

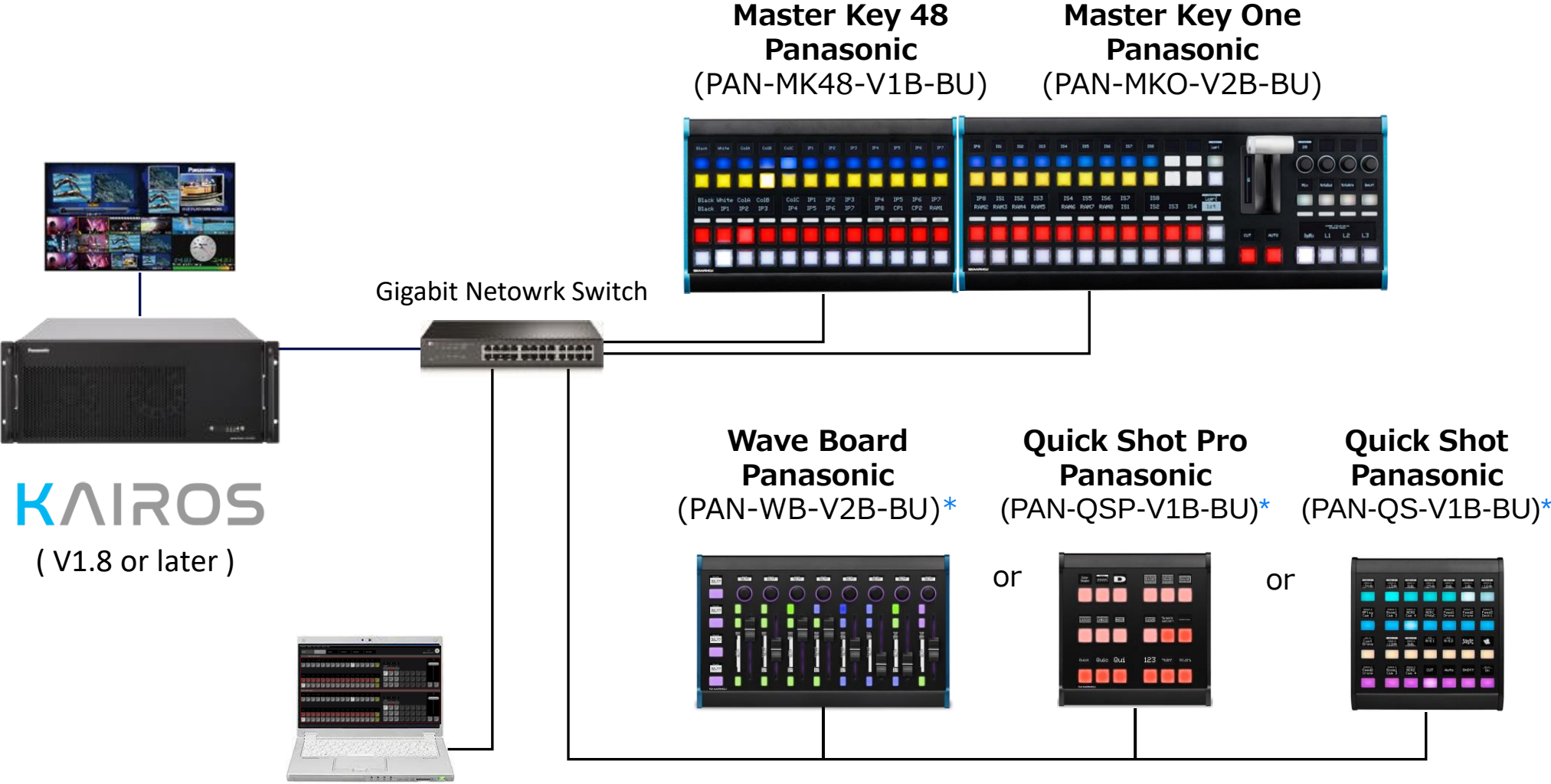
KAIROS Connection Setup Guide

Manufacturer	Model Name	Model Number
SKAARHOJ	Master Key One Panasonic	PAN-MKO-V2B-BU
	Master Key 48 Panasonic	PAN-MK48-V1B-BU
	Wave Board Panasonic	PAN-WB-V2B-BU
	Quick Shot Panasonic	PAN-QS-V1B-BU
	Quick Shot Pro Panasonic	PAN-QSP-V1B-BU

