are visible on the control UI of the RAV.IO.

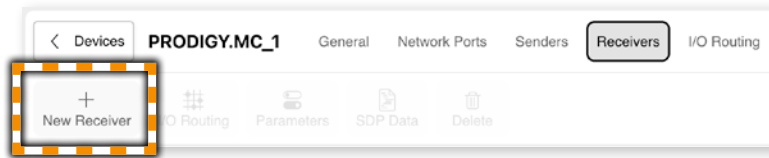


- ▶ = stream activated - 'play'
- = stream deactivated - 'stop'

Creating receiver / input streams

Receivers are created the same ways as senders.

Click the '+' button to add senders.



Multiple receivers can be created at the same time.

New Receiver

How many Receivers do you want to create?

8

Media Interface

net1

Number of audio channels per Receiver

8

Advanced Settings

Syntonized

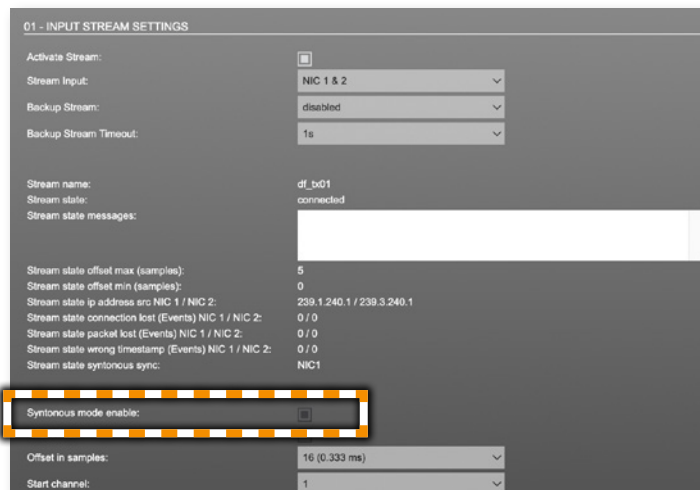
Delay relative to source timestamp (samples)

12



NOTE

Syntonous mode ('syntonized') is supported by the RAV.IO receivers, it has to be manually activated in the Input Stream settings on the web UI of the RAV.IO.



Display of Receivers / Input streams:

- in the HOME UI

Label ↑	Essence	Redundancy	Media Interface	Status	Connected Source	Stream Information
mc_08ch_rx01	Audio 8ch	DualRedundant	net1	!	SMPTE2110_30: 48 kHz, L16, 125 μs	
mc_08ch_rx02	Audio 8ch	DualRedundant	net1	!	SMPTE2110_30: 48 kHz, L16, 125 μs	
mc_08ch_rx03	Audio 8ch	PrimaryOnly	net1	!	SMPTE2110_30: 48 kHz, L16, 937 μs	
mc_08ch_rx04	Audio 8ch	PrimaryOnly	net1	!	SMPTE2110_30: 48 kHz, L16, 1 ms	
mc_08ch_rx05	Audio 8ch	PrimaryOnly	net1	!	SMPTE2110_30: 48 kHz, L16, 1 ms	
mc_08ch_rx06	Audio 8ch	PrimaryOnly	net1	!	SMPTE2110_30: 48 kHz, L16, 1 ms	
mc_08ch_rx07	Audio 8ch	PrimaryOnly	net1	!	SMPTE2110_30: 48 kHz, L16, 1 ms	
mc_08ch_rx08	Audio 8ch	PrimaryOnly	net1	!	SMPTE2110_30: 48 kHz, L16, 1 ms	

- in the RAV.IO UI

ID	Label	Channel Count
01	mc_08ch_rx01	8/8 ch
02	mc_08ch_rx02	8/8 ch
03	mc_08ch_rx03	8/8 ch
04	mc_08ch_rx04	8/8 ch
05	mc_08ch_rx05	8/8 ch
06	mc_08ch_rx06	8/8 ch
07	mc_08ch_rx07	8/8 ch
08	mc_08ch_rx08	8/8 ch

After creation of 'receivers' in HOME, the 'input streams' will display a red led. This is expected since all necessary parameters (NIC, multicast address, audio codec) are pushed only once the stream is patched in the stream routing - see 'Stream Routing' on page 21.

State of input streams	
○ (OFF)	= stream not activated
● (ON)	= stream activated, receiving data
● (ON)	= stream activated, receiving data via one NIC only (input redundancy)
⚠ (blinking)	= stream activated, not receiving data (unicast, connection not established)

Checking receiver configuration

Access receiver configuration (Input Stream Settings) by clicking the stream name (hyperlink) on the status tab of the RAV.IO UI.

01 - INPUT STREAM SETTINGS

Activate Stream:

Stream Input: NIC 2

Backup Stream: disabled

Backup Stream Timeout: 1s

Stream name: mc221_8ch_rx_01

Stream state: not connected

Stream state messages:

Stream state offset max (samples): -

Stream state offset min (samples): -

Stream state ip address src NIC 1 / NIC 2: - / -

Stream state connection lost (Events) NIC 1 / NIC 2: 0 / 0

Stream state packet lost (Events) NIC 1 / NIC 2: 0 / 0

Stream state wrong timestamp (Events) NIC 1 / NIC 2: 0 / 0

Stream state synchronous sync: -

Synchronous mode enable:

Offset fine:

Offset in samples: 16 (0.333 ms)

Start channel: 1

Audio Channel Selection: select

Discovery protocol: Manual configuration Import SDP file Import SDP

Stream name (manual): mc221_8ch_rx_01

Number of channels: 8

RTP payload ID: 98

Audio format: L16

Media offset: 0

NIC 1	NIC 2
Dst IP address: 0.0.0.0	Dst IP address: 0.0.0.0
SMS (Source Specific Multicast): <input type="checkbox"/>	SMS (Source Specific Multicast): <input type="checkbox"/>
Src IP address: 0.0.0.0	Src IP address: 0.0.0.0
RTP dst port: 5004	RTP dst port: 5004
RTCP dst port: 5005	RTCP dst port: 5005

Device view - I/O Routing

The I/O Routing tab displays physical inputs and physical outputs of the device.

