

# HTTP API Control Camera Command

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## 1.PTZ

Format:

[http://192.168.5.126/ajaxcom?szCmd={"SysCtrl":{"PtzCtrl":{"nChanel":0,"szPtzCmd":"left\\_start","byValue":50}}](http://192.168.5.126/ajaxcom?szCmd={)

nChanel: 0

byValue: [0, 100], used to control the speed of ptz

szPtzCmd:

left\_start: left start

left\_stop: left stop

leftup\_start: left up start

leftup\_stop: left up stop

leftdown\_start: left down start

leftdown\_stop: left down stop

right\_start: right start

right\_stop: right stop

rightup\_start: right up start

rightup\_stop: right up stop

rightdown\_start: right down start

rightdown\_stop: right down stop

up\_start: up start

up\_stop: up stop

down\_start: down start

down\_stop: down stop

go\_home: go to home position

**Note:** After sending http API command, it will return {"nRetVal":0, "szError":""} if it's successfully executed; it will return {"nRetVal":-1879048185, "szError":""} if it fails.

“ <http://192.168.5.126/ajaxcom?szCmd=>” should be added in front of all API commands below. The IP address “192. 168.5.126” is only for reference. You should use the IP address according to your network.

## 2. Focus Mode

### 2.1 Focus Mode

```
{"SetEnv":{"VideoParam":{"stAF":{"emAFMode":3,"nChannel":0}}}  
nChannel: 0  
emAFMode:  
    2: Auto  
    3: Manul  
    4: OnePush
```

### 2.2 Zoom and Focus

```
{"SysCtrl":{"PtzCtrl":{"nChanel":0,"szPtzCmd":"zoomdec_start","byValue":0}}  
nChanel: 0  
byValue: 0  
szPtzCmd:  
    zoomadd_start: Zoom add start  
    zoomadd_stop: Zoom add stop  
    zoomdec_start: Zoom decrease start  
    zoomdec_stop: Zoom decrease stop  
    focusadd_start: Focus add start  
    focusadd_stop: Focus add stop  
    focusdec_start: Focus decrease start  
    focusdec_stop: Focus decrease stop
```

## 3. Preset

```
{"SysCtrl":{"PtzCtrl":{"nChanel":0,"szPtzCmd":"preset_set","byValue":0}}  
nChanel: 0  
byValue: [0, 254]  
szPtzCmd:  
    preset_set: Set preset  
    preset_call: Call preset  
    preset_clean: Clean preset
```

```
{"SetEnv":{"ArmPtz":{"nChanel":0,"nPresetSpeed":6}}  
nChanel: 0
```

nPresetSpeed: [1, 10]

## 4. Audio Configure

### 4.1 Get audio configure

```
{"GetEnv":{"Audio":{}}
```

### 4.2 Set audio configure

```
{"SetEnv":{"Audio":{"nSampleBits":16,"nAudioSmstMask":[33554888,33554888,33554433],  
"bEnable":0,"nInpVolume":4,"nBitRate":64,"nAEncType":7,"byAudioCodecList":[6,7,2],"nSam  
pleRate":44100,"nChannel":1}}}
```

#### 4.2.1 Enable

```
{"SetEnv":{"Audio":{"bEnable":1}}}
```

bEnable:

0: off

1: on

#### 4.2.2 Encode Type

```
{"SetEnv":{"Audio":{"nAEncType":7}}}
```

nAEncType:

7: AAC

#### 4.2.3 Sample Rate

```
{"SetEnv":{"Audio":{"nSampleRate":48000}}}
```

nSampleRate: 48000

## 4.2.4 Sample Bits

```
{"SetEnv":{"Audio":{"nSampleBits":16}}}
```

nSampleBits: 16

## 4.2.5 Bit Rate

```
{"SetEnv":{"Audio":{"nBitRate":96}}}
```

nBitRate: 32, 48, 64, 96, 128

## 4.2.6 Channel

```
{"SetEnv":{"Audio":{"nChannel":2}}}
```

nChannel:  
1: Mono  
2: Stereo

## 4.2.7 Input Volume

```
{"SetEnv":{"Audio":{"nInpVolume":5}}}
```

nInpVolume: range from 1 to 10. Exp:[1, 10]

