

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: July 2025

Firmware Versions / System Builds used:

- PRODIGY.MP: [System Build 25.05 beta 2; home_v0.10]
- PRODIGY.MC: [System Build 25.05 beta 2; home_v0.10]
- PRODIGY.MX: [System Build 25.05 beta 2; home_v0.10]
- RAV.IO: [rav2_hw_0_36_sw_1_25]
- HOME Server: [release-v2.2.0-271]
- A__UHDCore: [3.6.0.7]
- Computer connected to the MGMT network and running globcon (1.20)

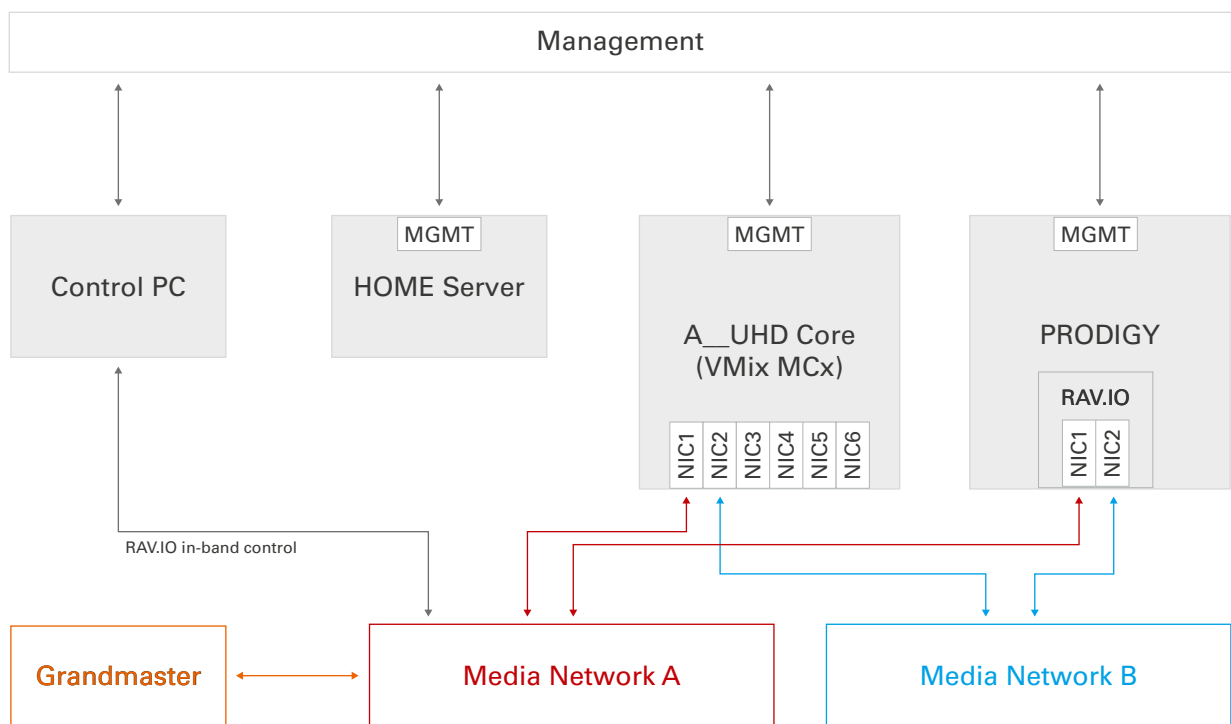
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System Requirements

- Lawo HOME Server
- Lawo A__UHDCore
- 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



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		
Stream 0		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__UHDCore (DSP hardware)
- VMixer (DSP engine)
- mc2 Control System

LAWO

HOME

Devices

Stream Routing

Signal Ownership Groups

Snapshots

Health

Files

Licenses

Settings

Devices

Filters

Approve

Quarantine

Reboot


More

<div><div></div></div> Label ↑	Location	Status	Admissions	Device Type
<div><div></div></div> <div>A__UHD Core</div>	DirectOut Lab	<div><div>✓</div>Online</div>	-	A__UHD Core
<div><div></div></div> <div>VMixer 1024 Ch.</div>	DirectOut Lab	<div><div>✓</div>Online</div>	-	Virtual Mixer in A__UHD Core
<div><div></div></div> <div>mc2 Control System</div>	DirectOut Lab	<div><div>✓</div>Online</div>	-	mc² Control System

Access to A__UHD Core Web Interface



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

Access the Health page for hardware status monitoring



UHD-main

≡ Health



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:

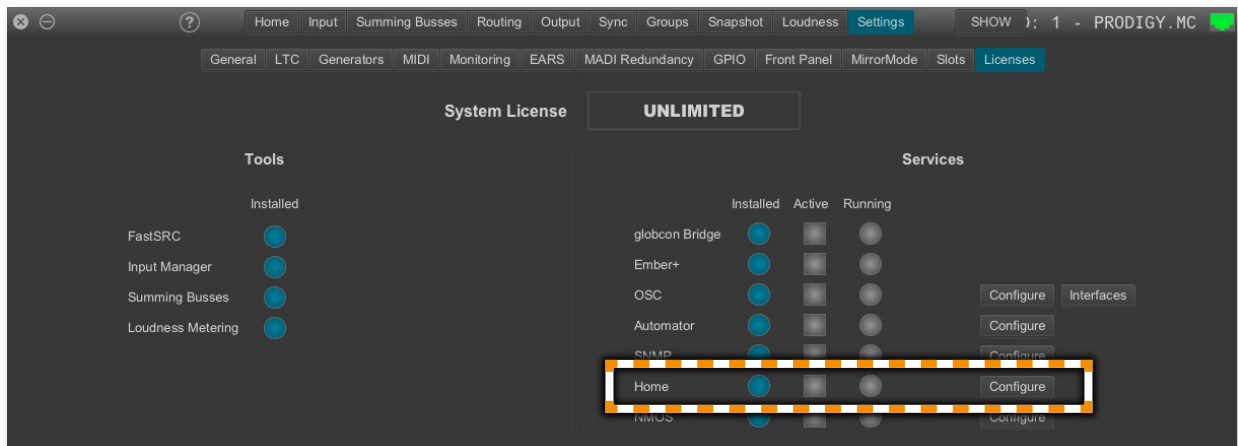
- A__UHD Core - Sync page
- RAV.IO - web ui [http://\[RAV.IO NIC1 IP\]](http://[RAV.IO NIC1 IP])