The screenshot shows the 'I/O Routing' tab in the PRODIGY.MC software. The interface is split into two main panels: 'Sources' on the left and 'Destinations' on the right. The 'Sources' panel has a 'Filters' button and a 'Disconnect' button. Below it is a table with 'Source' as the header and a '→' button. The table lists 'MADI1 In 1' through 'MADI1 In 7'. The 'MADI1 In 1' row is highlighted in blue, and a small '1' is visible in a column to its right. The 'Destinations' panel also has a 'Filters' button and a 'Disconnect' button. Below it is a table with 'Connected Source' and 'Destination' as headers. The table lists 'MADI1 In 1' connected to 'MADI12 Out 1' through 'MADI12 Out 6'. The 'MADI1 In 1' row is highlighted in blue, and a blue line connects it to the 'MADI12 Out 1' row in the 'Destinations' table.

Matrix connections are patched here or in globcon.

In HOME UI the display of sources or destinations of PRODIGY is restricted to:

- physical inputs and outputs (analog, AES3, MADI)
- active senders and receivers of RAV.IO
- signal generators



NOTE

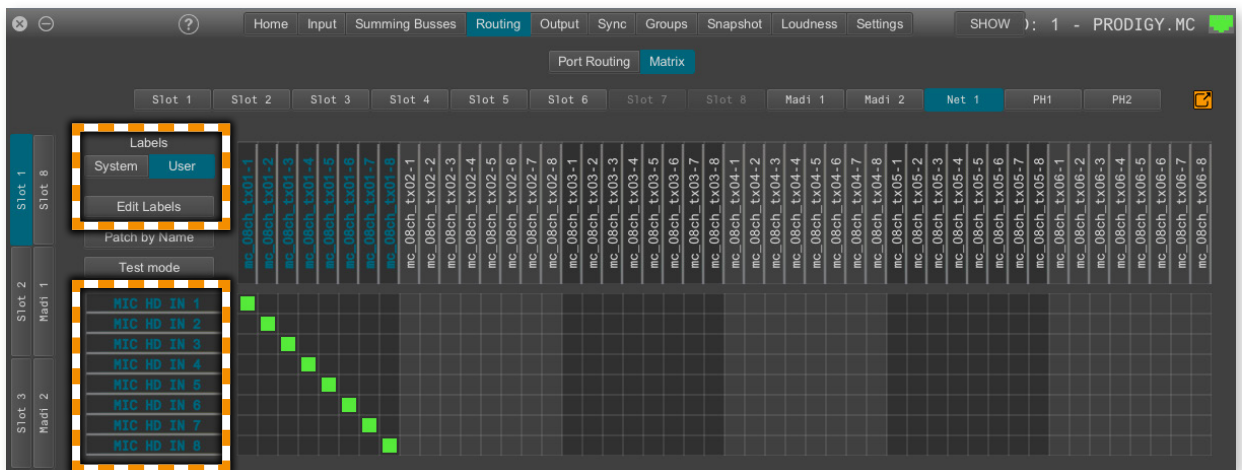
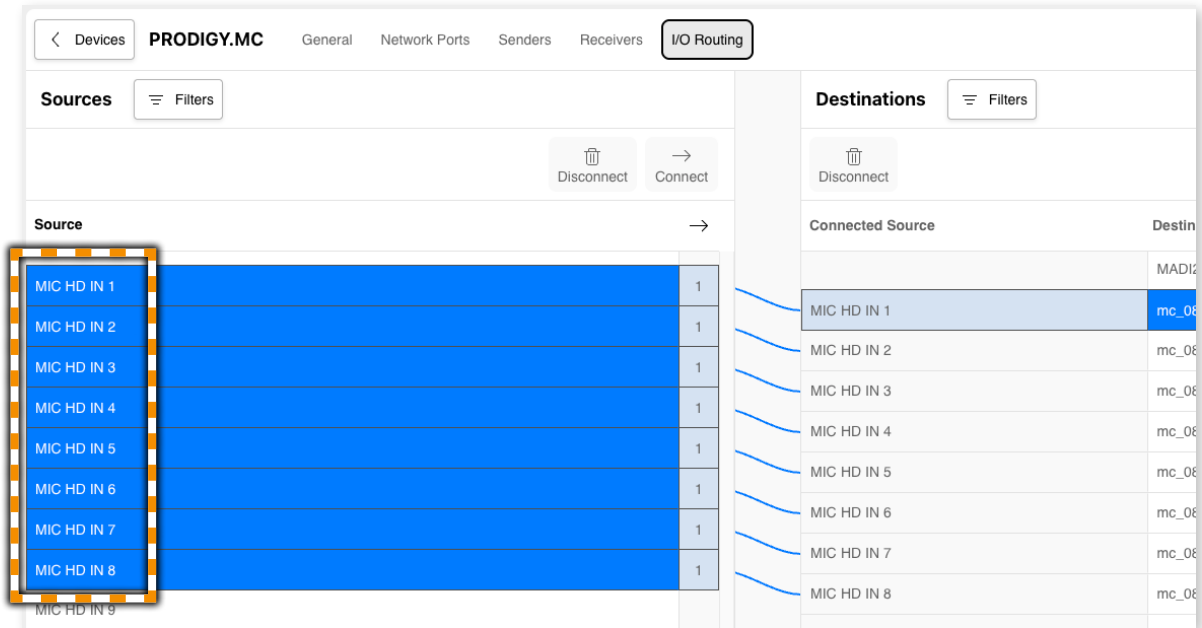
DSP Sources of PRODIGY like 'summing busses' or 'flex channels' are not displayed in HOME.

