DAHUA HTTP API FOR IPC

Version 1.40

Document History

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2	Add alarm push and version description	**2012-8-18**	**1.20**	**Weijun Li**
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19	Add SD Camera descpition in chapter 14.	**2013-11-15**	**1.36**	**WeiChen**
20	Add custom title description in chapter 4.9.Modify SD camera range description in chapter 14. Add Login Failure Alarm description in chapter 6.6 and 9.1.	**2013-12-17**	**1.37**	**WeiChen**
21	Add ScanWlanDevieces in chapter 5.6.3	**2014-2-10**	**1.38**	**FengLin**
22	Add get onvif version description in chapter 9.8.10.Add onvif check description in chapter 9.10	**2014-4-2**	**1.39**	**WeiChen**
23	Add video analyse description in chapter 15.	**2014-5-12**	**1.40**	**WeiChen**

1.Preface

This document details the API of Dahua video products. Programmers can access and configure Dahua video products follows the API. This document with version 1.10 is available with firmware version 2.0 and above. This document with version 1.20, 1.21, 1.22, 1.23, 1.24,1,25,1,26,1,27,1,28 is available with firmware 2.210 and above.This document with version 1. 29 , 1.30, 1.31, 1.32, 1.33, 1.34, 1.35, 1.36 is available with firmware 2.210 and above.This document with version 1.37,1.38 is available with firmware 2.212, 2.4 and above. This document with version 1.39 is available with firmware 2.42 and above.

2.Catalog

3.HTTP API Transaction

3.1Transaction

The HTTP API Transaction starts from a request from a client Application, usually a web browser. The request is processed by the web server on the Dahua video products, then send the response back to the client application. The HTTP request is taken in GET form. If the request is successful, the Dahua video product will return a HTTP header contains 200 OK. The HTTP Body will contain actual data or error message if an error occurs.

For describe convenience, we use some short words to instead the long expressions. The follows are several regulations:

1. The italics and bold will be replaced by the value behind the symbol "=".
2. The URL must follow the standard way of writing a URL.(RFC_3986:Uniform Resource Identifiers (URI) Generic Syntax);that is ,spaces and other reserved characters (";", "/", "?", ":", "@", "=", "+", "," and "$") within a <paramName> or a <paramValue> must be replaced with %<ASCII hex>.For example ,the blank must be instead with %20.
3. To describe the range of the configuration, we use some symbols such as "[]", "{}" and so on. For example :"[0-100]" denotes a integer not less than 0 and not larger than 100. "{0,1,2,3}" denotes the valid value of a integer among 0,1,2 and 3.
4. In the request and response, we use "[]" to denote an array. The index is usually a integer and start form 0.
5. The parameter value has several types: string, integer, bool and float.Integer is 32 bits.The range of bool is "true" and "false".

The below is an example of a transaction:

Request	**GET** http://*<ip>*/cgi-bin/configManager.cgi?action=getConfig&name=**VideoColor**
Description	Get VideoColor configuration.
Response	HTTP/1.1 200 OK Content-Type:text/plain ***head***.Brightness=50 ***head***.Contrast=50 ***head***.Hue=50 ***head***.Saturation=50 ***head***.TimeSection=1 00:00:00-24:00:00

Comment	In above table, ***head***= table.VideoColor[*ChannelNo*][*ColorConfigNo*] *ChannelNo* = video channel index, *colorConfigNo* = color config index. 0 = Color Config 1 1 = Color Config 2 ... We can also request the single config. For example: **Request :** **GET** http://10.7.2.4/cgi-bin/configManager.cgi?action=getConfig&name=VideoColor[0][0].Brightness **Response:** HTTP/1.1 200 OK Content-Type:text/plain table.VideoColor[0][0].Brightness=50

3.2Authentication

The Dahua video product supplies two authentication ways: basic authentication and digest authentication. If the http request does not have "Authorization" , the Dahua video product returns 401, utill the http request has a legal authentication .

For example:

1. When basic authentication, the Dahua video product response:

```
401 Unauthorized
WWW-Authenticate: Basic realm=" XXXXXX"
```

Then the client encode the username and password with base64, send the following request:

```
Authorization: Basic VXZVXZ.
```

2. When digest authentication, the Dahua video product response:

```
WWW-Authenticate: Digest realm="DH_00408CA5EA04", nonce="000562fdY631973ef04f77a3ede7c1832ff48720ef95ad",
stale=FALSE, qop="auth";
```

The client calculates the digest using username, password, nonce, realm and URI with MD5, then send the following request:

```
Authorization: Digest username="admin", realm="DH_00408CA5EA04", nc=00000001,cnonce="0a4f113b",qop="auth"
nonce="000562fdY631973ef04f77a3ede7c1832ff48720ef95ad",uri="cgi-bin/global.login?userName=admin",
response="65002de02df697e946b750590b44f8bf"
```

4.Camera

Camera API allows application to configure and view Dahua video product settings.