28 February 2025

Imaging Solution Business Division
Panasonic Entertainment & Communication Co. Ltd

SKAARHOJ Panel Network Connection



* Only one panel out of PAN-WB-V2B-BU, PAN-QS-V1B-BU, and PAN-QSP-V1B-BU can be connected to Kairos Core simultaneously.

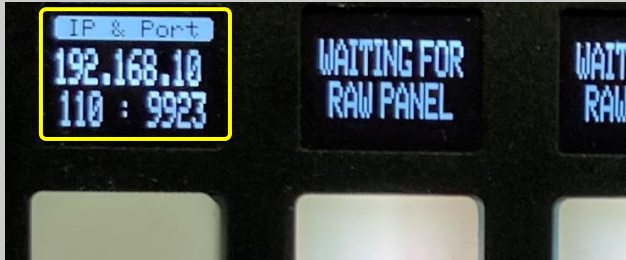
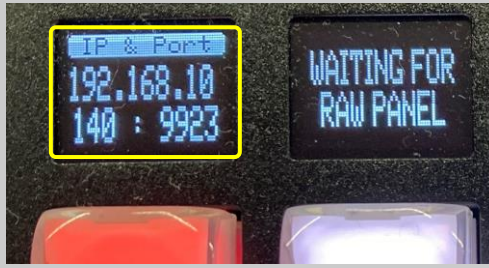
SKAARHOJ Panel IP address settings

Note : Please consult SKAARHOJ for details of the panel settings.

SKAARHOJ Panel IP address

Master Key One Master Key 48
Wave Board Quick Shot Pro Quick Shot

The IP address of the panel is shown on the panel when the panel is turned on and KAIROS is not connected.

Model Name Model Number	Master Key One PAN-MKO-V2B-BU	Master Key 48 PAN-MK48-V1B-BU	
Default IP address	192.168.10.110 	192.168.10.120 	
Model Name Model Number	Wave Board PAN-WB-V2B-BU	Quick Shot Pro PAN-QSP-V1B-BU	Quick Shot PAN-QS-V1B-BU
Default IP address	192.168.10.130 	192.168.10.140 	192.168.10.150 

Access to the panel on your Web browser. (e.g. <http://192.168.10.110>)

The screenshot shows a web browser window with the address bar containing the URL <http://192.168.10.110>. The main content area displays a 'Sign in' form. The form includes a 'Username' field with the value 'admin' and a 'Password' field with the value 'skaarhoj'. Below the password field is a green 'Signin' button. At the bottom of the form, there is a text line: 'By continuing, you accept [user agreement](#)'.

Reference : [SKAARHOJ Wiki](#)

Web Configurations - Change IP address -

Master Key One Master Key 48

Wave Board Quick Shot Pro Quick Shot

Change **IP Configuration** form **Settings** tab, and then click **Save**.

System Packages **Settings**

Device: Master Key One

SKAARHOJ

Operating System	1.3-pre1
Device Type	Master Key One (controller-masterkeyonev2)
System Manager	v1.0.6 (d80c561)
Serial Number	452804
Ethernet IP	172.16.60.12
Ethernet MAC	58:48:49:10:20:f7
System Memory Usage	2%