Labels - Physical I/Os

In globcon there are 'user labels' for physical inputs and outputs.

These user labels are:

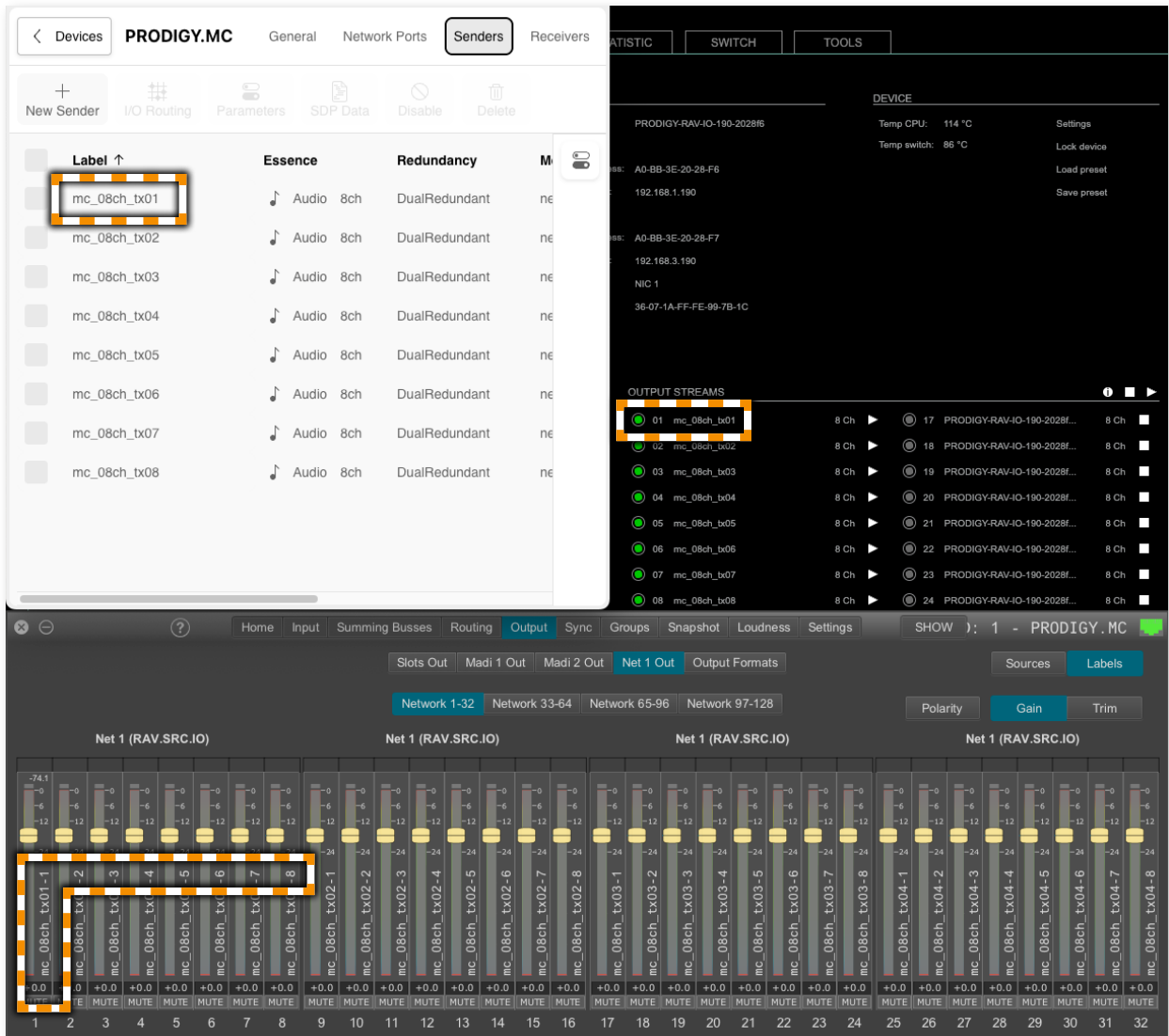
- are displayed in HOME
- can be edited only via globcon



NOTE

Labels of 'senders', 'receivers' and down to 'single channels' are determined by the stream names - see page 20.

