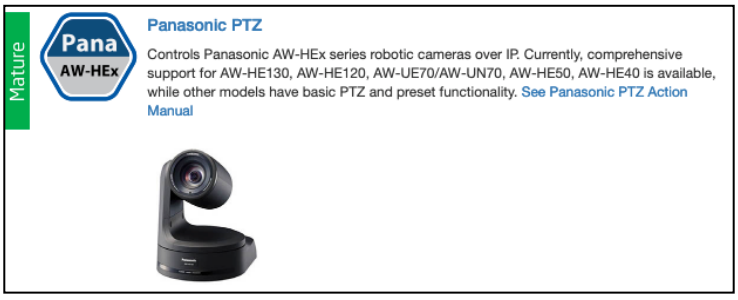
Device: Panasonic PTZ

Compatibility

With our Panasonic PTZ Device Core we currently have comprehensive support for the:

- AW-UE150
- AW-HE130
- AW-HE120
- AW-UE70/AW-UN70
- AW-HE50
- AW-HE42
- AW-HE40
- AK-UB300

The complete lineup are not supported as the protocol varies for each model. We have integrated with the models we have had a high demand for and/or have had a chance to integrate with. For cameras *not* on the above list just basic pan, tilt, zoom and preset functionality are integrated as the protocol remains the same for these features across all models.



Description of the Panasonic PTZ Device Core from https://www.skaarhoj.com/support/device-cores/

Note about AWB Exec

Notice when an auto white balance is executed the controller will momentarily loose connection to the camera, as the camera stops responding during this process.

Device Configurations

Device configuration options exist:

- Index 0: **Connect Timeout in ms**
- Index 1: **Reply Timeout in ms**
- Index 2: **IPs for Camera Groups**
- Index 3: **Time between each parameter query request PER camera in ms**

Connect + Reply Timeout

Default Connect Timeout = 100 ms. Timeout for the camera to accept the TCP connection.

Default Reply Timeout = 200 ms. When connection have been accepted, the reply timeout is the time the controller waits for a reply.

In general increasing timeouts will decrease responsive but increase connection stability. The default values have been chosen based on tests at our facility but is not necessarily suitable for all cases.

Camera Groups

Index 2 have the following structure:

D0:2="[xxx.xxx.xxx.xxx, yyy.yyy.yyy.yyy, ...],[zzz.zzz.zzz.zzz]"

This enables camera groups. Notice the outer quotes ", if there's an error in this device core option it will fallback to the regular configured IP address. The format is such that each group is an array separated by a comma ,. Inside each group it's also just simple ip addresses separated by a comma ,. There's not any limit to the IPs per group but the system won't handle anything more than 8 per group. There's no limit to the number of groups besides the maximum 13 in the frontend. See example 3 for use case.

Parameter query requests

Default time between *each* parameter query request *per* camera = 1500 ms. To begin with a controller will query all parameters for all cameras connected to a controller. Thereafter a controller will only query parameters updates from the camera on a 1.5 s interval between query requests per camera. This parameter is set to 1.5 seconds to improve connection stability when either:

- Two (or more) SKAARHOJ controllers are connected to the same camera
- A SKAARHOJ controller *and* a Panasonic controller is connected to the same camera
- A SKAARHOJ controller and the web interface is used to control the same camera

