BirdDog RESTful API v1.0 Documentation.

This document outlines the commands that are available to all BirdDog hardware devices, allowing users to remotely interact with devices to automate and script control. In this document you will find basic examples of how to interact with the devices in addition to descriptions of each parameter.

For more details on RESTful programming please contact help@bird-dog.tv.

Using a command such as CURL will allow for easy interactions that can be controlled via command lines or scripts.

The API has two major functions, GET requests and PUSH commands.

GET requests allow you to query a device for its current status and consume this information for display or use in external applications.

PUSH commands allow you to change a setting on the BirdDog device to suit your needs, this can be to change the video input, set the NDI compression quality or recall camera presets, etc.

Please ensure syntax and values are valid to ensure proper operation of your BirdDog device.

SUPPORTED API COMMANDS
CONVERTER PRODUCTS

Encode settings

The Encode setting are simple NDI encoding parameters controlling audio embedding, tally interaction and image quality.

Devices Supported:
BirdDog Studio, BirdDog Mini

http://x.x.x.x:8080/enc-settings

Output (example):

```
{
"ndiaudio":  "unmute",
"nditally":  "tallyoff",
"ndivideoq ":  "154"
}
```

PARAMETER	VALUE	
ndiaudio	mute/unmute	Enable NDI to be embedded in the NDI stream generated by the device.
nditally	tallyoff/tallyon	Internal tally display (LED)
ndivideoq	80-180mbps	Target NDI video bitrate. Default = 120

Converter device decode settings

BirdDog converter devices can decode an NDI stream on the network and output an HDMI or SDI video image. These settings allow you to select the quality of decode as well as the behaviour of the device should the currently selected NDI stream not be available (screen saver).

Devices Supported:
BirdDog Studio, BirdDog Mini

http://x.x.x.x:8080/dec-settings

Output (example):

```
{
"decss ":  "decssprog",
"delfs ":  "delfbd"
}
```

PARAMETER	VALUE	
decss	decssprog/decssproxy	Display Full quality/proxy video over SDI/HDMI output
delfs	delfbd/delfblk/delfcust	BirdDog Logo, Black or Custom logo for decode screensaver

Converter device AV settings

BirdDog devices have many input and output ports that can be used in configurable ways. The AV settings section allows you to adjust these AV settings interactively.

Devices Supported:

BirdDog Studio, BirdDog Mini

http://x.x.x.x:8080/av-settings

Output (example):


```
{
"ainputsel": "ason",
"ajingain": "92",
"ajoutgain": "64",
"ajoutput": "ajoutputd",
"avtallyh": "avtallyoffh",
"avtallys": "avtallyoffs",
"videoin": "AUTO",
"videoincs": "rgb",
"videoout": "videooutd",
"videoouth": "avoshdmim",
"videooutS": "avossdim",
"vidinsel": "hdmi"
}
```


PARAMETER	VALUE	
ainputsel	ason/asoff	Enable analog audio input
ajingain	0-99	Audio headset input gain
ajoutgain	0-99	Audio headset output gain
ajoutput	Ajoutputd/ajoutputc	Select Audio output source (BirdDog Comms or NDI Decode)
avtallyh	Avtallyoffh/avtallyonh	Tally border indicators on HDMI Loop out
avtallys	Avtallyoffs/avtallyons	Tally border indicators on SDI Loop out
videoincs	yuv/rgb	HDMI output colour space (YUV/RGB)
videoin	1080p59.94/1080p60/1080p50/1080p29.97/ 1080p30/1080p25/1080i59.94/ 1080i50/720p60/720p59.94/720p50	Video input format (only effective if 'vidinsel' is set to HDMI or SDI
videoout	decode/loop	A/V output behaviour (Decode – output is set to decode mode, Loop is active loop/cross convert from input)
videooutH	main/alpha	HDMI decode output shows NDI Video or Alpha (transparency) channel
videooutS	main/alpha	SDI decode output shows NDI Video or Alpha (transparency) channel

vidinsel	sdi/hdmi/auto	Specifically select an input on the device or set to Auto detect

Retrieve NDI Source List

Retrieve a currently available list of NDI sources on the network. Note this list is updated manually via the WebUI by pressing 'REFRESH' on the NDI source list option in Video Settings at present.