4.1Stream

4.1.1 GetStream

URL Syntax	rtsp://<*username*>:<*password*>@<*ip*>:<*port*>/cam/realmonitor?channel=<*channelNo*>&subtype=<*typeNo*>
Comment	<*username*>: a valid user's username. <*password*> :user's password. <*ip*> :the IP address of the Dahua video product. <*port* >:the default port is 554. It can be omitted. It can be obtained in **5.10.1 GetRTSPConfig.** <*channelNo*> :the channel number. It starts from 1. <*typeNo*> :the stream type. The <*typeNo*> of main stream is 0, extra stream 1 is 1, extra stream 2 is 2.The extra stream counts can be obtained in **4.1.2 GetMaxStreamCounts.** The stream must be enabled by setting ***head***.VideoEnable to true in **4.4.4 SetVideoEncodeConfig.** For example, we request the extra stream 1 of channel 1, the URL is: rtsp://admin:admin@10.7.6.67:554/cam/realmonitor?channel=1&subtype=1. The IP Camera supports both TCP and UDP transmission forms. It also supplies basic authentication and digest authentication ways. The authentication process is similar with **3.2 Authentication.**

4.1.2 GetMaxExtraStreamCounts

URL Syntax	http://<*ip*>/cgi-bin/magicBox.cgi?action=getProductDefinition&name=**MaxExtraStream**
Response	table.MaxExtraStream=1
Comment	In above table, the range of table.MaxExtraStream is {1,2,3}

4.1.3 GetSnapshot

URL Syntax	**http://<ip>/cgi-bin/snapshot.cgi? [channel=<**channelNo**>]**
Response	A picture encoded by jpg
Comment	The channel number is default 0 if the request is not carried the param.

4.1.4 GetVideo

URL Syntax	http://<ip>/cgi-bin/mjpg/video.cgi?[channel=<***channelNo***>]
Response	video stream encoded by mjpg Return: HTTP Code:200 OK Content-Type:multipart/x-mixed-replace;boundary=<boundary> Body: --<boundary>

	Content-Type:image/jpeg Content-Length:<image size> <JPEG image data> --<boundary>
Comment	The channel number is default 0 if the request is not carried the param.

4.1.5 PlayBack

URL Syntax	rtsp://<*username*>:<*password*>@<*ip*>:<*port*>/<filename>
Response	It's similar with **4.1.1 GetStream.** For example: rtsp://admin:admin@10.7.6.67:554//mnt/sd/2012-07-13/001/dav/09/09.30.37-09.30.47[R][0@0][0].dav

4.1.6 LoadFile

URL Syntax	http://<ip>/cgi-bin/RPC_Loadfile/<filename>
Response	HTTP Code: 200 OK Content-Type: Application/octet-stream Content-Length:<fileLength> Body: <data> <data> For example: http://10.61.5.117/cgi-bin/RPC_Loadfile/mnt/sd/2012-07-13/001/dav/09/09.30.37-09.30.47[R][0@0][0].dav

4.1.7 GetStream By Http

URL Syntax	http://<*ip*>/cgi-bin/realmonitor.cgi?action=getStream&channel=<channelNo>&subtype=<typeNo>
Response	HTTP Code: 200 OK Content-Type: Application/octet-stream Body: <data> <data>
Comment	Compared to 4.1.1 GetStream using RTSP, it is another way of get stream. This is a way to use http protocol to get realmonitor stream. The data format is shown in appendix.

4.1.8 Playback By Http

URL Syntax	http://<ip>/cgi-bin/playBack.cgi?action=getStream&channel=<channelNo>&subtype=<typeNo>&startTime=<startTime>&

	endTime=<endTime>
Response	HTTP Code: 200 OK Content-Type: Application/octet-stream Body: streamId=<streamId>\r\n <data> <data>
Comment	Compared to 4.1.5 Playback using RTSP, it is another way of get playback stream. This is a way to use http protocol to get playback stream. The data format is shown in appendix.