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

Connecting PRODIGY to HOME

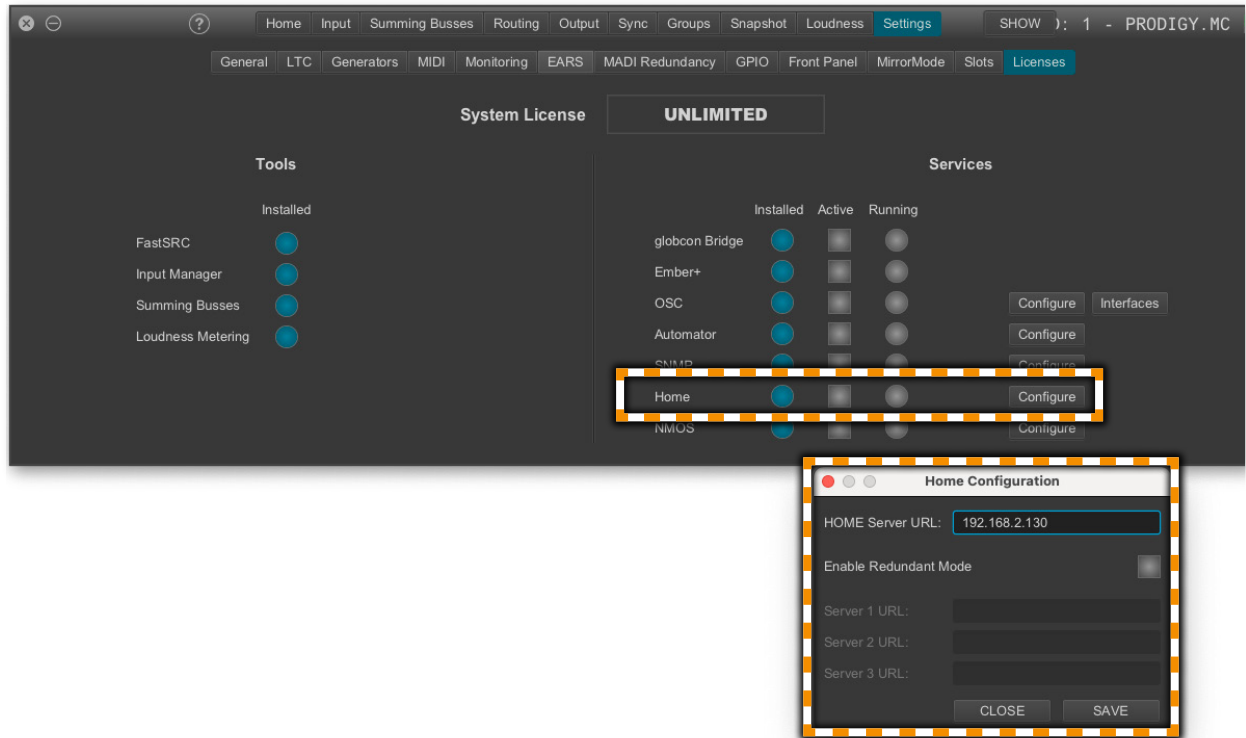
Connection Process

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



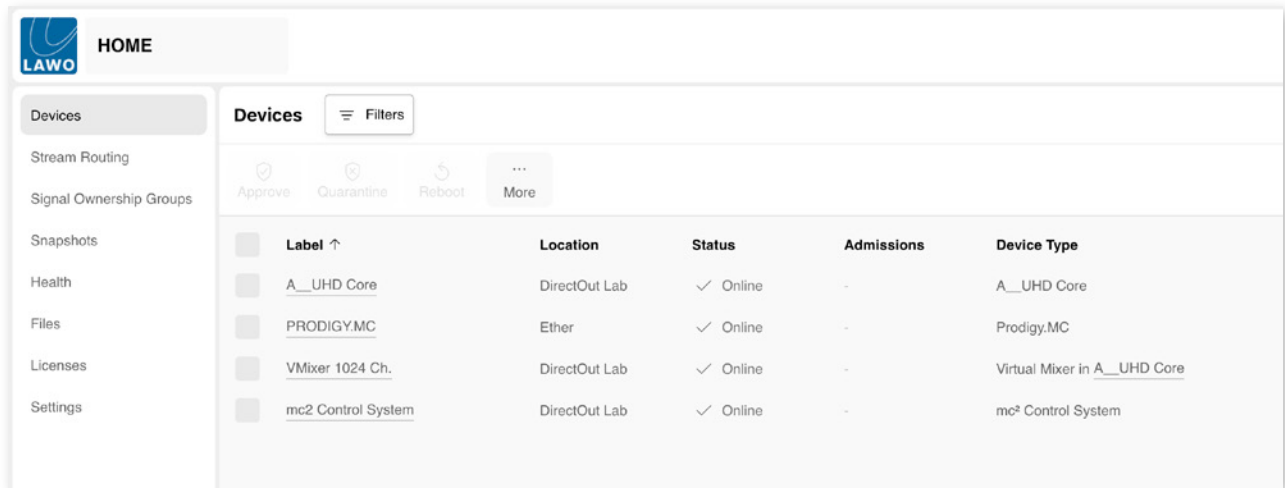
2. Configure HOME Connection

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

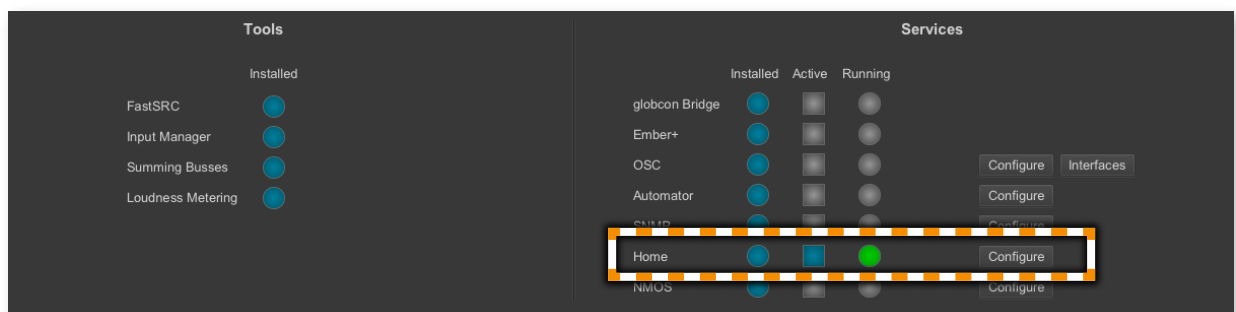


3. Verify Connection

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



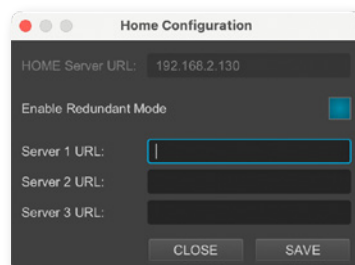
- Service status displayed in column 'Running'
- led green solid = active connection



Redundant Mode (optional)

For redundant HOME server setups:

1. Enable Redundant Mode



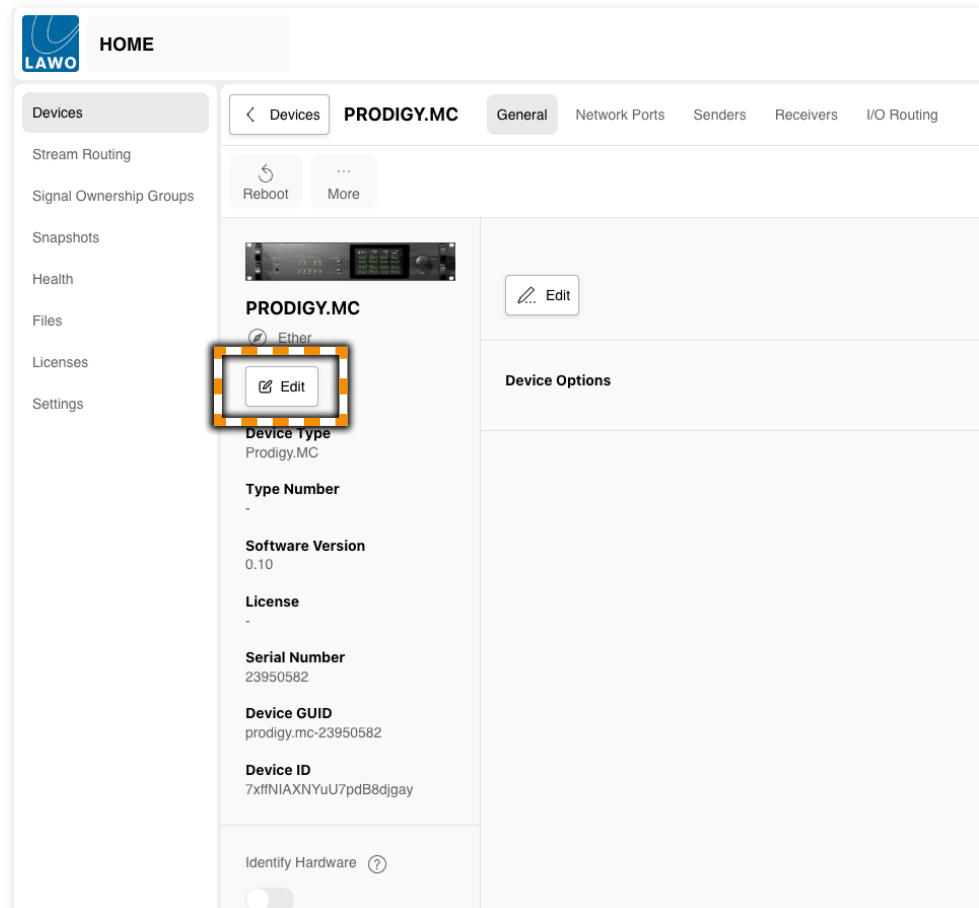
2. Add all cluster unit IP addresses

Device management of PRODIGY via HOME Server UI

Device view - General

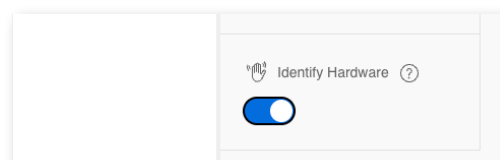
In the devices view select PRODIGY to enter the device configuration settings

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

<div> <div>< Devices</div> <div>PRODIGY.MC</div> <div>General</div> <div>Network Ports</div> <div>Senders</div> <div>Receivers</div> <div>I/O Routing</div> </div>										
	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

<div> <div>< Devices</div> <div>PRODIGY.MC_1</div> <div>General</div> <div>Network Ports</div> <div>Senders</div> <div>Receivers</div> <div>I/O Routing</div> </div>						
<div> <div>+ New Sender</div> <div>I/O Routing</div> <div>Parameters</div> <div>SDP Data</div> <div>Disable</div> <div>Delete</div> </div>						
	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.

