

Device: BirdDog P4K



Introduction

The BirdDog P4K Device Core is still in alpha with most of the feature set available to control. At this point control is VISCA over IP.

Please notice currently the BirdDog P4K camera does support block inquiry commands over IP, however not all current settings on the camera will be transmitted back to our controllers.

-Some settings may start with a display of ? but should reflect true once set.

-Some settings may start at a default different than the current camera state but will reflect true once set.

The implementation is done on BirdDog P4K Firmware version: **P4K 21.02.178**

Known Limitations

We have not tested the P4K device core with the new NDI5 firmwares from BirdDog and breaking changes may have occurred. All new firmwares for BirdDog will only be compatible with our Blue Pill platform. Please contact support@skaarhoj.com for more details on our Blue Pill platform.

Please see the "PTZ Manual" at <https://www.skaarhoj.com/support/manuals/> to learn more about PTZ control in general from SKAARHOJ controllers and in particular network recommendations.

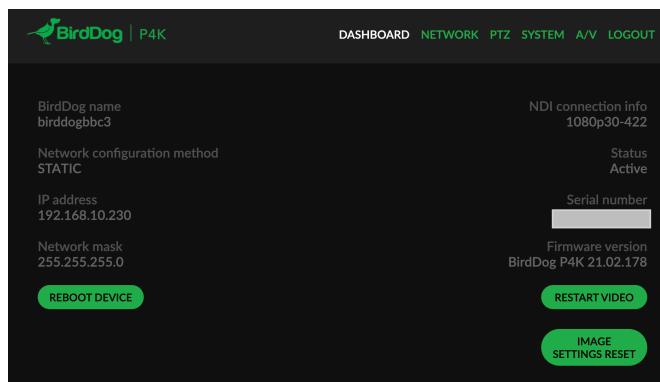
In this manual it is worth noticing that one should not add *additional* Device Cores to control multiple cameras. This is possible from the same Device Core but proper steps should be ensured (consecutive IP addresses on the cameras) for a good user experience.

Known Bugs

RESTART VIDEO

When a camera power cycles it can be necessary to "RESTART VIDEO" to regain control over the camera. If a SKAARHOJ controller loses connection to the camera during operation, it can be necessary to press "RESTART VIDEO" to regain control over the camera.

We are working on determining the root of this issue in the VISCA over IP integration in the BirdDog Camera itself.



PRESET RECALL

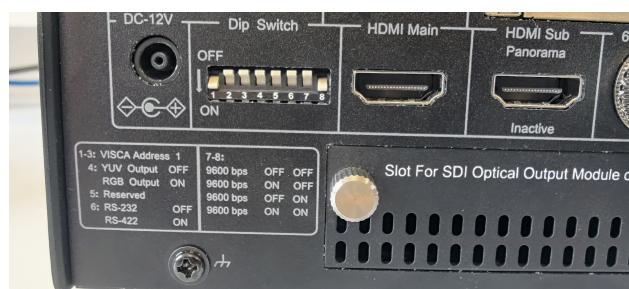
Recalling presets can make the camera stop responding for a few seconds.

PRESET RECALL VIA NDI

When recalling presets from an NDI source, such as an NDI Monitor or NDI based switcher, it can be possible for the Skaarhoj controllers to lose connection to the BirdDog camera. When this happens pressing Restart Video is required. Currently the best solution is to use your Skaarhoj controller for recalling presets.