Licenses

Identify Reboot

ETHERNET WIFI

IP Configuration

DHCP

Do not use for Internet Access

IP address172.16.60.12

Subnet Mask255.255.0.0

Gateway172.16.0.1

DNS Server8.8.8.8

Fallback DNS000.000.000.000
Invalid IP address

Save

```
r server : dial tcp: lookup rc.skaarhoj.com: i/o timeout module=main
2024-10-09, 11:04:31 supportmode warning Server unhealthy, retrying: no connection fo
r server : dial tcp: lookup rc.skaarhoj.com: i/o timeout module=main
2024-10-09, 11:09:03 supportmode warning Server unhealthy, retrying: no connection fo
r server : dial tcp: lookup rc.skaarhoj.com: i/o timeout module=main
2024-10-09, 11:11:25 supportmode warning Server unhealthy, retrying: no connection fo
r server : dial tcp: lookup rc.skaarhoj.com: i/o timeout module=main
2024-10-09, 11:15:59 supportmode warning Server unhealthy, retrying: no connection fo
r server : dial tcp: lookup rc.skaarhoj.com: i/o timeout module=main
2024-10-09, 11:26:14 ibeam-init info IP Changed, uptime seconds: 4181 module=pkg/sysi
nfo
2024-10-09, 11:26:14 ibeam-init info uptime seconds: 4181 module=pkg/sysinfo
2024-10-09, 11:26:14 ibeam-init info IP Changed, uptime seconds: 4181 module=pkg/sysi
nfo
2024-10-09, 11:26:14 ibeam-init info uptime seconds: 4181 module=pkg/sysinfo
2024-10-09, 11:26:14 supportmode info supportmode started, version v0.1.0 (d0b1fcc) -
skaaros_prod module=main
2024-10-09, 11:26:14 supportmode info License valid, device:controller-masterkeyonev2
module=main
2024-10-09, 11:26:14 supportmode info Mode: module=main
2024-10-09, 11:26:14 supportmode info Connecting... module=main
2024-10-09, 11:26:14 supportmode info Consider Server Healthy, starting connections m
odule=main
```

Download Logs

Remote Support

Enable:

Support Mode enables full access to controller and Web interface for the SKAARHOJ support team.
Please also let the support team know your username and password for the webinterface or disable it here
Remember to turn off Support Mode when done.

USB-A

Enable:

System Manager: v1.0.6 Copyright © 2024 SKAARHOJ

Support

Web Configurations - Change Max Clients (1) -

Master Key One Master Key 48
Wave Board Quick Shot Pro Quick Shot

It is advised that the panel is set to accept a connection from one KAIROS at a time.

Please confirm the **MaxClients** setting is set to 1. (If the value is set “0”, this means that the panel accepts unlimited number of connections from multiple KAIROS simultaneously.)

To confirm/change the setting, open **hardware-manager** from the **Packages** tab.

System

Packages

Settings

Device: Master Key One

SKAARHOJ

Show pre-releases

Installed Packages

Search...

Status ▲	Settings	Package Name	Package Description	Versions
Running	⚙	hardware-manager	Connecting the native panel to reactor	1.0.3 ▼
Running	⚙	system-manager	skaarOS init system and webui	1.0.6 ▼
Running	⚙	skaarOS	main operating system	1.3-pre1 ▼

Available Packages

Search...

Package Name	Package Description	Versions
devicecore-connector	connects cores to reactor on different bluepills	1.0.1 ▼ Install

Want to install a package manually?

Upload and install package

Web Configurations - Change Max Clients (2) -

Master Key One Master Key 48
Wave Board Quick Shot Pro Quick Shot

If **MaxClients** is not 1, change it to 1, and then click **Save and restart**.

System Packages Settings Device: Master Key One SKAARHOJ

Package > hardware-manager, Version: 1.0.3 Connecting the native panel to reactor

Running Restart Auto Start

Clear config directory Download Logs Backup Data

Connection

ProtocolMode

Auto

Raw Panel protocol mode

DisplayIP

If IP address should be displayed

CalibrationEnabled

If Calibration is enabled. (When toggled OFF, device will always use default calibration values, when ON it is possible to override exposed parameters via RWP or special tool)

LockToIPs

A semi-colon separated list of IP addresses the panel is locked to

MaxClients

0

The amount of clients allowed to connect (0 for unlimited)