# 5. Video Configure

## 5.1 Video Encode

### 5.1.1 Get video encode parameters

```
{"GetEnv":{"VideoEncode":{"nChannel":-1}}}
```



## 5.1.2 Set video encode parameters

```
{"SetEnv":{"VideoEncode":{"nChannel":0,"stMaster":{"nBitRate":8192,"szStreamName":"live/av0","bylFrameMinQP":20,"nMaxFrameRate":60,"dwMaxBitRate":66560,"nQFactor":80,"bylImageSizeList":[5,4,28,10,40,37],"dwVideoCodecMask":160,"bylImageQuality":0,"emVideoCodec":5,"emlImageSize":4,"emBitRateCtrl":0,"nIframeInterval":30,"nFrameRate":30,"byProfile":2},"stSlave":{"nBitRate":1024,"szStreamName":"live/av1","bylFrameMinQP":20,"nMaxFrameRate":30,"dwMaxBitRate":5120,"nQFactor":50,"bylImageSizeList":[9,26,1,7],"dwVideoCodecMask":160,"bylImageQuality":1,"emVideoCodec":5,"emlImageSize":26,"emBitRateCtrl":0,"nIframeInterval":30,"nFrameRate":30,"byProfile":2}}}}
```

### 5.1.2.1 Compressed Format

```
{"SetEnv":{"VideoEncode":{"stMaster":{"emVideoCodec":5},"nChannel":0}}}
```

emVideoCodec:

5: H.264

7: H.265

### 5.1.2.2 Profile

```
{"SetEnv":{"VideoEncode":{"stMaster":{"byProfile":0},"nChannel":0}}}
```

byProfile:

1: MP

2: HP

bylImageSizeList: This lists all image size, the different products have different image size, you can call the command of

```
{"GetEnv":{"VideoEncode":{"nChannel":-1}}
```

 and receive its returning value.

Comparing webpage and this you can know the different value meaning different image size.

### 5.1.2.3 Image Size

```
{"SetEnv":{"VideoEncode":{"stMaster":{"emlImageSize":4},"nChannel":0}}}
```

emlImageSize:

5: 1920\*1080

4: 1280\*720

28: 960\*540

10: 800\*600

40: 720\*576

37: 720\*480

### 5.1.2.4 Rate Control

```
{"SetEnv":{"VideoEncode":{"stMaster":{"emBitRateCtrl":1,"nChannel":0}}}}
emBitRateCtrl:
    0: CBR
    1: VBR
```

### 5.1.2.5 Image Quality

```
{"SetEnv":{"VideoEncode":{"stMaster":{"byImageQuality":5,"nChannel":0}}}}
byImageQuality:
    5 :best quality
```

### 5.1.2.6 Bit Rate (kb/s)

```
{"SetEnv":{"VideoEncode":{"stMaster":{"dwMaxBitRate":200,"nChannel":0}}}}
dwMaxBitRate:
    [64, 66560]
```

### 5.1.2.7 Frame Rate (F/S)

```
{"SetEnv":{"VideoEncode":{"stMaster":{"nFrameRate":25,"nChannel":0}}}}
nFrameRate:
    [5, 60]
```

### 5.1.2.8 I Frame interval

```
{"SetEnv":{"VideoEncode":{"stMaster":{"nIframeInterval":70,"nChannel":0}}}}
nIframeInterval:
    [1, 300]
```

### 5.1.2.9 I Frame Min QP

```
{"SetEnv":{"VideoEncode":{"stMaster":{"byIframeMinQP":70,"nChannel":0}}}}
byIframeMinQP:
    [10, 51]
```

## 5.1.2.10 Stream Name

```
{"SetEnv":{"VideoEncode":{"stMaster":{"szStreamName":"live/av01"},"nChannel":0}}}
```

szStreamName: user-defined

# 6. Stream Publish

## 6.1 Get stream publish parameters

```
{"GetEnv":{"StreamPublish":{"nChannel":-1}}}
```

## 6.2 Set stream publish parameters

```
{"SetEnv":{"StreamPublish":{"stSlave":{"wHostPort":1935,"szHostUrl":"192.168.5.11","nProtolType":0,"szStreamName":"live/av1","bEnable":0,"nAbProtolMask":1,"szUserName":"","szPassword":""},"stMaster":{"wHostPort":1935,"szHostUrl":"192.168.5.17","nProtolType":0,"szStreamName":"live/123","bEnable":0,"nAbProtolMask":1,"szUserName":"","szPassword":""},"nChannel":0}}}
```