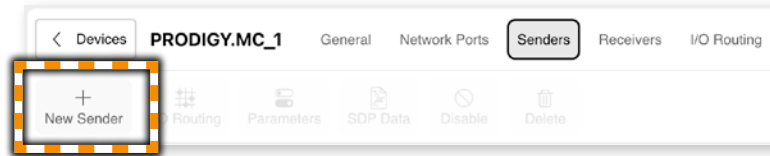
A RAV.IO module offers 32 senders which are visible on the control UI of the RAV.IO.

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

▶ = 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.

New Sender

How many Senders do you want to create?

Media Interface

Number of audio channels per Sender

These Senders will produce a stream that conforms to SMPTE 2110-30 Receiver Level B.

Advanced Settings

^

Protection

Dual Redundant

⌵

Frame Size

6

⌵

Codec

L24

⌵

RTP Payload Type

TTL

Next

Cancel

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	Channel Count
01 mc_08ch_tx01	8 Ch
02 mc_08ch_tx02	8 Ch
03 mc_08ch_tx03	8 Ch
04 mc_08ch_tx04	8 Ch
05 mc_08ch_tx05	8 Ch
06 mc_08ch_tx06	8 Ch
07 mc_08ch_tx07	8 Ch
08 mc_08ch_tx08	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

- (OFF) = stream not activated
- (ON) = stream activated, sending data
- (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 copy

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

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

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

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

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

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

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

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

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

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

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

SDP:

```
v=0
o=- 1 1000400801 IN IP4 192.168.1.220
s=mc221_8ch_tx01
t=0 0
a=group:DUP S1 S2
```

copy

Unicast: ☐

RTP payload ID: 98

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

Start channel: 1

NIC 1		NIC 2	
RTP dst port:	5004	RTP dst port:	5004
RTCP dst port:	5005	RTCP dst port:	5005
Dst IP address (IPv4):	239.1.220.1	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

<div> <div>< Devices</div> <div>PRODIGY.MC_1</div> <div>General</div> <div>Network Ports</div> <div>Senders</div> <div>Receivers</div> <div>I/O Routing</div> </div>							
<div> <div>+ New Receiver</div> <div>I/O Routing</div> <div>Parameters</div> <div>SDP Data</div> <div>Delete</div> </div>							
Label ↑	Essence	Redundancy	Media Interface	Status	Connected Source	Stream Information	
df_tx01	Audio 8ch	DualRedundant	net1	✓		SMPTE2110_30: 48 kHz, I	

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.

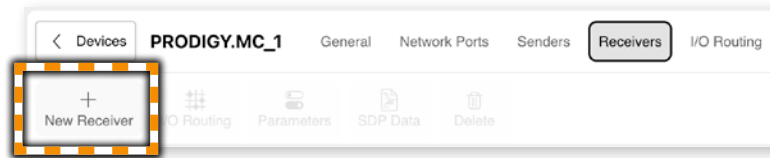
INPUT STREAMS			
01 mc_08ch_rx01	8/8 ch ▶	17 -	8/8 ch ■
02 mc_08ch_rx02	8/8 ch ▶	18 -	8/8 ch ■
03 mc_08ch_rx03	8/8 ch ▶	19 -	8/8 ch ■
04 mc_08ch_rx04	8/8 ch ▶	20 -	8/8 ch ■
05 mc_08ch_rx05	8/8 ch ▶	21 -	8/8 ch ■
06 mc_08ch_rx06	8/8 ch ▶	22 -	8/8 ch ■
07 mc_08ch_rx07	8/8 ch ▶	23 -	8/8 ch ■
08 mc_08ch_rx08	8/8 ch ▶	24 -	8/8 ch ■
09 -	8/8 ch ■	25 -	8/8 ch ■
10 -	8/8 ch ■	26 -	8/8 ch ■
11 -	8/8 ch ■	27 -	8/8 ch ■
12 -	8/8 ch ■	28 -	8/8 ch ■
13 -	8/8 ch ■	29 -	8/8 ch ■
14 -	8/8 ch ■	30 -	8/8 ch ■
15 -	8/8 ch ■	31 -	8/8 ch ■
16 -	8/8 ch ■	32 -	8/8 ch ■

▶ = 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?

Media Interface

Number of audio channels per Receiver

Advanced Settings

☒ Syntonized

Delay relative to source timestamp (samples)

Next Cancel



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.

01 - INPUT STREAM SETTINGS

Activate Stream: ☐

Stream Input:

Backup Stream:

Backup Stream Timeout:

Stream name:

Stream state:

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:

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

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

Stream state syntonous sync:

Syntonous mode enable: ☒

Offset in samples:

Start channel:

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

INPUT STREAMS		
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

Dst IP address:

0.0.0.0

SSM (Source Specific Multicast):

☐

Src IP address:

0.0.0.0

RTP dst port:

5004

RTCP dst port:

5005

NIC 2

Dst IP address:

0.0.0.0

SSM (Source Specific Multicast):

☐

Src IP address:

0.0.0.0

RTP dst port:

5004

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 interface. It features two main panels: 'Sources' and 'Destinations'. The 'Sources' panel lists various input channels, with 'MADI1 In 1' selected. The 'Destinations' panel lists various output channels, with 'MADI2 Out 1' selected. A blue arrow indicates a connection from 'MADI1 In 1' to 'MADI2 Out 1'. The interface also includes 'Disconnect' and 'Connect' buttons for managing these connections.