Port

9923

The external port to listen on using raw panel binary protocol

Reset to defaults Save and restart

```
2024-10-22, 03:17:17 info Configuring displays...
2024-10-22, 03:17:17 info Configuring tiles...
2024-10-22, 03:17:17 info Configuring display managers...
2024-10-22, 03:17:17 info Configuring encoder drivers...
2024-10-22, 03:17:17 info Configuring individual encoders...
2024-10-22, 03:17:17 info Configuring encoders...
2024-10-22, 03:17:17 info Configuring encoder managers...
2024-10-22, 03:17:17 info Configuring analog drivers...
2024-10-22, 03:17:17 info Configuring analog inputs...
2024-10-22, 03:17:17 info Configuring analog managers...
2024-10-22, 03:17:17 info Configuring HWCs...
2024-10-22, 03:17:17 info Configuring system...
2024-10-22, 03:17:17 info Configuration done.
2024-10-22, 03:17:17 warning _hwBootFile does not exist yet
2024-10-22, 03:17:17 info Start hardware managers...
2024-10-22, 03:17:17 warning CRC8 compatible encoder driver detected! Address: 24
2024-10-22, 03:17:17 warning Initialized: TinyEncoders v5. Full Quad: 0
2024-10-22, 03:17:17 warning CRC compatible T-bar driver detected! Address: 72
2024-10-22, 03:17:19 info Start TCP server. Port: 9923. Max clients: 0. Locked to IPs:
2024-10-22, 03:17:22 info New TCP client connected. IP: 172.16.10.111 Port: 55412
2024-10-22, 03:17:22 info New RawPanel client connected
2024-10-22, 03:17:22 info Payload 1953720684 unrealistic, switching to ASCII format (Auto detect)
```

Select Log Level Empty String Save Reset

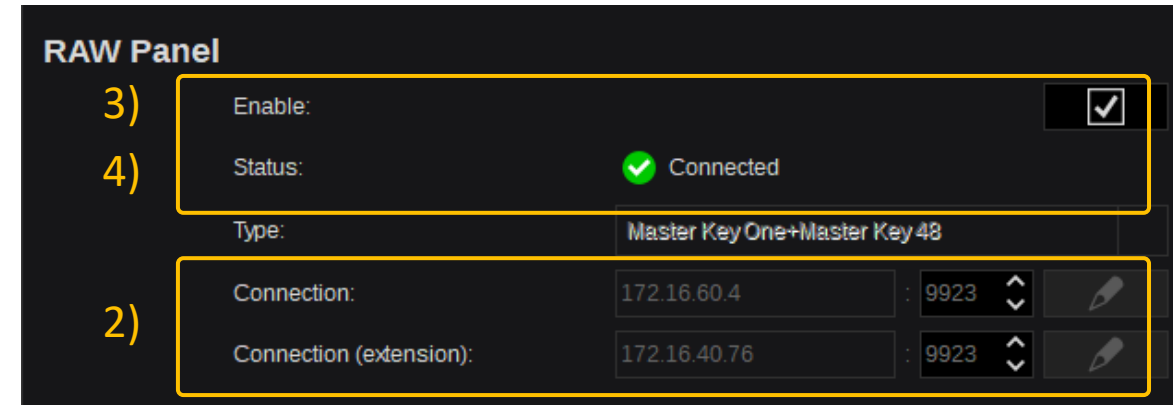
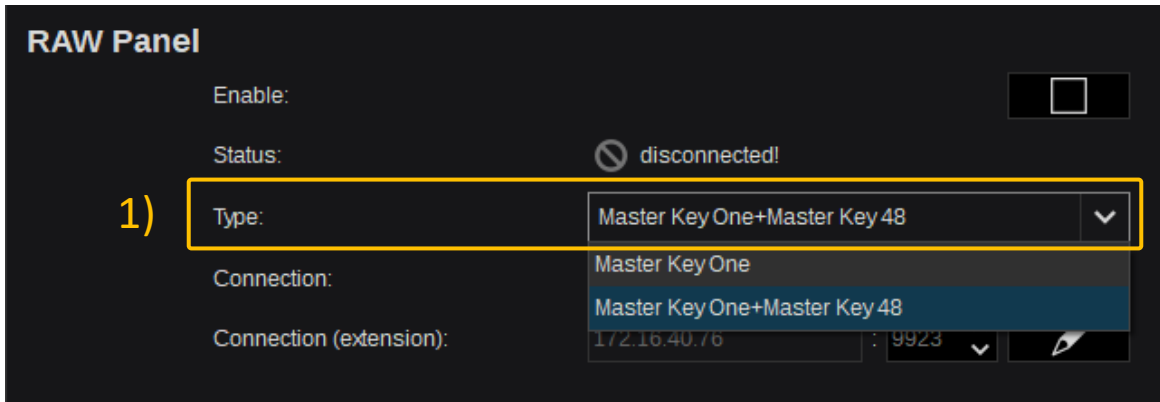
Clear