Labels - Streams



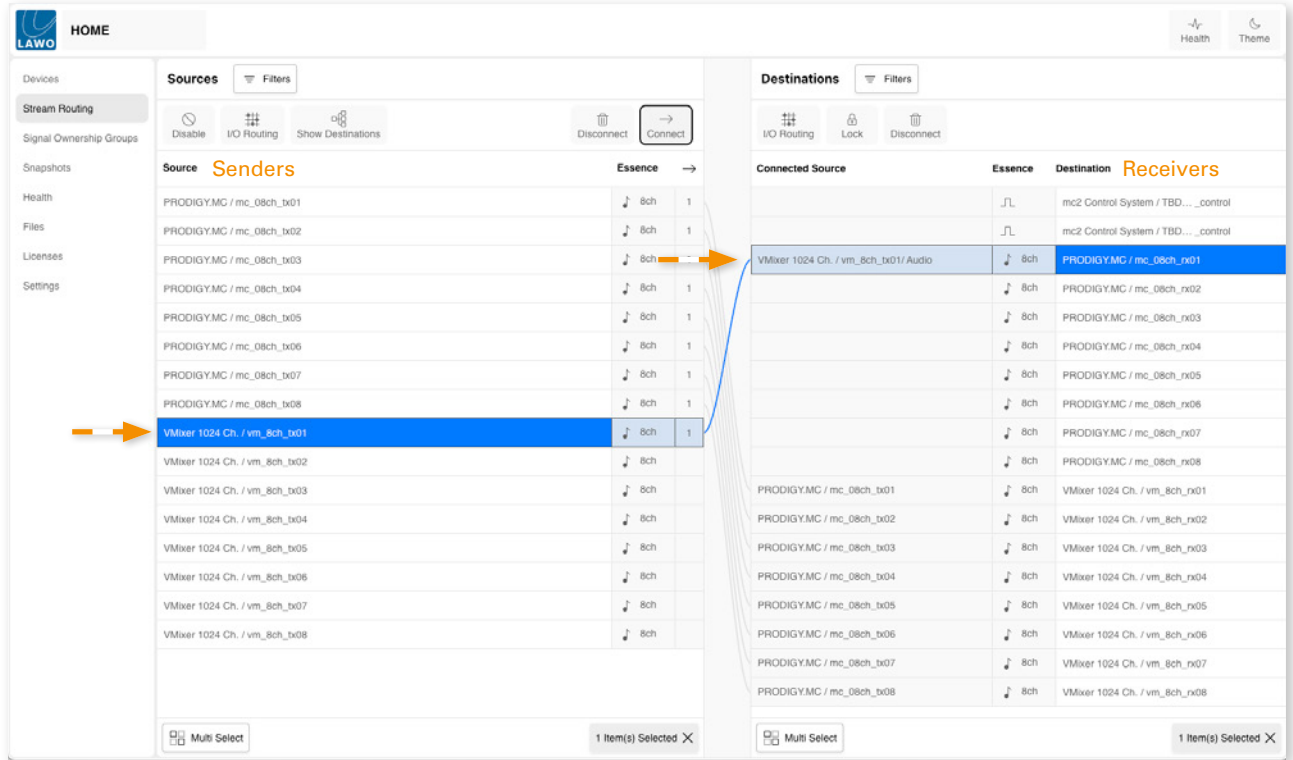
UI	user label
HOME - sender / receiver	<stream name>
RAV.IO - input / output stream	<stream name>
globcon - I/O channels	<stream name> - <channel no>

Example:

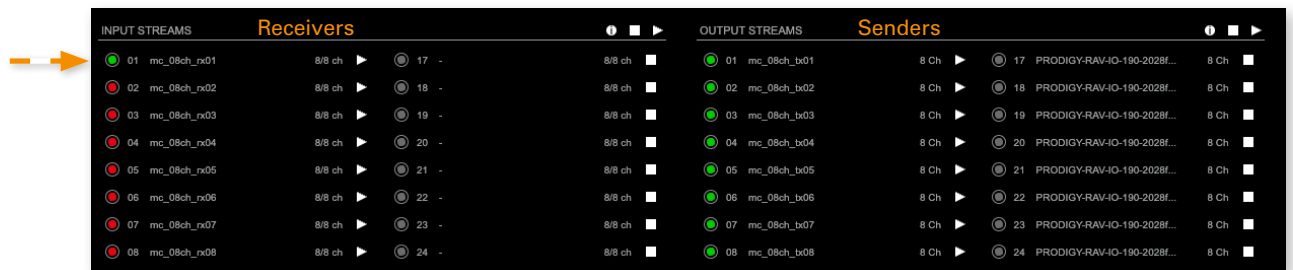
- RAV.IO: mc_08ch_tx01 (transporting 8 audio channels)
- HOME: mc_08ch_tx01
- globcon: mc_08ch_tx01-1 to mc_08ch_tx01-8

Stream Routing

Senders and receivers are patched in the 'Stream Routing' of the HOME UI.



- Create 'senders' and 'receivers' for RAV.IO - hosted in PRODIGY
- Create 'senders' and 'receivers' for Virtual Mixer - hosted in A__UHD Core
- Patch streams in 'Stream Routing'



The status of an input stream changes (led green = stream active, receiving data) once this receiver has been patched to a sender.

Example:

- Sender: Virtual Mixer 1024 Ch. / vm_8ch_tx01
- Receiver: PRODIGY.MC / mc_08ch_rx01

All receivers connected.