URL Syntax	http://<*ip*>/cgi-bin/playBack.cgi?action=control&streamId=<streamId>&cmd=<cmd>&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Response	OK or ERROR
Comment	Control the playback stream Cmd=play Speed=<speed> optional, default speed=1,if speed > 0, play back forward, else if speed < 0, playback backward(param iframe is ignored, only support iframe playback backward); Iframe=<iframe> optional, default iframe=0, if iframe=1, playback I frame only; seekTime=<seekTime> seek time, optional, default playback from the stream current point; cmd=pause pause the playback stream; cmd=cancel cancel the playback stream, and destroy the streamed; This is the cgi to control playback stream, used to control the stream which built by “action=getStream”.

4.2VideoColor

4.2.1 GetVideoColorConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**VideoColor**
Response	***head***.Brightness=50 ***head***.Contrast=50 ***head***.Hue=50 ***head***.Saturation=50 ***head***.TimeSection=1 00:00:00-24:00:00
Comment	In above table, ***head***= table.VideoColor[*ChannelNo*][*ColorConfigNo*] *ChannelNo* = video channel index, *colorConfigNo* = color config index.

	0 = Color Config 1 1 = Color Config 2 ...

4.2.2 SetVideoColorConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<***paramName***>=<***paramValue***>[&<***paramName***>=<***paramValue***>...]
Response	OK or ERROR
Comment	In below table, ***head***=VideoColor[*ChannelNo*][*ColorConfigNo*] *ChannelNo* = video channel index, *colorConfigNo* = color config index, 0 = Color Config 1 1 = Color Config 2 ...

ParamName	ParamValue type	Description
head.Brightness	integer	Brightness, range is [0-100]
head.Contrast	integer	Contrast, range is [0-100]
head.Hue	integer	Hue
head.Saturation	integer	Saturation
head.TimeSection	string	Effective time for this video color config. Format is: ***mask starttime endtime*** **Mask** range is {0, 1}. Mask 0 – this video config is not effective Mask 1 - this config is effective ***Starttime/Endtime*** format like 11:00:00. Example: 0 01:00:00-02:00:00, means this config is not effective. 1 01:00:00-02:00:00, means this config is effective between 01:00:00 and 02:00:00

4.3VideoInOptions

4.3.1 GetVideoInputCaps

URL Syntax	http://<*ip*>/cgi-bin/devVideoInput.cgi?action=**getCaps**&channel=<***channelNo***>
Description	Get video input capabilities, ***channelNo*** is video in channel index.
Response	caps.Backlight=true caps.ChipID=0 caps.CoverCount=0 caps.CoverType=0

	caps.CustomManualExposure=true caps.DayNightColor=true caps.DownScaling=true caps.Exposure=9 caps.ExternalSyncInput=true caps.FlashAdjust=true caps.Flip=true caps.Gain=true caps.GainAuto=true caps.HorizontalBinning=1 caps.InfraRed=false caps.Iris=false caps.IrisAuto=false caps.LadenBitrate=750000 caps.LimitedAutoExposure=true caps.MaxHeight=1200 caps.MaxWidth=1600 caps.Mirror=false caps.NightOptions=false caps.ReferenceLevel=false caps.Rotate90=false caps.SetColor=true caps.SignalFormats=Inside,720p,1080p caps.SyncChipChannels=false caps.TitleCount=0 caps.UpScaling=false caps.VerticalBinning=1 caps.WhiteBalance=2

Field in response	Value type	Description
Backlight	bool	True: support backlight
ChipID	String	ID of chips in this channel
CoverCount	integer	The maximum cover region count.
CoverType	integer	0: don't support cover 1: support realtime cover 2: support non-realtime cover
CustomManualExposure	bool,	true: support use defined manual exposure time
DayNightColor	bool	true: support color alternate between day and night.
DownScaling	bool	true: support down scaling, binning mode not included.
Exposure	integer	Exposure grade. 0 – don't support exposure control.
ExternalSyncInput	bool	true: support HD signal external synchronization.
FlashAdjust	bool	true: support flash adjust
Flip	bool	true: support picture flip.
Gain	bool	true: support gain control.