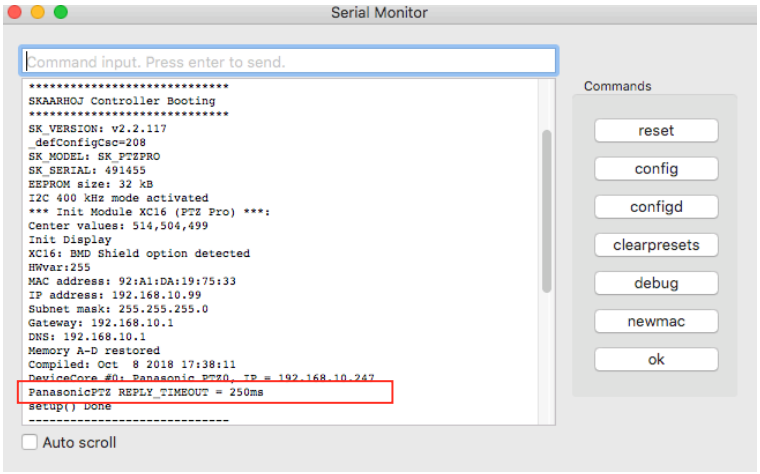
This means if a parameter is changed on SKAARHOJ controller #1 it will not be instantly reflected on SKAARHOJ controller #2, or the Panasonic controller, or the web interface. It also means if a change is made on the Panasonic controller or the web interface it will not be instantly reflected on the SKAARHOJ controller. The parameter query time have been implemented to support cases where one operator is in charge of PTZ control (controller #1) while another operator is in charge shading control (controller #2).

The time can be lowered if you have less complex setups and want faster responds on the connected units. See example 4 for use case.

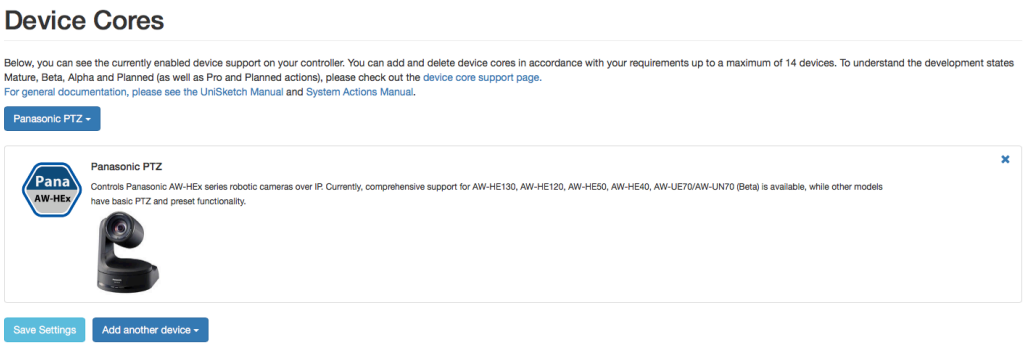
Example 1:

Setting "Reply Timeout" to 250 ms could look like this device configuration code: "D0:1=250" where the general form would be "Dx:y=z" where "x" is the number of the device core as installed on the controller (starting with zero for the first device core), "y" the index number and "z" the value for that index.

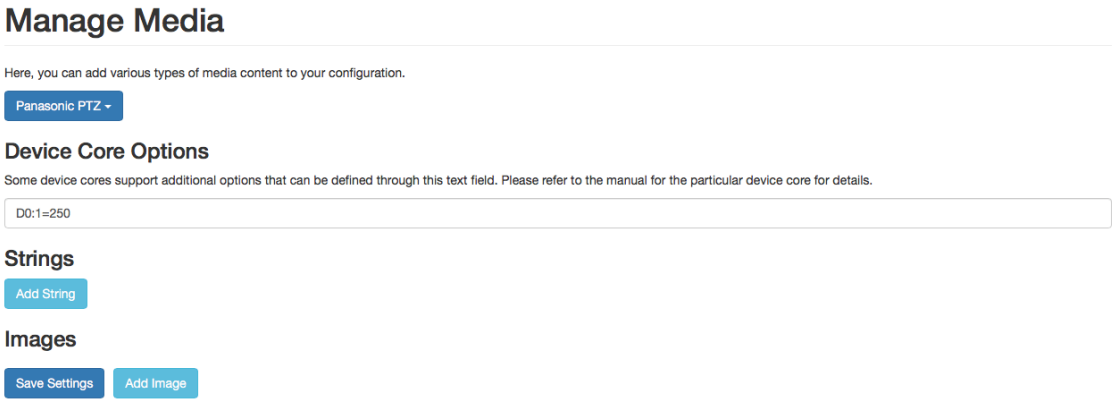
To confirm that a device configuration is in fact detected by the controller, please check it out on the serial monitor where it will be mentioned:



Example: If the Panasonic PTZ device core is the first like below:



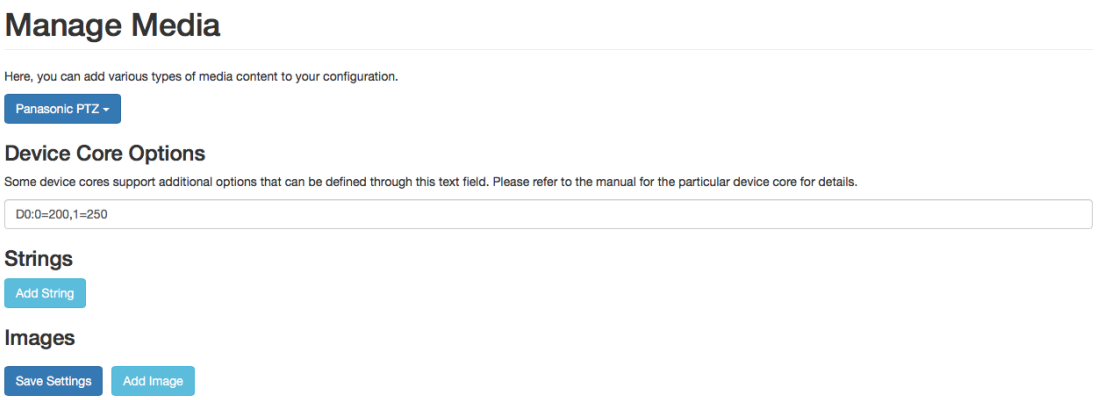
Then setting the "Connect Timeout" would be set by this configuration under "Manage Media" on your configuration page for your controller on cores.skaarhoj.com

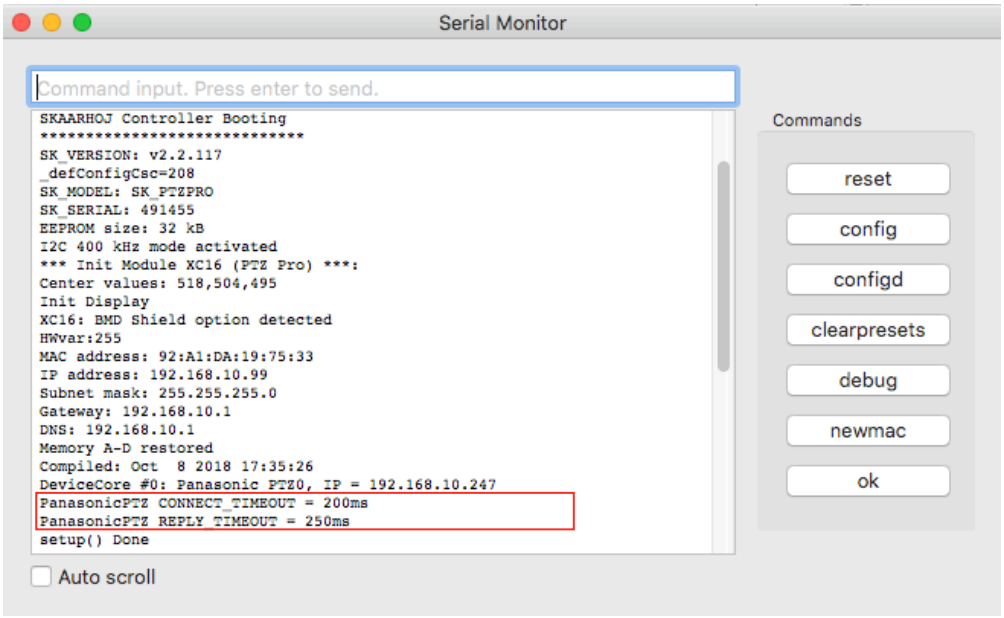


Example 2:

Setting "Connect Timeout" to 200 ms and "Reply Timeout" to 250 ms could look like this device configuration code

D0:0=200,1=250





Example 3:

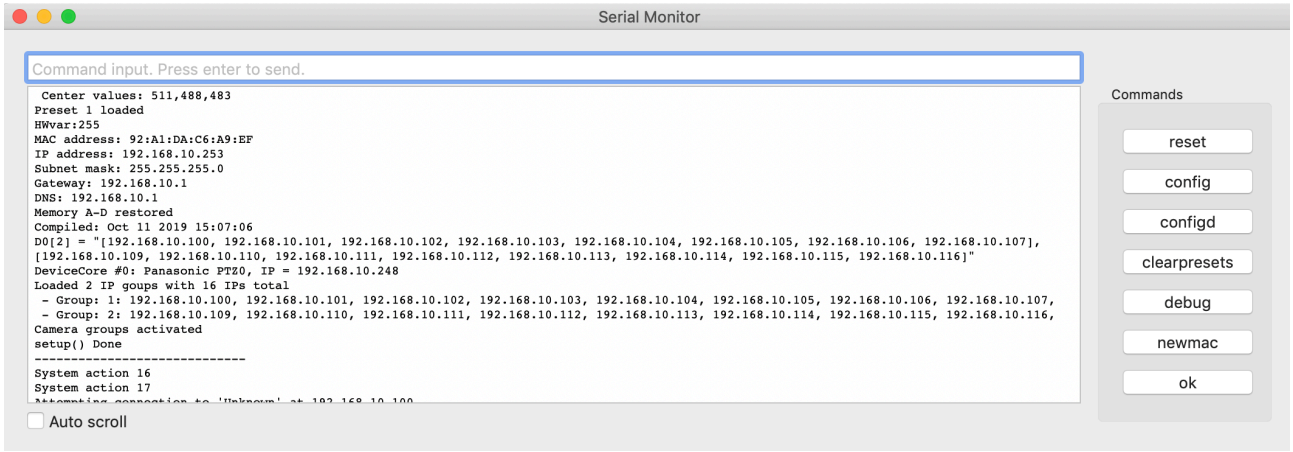
Setting "Groups IPs" could look like this device configuration code

D0:2="[192.168.10.100, 192.168.10.101, 192.168.10.102, 192.168.10.103, 192.168.10.104, 192.168.10.105, 192.168.10.106, 192.168.10.107],[192.168.10.109, 192.168.10.110, 192.168.10.111, 192.168.10.112, 192.168.10.113, 192.168.10.114, 192.168.10.115, 192.168.10.116]"

Where

Group 1 have IPs 192.168.10.100 to 192.168.10.107
Group 2 have IPs 192.168.10.109 to 192.168.10.116

To confirm that a device configuration is in fact detected by the controller, please check it out on the serial monitor where it will be mentioned:

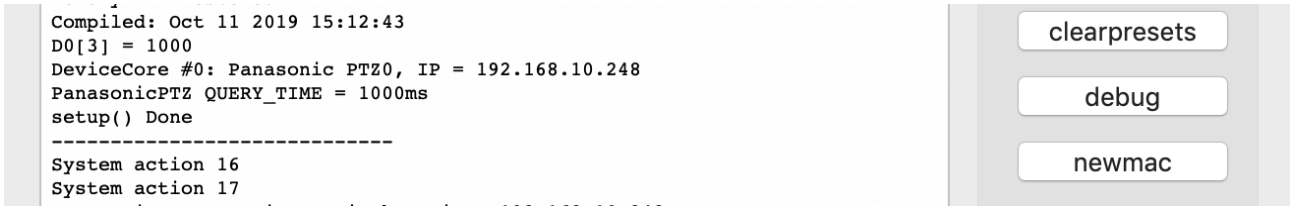


Example 4:

Setting "parameter query request PER camera" to 1000 ms could look like this device configuration code

D0:3=1000

To confirm that a device configuration is in fact detected by the controller, please check it out on the serial monitor where it will be mentioned:



An excerpt of the list of Panasonic PTZ related actions.