Label ↑	Essence	Redundancy	Media Interface	Status	Connected Source	Stream In
mc_08ch_rx01	Audio 8ch	DualRedundant	net1	✓	VMixer 1024 Ch. / vm_ SMPTE21	
mc_08ch_rx02	Audio 8ch	DualRedundant	net1	✓	VMixer 1024 Ch. / vm_ SMPTE21	
mc_08ch_rx03	Audio 8ch	DualRedundant	net1	✓	VMixer 1024 Ch. / vm_ SMPTE21	
mc_08ch_rx04	Audio 8ch	DualRedundant	net1	✓	VMixer 1024 Ch. / vm_ SMPTE21	
mc_08ch_rx05	Audio 8ch	DualRedundant	net1	✓	VMixer 1024 Ch. / vm_ SMPTE21	
mc_08ch_rx06	Audio 8ch	DualRedundant	net1	✓	VMixer 1024 Ch. / vm_ SMPTE21	
mc_08ch_rx07	Audio 8ch	DualRedundant	net1	✓	VMixer 1024 Ch. / vm_ SMPTE21	
mc_08ch_rx08	Audio 8ch	DualRedundant	net1	✓	VMixer 1024 Ch. / vm_ SMPTE21	

Once connected, the stream state of the receivers of RAV.IO is healthy.

INPUT STREAMS				OUTPUT STREAMS					
01 mc_08ch_rx01	8/8 ch	▶	17 -	01 mc_08ch_tx01	8 Ch	▶	17 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
02 mc_08ch_rx02	8/8 ch	▶	18 -	02 mc_08ch_tx02	8 Ch	▶	18 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
03 mc_08ch_rx03	8/8 ch	▶	19 -	03 mc_08ch_tx03	8 Ch	▶	19 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
04 mc_08ch_rx04	8/8 ch	▶	20 -	04 mc_08ch_tx04	8 Ch	▶	20 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
05 mc_08ch_rx05	8/8 ch	▶	21 -	05 mc_08ch_tx05	8 Ch	▶	21 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
06 mc_08ch_rx06	8/8 ch	▶	22 -	06 mc_08ch_tx06	8 Ch	▶	22 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
07 mc_08ch_rx07	8/8 ch	▶	23 -	07 mc_08ch_tx07	8 Ch	▶	23 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
08 mc_08ch_rx08	8/8 ch	▶	24 -	08 mc_08ch_tx08	8 Ch	▶	24 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
09 -	8/8 ch	■	25 -	09 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	25 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
10 -	8/8 ch	■	26 -	10 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	26 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
11 -	8/8 ch	■	27 -	11 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	27 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
12 -	8/8 ch	■	28 -	12 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	28 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
13 -	8/8 ch	■	29 -	13 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	29 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
14 -	8/8 ch	■	30 -	14 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	30 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
15 -	8/8 ch	■	31 -	15 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	31 PRODIGY-RAV-IO-190-2028f...	8 Ch	■
16 -	8/8 ch	■	32 -	16 PRODIGY-RAV-IO-190-2028f...	8 Ch	■	32 PRODIGY-RAV-IO-190-2028f...	8 Ch	■

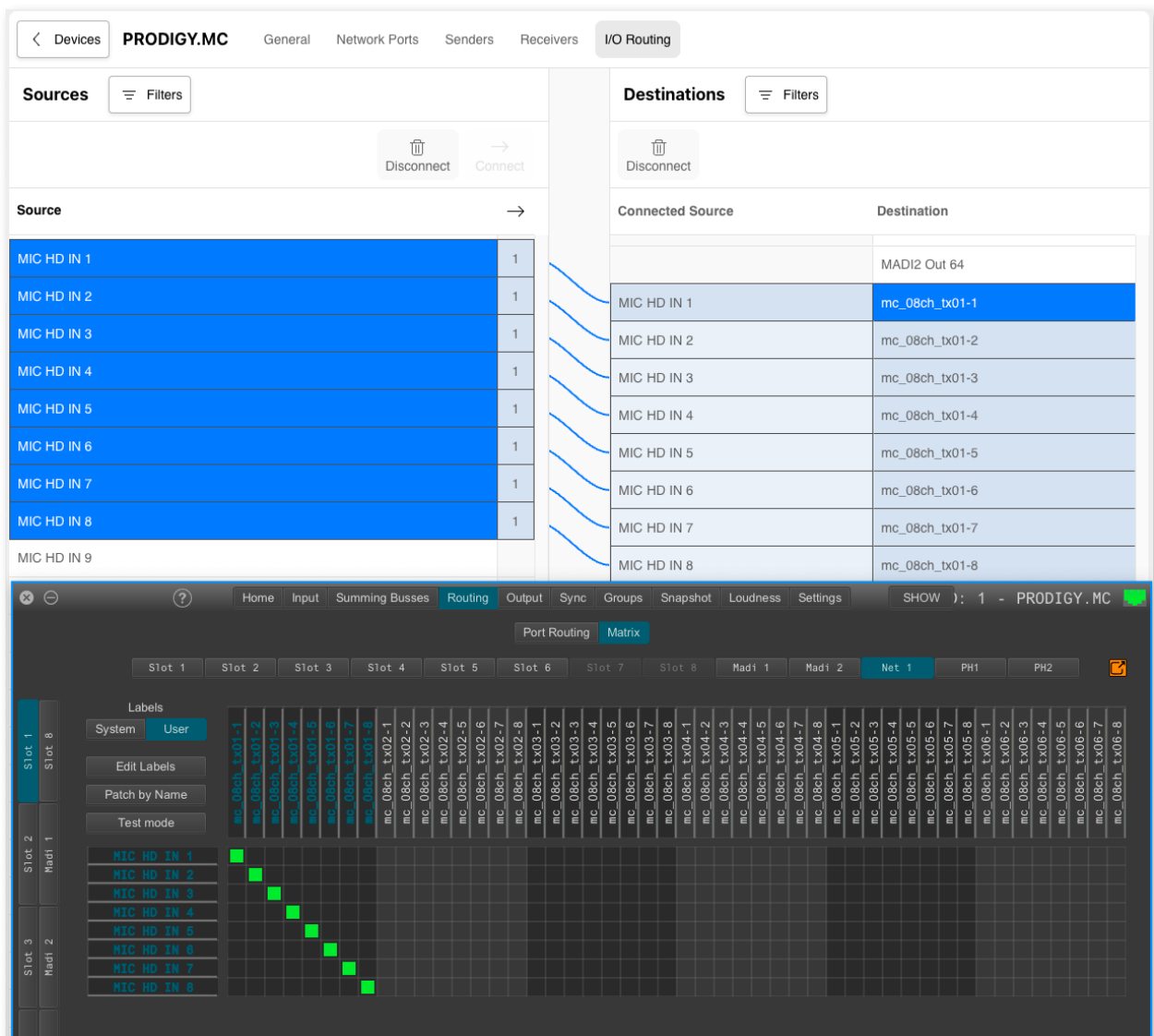
PRODIGY I/O - controlled via Lawo mc² console