GainAuto	bool	true: support auto gain.
HorizontalBinning	integer	Horizontal/Vertical pixel binning mask, 1 – support 2 pixel binning, 2 – support 3 pixel binning 4 - support 4 pixel binning … 2^n – support n+2 pixel binning
VerticalBinning	integer	
InfraRed	bool	true: support Infra compensation
Iris	bool	true: support Iris adjust
IrisAuto	bool	true: support auto Iris adjust
LadenBitrate	integer	Unit is Kbps. Maximum value of video stream bitrate, 16bpp, not in binning mode.
LimitedAutoExposure	bool	true: support auto exposure with time limit.
MaxHeight	integer	Maximum video height
MaxWidth	integer	Maximum video width
Mirror	bool	true: support picture mirror.
NightOptions	bool	true: support night options.
ReferenceLevel	bool	true: support reference level.
Rotate90	bool	true: support clockwise/anticlockwise 90° rotate
SetColor	bool	true: support color set.
SignalFormats	string	It's a string contains supported video input signal formats for this channel. Signal formats are separated by comma. Range is {Inside, BT656, 720p,1080p, 1080i, 1080sF, 1_3M} Inside – inside input. 1_3M - 1280*960
SyncChipChannels	bool	True: channels in same chip should be synchronized. Synchronized means video resolution of these channels should be the same.
TitleCount	integer	Maximum count of blending titles.
UpScaling	bool	true: support up scaling.
WhiteBalance	integer	Range is {0, 1, 2, 3} 0 – don't support white balance. 1 – support auto white balance 2 - support auto and pre defined white balance. 3 - support auto, pre defined and user defined white balance

4.3.2 GetVideoInOptionsConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**VideoInOptions**
Description	Video in options contain Backlight, ExposureSpeed, DayNightColor. DayOptions, NightOptions, NormalOptions and so on
Response	***head***.Backlight=0 ***head***.DayNightColor=false

	head.ExposureSpeed=0 ***head***.ExposureValue1=0.100000 ***head***.ExposureValue2=80.000000 ***head***.ExternalSync=0 ***head***.ExternalSyncPhase=0 ***head***.FlashControl.Mode=0 ***head***.FlashControl.Pole=0 ***head***.FlashControl.Value=0 ***head***.FlashControl.PreValue=0 ***head***.Flip=false ***head***.Gain=50 ***head***.GainAuto=true ***head***.IrisAuto=false ***head***.Mirror=false ***head***.NightOptions.AntiFlicker=0 ***head***.NightOptions.Backlight=0 ***head***.NightOptions.BacklightRegion[0]=3096 ***head***.NightOptions.BacklightRegion[1]=3096 ***head***.NightOptions.BacklightRegion[2]=5096 ***head***.NightOptions.BacklightRegion[3]=5096 ***head***.NightOptions.BrightnessThreshold=50 ***head***.NightOptions.DayNightColor=2 ***head***.NightOptions.ExposureMode=0 ***head***.NightOptions.ExposureSpeed=0 ***head***.NightOptions.ExposureValue1=0 ***head***.NightOptions.ExposureValue2=40 ***head***.NightOptions.ExternalSyncPhase=125 ***head***.NightOptions.Flip=false ***head***.NightOptions.Gain=50 ***head***.NightOptions.GainAuto=true ***head***.NightOptions.GainBlue=50 ***head***.NightOptions.GainGreen=50 ***head***.NightOptions.GainMax=50 ***head***.NightOptions.GainMin=0 ***head***.NightOptions.GainRed=50 ***head***.NightOptions.GlareInhibition=0 ***head***.NightOptions.IrisAuto=true ***head***.NightOptions.Mirror=false ***head***.NightOptions.Profile=3 ***head***.NightOptions.ReferenceLevel=50 ***head***.NightOptions.Rotate90=0 ***head***.NightOptions.SunriseHour=0 ***head***.NightOptions.SunriseMinute=0 ***head***.NightOptions.SunriseSecond=0 ***head***.NightOptions.SunsetHour=23

	head.NightOptions.SunsetMinute=59 ***head***.NightOptions.SunsetSecond=59 ***head***.NightOptions.SwitchMode=4 ***head***.NightOptions.WhiteBalance=Auto ***head***.NightOptions.WideDynamicRange=0 ***head***.NightOptions.WideDynamicRangeMode=0 ***head***.NormalOptions.AntiFlicker=0 ***head***.NormalOptions.Backlight=0 ***head***.NormalOptions.BacklightRegion[0]=3096 ***head***.NormalOptions.BacklightRegion[1]=3096 ***head***.NormalOptions.BacklightRegion[2]=5096 ***head***.NormalOptions.BacklightRegion[3]=5096 ***head***.NormalOptions.BrightnessThreshold=50 ***head***.NormalOptions.DayNightColor=1 ***head***.NormalOptions.ExposureMode=0 ***head***.NormalOptions.ExposureSpeed=0 ***head***.NormalOptions.ExposureValue1=0 ***head***.NormalOptions.ExposureValue2=40 ***head***.NormalOptions.ExternalSyncPhase=125 ***head***.NormalOptions.Flip=false ***head***.NormalOptions.Gain=50 ***head***.NormalOptions.GainAuto=true ***head***.NormalOptions.GainBlue=50 ***head***.NormalOptions.GainGreen=50 ***head***.NormalOptions.GainMax=50 ***head***.NormalOptions.GainMin=0 ***head***.NormalOptions.GainRed=50 ***head***.NormalOptions.GlareInhibition=0 ***head***.NormalOptions.IrisAuto=true ***head***.NormalOptions.Mirror=false ***head***.NormalOptions.Profile=0 ***head***.NormalOptions.ReferenceLevel=50 ***head***.NormalOptions.Rotate90=0 ***head***.NormalOptions.SunriseHour=0 ***head***.NormalOptions.SunriseMinute=0 ***head***.NormalOptions.SunriseSecond=0 ***head***.NormalOptions.SunsetHour=23 ***head***.NormalOptions.SunsetMinute=59 ***head***.NormalOptions.SunsetSecond=59 ***head***.NormalOptions.SwitchMode=0 ***head***.ReferenceLevel=50 ***head***.ReferenceLevelEnable=false ***head***.Rotate90=0 ***head***.SignalFormat=BT656 ***head***.WhiteBalance=Disable