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

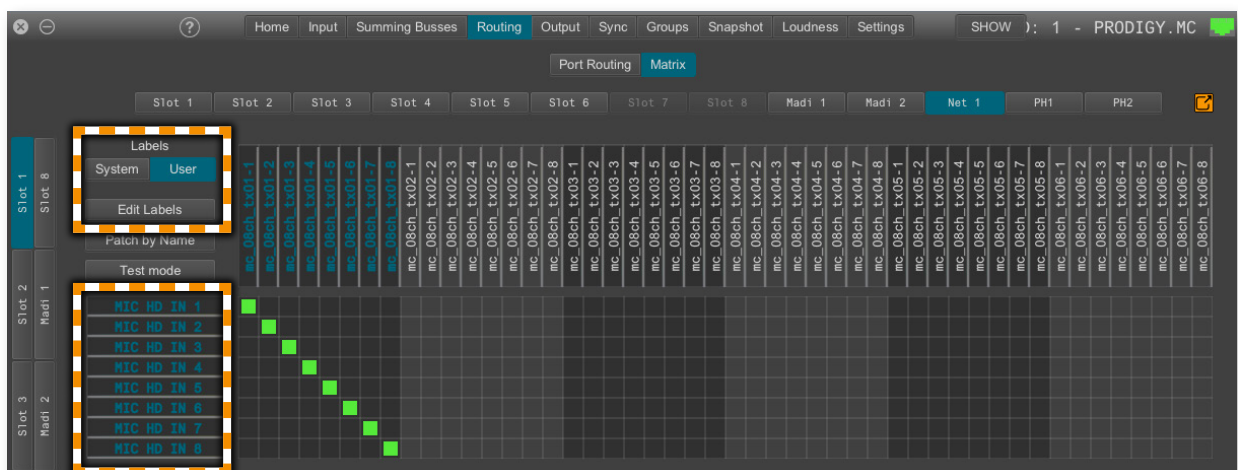
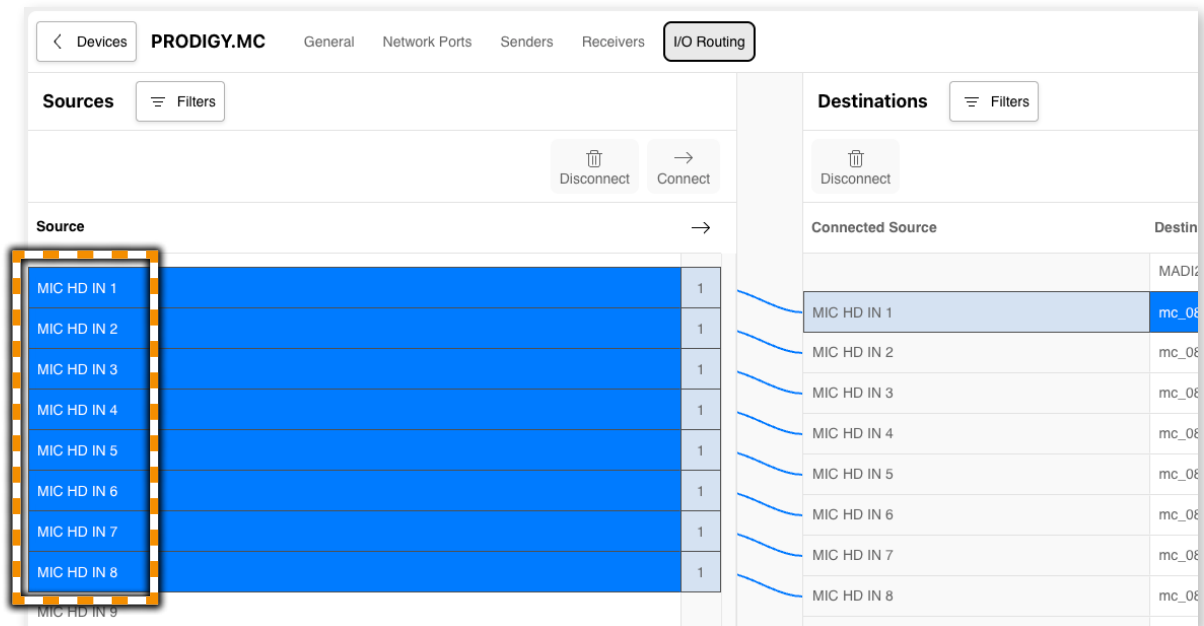
DSP Sources of PRODIGY like 'summing busses' or 'flex channels' are not displayed in HOME.

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

The screenshot shows the PRODIGY.MC software interface. The top navigation bar includes 'Devices', 'PRODIGY.MC', 'General', 'Network Ports', 'Senders', and 'Receivers'. The 'Senders' tab is active, displaying a list of audio streams. The 'Output Streams' section on the right shows a list of streams with their respective channel counts and device names. The 'Net 1 (RAV.SRC.IO)' section at the bottom displays a grid of 32 channels, each with a volume knob and a mute button. The 'mc_08ch_tx01-1' channel is highlighted with a red box.