Physical inputs and outputs of a PRODIGY can be controlled from a Lawo mc² console via HOME. For example the gain control of a MIC8 module is accessible from the audio console surface.

How:

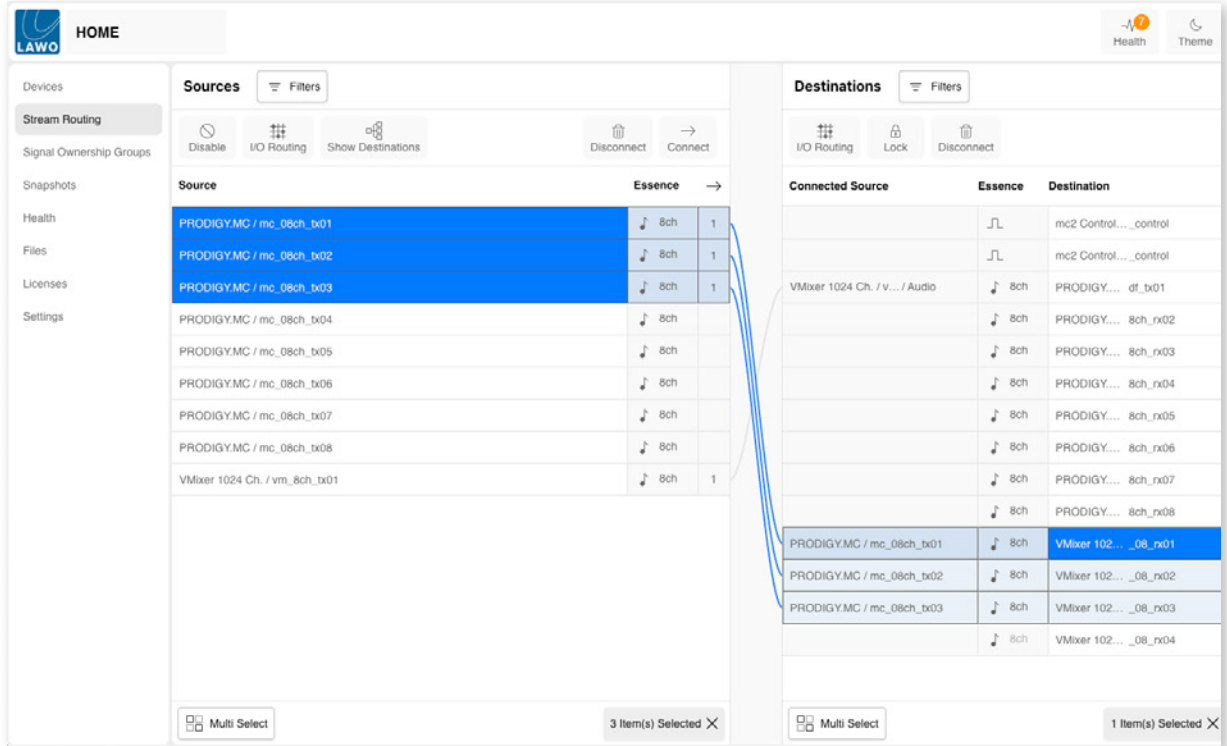
1. create 'sender' and 'receiver'
2. patch physical input to a 'sender' of PRODIGY or patch physical output to a 'receiver' of PRODIGY
3. patch 'sender' of PRODIGY to a 'receiver' of Virtual Mixer or patch 'sender' of Virtual Mixer to a 'receiver' of PRODIGY

Use 'I/O Routing' in HOME or 'Routing' in globcon for this patch (2).



Once the physical inputs are patched to sender(s):

- select 'Stream Routing' on the left sidebar from the Home UI
- patch the sender from PRODIGY to a receiver of the Virtual Mixer* (3)