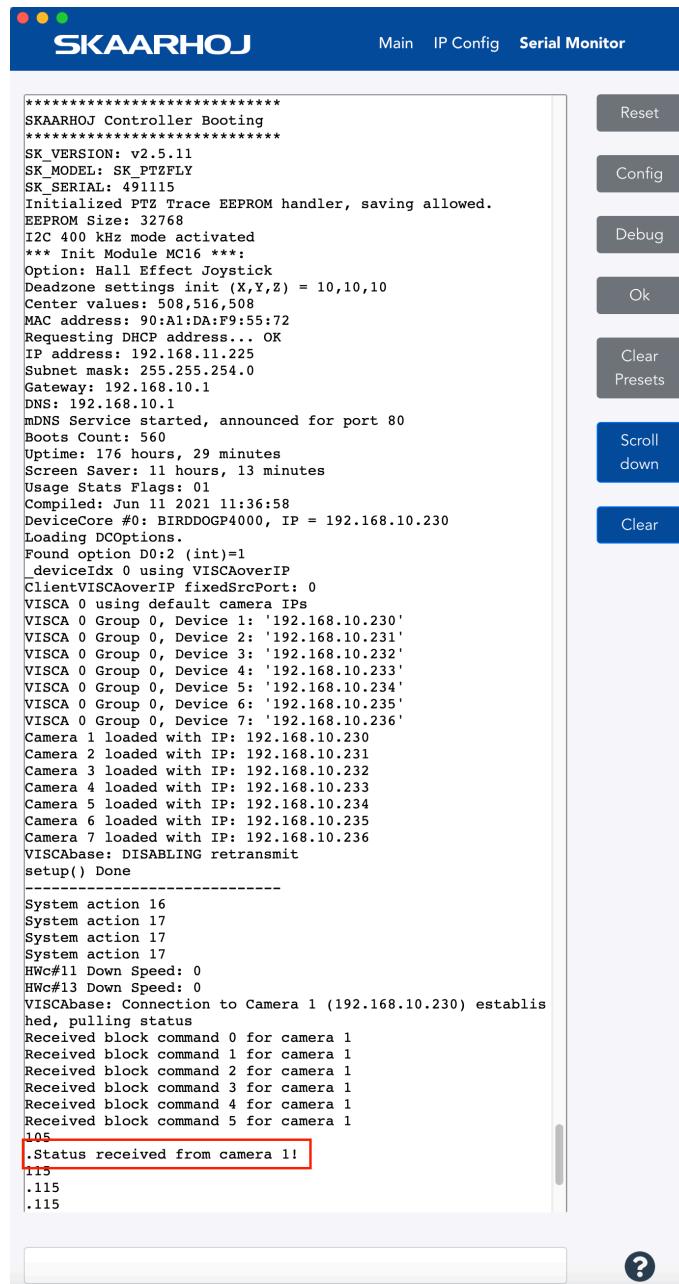
On Camera Dip Switch Settings

- 1:Visca Address= on
- 2:Visca Address= off
- 3: Visca Address= off
- 4: YUV Output= off
- 5: Reserved= off
- 6: RS-232/RS-422= off
- 7: Bps= off (combined with 8 for 9600 Bps)
- 8: Bps= on (combined with 7 for 9600 Bps)



Connection

When a controller have successfully established connection to the camera the serial monitor will report "Status received from camera x!"



The screenshot shows the SKAARHOJ Serial Monitor window. The main area displays a log of device booting and configuration. A red box highlights the line ".Status received from camera 1!" which appears near the bottom of the log. The window has tabs for Main, IP Config, and Serial Monitor, and includes buttons for Reset, Config, Debug, Ok, Clear Presets, Scroll down, and Clear.

```
*****
SKAARHOJ Controller Booting
*****
SK_VERSION: v2.5.11
SK_MODEL: SK_PTZFLY
SK_SERIAL: 491115
Initialized PTZ Trace EEPROM handler, saving allowed.
EEPROM Size: 32768
I2C 400 kHz mode activated
*** Init Module MC16 ***
Option: Hall Effect Joystick
Deadzone settings init (X,Y,Z) = 10,10,10
Center values: 508,516,508
MAC address: 90:A1:D4:F9:55:72
Requesting DHCP address... OK
IP address: 192.168.11.225
Subnet mask: 255.255.254.0
Gateway: 192.168.10.1
DNS: 192.168.10.1
mDNS Service started, announced for port 80
Boots Count: 560
Uptime: 176 hours, 29 minutes
Screen Saver: 11 hours, 13 minutes
Usage Stats Flags: 01
Compiled: Jun 11 2021 11:36:58
DeviceCore #0: BIRDDOGP4000, IP = 192.168.10.230
Loading DCOptions.
Found option D0:2 (int)=1
_deviceIdx 0 using VISCAoverIP
ClientVISCAoverIP fixedSrcPort: 0
VISCA 0 using default camera IPs
VISCA 0 Group 0, Device 1: '192.168.10.230'
VISCA 0 Group 0, Device 2: '192.168.10.231'
VISCA 0 Group 0, Device 3: '192.168.10.232'
VISCA 0 Group 0, Device 4: '192.168.10.233'
VISCA 0 Group 0, Device 5: '192.168.10.234'
VISCA 0 Group 0, Device 6: '192.168.10.235'
VISCA 0 Group 0, Device 7: '192.168.10.236'
Camera 1 loaded with IP: 192.168.10.230
Camera 2 loaded with IP: 192.168.10.231
Camera 3 loaded with IP: 192.168.10.232
Camera 4 loaded with IP: 192.168.10.233
Camera 5 loaded with IP: 192.168.10.234
Camera 6 loaded with IP: 192.168.10.235
Camera 7 loaded with IP: 192.168.10.236
VISCAbase: DISABLING retransmit
setup() Done
-----
System action 16
System action 17
System action 17
System action 17
HWc#11 Down Speed: 0
HWc#13 Down Speed: 0
VISCAbase: Connection to Camera 1 (192.168.10.230) established, pulling status
Received block command 0 for camera 1
Received block command 1 for camera 1
Received block command 2 for camera 1
Received block command 3 for camera 1
Received block command 4 for camera 1
Received block command 5 for camera 1
105
.Status received from camera 1!
115
.115
.115
```