Devices Supported:

BirdDog Studio, BirdDog Mini

http://x.x.x.x:8080/List

Output (example):

```
{
"BIRDDOG-3C1AC2 (CAM)  ":  "192.168.1.166:5961",
"LAPTOP-429HO3MC (VLC)  ":  "192.168.1.53:5961",
"P200 (CAM) ":  "192.168.1.21:5961"
}
```

Change NDI Decoder source

This parameter is used to instruct a BirdDog device operating in decode mode to connect to a specific source. Please note that in current BirdDog firmware, the NDI source must be a high-bandwidth (not NDIlHX) source with a regular video resolution (1080p/1080i/720p) and frame rate.

Devices Supported:

BirdDog Studio, BirdDog Mini

http://x.x.x.x:8080/connectTo

Body Parameters:

```
{"connectToIp":"192.168.1.6","port":5961,"sourceName":"BirdDog (Cam)","sourcePcName":"BirdDog"}
```

Please note that the "sourceName" and "sourcePcName" fields are mandatory.

CAMERA PRODUCTS

The following commands are supported in the BirdDog EYES PTZ (Pan, Tilt, Zoom) camera range. It allows for interaction with the camera and adjustment of the image properties as well as recalling preset positions.

Devices Supported:

BirdDog Eyes P100, P200, A200, A300, P4K

Camera preset recalling

This command allows you to recall a previously set PTZ camera position on a BirdDog Eyes series PTZ camera. Depending on the camera settings this will include the PTZ information only or PTZ + Image settings (Shutter/Iris/Colour/other parameters).

Devices Supported:

BirdDog Eyes P100, P200, A200, A300, P4K

http://x.x.x.x:8080/recall

Body Parameters:

```
1. {"Preset":"Preset-1"}
2. {"Preset":"Preset-2"}
3. {"Preset":"Preset-3"}
4. {"Preset":"Preset-4"}
5. {"Preset":"Preset-5"}
6. {"Preset":"Preset-6"}
7. {"Preset":"Preset-7"}
8. {"Preset":"Preset-8"}
9. {"Preset":"Preset-9"}
```

Response will be body parameter and status code.

Birddog Camera AV Setup

Basic camera settings for the I/O connectors, video resolutions and NDI video quality.

http://x.x.x.x:8080/birddogavsetup

Output (example):

```
{
"av_camaudioingain": "50",
"av_camaudiooutgain": "50",
"av_ndiaudio": "embedded",
"av_nditally": "nditallydis",
"av_ndivideo": "1080p59.94",
"av_videoq3g": "155",
"av_videoqhd": "180"
}
```

PARAMETER	VALUE	
av_camaudioingain	0-99	Analog audio input gain
av_camaudiooutgain":	0-99	Analog audio output gain
av_ndiaudio	embedded/line/mic	Source select for NDI audio encoding
av_nditally":	on/off	On-board tally indicator light (LED) enable
av_ndivideo	1080p59.94/1080p60/1080p50/1080p29.97/1080p30/1080p25/1080i59.94/1080i50/720p60/720p59.94/720p50	NDI video output resolution. Note this is independent of the camera SDI/HDMI output resolution.
av_videoq3g	80-180	Target NDI video bitrate for 3G video rates
av_videoqhd":	80-180	Target NDI video bitrate for 1.5G/HD video rates

Birddog Camera White Balance Setup

Adjust the camera white balance method and manual controls.

http://x.x.x.x:8080/birddogwbsetup

Output (example):

```
{
```

```
"wb_cambluegain": "157",
"wb_camredgain": "143",
"wb_camwb": "ATW"
}
```


PARAMETER	VALUE	
wb_cambluegain	0-255	Camera B-Y balance setting
wb_camredgain	0-255	Camera R-Y balance setting
wb_camwb	AUTO/INDOOR/OUTDOOR/ONEPUSH/ATW/MANUAL/ OUTDOOR-AUTO/SLC-AUTO/SLV-OUTDOOR/AUTO	Camera white balance mode