Raw Panel connection settings on Kairos Creator

Master Key One (PAN-MKO-V2B-BU) and **Master Key 48** (PAN-MK48-V1B-BU)

Kairos Creator : SETUP > System Settings > System Settings > RAW Panel

- 1) Select **Type**
- 2) Set the IP address and the port number of your SKAARHOJ panel(s).
- 3) Check **Enable**.
- 4) Confirm that **Status** becomes “**Connected**”.



Wave Board (PAN-WB-V2B-BU), **Quick Shot** (PAN-QS-V1B-BU) or **Quick Shot Pro** (PAN-QS-V1B-BU)

Kairos Creator > SETUP > System Settings > RAW Panel extension

- 1) Set the IP address and the port number of your SKAARHOJ panel.
- 2) Check **Enable**.
- 3) Confirm that **Status** becomes “**Connected**”.

RAW Panel extension

Enable: ☐

Status:  disconnected!

1) Connection: : 



RAW Panel extension

2) Enable: ☒

3) Status:  Connected

Connection: : 

Select Scene on Kairos Creator

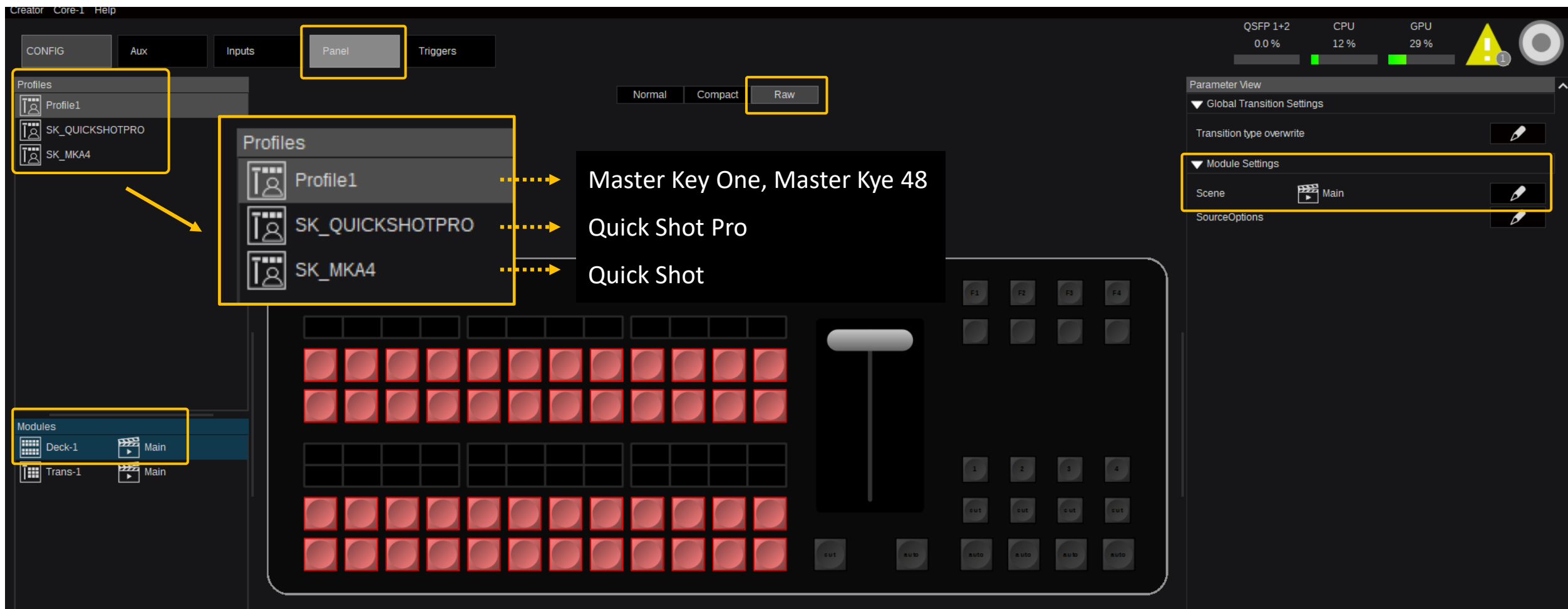
Select Scene on Kairos Creator (1)