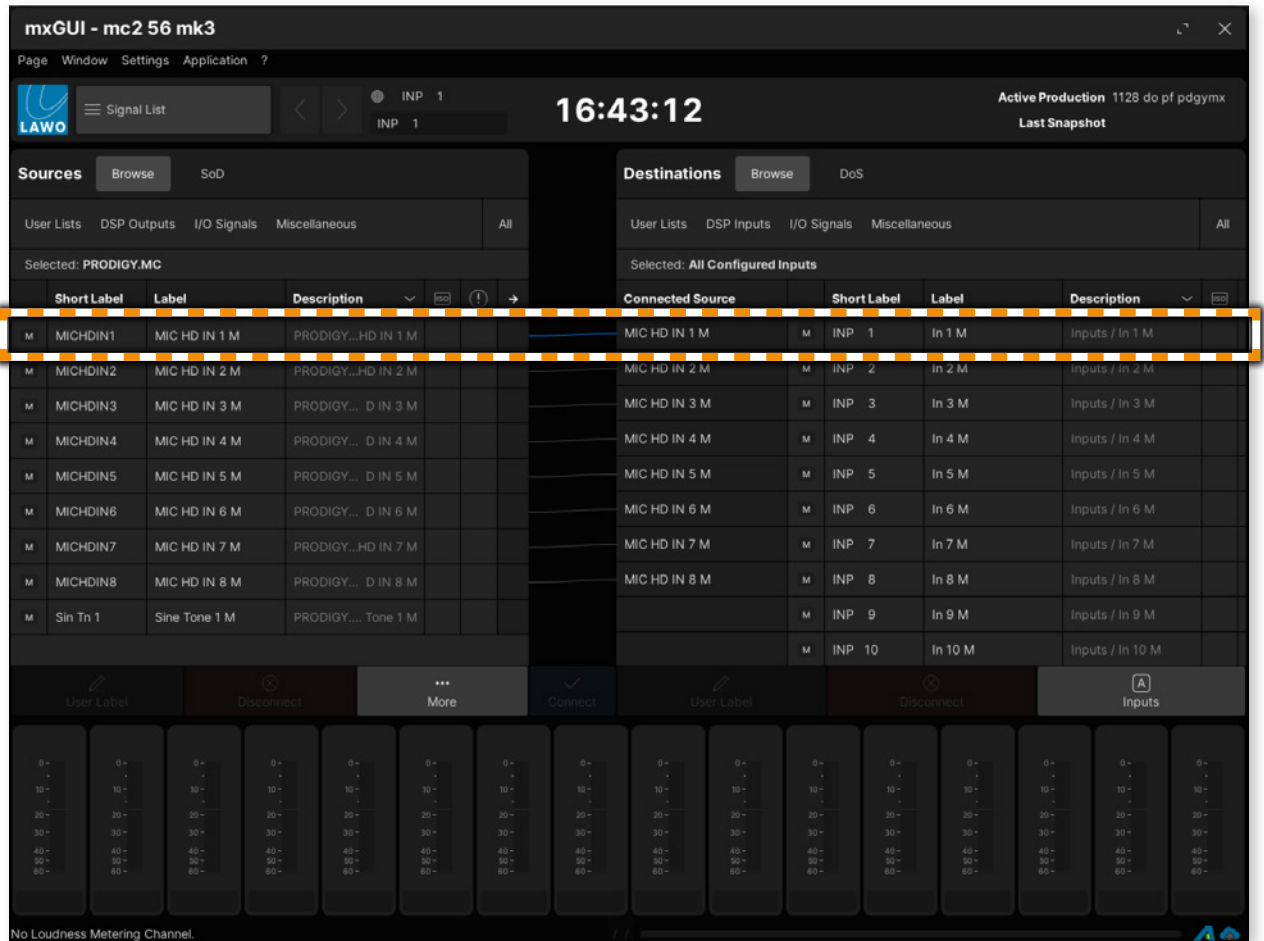


* Virtual Mixer is a DSP partition, which is running on the Lawo A__UHD Core.

In the 'Signal List' PRODIGY.MC from the 'I/O Signals' list is selected.

The screenshot displays the mxGUI interface for a mc2 56 mk3 system. The top menu bar includes 'Page', 'Window', 'Settings', and 'Application ?'. The status bar shows 'Active Production 1128 do pf pdgymx' and 'Last Snapshot'. The main workspace is divided into 'Sources' and 'Destinations' sections. The 'Sources' section has tabs for 'User Lists', 'DSP Outputs', 'I/O Signals', and 'Miscellaneous'. The 'I/O Signals' tab is selected, showing a list of sources with 'PRODIGY.MC' highlighted. The 'Destinations' section has tabs for 'User Lists', 'DSP Inputs', 'I/O Signals', and 'Miscellaneous'. The 'I/O Signals' tab is selected, showing a list of destinations with 'INP 1' highlighted. The bottom of the interface features a 'User Label' panel with 16 channels, each with a 'Disconnect' button and a 'Connect' button. Below this is a signal level display with 16 channels, each showing a level indicator and a 'Disconnect' button.

Patch the source to an ,input channel' of the mc² console.



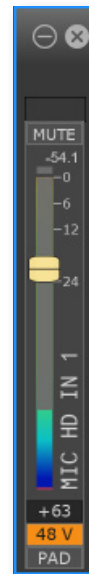
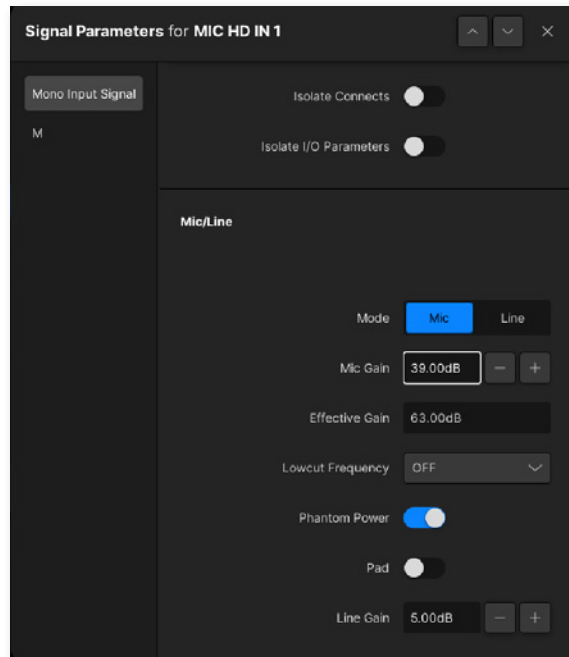
In the 'Signal List' of the mc² console the source signal is displayed with its 'user label'.

