

Device: Panasonic PTZ



Compatibility

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

- AW-UE150
- AW-HE130
- AW-HE120
- AW-UE100
- 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.

Note about Panasonic AW-HN130

We have not tested the AW-HN130 but many have reported that we are able to control the camera similar to the AW-HE130. However, AW-HN130 firmware v.2.38 has been known to cause the controller to freeze. We do not recommend running your camera with that firmware version at this time.

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

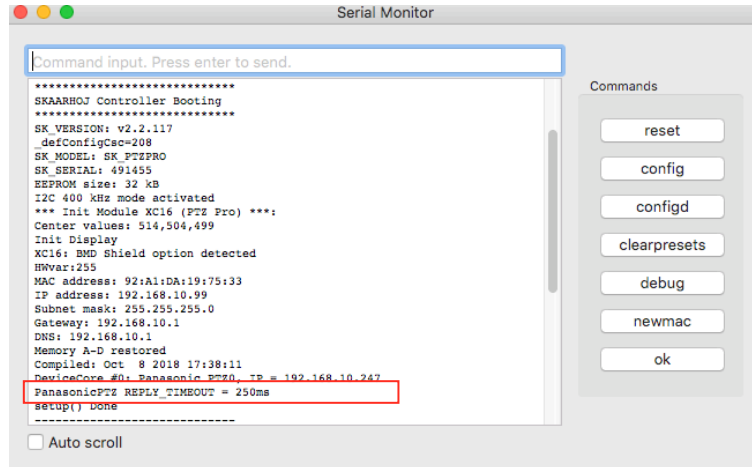
This means if a parameter is changed on SKAARHOJ controller #1 it will not be instantly reflected on SKAARHOJ controller #2, or the Panasonic controller, or the web interface. It also means if a change is made on the Panasonic controller or the web interface it will not be instantly reflected on the 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.

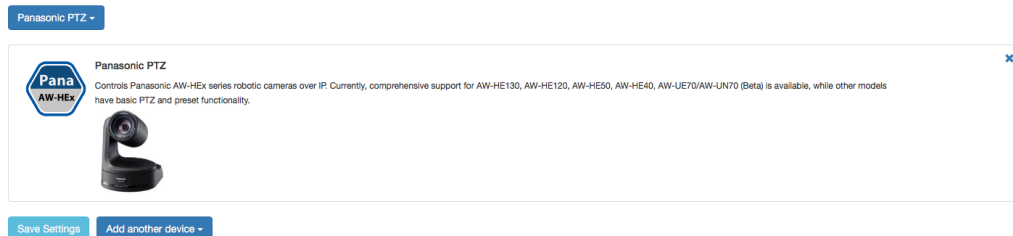
To confirm that a device configuration is in fact detected by the controller, please check it out on the serial monitor where it will be mentioned:



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

Device Cores

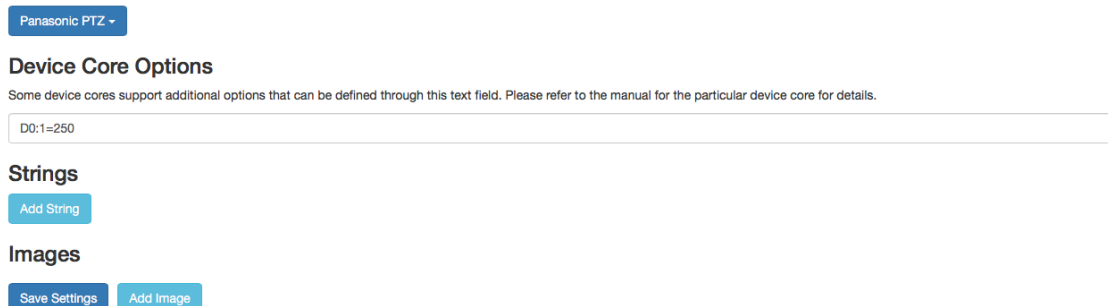
Below, you can see the currently enabled device support on your controller. You can add and delete device cores in accordance with your requirements up to a maximum of 14 devices. To understand the development states Mature, Beta, Alpha and Planned (as well as Pro and Planned actions), please check out the [device core support page](#). For general documentation, please see the [UniSketch Manual](#) and [System Actions Manual](#).