Master Key One Master Key 48
Quick Shot Pro Quick Shot

If any Scene is not assigned to the SKAARHOJ panels, please select a Scene on Kairos Creator.

Open **Raw** from **Panel** on Kairos Creator. Select **Profiles** according to the connected panel and **Deck-1** of **Modules**.

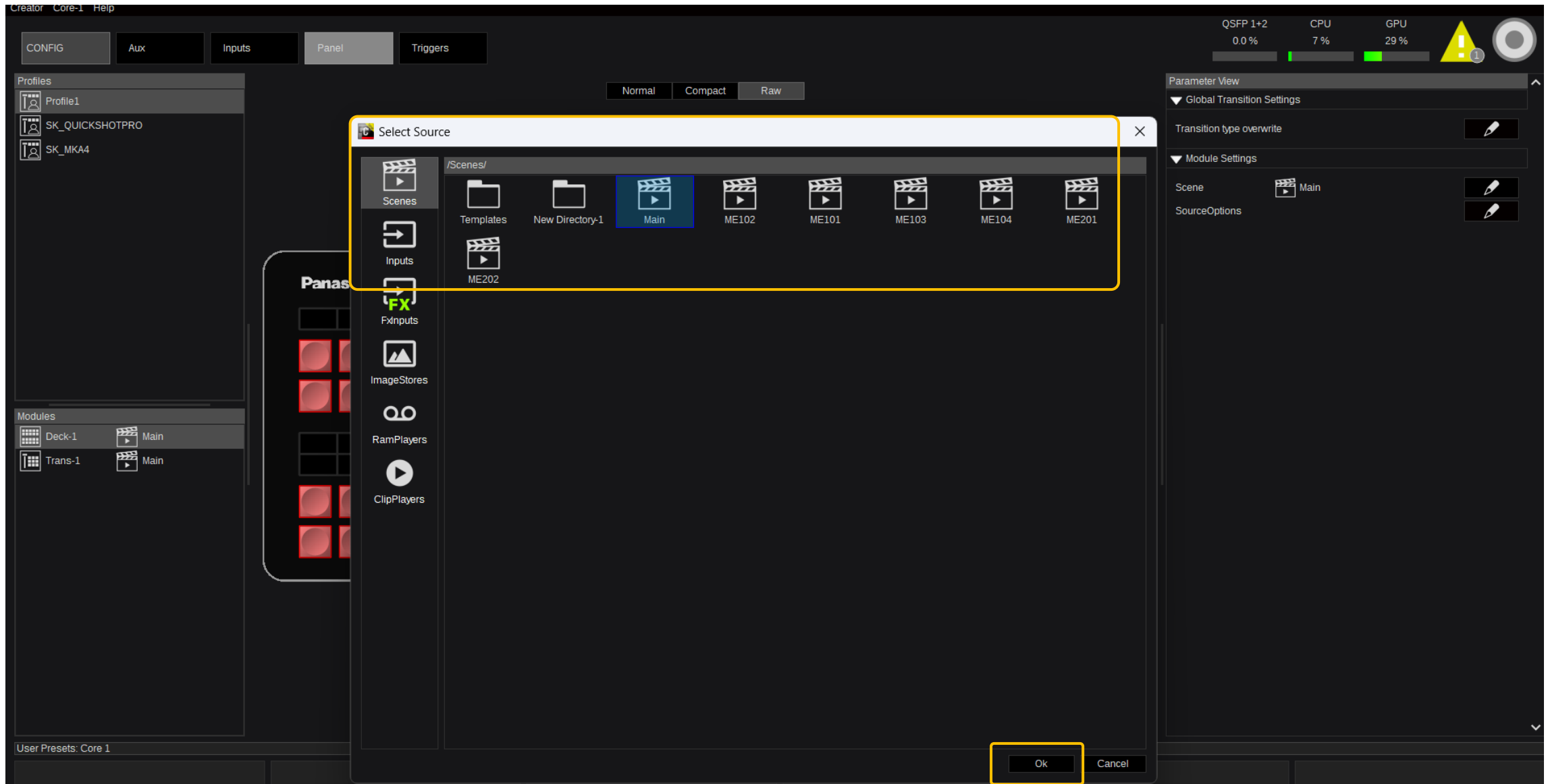
Click the edit icon of **Scene** of **Module Settings**.