Comment	In above table, ***head*** = table.VideoInOptions[*ChannelNo*] *ChannelNo* = video channel index.

4.3.3 SetVideoInOptionsConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<***paramName***>=<***paramValue***>[&<***paramName***>=<***paramValue***>...]
Comment	In below table, ***head*** =VideoInOptions[*ChannelNo*] *ChannelNo* = video channel index.
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
head.Backlight	integer	Range is [0-n] n depends on capability in **4.3.1 GetVideoInputCaps** 0 – backlight closed. 1 – backlight grade 1 … n – backlight grade n
head.DayNightColor	integer	Range is {0,1,2} 0: always multicolor 1: autoswitch along with brightness， 2: always monochrome
head.ExposureMode	integer	Range is {0,1,2, 4} 0: AutoExposure 1: Gain first 2: Exposure first 4:Manual.
head.ExposureSpeed	integer	Range is [0-n+1] n depends on capability in **4.3.1 GetVideoInputCaps** 0: AutoExposure 1-n-1: manual Exposure grade n: AutoExposure with time limit. n+1:manualExposure with user-defined time (n is supported maximum exposure grade)
head.ExposureValue1	float	Range is [0.1-80], unit is millisecond If ExposureSpeed is 0(AutoExposure enable), it's lower limit of AutoExposure time, otherwise it's time of manualExposure
head.ExposureValue2	float	Range is [0.1-80], unit is millisecond Upper limit of AutoExposure time, should be bigger than ExposureValue1
head.ExternalSync	integer	Range is {0,1} External Synchronous 0: Internal Synchronization 1: External Synchronous

head.ExternalSyncPhase	integer	Range is [0°-360°] External Synchronous Signal Phase
head.FlashControl.Mode	integer	Range is {0,1,2} 0:forbid flash 1:always flash 2:auto flash
head.FlashControl.Pole	integer	Range is {0,1, 2, 3} Trigger mode: 0:low level 1:high level 2: rising-edge 3:falling-edge
head.FlashControl.Value	integer	Range is [0-15] Flashlight time-unit: 0 - 0us, 1 - 64us, 2 - 128us, 3 – 192us ... 15 - 960us
head.FlashControl.PreValue	integer	Range is [0-100] It's threshold of brightness value, if brightness is less than this value, flash light begin to work.
head.Flip	bool	true: enable video flip function false: disable video flip function
head.Gain	integer	Range is [0-100] If GainAuto is true, it's upper limit of auto gain, else it's the fixed gain adjust value.
head.GainBlue	integer	Range is [0-100] Gain for blue value, Value is effective when WhiteBalance is "Custom."
head.GainRed	integer	Range is [0-100] Gain for red value, Value is effective when WhiteBalance is "Custom."
head.GainGreen	integer	Range is [0-100] Gain for green value, Value is effective when WhiteBalance is "Custom."
head.GainAuto	bool	true: GainAuto false: No GainAuto
head.IrisAuto	bool	true: IrisAuto false: No IrisAuto
head.Mirror	bool	true: enable video mirror function false: disable video mirror function
head.WhiteBalance	String	Range is {Disable, Auto, Custom, Sunny, Cloudy, Home, Office, Night} White balance Mode
head.ReferenceLevel	integer	Range is [0-100] The expected average brightness level of video frames.
head.Rotate90	integer	Range is {0,1,2}