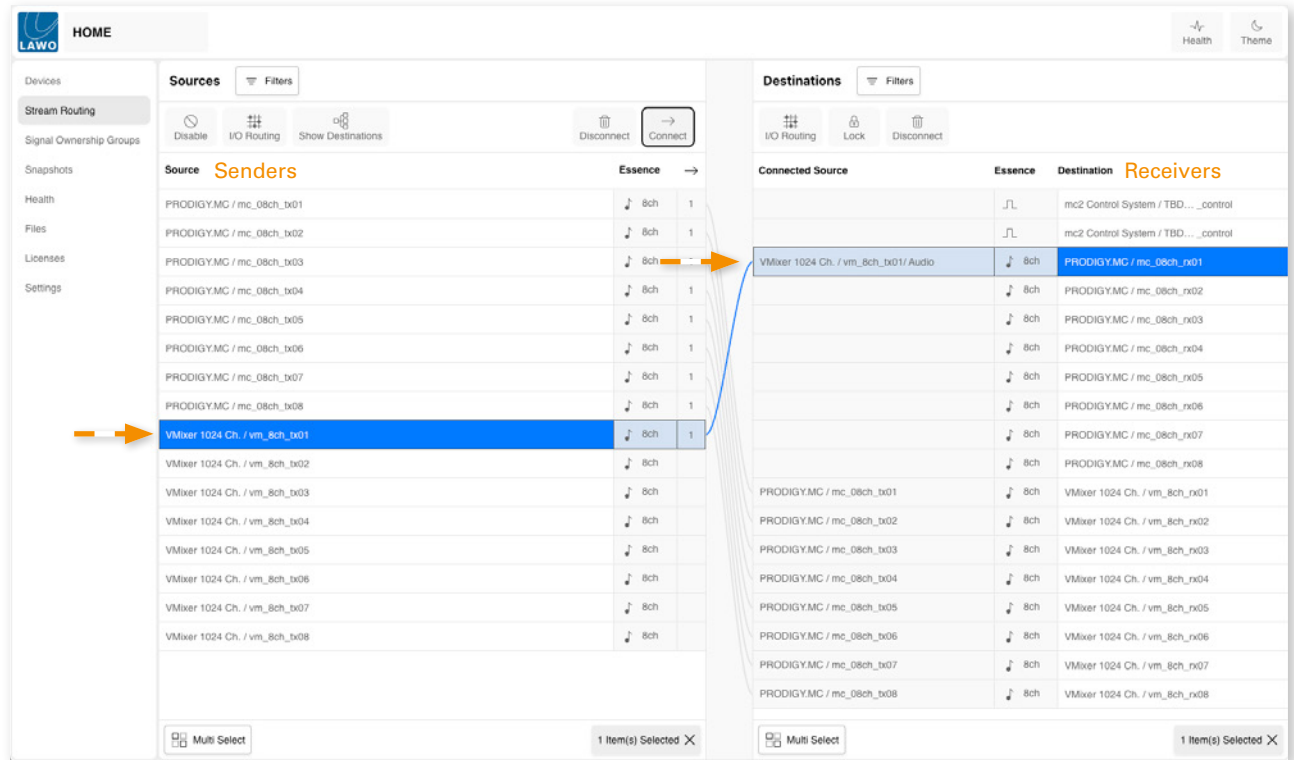
UI	user label
HOME - sender / receiver	<stream name>
RAV.IO - input / output stream	<stream name>
globcon - I/O channels	<stream name> - <channel no>

Example:

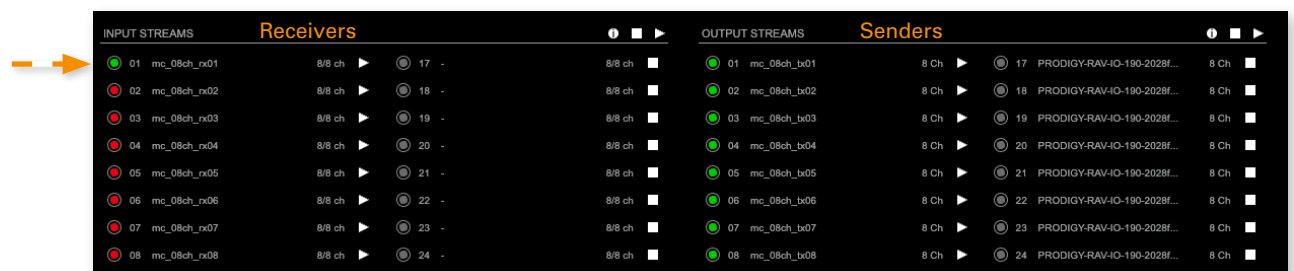
- RAV.IO: mc_08ch_tx01 (transporting 8 audio channels)
- HOME: mc_08ch_tx01
- globcon: mc_08ch_tx01-1 to mc_08ch_tx01-8

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 VMixer - 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: VMixer 1024 Ch. / vm_8ch_tx01
- Receiver: PRODIGY.MC / mc_08ch_rx01

All receivers connected.

Devices

Stream Routing

Signal Ownership Groups

Snapshots

Health

Files

Licenses

Settings

< Devices

PRODIGY.MC

General

Network Ports

Senders

Receivers

I/O Routing

+ New Receiver

I/O Routing

Parameters

SDP Data

Delete

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

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

INPUT STREAMS

01

mc_08ch_rx01

8/8 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 VMixer or patch 'sender' of VMixer to a 'receiver' of PRODIGY

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

The image shows two screenshots related to audio routing. The top screenshot is the 'I/O Routing' window in the PRODIGY.MC software. It displays a list of sources on the left and destinations on the right. The sources are MIC HD IN 1 through MIC HD IN 9. The destinations are MADI2 Out 64 and mc_08ch_tx01-1 through mc_08ch_tx01-8. Blue lines indicate connections from each MIC HD IN source to its corresponding mc_08ch_tx01 destination.

The bottom screenshot is the 'Port Routing' Matrix in the Lawo mc2 console. It shows a grid of ports for Slot 1 through Slot 8. The ports are labeled as MIC HD IN 1 through MIC HD IN 8. The matrix shows a diagonal pattern of green squares, indicating that each MIC HD IN source is routed to its corresponding output port.

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 VMixer* (3)

The screenshot shows the 'Stream Routing' configuration page in the Lawo HOME interface. The left sidebar contains navigation options: Devices, Stream Routing (selected), Signal Ownership Groups, Snapshots, Health, Files, Licenses, and Settings. The main area is divided into 'Sources' and 'Destinations' panels.