Device Configurations

Device configuration options exist. For most use cases, it is not needed to change any of the device core options settings.

Device Core Options (Alpha)

BirdDog P4K

IP matrix: Auto-fill

Group 1	
<input checked="" type="checkbox"/> Camera 1	<input type="text"/>
<input type="button" value="Add Group"/>	
<input type="button" value="Add Camera"/>	
<u>Connection Type:</u>	VISCAoverIP▼
<u>Video Mode:</u>	PAL ▼
<input type="checkbox"/> <u>Destination Port:</u>	<input type="text" value="52381"/>
<input type="checkbox"/> <u>Source Port:</u>	<input type="text"/>
<u>Use Strict Connection Strategy:</u>	No ▼
<input type="checkbox"/> <u>Set Inquiry Delay:</u>	<input type="text" value="500"/>
<u>Instant PTZ control:</u>	No ▼

Action Overview

BirdDog P4K: Pan	BirdDog P4K: Chroma Suppress
BirdDog P4K: Tilt	BirdDog P4K: Detail Level
BirdDog P4K: Pan/Tilt	BirdDog P4K: Detail Auto
BirdDog P4K: Zoom	BirdDog P4K: Detail Parameters
BirdDog P4K: Zoom (Binary)	BirdDog P4K: Noise Reduction
BirdDog P4K: Focus	BirdDog P4K: NR Settings
BirdDog P4K: Focus (Binary)	BirdDog P4K: Gamma Mode
BirdDog P4K: Focus One Push	BirdDog P4K: Picture Effect
BirdDog P4K: Focus Settings	BirdDog P4K: Gamma Settings
BirdDog P4K: Zoom Settings	BirdDog P4K: Preset
BirdDog P4K: Exposure Mode	BirdDog P4K: Preset Drive
BirdDog P4K: Iris	BirdDog P4K: System
BirdDog P4K: Shutter	BirdDog P4K: Iris (Binary)
BirdDog P4K: Gain	BirdDog P4K: Shutter (Binary)
BirdDog P4K: AE Speed	BirdDog P4K: Camera Group Select
BirdDog P4K: Ex-Comp. Enable	BirdDog P4K: PTZ Cruise Control
BirdDog P4K: Ex-Comp. Level	BirdDog P4K: PTZ Trace
BirdDog P4K: AE Comp	BirdDog P4K: Speed Limit
BirdDog P4K: Gain Limit	BirdDog P4K: Auto Shift level
BirdDog P4K: Gain Point	BirdDog P4K: Camera Select
BirdDog P4K: Gain Point Pos	
BirdDog P4K: Max Shutter	
BirdDog P4K: Min Shutter	
BirdDog P4K: White Balance	
BirdDog P4K: WB One Push	
BirdDog P4K: WB R/B Gain	
BirdDog P4K: Matrix	
BirdDog P4K: Matrix Color	