		Video rotation: 0: No rotate 1: clockwise rotate 90° 2: anticlockwise rotate 90°
head.SignalFormat	String	Range is {Inside, BT656, 720p, 1080p, 1080i, 1080sF} Input Signal Mode
head.AntiFlicker	integer	Range is {0,1,2} AntiFlicker mode: 0: Outdoor 1: 50 Hz AntiFlicker 2: 60 Hz AntiFlicker
head.GlareInhibition	integer	Range is [0-100] GlareInhibition: 0: Close GlareInhibition.
head.NightOptions.BrightnessThreshold	integer	**NightOptions** contain a set of parameters used when brightness is not enough. Range is [0-100] when brightness is less than the BrightnessThreshold, parameters change to **Nightoptions.**
head.NightOptions.IrisAuto	bool	true: IrisAuto false: No IrisAuto
head.NightOptions.SunriseHour	integer	Range is [00-23] Sunrise hour.
head.NightOptions.SunriseMinute	integer	Range is [00-59] Sunrise minute
head.NightOptions.SunriseSecond	integer	Range is [00-59] Sunrise second
head.NightOptions.SunsetHour	integer	Sunset time. Its range is same with sunrise time, and it should be after sunrise time. **NightOptions** are used if time is after sunset time and before sunrise time.
head.NightOptions.SunsetMinute	integer	
head.NightOptions.SunsetSecond	integer	
head.NightOptions.SwitchMode	integer	Range is {0,1,2} 0: NoSwitch,always use day options； 1: Switch depends on brightness； 2: Switch depends on time, switch to NightOptions when time is after sunset time and before sunrise. 3: NoSwitch,always use NightOptions； 4:No switch,always use NormalOptions.
head.NightOptions.Profile	integer	Range is {0,1,2,3} 0: use temporary day options； 1: use temporary NightOptions； 2: use temporary NormalOptions； 3:depends on ***head***.NightOptions.SwitchMode.
head.NightOptions.ExposureSpeed	integer	Range is the same as relevant items of day options in this table. Example: Value range of ***head***.NightOptions.ExposureSpeed is the same with ***head***. ExposureSpeed
head.NightOptions.ExposureValue1	float	
head.NightOptions.ExposureValue2	float	
head.NightOptions.Gain	integer	

head.NightOptions.GainAuto	bool	
head.NightOptions.GainBlue	integer	
head.NightOptions.GainGreen	integer	
head.NightOptions.GainRed	integer	
head.NightOptions.WhiteBalance	String	
head.NightOptions.ReferenceLevel	integer	
head.NightOptions.ExternalSyncPhase	integer	
head.NightOptions.AntiFlicker	integer	
head.NightOptions.Backlight	integer	
head.NightOptions.DayNightColor	integer	
head.NightOptions.ExposureMode	integer	
head.NightOptions.GlareInhibition	integer	
head.NightOptions.Mirror	integer	
head.NightOptions.Flip	integer	
head.NightOptions.Rotate90	integer	
head.NomalOptions.BrightnessThreshold	integer	**NomalOptions** contain a set of parameters similar with **NightOptions**. Range is the same as relevant items of **NightOptions** in this table.
head.NormalOptions.IrisAuto	bool	
head.NormalOptions.SunriseHour	integer	
head.NormalOptions.SunriseMinute	integer	
head.NormalOptions.SunriseSecond	integer	
head.NormalOptions.SunsetHour	integer	
head.NormalOptions.SunsetMinute	integer	
head.NormalOptions.SunsetSecond	integer	
head.NormalOptions.ExposureSpeed	integer	
Head.NormalOptions.ExposureValue1	float	
head.NormalOptions.ExposureValue2	float	
head.NormalOptions.Gain	integer	
head.NormalOptions.GainAuto	bool	
head.NormalOptions.GainBlue	integer	
head.NormalOptions.GainGreen	integer	
head.NormalOptions.GainRed	integer	
head.NormalOptions.WhiteBalance	String	
head.NormalOptions.ReferenceLevel	integer	
head.NormalOptions.ExternalSyncPhase	integer	
head.NormalOptions.AntiFlicker	integer	
head.NormalOptions.Backlight	integer	
head.NormalOptions.DayNightColor	integer	
head.NormalOptions.ExposureMode	integer	
head.NormalOptions.GlareInhibition	integer	
head.NormalOptions.Mirror	integer	
head.NormalOptions.Flip	integer	
head.NormalOptions.Rotate90	integer	