### 6.2.1 Enable

```
{"SetEnv":{"StreamPublish":{"stMaster":{"wHostPort":1935,"bEnable":1},"nChannel":0}}}
```

bEnable:

0: off

1: on

### 6.2.2 Protol Type

nProtolType:

1: rtsp

2: rtmp

3: srt

### 6.2.3 Host Address

```
{"SetEnv":{"StreamPublish":{"stMaster":{"wHostPort":1935,  
"szHostUrl":"192.168.5.12"},"nChannel":0}}}  
szHostUrl: user-defined
```

### 6.2.4 Host Port

```
{"SetEnv":{"StreamPublish":{"stMaster":{"wHostPort":19355},"nChannel":0}}}  
wHostPort: [0, 65535]
```

### 6.2.5 Stream Name

```
{"SetEnv":{"StreamPublish":{"stMaster":{"wHostPort":19355,  
"szStreamName":"live/1213"},"nChannel":0}}}  
szStreamName: user-defined
```

### 6.2.6 User Name

```
{"SetEnv":{"StreamPublish":{"stMaster":{"wHostPort":19355,  
"szUserName":"123"},"nChannel":0}}}  
szUserName: user-defined
```

### 6.2.7 Password

```
{"SetEnv":{"StreamPublish":{"stMaster":{"wHostPort":19355,  
"szPassword":"123"},"nChannel":0}}}  
szPassword: user-defined
```

## 7. RTP Multicast

### 7.1 Get rtp multicast parameters

```
{"GetEnv":{"StreamRTPMulticast":{"nChannel":-1}}
```

### 7.2 Set rtp multicast parameters

```
{"SetEnv":{"StreamRTPMulticast":{"stSlave":{"nProtoType":0,"bEnable":0,"wMultiCastPort":4002,"szMultiCastUrl":"224.1.2.3"},"stMaster":{"nProtoType":1,"bEnable":0,"wMultiCastPort":4000,"szMultiCastUrl":"224.1.2.3"},"nChannel":0}}}
```

#### 7.2.1 Enable

```
{"SetEnv":{"StreamRTPMulticast":{"stMaster":{"bEnable":1,"wMultiCastPort":4004},"nChannel":0}}}
```

bEnable:

0: off

1: on

#### 7.2.2 Protol Type

```
{"SetEnv":{"StreamRTPMulticast":{"stMaster":{"bEnable":1,"nProtoType":1,"wMultiCastPort":4004},"nChannel":0}}}
```

nProtoType:

0: RTP

1: TS

#### 7.2.3 Multicast Address

```
{"SetEnv":{"StreamRTPMulticast":{"stMaster":{"bEnable":0,"szMultiCastUrl":"224.1.2.23"},"wMultiCastPort":4004},"nChannel":0}}}
```

SzMultiCastUrl:

224.0.0.0~ 255.255.255.0

## 7.2.4 Multicast Port ( Even [0, 65535] )

```
{"SetEnv":{"StreamRTPMulticast":{"stMaster":{"bEnable":1,"wMultiCastPort":4004},"nChannel":0}}}
```

wMultiCastPort:

## 8. Video Parameters

### 8.1 Get video parameters

```
{"GetEnv":{"VideoParam":{"nChannel":-1}}}
```

### 8.2 Set video parameters

#### 8.2.1 Focus

##### 8.2.1.1 Focus Mode

```
{"SetEnv":{"VideoParam": [{"stAF": {"emAFMode":2},"nChannel":0}]}}
```

emAFMode:

- 2: Auto
- 3: Manul
- 4: OnePush

##### 8.2.1.2 AF-Zone

```
{"SetEnv":{"VideoParam": [{"stAF": {"emAFZone":1},"nChannel":0}]}}
```

emAFZone:

- 0: Top
- 1: Center
- 2: Bottom
- 3: All

### 8.2.1.3 AF-Sensitivity

```
{"SetEnv":{"VideoParam":[{"stAF":{"nSensitivity":1},"nChannel":0}]}}
```

nSensitivity:

- 1: High
- 2: Middle
- 3: Low

## 8.2.2 Exposure

Mode

```
{"SetEnv":{"VideoParam":[{"stExp":{"stExpMode":{"emExpMode":0},"nChannel":0}]}}
```

emExpMode:

- 0: Auto
- 3: Manual
- 10: Shutter
- Priority
- 11: IRIS Priority
- 13: Bright

### 8.2.2.1 Auto

#### 1. EV

```
{"SetEnv":{"VideoParam":[{"stExp":{"expcomp_mode":2},"nChannel":0}]}}
```

expcomp\_mode:

- 2: ON
- 3: OFF

#### 2. EV Level

```
{"SetEnv":{"VideoParam":[{"stExp":{"expcomp":8},"nChannel":0}]}}
```

Expcomp: [0, 14]

#### 3. BLC

```
{"SetEnv":{"VideoParam":[{"stExp":{"backlight":2},"nChannel":0}]}}
```

backlight:

- 2: ON
- 3: OFF

4. Flicker

```
{"SetEnv":{"VideoParam":  
{"stExp":{"antiflicker":0},"nChannel":0}}}
```

antiflicker:

- 0: OFF
- 1: 50HZ
- 2: 60HZ

5. G.Limit

```
{"SetEnv":{"VideoParam":{"stExp":  
{"gainLimit":5},"nChannel":0}}}
```

gainLimit: [0, 15]

6. DRC

```
{"SetEnv":{"VideoParam": {"stExp": {"drc":6},"nChannel":0}}}
```

drc: [0, 8]

## 8.2.2.2 Manual

1. Shutter

```
{"SetEnv":{"VideoParam":{"stExp":{"stShutter":  
{"nShutter":16},"nChannel":0}}}
```

nShutter: [0, 16]

2. Iris

```
{"SetEnv":{"VideoParam":{"stExp":{"stIris":  
{"nIris":12},"nChannel":0}}}
```

nIris: [0, 12]

3. DRC

```
{"SetEnv":{"VideoParam": {"stExp": {"drc":8},"nChannel":0}}}
```

drc: [0, 8]

4. Gain

```
{"SetEnv":{"VideoParam": {"stExp":  
{"again":23},"nChannel":0}}}
```

again:[0, 36]



### 8.2.2.3 Shutter Priority

1. Shutter  
{"SetEnv":{"VideoParam":{"stExp":{"stShutter":  
{"nShutter":16},"nChannel":0}}}}  
nShutter: [0, 16]
2. DRC  
{"SetEnv":{"VideoParam":{"stExp":{"drc":7},"nChannel":0}}}}  
drc: [0, 8]
3. Gain  
{"SetEnv":{"VideoParam":{"stExp":  
{"again":23},"nChannel":0}}}}  
again[0, 36]

### 8.2.2.4 IRIS Priority

1. Flicker  
{"SetEnv":{"VideoParam":  
{"stExp":{"antiflicker":0},"nChannel":0}}}}  
antiflicker:  
0: OFF  
1: 50HZ  
2: 60HZ
2. G.Limit  
{"SetEnv":{"VideoParam":{"stExp":  
{"gainLimit":5},"nChannel":0}}}}  
gainLimit: [0, 15]
3. Iris  
{"SetEnv":{"VideoParam":{"stExp":{"stIris":  
{"nIris":12},"nChannel":0}}}}  
nIris: [0, 12]
4. DRC  
{"SetEnv":{"VideoParam":{"stExp":{"drc":6},"nChannel":0}}}}  
drc: [0, 8]

1. Bright  
{"SetEnv":{"VideoParam":{"stExp":  
{"bright":0,"nChannel":0}}}}
2. Flicker
3. G.Limit
4. DRC

Please refer to AAE above for Flicker, G.limit and DRC commands.

## 8.2.3 Color

### 8.2.3.1 WB Mode

```
{"SetEnv":{"VideoParam":{"stColor":  
{"stWbMode":{"emWbMode":0},"nChannel":0}}}}
```

emWbMode:

- 0: Auto
- 12: 2400K
- 13: 2500K
- 14: 2600K
- 15: 2700K
- 16: 2800K
- 17: 2900K
- 1: 3000K
- 18: 3100K
- 19: 3200K
- 20: 3300K
- 21: 3400K
- 7: 3500K
- 22: 3600K
- 23: 3700K
- 24: 3800K
- 25: 3900K
- 2: 4000K
- 26: 4100K
- 27: 4200K
- 28: 4300K
- 29: 4400K
- 8: 4500K
- 30: 4600K
- 31: 4700K
- 33: 4800K
- 34: 4900K
- 4: 5000K
- 35: 5100K
- 36: 5200K
- 37: 5300K
- 38: 5400K
- 9: 5500K