Birddog EXP Setup

Adjust the exposure settings of the camera

http://x.x.x.x:8080/birddogexpsetup

Output (example):


```
{
"exp_camaereponse": "20",
"exp_camexpcomp": "econ",
"exp_camexplevel": "10",
"exp_camexpm": "SHUTTER-PRI",
"exp_camgain": "4",
"exp_camgainlimit": "11",
"exp_camhighsens": "hson",
"exp_camiris": "6",
"exp_camslowshutter": "sson",
"exp_camspeed": "11",
"exp_camsshutterlimit": "4"
}
```


PARAMETER	VALUE	
exp_camaereponse	1-48	Camera AE Response sensitivity
exp_camexpcomp	Econ/ecoff	Camera Exposure compensation
exp_camexplevel	0-14	Camera Exposure compensation level
exp_camexpm	FULL-AUTO/MANUAL/SHUTTER-PRI/IRIS-PRI	Camera Exposure mode
exp_camgain	1-10	Camera Gain level
exp_camgainlimit	4-15	Camera Gain limit
exp_camhighsens	Hson/hsoff	Camera High-sensitivity mode
exp_camiris	4-17	Camera Iris value
exp_camslowshutter	sson/ssoff	Camera Slow shutter enable

exp_camspeed	0-21	Camera shutter speed
exp_camsshutterlimit	1-6	Camera Slow shutter limit

Birddog Pic1 Setup

Advanced image settings of the camera

http://x.x.x.x:8080/birddogpic1setup

Output (example):


```
{
"pic1_camcolor": "12",
"pic1_camcontrast": "133",
"pic1_camdeflicker": "cdefoff",
"pic1_camdefogmode": "OFF",
"pic1_cameffect": "efoff",
"pic1_camflip": "cfoff",
"pic1_camhue": "8",
"pic1_cammirror": "cmoff",
"pic1_camnoisereduction": "2"    ,
"pic1_camsharpness": "9",
"pic1_camwdr": "cwdroff"
}
```


PARAMETER	VALUE	
pic1_camcolor	1-15	Camera Color saturation
pic1_camcontrast	0-255	Camera contrast adjustment
pic1_camdeflicker	cdefon/cdefoff	Camera de-flicker mode
pic1_camdefogmode	on/off	Camera de-fog mode
pic1_cameffect	efon/efoff	Camera B&W Effect enable
pic1_camflip	cfon/cfoff	Camera image flip
pic1_camhue	1-15	Camera Hue offset
pic1_cammirror	cmon/cmoff	Camera image mirror
pic1_camnoisereduction	0-5	Camera noise reduction strength (0 = off)
pic1_camsharpness	0-15	Camera image sharpness
pic1_camwdr	cwdron/cwdroff	Camera Wide Dynamic Range

Birddog Pic2 Setup

Supplementary advanced images settings of the camera.

http://x.x.x.x:8080/birddogpic2setup

Output (example):


```
{
"pic2_cambacklightcom": "cblcoff",
"pic2_camchroma": "LOW",
"pic2_camgamma": "0",
"pic2_camhlcmode": "chlcoff",
"pic2_camircutfil": "circfoff",
"pic2_camstabilizer": "cstboff",
"pic2_camstablezoom": "cstbzoff"
}
```


PARAMETER	VALUE	
pic2_cambacklightcom	cblcon/cblcoff	Camera Backlight comensation
pic2_camchroma	OFF/LOW/MED/HIGH	Camera Chroma suppress
pic2_camgamma	0-1	Camma setting (0 = default)
pic2_camhlcmode	chlcon/chlcoff	Camera Highlight compensation
pic2_camircutfil	circon/circoff	Camera IR Cut filter
pic2_camstabilizer	cstbon/cstboff	Camera digital image stabilizer
pic2_camstablezoom	sctbzon/cstbzoff	Camera Stablezoom