4.4VideoEncode

4.4.1 GetVideoConfigCaps

URL Syntax	http://<*ip*>/cgi-bin/encode.cgi?action=**getConfigCaps**
Description	Get video config capibilities.
Response	***headMain***.Video.BitRateOptions=448,2560 ***headMain***.Video.CompressionTypes=H.264,MJPG ***headMain***.Video.FPSMax=25 ***headMain***.Video.ResolutionTypes=2048 x 1536,1080,SXGA, 1280 x 960,720,D1,CIF ***headExtra***.Video.BitRateOptions=80,448 ***headExtra***.Video.CompressionTypes=H.264,MJPG ***headExtra***.Video.FPSMax=25 ***headExtra***.Video.ResolutionTypes=D1,CIF ***headSnap***.Video.CompressionTypes=H.264,MJPG ***headSnap***.Video.ResolutionTypes=2048 x 1536,1080,SXGA, 1280 x 960,720,D1,CIF
Comment	In above table: *Channel*: video channel index *RecordType*: 0 = regular record 1 = motion detection record 2 = alarm record *ExtraStream*: 0 = extra stream 1 1 = extra stream 2 2 = extra stream 3 *SnapType*: 0 = regular snapshot 1 = motion detection snapshot 2 = alarm snapshot Abbreviations in below table: ***headMain***= caps[*Channel*].MainFormat[*RecordType*] ***headExtra*** = caps[*Channel*].ExtraFormat[*ExtraStream*] ***headSnap*** = caps[*Channel*].SnapFormat[*SnapType*]

Field in respons	**Value range**	**Description**
BitRateOptions	string	Before comma is minimum bit rate. (kbps), after comma is maximum bit rate.(kbps) BitRateOptions=80,448 80 is minimum bitrate, 448 is maximum.
CompressionTypes	string	It contains all supported video compression types separated by comma. Range is {MPEG4, MPEG2, MPEG1, MJPG, H.263, H.264}

FPSMax	integer	Maximum FPS.
ResolutionTypes	string	It contains all supported video resolutions. Range is in **4.4.2 Resolution**.

4.4.2 Resolution

Fixed Resolution Name	Size in PAL	Size in NTSC
"D1"	704 x 576	704 x 480
"HD1"	352 x 576	352 x 480
"BCIF"	704 x 288	704 x 240
"CIF"	352 x 288	352 x 240
"QCIF"	176 x 144	176 x 120
"VGA"	640 x 480	
"QVGA"	320 x 240	
"SVCD"	480 x 480	
"QQVGA"	160 x 128	
"SVGA"	800 x 592	
"XVGA"	1024 x 768	
"WXGA"	1280 x 800	
"SXGA"	1280 x 1024	
"WSXGA"	1600 x 1024	
"UXGA"	1600 x 1200	
"WUXGA"	1920 x 1200	
"ND1"	240 x 192	
"720"	1280 x 720	
"1080"	1920 x 1080	
"1280x960"	1280 x 960 (1.3 Mega Pixels)	
"1872x1408"	1872 x 1408 (2.5 Mega Pixels)	
"3744x1408"	3744 x 1408 (5 Mega Pixels)	
"2048x1536"	2048 x 1536 (3 Mega Pixels)	
"2432x2048"	2432 x 2048 (5 Mega Pixels)	
"1216x1024"	1216 x 1024 (1.2 Mega Pixels)	
"1408x1024"	1408 x 1024 (1.5 Mega Pixels)	
"3296x2472"	3296 x 2472 (8 Mega Pixels)	
"2560x1920"	2560 x 1920 (5 Mega Pixels)	
"960H",	960 x 576	960 x 480
"DV720P"	960 x 720	

4.4.3 GetVideoEncodeConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**Encode**

Response	***headMain***.Video.BitRate=8192 ***headMain***.Video.BitRateControl=CBR ***headMain***.Video.Compression=H.264 ***headMain***.Video.FPS=25 ***headMain***.Video.GOP=50 ***headMain***.Video.Height=1200 ***headMain***.Video.Profile=Main ***headMain***.Video.Quality=4 ***headMain***.Video.Width=1600 ***headMain***.VideoEnable=true ***headExtra***.Video.BitRate=8192 ***headExtra***.Video.BitRateControl=CBR ***headExtra***.Video.Compression=H.264 ***headExtra***.Video.FPS=25 ***headExtra***.Video.GOP=50 ***headExtra***.Video.Height=1200 ***headExtra***.Video.Profile=Main ***headExtra***.Video.Quality=4 ***headExtra***.Video.Width=1600 ***headExtra***.VideoEnable=true
Comment	*Channel*: video channel index *RecordType*: 0 = regular record 1 = motion detection record 2 = alarm record *ExtraStream*: 0 = extra stream 1 1 = extra stream 2 2 = extra stream 3 Abbreviations in above table: ***headMain***= table.Encode[*Channel*].MainFormat[*RecordType*] ***headExtra*** =table.Encode[*Channel*].ExtraFormat[*ExtraStream*]