39: 5600K  
40: 5700K  
41: 5800K  
42: 5900K  
10: 6000K  
43: 6100K  
44: 6200K  
45: 6300K  
46: 6400K  
6: 6500K  
47: 6600K  
48: 6700K  
49: 6800K  
50: 6900K  
11: 7000K  
51: 7100K  
5: Manual  
3: OnePush

### 8.2.3.2 RG Tuning

```
{"SetEnv":{"VideoParam":[{"stColor":{"rg":0},"nChannel":0}}}} rgaintuning:  
[0, 255]
```

### 8.2.3.3 BG Tuning

```
{"SetEnv":{"VideoParam":[{"stColor":{"bg":20},"nChannel":0}}}}  
bgaintuning: [0, 255]
```

```
{"SetEnv":{"VideoParam": [{"stColor": {"saturation":0,"nChannel":0}}]}
saturation: [0, 14]
```

### 8.2.3.5 Hue

```
{"SetEnv":{"VideoParam": [{"stColor": {"hue":14,"nChannel":0}}]}
hue: [0, 30]
```

## 8.2.4 Image

### 8.2.4.1 Bright

```
{"SetEnv":{"VideoParam": [{"stImg": {"luminance":0,"nChannel":0}}]}
luminance: [0, 32]
```

### 8.2.4.2 Contrast

```
{"SetEnv":{"VideoParam": [{"stImg": {"contrast":0,"nChannel":0}}]}
contrast: [0, 14]
```

### 8.2.4.3 Sharpness

```
{"SetEnv":{"VideoParam": [{"stImg": {"sharpness":1,"nChannel":0}}]}
sharpness: [0, 11]
```

### 8.2.4.4 Auto Flip

```
{"SetEnv":{"VideoParam": [{"nAutoFlip":3,"nChannel":0}}]}
nAutoFlip:
    2:ON
    3:OFF
```

### 8.2.4.5 B&W Mode

```
{"SetEnv":{"VideoParam": [{"stImg": {"nBWMode":0,"nChannel":0}}]}
nBWMode:
    0: Color
    4: B & W
```

### 8.2.4.6 Flip-H

```
{"SetEnv":{"VideoParam": [{"stImg":{"nFlipH":3},"nChannel":0}]}}
```

nFlipH:

2: ON

3: OFF

### **8.2.4.7 Flip-V**

```
{"SetEnv":{"VideoParam": [{"stImg":{"nFlipV":2},"nChannel":0}]}}
```

nFlipV:

2: ON

3: OFF

### **8.2.4.8 DZoom**

```
{"SetEnv":{"VideoParam": [{"stImg":{"nEZoom":3},"nChannel":0}]}}
```

nEZoom:

2: ON

3: OFF

## 8.2.5 NR

### 8.2.5.1 NR-3D

```
{"SetEnv":{"VideoParam": [{"stNR": {"noise3D": 0}, "nChannel": 0}]}}  
noise3D: [0, 11]
```

## 8.2.6 Style

```
{"SetEnv":{"VideoParam": [{"stColor": {"nStyleInx": 0}, "nChannel": 0}]}}  
nStyleInx: [0, 4]  
0: Default  
1: Normal  
2: Clarity  
3: Bright  
4: Soft
```

## 9. Video OSD

### 9.1 Get video OSD parameters

```
{"GetEnv":{"VideoOsd":{"nChannel": -1}}}
```

## 9.2 Set video OSD parameters

```
{"SetEnv":{"VideoOsd":[{"stTime":{"bEnable":1,"nIndex":0,"nXPos":0,"szText":"","nYPos":10000,"stFtColor":{"byAlpha":128,"byRed":255,"byGreen":255,"byBlue":255},"stBkColor":{"byAlpha":0,"byRed":0,"byGreen":0,"byBlue":0},"stTitle":{"bEnable":0,"nIndex":0,"nXPos":0,"szText":"","nYPos":0,"stFtColor":{"byAlpha":128,"byRed":255,"byGreen":255,"byBlue":255},"stBkColor":{"byAlpha":0,"byRed":0,"byGreen":0,"byBlue":0},"nChannel":0}]}}
```

All parameters can be saved by this command and also you can set one parameter alone.