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

Manage Media

Here, you can add various types of media content to your configuration.



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

Manage Media

Here, you can add various types of media content to your configuration.

Panasonic PTZ ▾

Device Core Options

Some device cores support additional options that can be defined through this text field. Please refer to the manual for the particular device core for details.

D0:0=200,1=250

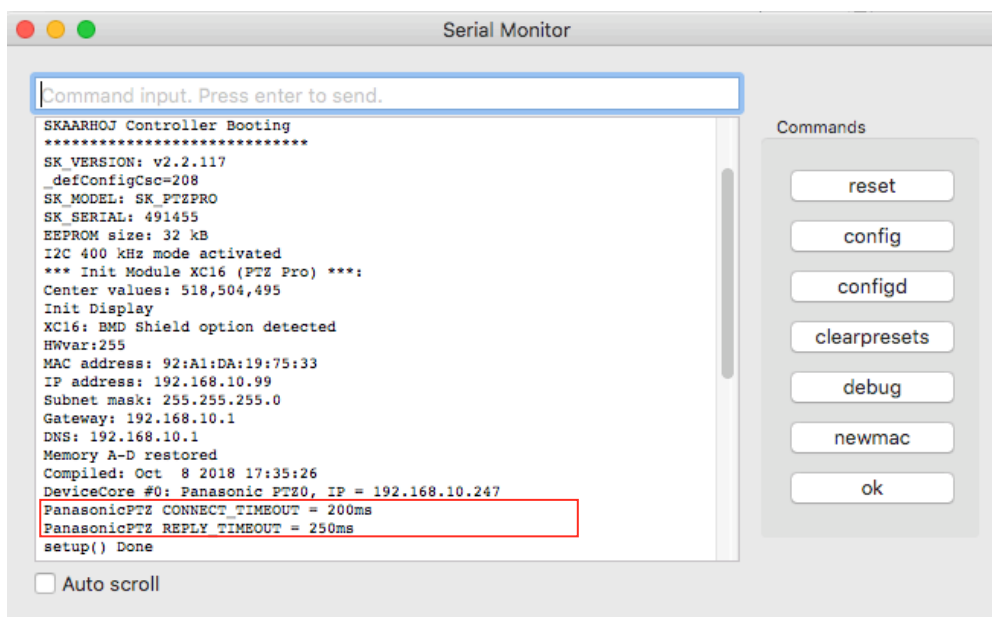
Strings

Add String

Images

Save Settings

Add Image



Example 3:

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

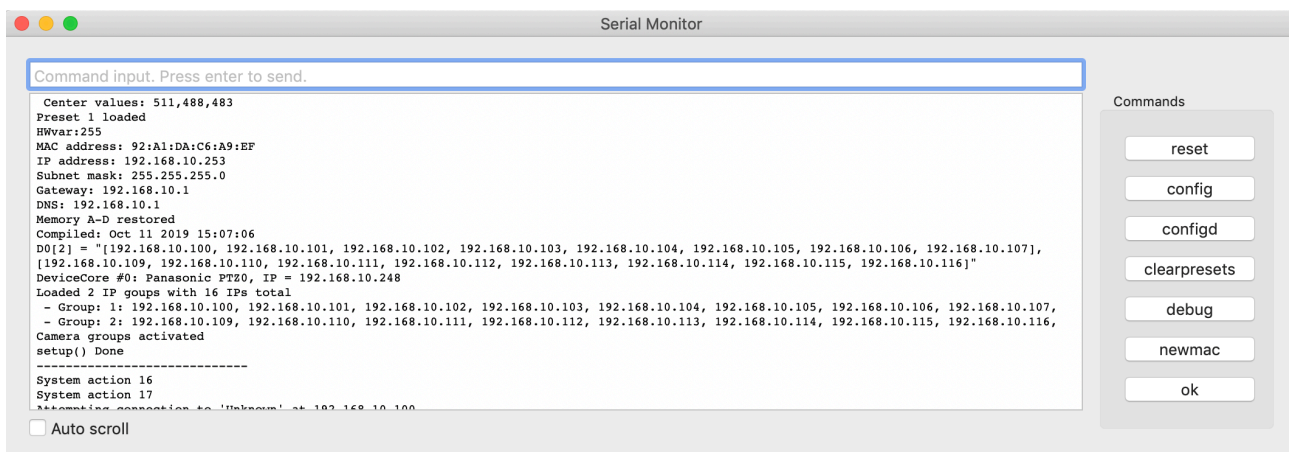
```
D0:2="[192.168.10.100, 192.168.10.101, 192.168.10.102, 192.168.10.103, 192.168.10.104,
192.168.10.105, 192.168.10.106, 192.168.10.107],[192.168.10.109, 192.168.10.110, 192.168.10.111,
192.168.10.112, 192.168.10.113, 192.168.10.114, 192.168.10.115, 192.168.10.116]"
```

