

Device: BirdDog P100



Introduction

The BirdDog P100 Device Core is still in alpha with just a limited feature set available to control. The development of the Device Core is work in progress and we collaborate with BirdDog to expand the possible features to control. At this point control is VISCA over IP.

Please notice currently the BirdDog P100 camera do not support block inquiry commands over IP, so not all current settings on the camera will be transmitted back to our controllers. Examples

- When our controller connects to the camera some settings will not be in sync with the actual state of the camera. The shutter speed on our controller could reflect one setting, while the actual shutter speed on the camera could be different until the shutter speed has in fact been set from our controller
- If multiple SKAARHOJ controllers are connected to the same camera they will not be in sync

The implementation is done on BirdDog P100 Firmware version: **BirdDog P100 3.2.4**

Known Limitations

We have not tested the P100 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.

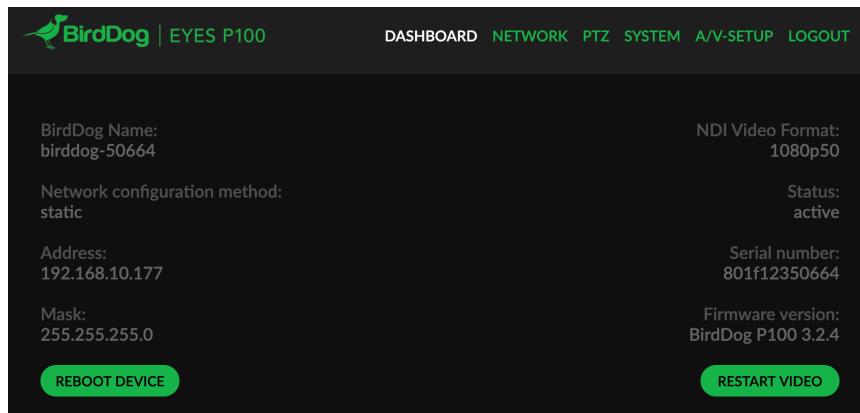
Please see the "PTZ Manual" at <https://www.skaarhoj.com/support/manuals/> to learn more about PTZ control in general from SKAARHOJ controllers and in particular network recommendations.

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



PRESET RECALL

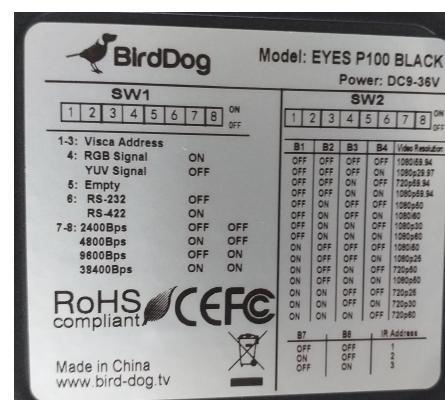
Recalling presets can make the camera stop responding for a few seconds.

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: RGP Signal/ YUV Signal= off
- 5: Empty= 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 interface. The main window displays a log of the device booting, including system information like MAC address, IP address, and subnet mask. On the right side, there are several buttons: Reset, Config, Debug, Ok, Clear Presets, Scroll down, and Clear. At the bottom right is a help icon (a question mark inside a circle).

```
*****
SKAARHOJ Controller Booting
*****
SK VERSION: branch_SKAAAR-478
SK MODEL: SK_PTZFLY
SK SERIAL: 491115
EEPROM Size: 32768
I2C 400 kHz mode activated
*** Init Module MC16 ***
Option: Hall Effect Joystick
Deadzone settings init to default: 20
Center values: 508,516,504
MAC address: 92:AI:DAB:3:49:5B
Requesting DHCP address... OK
IP address: 192.168.10.20
Subnet mask: 255.255.255.0
Gateway: 192.168.10.1
DNS: 192.168.10.1
Boots Count: 58
Uptime: 15 hours, 53 minutes
Screen Saver: 0 hours, 0 minutes
Usage Stats Flags: 01
Compiled: May 26 2020 17:02:21
DeviceCore #: BIRDDOG_P1000, IP = 192.168.10.177
ClientVISCAoverIP fixedSrcPort:0
VISCAbase: DISABLING retransmit
setup() Done
-----
Setting contrast 5 for all displays 0
System action 16
System action 17
System action 17
System action 17
HWc#11 Down Speed: 0
VISCAbase: Connection to cam 1 established, pulling status
Received block command 0 for camera 1
HWc#13 Down Speed: 0
Received block command 1 for camera 1
Received block command 2 for camera 1
129
.Received block command 3 for camera 1
142
.Status received from camera 1!
142
.142
.142
```

Device Configurations

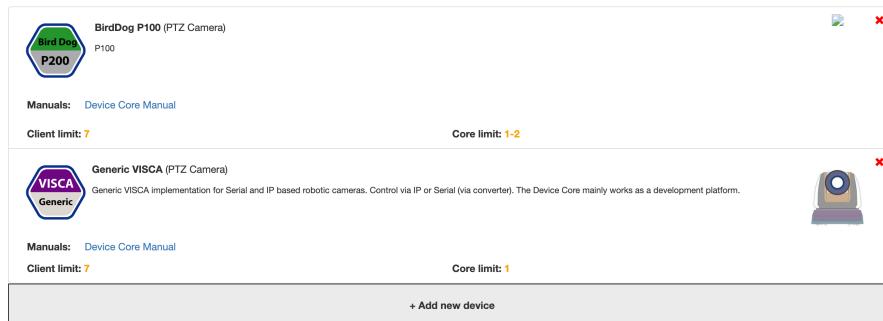
Device configuration options exist:

- Index 0: **VISCA over IP/Serial**
- If "1" = VISCA over Serial

Example:

Enabling "Visca over Serial" could look like this device configuration code: "D0:0=1" 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.

If the BirdDog P100 device core is the first like below:



Then setting the "VISCA over IP/Serial" would be set by this configuration under "Manage Media" on your configuration page for your controller on cores.skaarhoj.com

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=1

Device Core Details

An excerpt of the actions in the BirdDog P100 Device Core.

BirdDog P100: Pan
BirdDog P100: Tilt
BirdDog P100: Pan/Tilt
BirdDog P100: Zoom
BirdDog P100: Zoom (Binary)
BirdDog P100: Focus
BirdDog P100: Focus One Push
BirdDog P100: Focus Settings
BirdDog P100: Zoom Settings
BirdDog P100: Exposure Mode
BirdDog P100: Iris
BirdDog P100: Shutter
BirdDog P100: Gain
BirdDog P100: Ex-Comp. Enable
BirdDog P100: Ex-Comp. Level
BirdDog P100: WDR Mode
BirdDog P100: Bright
BirdDog P100: White Balance
BirdDog P100: WB One Push
BirdDog P100: WB R/B Gain
BirdDog P100: WB ColorTemp
BirdDog P100: Hue
BirdDog P100: Saturation
BirdDog P100: Brightness
BirdDog P100: Contrast
BirdDog P100: Sharpness
BirdDog P100: Noise Reduction
BirdDog P100: Gamma
BirdDog P100: Preset
BirdDog P100: System
BirdDog P100: Iris (Binary)
BirdDog P100: Shutter (Binary)
BirdDog P100: PTZ Cruise Control
BirdDog P100: PTZ Trace
BirdDog P100: Speed Limit
BirdDog P100: Auto Shift level
BirdDog P100: Camera Select