Sources Panel: Displays a list of audio sources. Three sources are selected (highlighted in blue):

Source	Essence	→
PRODIGY.MC / mc_08ch_tx01	8ch	1
PRODIGY.MC / mc_08ch_tx02	8ch	1
PRODIGY.MC / mc_08ch_tx03	8ch	1
PRODIGY.MC / mc_08ch_tx04	8ch	
PRODIGY.MC / mc_08ch_tx05	8ch	
PRODIGY.MC / mc_08ch_tx06	8ch	
PRODIGY.MC / mc_08ch_tx07	8ch	
PRODIGY.MC / mc_08ch_tx08	8ch	
VMixer 1024 Ch. / vm_8ch_tx01	8ch	1

Destinations Panel: Displays a list of audio destinations. The 'Connected Source' column shows the routing connections. The first three destinations are selected (highlighted in blue):

Connected Source	Essence	Destination
PRODIGY.MC / mc_08ch_tx01	8ch	VMixer 102..._08_rx01
PRODIGY.MC / mc_08ch_tx02	8ch	VMixer 102..._08_rx02
PRODIGY.MC / mc_08ch_tx03	8ch	VMixer 102..._08_rx03
	8ch	VMixer 102..._08_rx04
	8ch	mc2 Control..._control
	8ch	mc2 Control..._control
	8ch	PRODIGY...._08_rx01
	8ch	PRODIGY...._08_rx02
	8ch	PRODIGY...._08_rx03
	8ch	PRODIGY...._08_rx04
	8ch	PRODIGY...._08_rx05
	8ch	PRODIGY...._08_rx06
	8ch	PRODIGY...._08_rx07
	8ch	PRODIGY...._08_rx08

Blue arrows indicate the mapping from the selected sources to the selected destinations. The 'Multi Select' button at the bottom of each panel shows '3 Item(s) Selected' for Sources and '1 Item(s) Selected' for Destinations.

* VMixer is an application, which is running on the Lawo A__UHDCore.

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

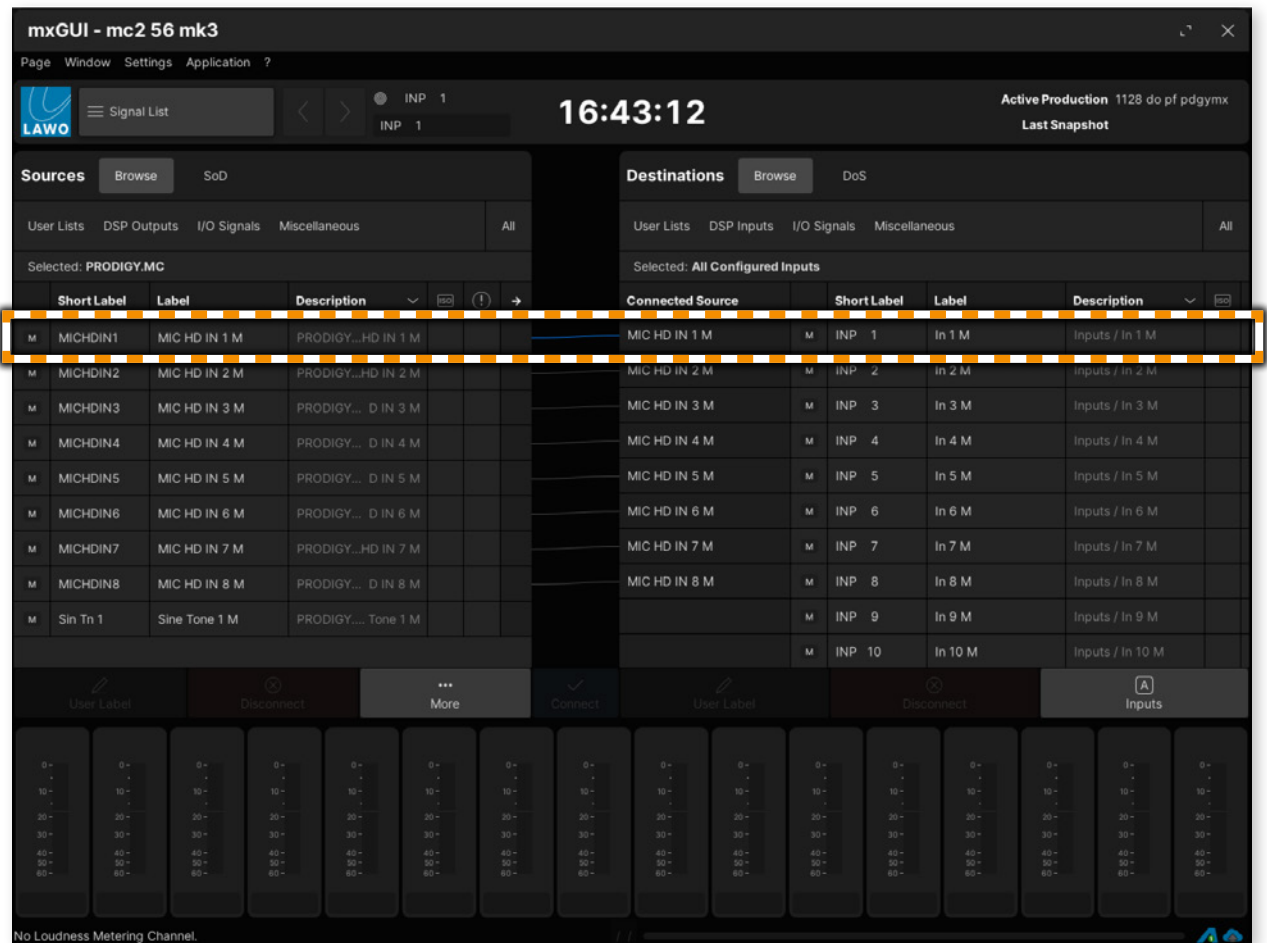
The screenshot displays the 'mxGUI - mc2 56 mk3' interface. At the top, there's a menu bar with 'Page', 'Window', 'Settings', and 'Application'. Below it, a status bar shows 'Signal List', navigation arrows, 'INP_1', a clock '12:55:45', and 'Active Production 1128 do pf pdgymx Last Snapshot'.