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:

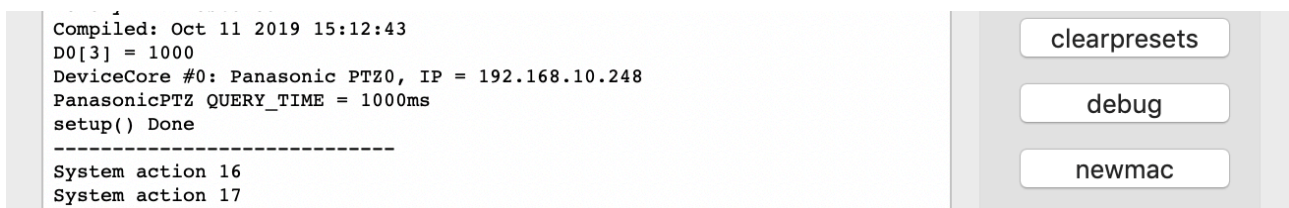


Example 4:

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: Creep Focus (AK-UB300)
 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: Shutter SW (Ak-UB300)
 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: Advanced 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

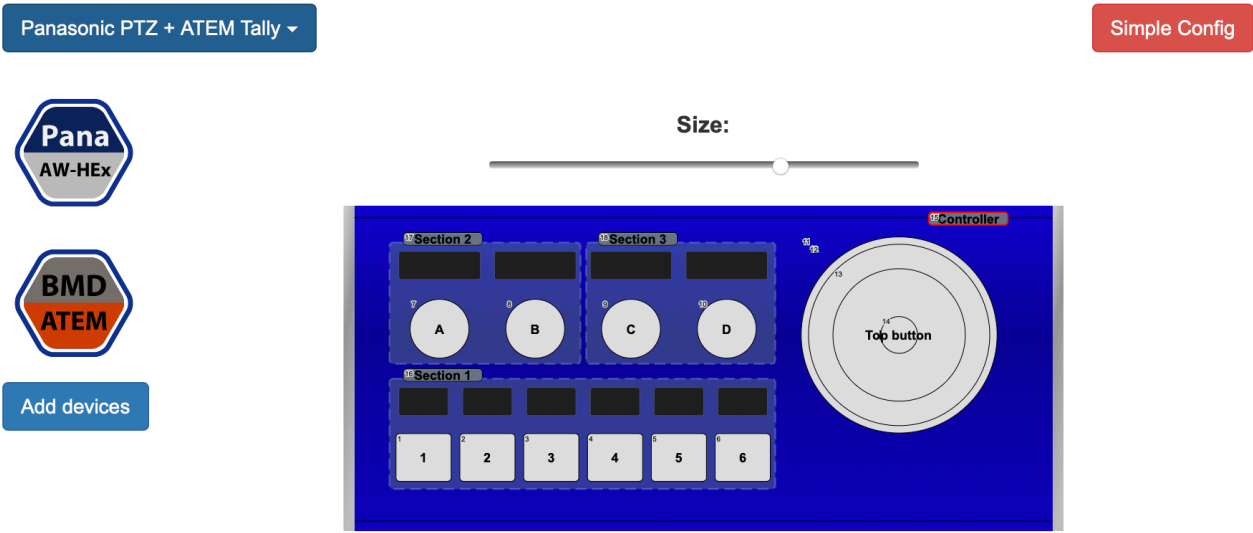
Panasonic PTZ: Preset Speed
 Panasonic PTZ: Set Tally
 Panasonic PTZ: Audio Control
 Panasonic PTZ: Audio Volume
 Panasonic PTZ: Output Format
 Panasonic PTZ: Zoom Pan/Tilt Speed Adjust
 Panasonic PTZ: Invert PTZ Control
 Panasonic PTZ: Install Position
 Panasonic PTZ: UHD Crop - Mode (AW-UE150)
 Panasonic PTZ: UHD Crop - SDI Out Select
 Panasonic PTZ: UHD Crop - IP Out
 Panasonic PTZ: UHD Crop - Marker Select
 Panasonic PTZ: UHD Crop - Output Select
 Panasonic PTZ: UHD Crop - H Adjust
 Panasonic PTZ: UHD Crop - V Adjust
 Panasonic PTZ: OSD Menu
 Panasonic PTZ: OSD Menu Navigation
 Panasonic PTZ: OSD Menu Mix
 Panasonic PTZ: Night Mode On/Off
 Panasonic PTZ: Night Mode Selection
 Panasonic PTZ: Night Mode Level
 Panasonic PTZ: PTZ Cruise Control
 Panasonic PTZ: PTZ Trace
 Panasonic PTZ: Power
 Panasonic PTZ: Speed Limit
 Panasonic PTZ: Camera Select
 Panasonic PTZ: Camera Group Select