Example:

- physical input of PRODIGY.MC: slot 1 ch 01 ('MIC HD IN 1')
- transported as stream - 'sender mc_08ch_tx01'
- column 'Label' displays 'MIC HD IN 1'

Right click on the source and select the 'Signal Parameters'.

mc² console - Signal Parameters



Parameter settings are synchronised with globcon.

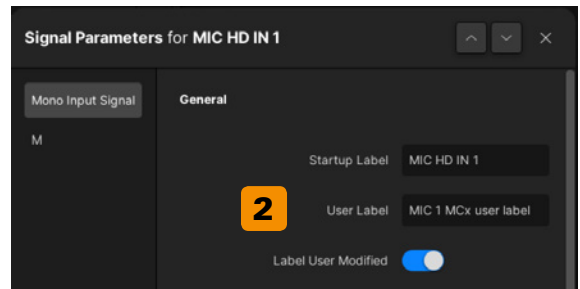
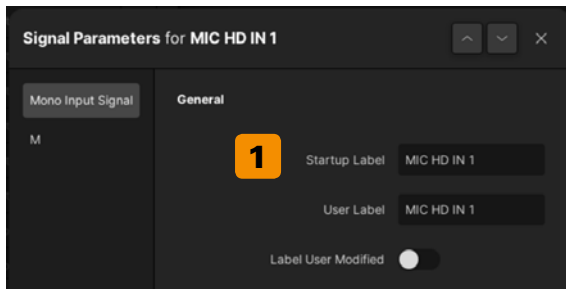
Available parameters:

- Mic gain
- Phantom Power 48V
- PAD

'Effective Gain' represents the gain value of the input channel in globcon.

mc² console - Labels

- the 'startup label' in the signal parameters view displays the PRODIGY 'user label' and cannot be edited from mc².
- the 'user label' from mc² is not pushed to globcon / PRODIGY.
- the 'startup label' is currently not automatically updated in mc² (the HOME UI displays the label).



1	Startup Label = PRODIGY user label, pulled once from globcon when connecting
2	mc ² User Label, will not be pushed to PRODIGY / globcon



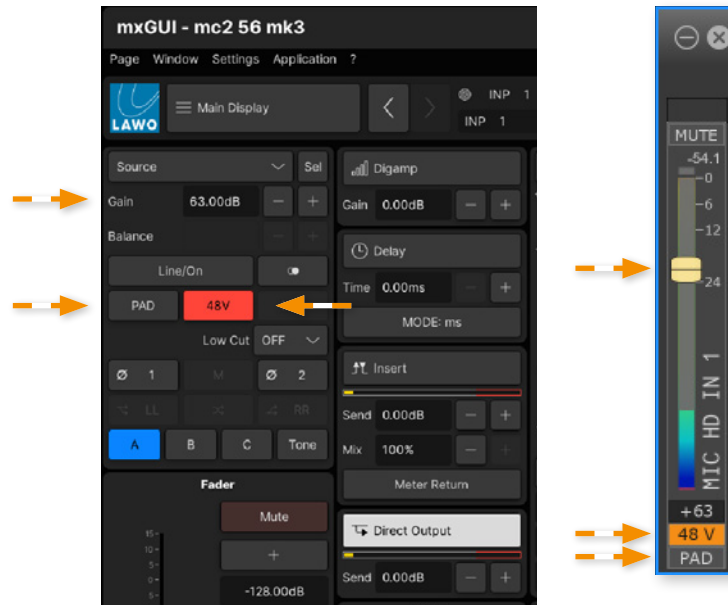
TIP

To push a modified label from PRODIGY to mc²:

- disconnect the input channel in the globcon matrix from the 'sender' of the RAV.IO and re-connect it.

mc² console - Main Display

Audio and control becomes available from the channel control of mc².



NOTE

The gain value displayed in the mc² Input Channel currently does not necessarily correlate with the gain value displayed on the input channel of PRODIGY / globcon. A matching representation of the gain is displayed in the 'signal parameters' only- 'Effective Gain'- see page 27.



NOTE

DirectOut MIC8.HD.I and MIC8.LINE.I modules operate with different PADs:

Module	PAD
MIC8.HD.I	- 20 dB
MIC8.LINE.I	- 9 dB

The PAD function of an mc² Input Channel calculates with a PAD of - 20 dB to display the gain value in the input channel.

This leads to different offsets in the displayed gain values depending on the type of input module used in PRODIGY.

Good to know!

- DirectOut MIC8.HD.I and MIC8.LINE.I modules do not provide a dedicated line input function. To enable mic gain control, deactivate 'Line/On' in the mc² DSP channel.
- DirectOut line input modules AN8.I do not provide a gain function, the gain control of the DSP channel will not work.
- The Trim (digital gain) function of the PRODIGY inputs is not controlled by mc², as the Digamp is placed in the DSP channel of the mixing core.

Control data vs audio data

Control data is transported via management port to PRODIGY (out-of-band via HOME server)

- Control data
 - Virtual Mixer (mc²) => UHD Core => HOME Server => PRODIGY => IO Module
- Audio data
 - PRODIGY => RAV.IO => UHD Core => Virtual Mixer (mc²)