### 9.2.1 Show Time

```
{"SetEnv":{"VideoOsd":[{"stTime":{"bEnable":1},"nChannel":0}]}}
```

bEnable:

0: Not show

1: Show

### 9.2.2 Show Title

```
{"SetEnv":{"VideoOsd":[{"stTitle":{"bEnable":1},"nChannel":0}]}}
```

bEnable:

0: Not show

1: Show

### 9.2.3 Time Font Color

```
{"SetEnv":{"VideoOsd":[{"stTime":{"stFtColor":{"byAlpha":128,"byRed":255,"byGreen":255,"byBlue":0},"nChannel":0}]}}
```

byAlpha: 128

white: rgb (255,255,255)

black: rgb (0,0,0)

yellow: rgb (255,255,0)

red: rgb (255,0,0)

blue: rgb (0,0,255)

### 9.2.4 Title Font Color

```
{"SetEnv":{"VideoOsd":[{"stTitle":{"stFtColor":{"byAlpha":128,"byRed":255,"byGreen":255,"byBlue":0},"nChannel":0}]}}
```

byAlpha: 128

white: rgb (255,255,255)

black: rgb (0,0,0)  
yellow: rgb (255,255,0)  
red: rgb (255,0,0)  
blue: rgb (0,0,255)

## 9.2.5 OSD Offset

### 1. x pos

Time: {"SetEnv":{"VideoOsd": [{"stTime "":{"nXPos":9200},"nChannel":0}]}}  
Title: {"SetEnv":{"VideoOsd": [{"stTitle":{"nXPos":9200},"nChannel":0}]}} nXPos  
: [0, 10000]

### 2. y pos

Time: {"SetEnv":{"VideoOsd": [{"stTime "":{"nYPos":1200},"nChannel":0}]}}  
Title: {"SetEnv":{"VideoOsd": [{"stTitle":{"nYPos":1200},"nChannel":0}]}}  
nYPos: [0, 10000]

## 10. OSD Font Size

### 10.1 Get OSD font size parameters

```
{"GetEnv":{"TTFFontSize":{"nChannel":-1}}
```

### 10.2 Set OSD font size parameters

```
{"SetEnv":{"TTFFontSize":{" bAutoSize ":1," nFontSize":[48,48]}}
```

bAutoSize:

0: off, 1: on

nFontSize: [8,200]



## 11 Video Out

### 11.1 Get video out parameters

```
{"GetEnv":{"VideoOut":{"nChannel":-1}}
```

### 11.2 Set video out parameters

```
{"SetEnv":{"VideoOut":{"byFormaHdmitList":[10,20,9,8,21,7,4,22,3,6,23,5],"nOsdLanguage":1,"nNetMode":0,"emVoutHdmiFormat":10,"emVoutSdiFormat":10,"byFormaSditList":[10,20,9,8,21,7,4,22,3,6,23,5]}}
```

emVoutHdmiFormat: Setting the current video out format.

10: 1080P60

20: 1080P59

9: 1080P50

8: 1080I60

21: 1080I59

7: 1080I50

4: 1080P30

22: 1080P29

3: 1080P25

6: 720P60

23: 720P59

5: 720P50

## 12 Network Configure

### 12 Network Port

#### 12.1 Get network port parameters

```
{"GetEnv":{"NetWork":{"nChannel":-1}}
```

## 12.2 Set network port parameters

```
{"SetEnv":{"NetWork":{"stNetPort":{"wPortSoap":1936,"wPortData":3000,"wPortWeb":80,"wPortRtsp":554,"wPortVisca":1259,"wPortOnvif":2000,"wPortRtmp":1935}}}}
```

Also you can set one of them like this:

```
{"SetEnv":{"NetWork":{"stNetPort":{"wPortSoap":1936}}}}
```

Port Data: wPortData

Port Web: wPortWeb

Port Onvif: wPortOnvif

Port Soap: wPortSoap

Port Rtmp: wPortRtmp

Port Rtsp: wPortRtsp

Port Visca: wPortVisca

All ports range from 0 to 65535. [0, 65535]