Notice some actions are camera dependent. Please check the camera manual/protocol if specific actions are supported for your type of camera

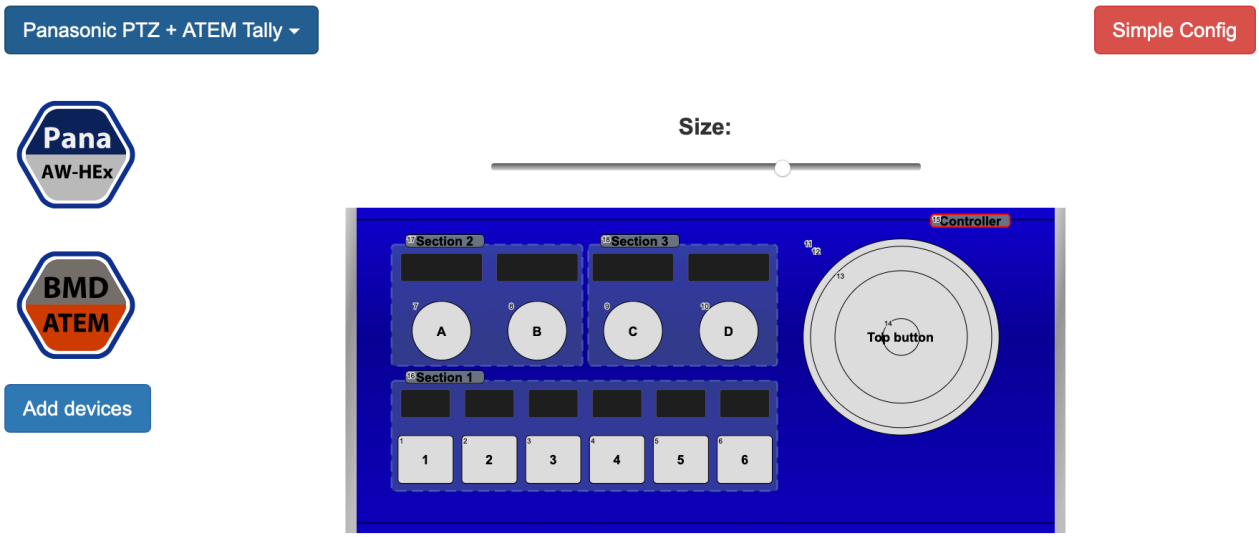
Panasonic PTZ: Pan
Panasonic PTZ: Tilt
Panasonic PTZ: Pan/Tilt
Panasonic PTZ: Zoom
Panasonic PTZ: Zoom (Binary)
Panasonic PTZ: Auto Focus
Panasonic PTZ: Focus
Panasonic PTZ: Focus One Push
Panasonic PTZ: Auto Iris
Panasonic PTZ: Iris
Panasonic PTZ: Sensor Gain
Panasonic PTZ: Shutter
Panasonic PTZ: Synchro-Scan
Panasonic PTZ: Auto Shutter Limit
Panasonic PTZ: Shutter Mode
Panasonic PTZ: Scene File
Panasonic PTZ: AWB Mode
Panasonic PTZ: AWB Exec
Panasonic PTZ: ABB Exec
Panasonic PTZ: Master Pedestal
Panasonic PTZ: WB R/B Gain
Panasonic PTZ: Pedestal R/G/B
Panasonic PTZ: Pedestal Offset (AW-UE150)
Panasonic PTZ: Detail
Panasonic PTZ: Contrast Level
Panasonic PTZ: Color Temperature
Panasonic PTZ: ND Filter
Panasonic PTZ: Chroma Level
Panasonic PTZ: Chroma Phase (AW-UE150)
Panasonic PTZ: DRS
Panasonic PTZ: Knee Mode
Panasonic PTZ: Auto Knee Response
Panasonic PTZ: Knee Point
Panasonic PTZ: Knee Slope
Panasonic PTZ: Preset
Panasonic PTZ: Preset Speed
Panasonic PTZ: Set Tally
Panasonic PTZ: Audio Control
Panasonic PTZ: Audio Volume
Panasonic PTZ: Output Format
Panasonic PTZ: Zoom Pan/Tilt Speed Adjust
Panasonic PTZ: Invert PTZ Control
Panasonic PTZ: Install Position
Panasonic PTZ: Power
Panasonic PTZ: Speed Limit
Panasonic PTZ: Camera Select
✓ Panasonic PTZ: Camera Group Select