Tally

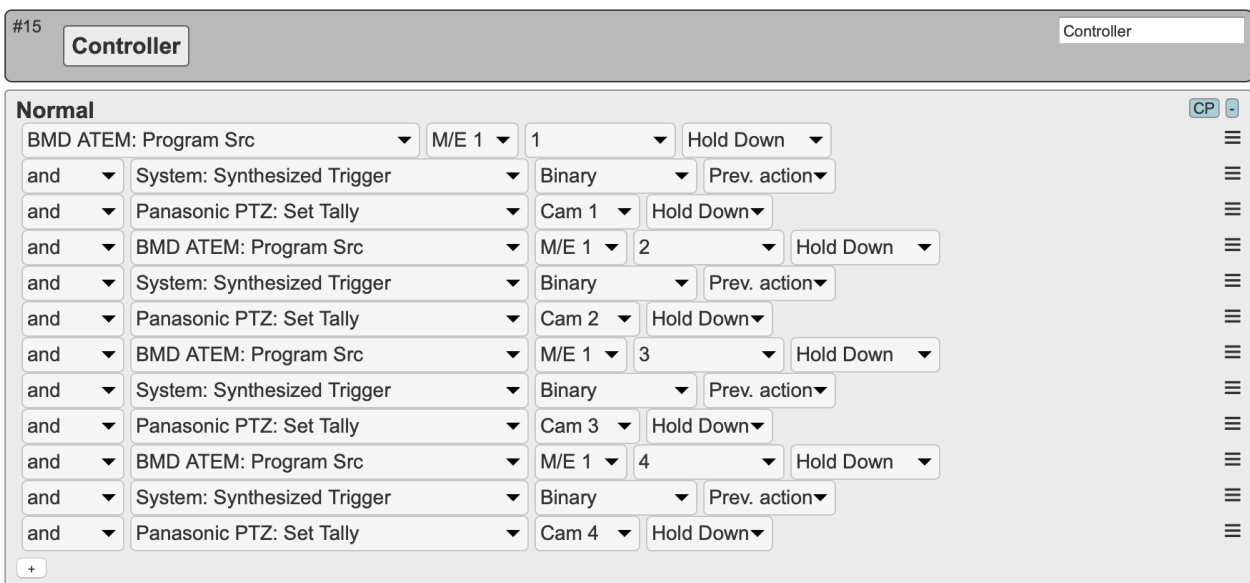
In some cases it can be desirable to route tally to the PTZ cameras based on tally from a video switcher. This can to some degree be done from the hardware interface often called "Controller" on our panels. This interface is constantly evaluated. There is a limit to how many actions can be assigned onto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