## 13 Ethernet

### 13.1 Get Ethernet parameters

```
{"GetEnv":{"NetWork":{"nChannel":-1}}
```

### 13.2 Set Ethernet parameters

```
{"SetEnv":{"NetWork":{"stEth":{"szGateway":"0.0.0.0","szSubMask":"255.255.255.0","szIPAddr":"10.1.23.202","byValid":5,"szMacAddr":"E4:77:D4:A9:EB:FF","bDefault":1}}}}
```

#### 13.2.1 DHCP

```
{"SetEnv":{"NetWork":{"stEth":{"byValid":5}}}}
```

byValid:

5: off

7: on

#### 13.2.2 IP Address

```
{"SetEnv":{"NetWork":{"stEth":{"szIPAddr":"192.168.5.127"}}}}
```

```
{"SetEnv":{"NetWork":{"stEth":{"szSubMask":"255.255.255.0"}}}}
```

### 13.2.4 Default Gateway

```
{"SetEnv":{"NetWork":{"stEth":{"szGateway":"192.168.5.1"}}}}
```

## 14 DNS

### 14.1 Get DNS parameters

```
{"GetEnv":{"NetWork":{"nChannel":-1}}
```

### 14.2 Set DNS parameters

```
{"SetEnv":{"NetWork":{"stDns":{"szDns1":"8.8.8.8","szDns2":"0.0.0.0"}}}}
```

1. Preferred DNS Server

```
{"SetEnv":{"NetWork":{"stDns":{"szDns1":"8.8.8.8"}}}}
```

2. Alternative DNS Server

```
{"SetEnv":{"NetWork":{"stDns":{"szDns2":"8.8.8.8"}}}}
```

### 14.3 GB28181

```
{"SetEnv":{"PlatformConnect":{"stGB28181":{"emVideoType":0,"szServer1Id":"3402000000  
2000000001","bTimeSyn":0,"bEnable":0,"szServer1Ip":"10.1.22.59","szAdminiAreas":"","szMotionA  
larmId":"","nRegLimitedTime":3600,"szRegisterName":"IPC","nHeartbeatTime":60,"szEquipmentBel  
ong":"","szRegisterId":"34020000001320000001","szDeviceAddress":"","szAlarmAreas":"","szProbe  
AlarmId1":"","szRegisterPassword":"12345678","wLocalPort":5060,"wServer1Port":5060}}}}
```

### 14.4 Dante AV-H

```
{"SetEnv":{"NetWork":{"stDante":{"bDanteEnable":0}}}}
```

bDanteEnable:

0: disEnable

1: Enable

### 14.5 SRT

```
{"SetEnv":{"NetWork":{"stSrt":{"wSrtPort":9000,"wSrtLen":0,"szSrtPin":""}}}}
```

### 14.6 RTSP

```
{"SetEnv":{"NetWork":{"stAuthentication":{"sAuthentication":0}}}}
```

sAuthentication:

0: ON

1: OFF

## 15 System Configure

### 15 SysAttr

## 15.1 Get sysattr parameters

```
{"GetEnv":{"SysAttr":{"nChannel":-1}}
```

## 15.2 Set sysattr parameters

```
{"SetEnv":{"SysAttr":{"nLanguage":2,"szDeviceID":"1","szModelName":"CV612","emV  
ideoStandard":1,"szDevName":"CAMERA-  
1","szProductName":"","szManufacturer":"Marshall Electronics Inc"}}}
```

1. Device Name  
szDevName: user-define, can not use space
2. Device ID  
szDeviceID: can not modify
3. Language  
nLanguage  
2: English

# 16 SysTime

## 16.1 Get system time parameters

```
{"QueryState":{"QuerySysTime":{}}
```

## 16.2 Set system time parameters

```
{"SetEnv":{"SysTime":{"nDateSprtr":2,"nDateFormat":0,"nZone":1,"nHourType":0,"stNtp":{"bEnable":1,"nHostPort":123,"nUpdateInterval":2,"szHostUrl":"ntp4.aliyun.com"}}}}
```

### 16.2.1 Date Format

```
{"SetEnv":{"SysTime":{"nDateFormat":0}}
```

nDateFormat

0: YYYY-MM-DD

1: MM-DD-YYYY

2: DD-MM-YYYY

### 16.2.2 Date Sprtr

```
{"SetEnv":{"SysTime":{"nDateSprtr":0}}
```

nDateSprtr

0: .