Select Scene on Kairos Creator (2)

Master Key One Master Key 48
Quick Shot Pro Quick Shot

Select any Scene (e.g. Main) to control and click **OK**.



Optional Settings

Master Key One Master Key 48
Quick Shot Pro Quick Shot

Add/remove Scenes or change the order and click **OK**.



Transition Type Overwrite Settings on Kairos Creator

Master Key One Master Key 48

Click the edit icon of **Transition type overwrite**.

Add/remove any transition type or change the order and click **OK**.

The screenshot displays the Kairos Creator interface. On the left, there are tabs for CONFIG, Aux, Inputs, Panel, and Triggers. Below these are sections for Profiles (Profile1, SK_QUICKSHOTPRO, SK_MKA4) and Modules (Deck-1, Main, Trans-1, Main). The main area shows a grid of red buttons. A yellow box highlights the 'Mixer - Transition type overwrite' dialog box, which lists various transition types: Scale, WipeCircle, WipeLeft, Zoom, WipeStar4, Mix, WipeClockClockwiseTwelve, MixViaBlack, and PushLeft. A yellow dashed line points from the 'Scale' option in the list to a blue box containing four buttons labeled 'Scale', 'WipeCircle', 'WipeLeft', and 'Zoom'. The right side of the interface shows a 'Parameter View' section with 'Global Transition Settings' and 'Module Settings'.

Panel Layout

Master Key One & Master Key 48

Master Key One Master Key 48

Scene Control Block (Deck)

12 buttons with Master Key One, 24 buttons when Master Key 48 is added.



Master Key 48

Master Key One

Wave Board

Wave Board

Audio Channel Group Selection
Channel 1-6 / 7-12 / 13-16

Audio Channel Control

Monitor | Master Control



Wave Board

Scene Control (Deck)

18 buttons



Quick Shot Pro

Scene Control (Deck)

Independent 7 buttons (4 rows)



Quick Shot

Change History

Date	SKAARHOJ version	KAIROS version	Changes
28 Oct.2024	hardware-manager 1.0.3 system-manager 1.0.6 skaarOS 1.3-pre1	Kairos Core 1.7 or later Kairos Creator 1.7 or later	1st release for SKAARHOJ Raw Panel connection
28 Feb.2025	hardware-manager 1.0.4-pre1 system-manager 1.0.8-pre1 skaarOS 1.3-pre1	Kairos Core 1.8.0 Kairos Creator 1.8.0	1st release for SKAARHOJ Raw Panel extension connection