Tally

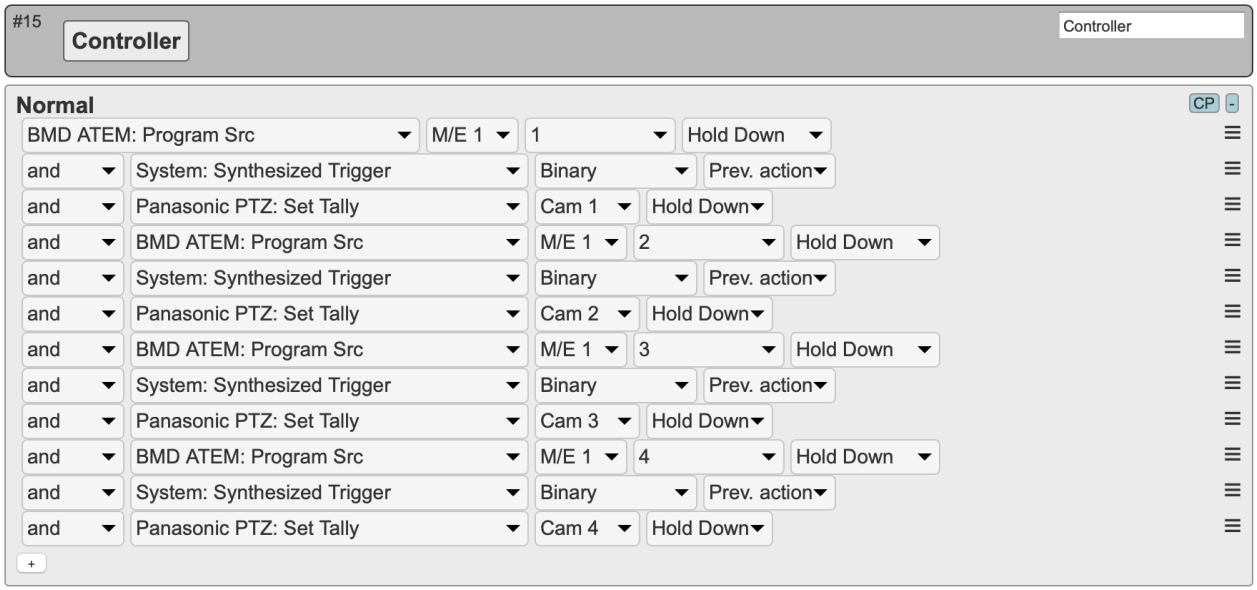
In some cases it can be desirable to route tally to the PTZ cameras based on tally from a video switcher. This can to some degree be done from the hardware interface often called "Controller" on our panels. This interface is constantly evaluated. There is a limit to how many actions can be assigned onto this interface, but we are working on a way to expand this.

In the case of a PTZ Fly and ATEM Tally it would be done the following way:

- Add the ATEM Device Core and set IP Setting



- On the Controller Interface add the below actions. This instructs the system to enable tally on Cam 1-4 based on ATEM Program 1-4 . The mapping can be differently.



AK-UB300 Notes

For the AK-UB300 integration the following actions have been implemented:

- Iris
- Auto iris
- AWB execute
- ABB execute
- Pedestal
- Pedestal R/B
- Shutter SW
- Shutter
- Shutter Mode
- Gain R/B
- Format
- ND Filter
- Scene

The following list has been implemented but not tested fully:

- Knee mode
- Auto Knee response
- Knee Point
- Knee slope
- Chroma level
- Contrast

The following list is NOT working:

- Zoom (Implemented, sends right commands, camera responds with OK but no change in zoom)
- Focus (Not implemented. Tested commands in browser, camera responds OK but no change in focus)
- Color temp