The main area is divided into two panels: 'Sources' on the left and 'Destinations' on the right. The 'Sources' panel has tabs for 'User Lists', 'DSP Outputs', 'I/O Signals', and 'Miscellaneous'. The 'I/O Signals' tab is active, showing a table with columns 'Short Label', 'Label', and 'Mic/Line'. A dropdown menu is open, showing 'PRODIGY.MC' selected. Below this, a table lists various input signals, with 'MIC HD IN 1 M' highlighted.

The 'Destinations' panel has tabs for 'User Lists', 'DSP Inputs', 'I/O Signals', and 'Miscellaneous'. The 'I/O Signals' tab is active, showing a table with columns 'Connected Source', 'Short Label', 'Label', and 'Description'. The first row, 'MIC HD IN 1 M', is highlighted, and its 'Short Label' 'INP_1' is selected in the dropdown.

At the bottom, there's a row of buttons: 'User Label', 'Disconnect', 'More', 'Connect', 'User Label', 'Disconnect', and 'Inputs'. Below these are several vertical sliders for signal processing.

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



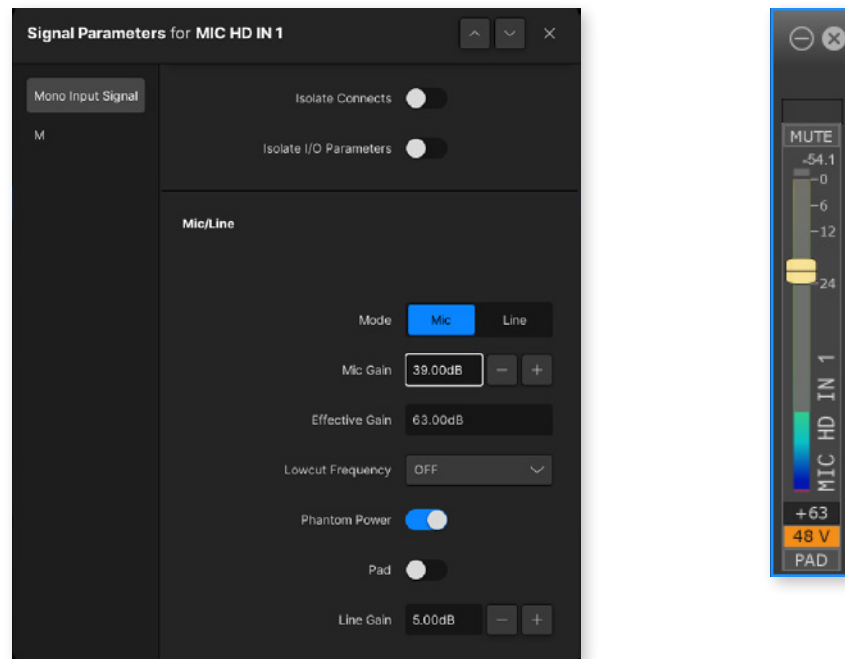
In the 'Signal List' of the mc2 console the source signal is displayed with it's 'user label'.

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.

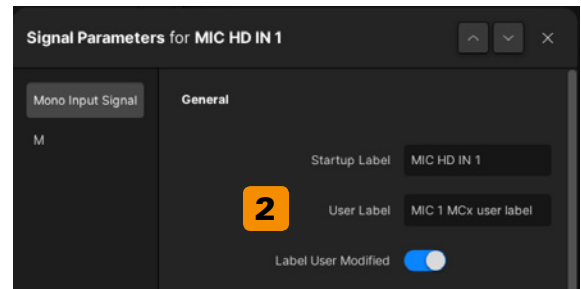
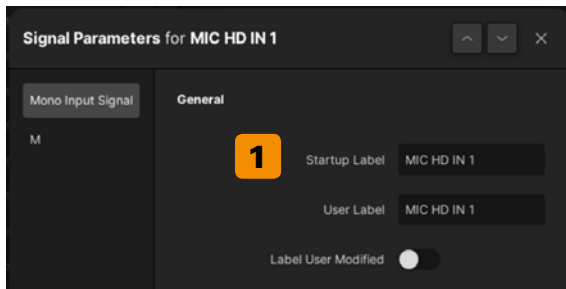
Available parameters:

- 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	mc2 User Label, will not be pushed to PRODIGY / globcon



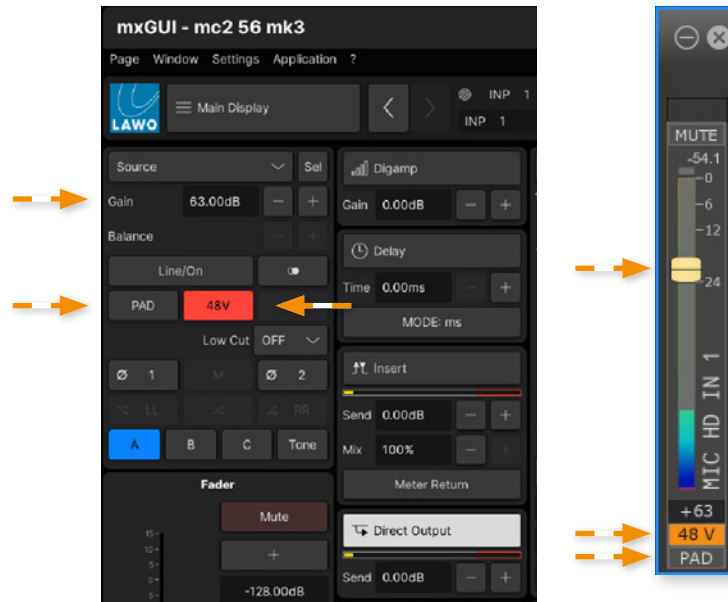
TIP

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