1: -

2: /

### 16.2.3 Zone

```
{"SetEnv":{"SysTime":{"nZone":0}}
```

nZone: [0, 32]

- 0: GMT
- 1: GMT+01:00
- 2: GMT+02:00
- 3: GMT+03:00
- 4: GMT+03:30
- 5: GMT+04:00
- 6: GMT+04:30
- 7: GMT+05:00
- 13: GMT+08:00
- 20: GMT-01:00
- 31: GMT-11:00
- 32: GMT-12:00

### 16.2.4 Hour Type

```
{"SetEnv":{"SysTime":{"nHourType":0}}
```

nHourType

- 0: 24 Hours
- 1: 12 Hours

### 16.2.5 NTP Enable

```
{"SetEnv":{"SysTime":{"stNtp":{"bEnable":1}}}
```

bEnable

- 0: off
- 1: on

### 16.2.6 Update Interval

```
{"SetEnv":{"SysTime":{"stNtp":{"nUpdateInterval":2}}}
```

nUpdateInterval: [1,10]

### 16.2.7 Host URL

```
{"SetEnv":{"SysTime":{"stNtp":{"szHostUrl":"time.nist.gov"}}}}
```

szHostUrl: user-defined, ntp server address

### 16.2.8 Host Port

```
{"SetEnv":{"SysTime":{"stNtp":{"nHostPort":123}}}}
```

nHostPort: user-defined, [0, 65535]

### 16.2.9 Time Settings (Synchronize with computer time or set manually)

```
{"SysCtrl":{"SetTime":{"bTimeType":1,"nZone":19,"stDateTime":{"dwYear":2018,"byHour":15,"byMinute":38,"byDay":1,"byMonth":11,"bySecond":2}}}}
```

#### 16.2.10 Synchronize with NTP Server

```
{"SysCtrl":{"SyncNtp":""}}
```

## 17 SysUser

### 17.1 Get sysuser parameters

```
{"GetEnv":{"SysUser":{}}}
```

### 17.2 Set sysuser parameters

```
{"SetEnv":{"SysUser":{"stUsers":[{"nUserType":0,"szUserName":"admin","szPassword":"admin"}, {"nUserType":1,"szUserName":"user1","szPassword":"user1"}, {"nUserType":1,"szUserName":"user2","szPassword":"user2"}]}}
```

nUserType

0: admin

1: user1 or user2

szUserName: user-define, do not use white space



szPassword: user-define, do not use white sapce

Note: This command must set three users at the same time.

## 18 Update

### 18.1 Get update parameters

```
{"QueryState":{"QueryVersion":{}}}
```

Get the return value and split it like this:

```
szText.Format("%d.%d.%d %d-%d-%d",  
    (stVersion.dwCamVersion >> 16) & 0xFF,  
    (stVersion.dwCamVersion >> 8) & 0xFF, (stVersion.dwCamVersion & 0xFF),  
    (stVersion.dwCamDate >> 16) & 0xFFFF,  
    (stVersion.dwCamDate >> 8) & 0xFF,  
    (stVersion.dwCamDate & 0xFF));
```

## 19 Default

```
{"SysCtrl":{"Default":{}}}
```

## 20 Reboot

```
{"SysCtrl":{"Reboot":{}}}
```

## 21 Monocular tracking

### 21.1 Enable

```
{"SetEnv":{"MonoTracking":{"bEnable":1}}  
    bEnable:[0,1]}
```

### 21.2 Track mode

```
{"SetEnv":{"MonoTracking":{"nTrackMode":1}}  
    nTrackMode:  
        1: MonoTrack  
        2: RegionTrack
```

### 21.3 Click Track

```
{"SetEnv":{"MonoTracking":{"stSelect":{"bEnable":0}}  
    bEnable: [0, 1]}
```

## 22 Regional settings

### 22.1 Region call

```
{"SysCtrl":{"AreaTrack":{"nChanel":0,"szPtzCmd":"preset_call","byValue":1}}  
    byValue: [0, 3]}
```

## 22.2 Region set

```
{"SysCtrl":{"AreaTrack":{"nChanel":0,"szPtzCmd":"preset_set","byValue":0}}}  
byValue: [0, 3]
```