4.4.4 SetVideoEncodeConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	*Channel*: video channel index *RecordType*: 0 = regular record 1 = motion detection record 2 = alarm record

	ExtraStream: 0 = extra stream 1 1 = extra stream 2 2 = extra stream 3 Abbreviation in below table: ***head***=Encode[*Channel*].MainFormat[*RecordType*] (or) Encode[*Channel*].ExtraFormat[*ExtraStream*]
Response	OK or ERROR

ParamName	ParamValue type	Description
head.Video.BitRate	integer	Unit is Kbps Range depends on capability in **4.4.1 GetVideoConfigCaps**
head.Video.BitRateControl	string	Range is {CBR,VBR} CBR: constant bitrate VBR: variable bitrate, available when Video.Compression=H264
head.Video.Compression	String	Range is {MPEG4,MPEG2, MPEG1,MJPG,H.263,H.264} Depends on capacity in **4.4.1 GetVideoConfigCaps**
head.Video.FPS	float	Range is [0.2-30]. Frames per second. < 1.0: several seconds/frame, FPS=0.3333: 3 seconds per frame. >1.0: several frames/second. FPS=3: 3 frames per second.
head.Video.GOP	integer	Range is [1-100]. Group of picture, it's the interval of I Frame, Example: GOP=50, means there is one I frame every 49 P or B frames
head.Video.Height	integer	Video height
head.Video.Width	integer	Video Width
head.Video.Profile	String	Range is { Baseline, Main , Extended , High } Only when video compression is H.264, it's effective.
head.Video.Quality	integer	Range is [1-6]. Image Quality, available when Video.BitRateControl=VBR 1: worst quality 6: best quality
head.VideoEnable	bool	True: enable video

4.5AudioEncode

4.5.1 GetAudioConfigCaps

URL Syntax	http://<*ip*>/cgi-bin/encode.cgi?action=getConfigCaps
Comment	The angle brackets below denotes a array
Response	caps[0].ExtraFormat[0].Audio.CompressionTypes=PCM,G.711A,G.711Mu caps[0].ExtraFormat[1]…. …

	caps[0].MainFormat[0].Audio.CompressionTypes=PCM,G.711A,G.711Mu caps[0].MainFormat[1]… …

Field in respons	Value range	Description
CompressionTypes	string	It contains all supported audio compression types, separated by comma. Range is {PCM, ADPCM, G.711A, G.711Mu, G.726, G.729, MPEG2, AMR}

4.5.2 GetAudioEncodeConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**Encode**
Response	***headMain***.Audio.Bitrate=64 ***headMain***.Audio.Compression=G.711A ***headMain***.Audio.Depth=16 ***headMain***.Audio.Frequency=44000 ***headMain***.Audio.Mode=0 ***headMain***.AudioEnable=false ***headExtra***.Audio.Bitrate=64 ***headExtra***.Audio.Compression=G.711A ***headExtra***.Audio.Depth=16 ***headExtra***.Audio.Frequency=44000 ***headExtra***.Audio.Mode=0 ***headExtra***.AudioEnable=false
Comment	*Channel*: video channel index *RecordType*: 0 = regular record 1 = motion detection record 2 = alarm record *ExtraStream*: 0 = extra stream 1 1 = extra stream 2 2 = extra stream 3 Abbreviations in above table: ***headMain***=table.Encode[*Channel*].MainFormat[*RecordType*] ***headExtra***=table.Encode[*Channel*].ExtraFormat[*ExtraStream*]

4.5.3 SetAudioEncodeConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]

Comment	*Channel*: video channel index *RecordType*: 0 = regular record 1 = motion detection record 2 = alarm record *ExtraStream*: 0 = extra stream 1 1 = extra stream 2 2 = extra stream 3 Abbreviations in below table: ***head***=Encode[*Channel*].MainFormat[*RecordType*] (or) Encode[*Channel*].ExtraFormat[*ExtraStream*]
Response	OK or ERROR

ParamName	ParamValue type	Description
head.Audio.Bitrate	integer	Unit is kbps Range depends on capacity in **4.5.1 GetAudioConfigCaps**
head.Audio.Compression	string	Range depends on capacity in **4.5.1 GetAudioConfigCaps**
head.Audio.Depth	integer	Audio sampling depth
head.Audio.Frequency	integer	Audio sampling frequency
head.Audio.Mode	integer	Range is {0,1,2,3,4,5,6,7} Audio encode mode. 0: 4.75kbps, 1: 5.15 kbps, 2: 5.9 kbps, 3: 6.7 kbps, 4: 7.4 kbps, 5: 7.95 kbps, 6: 10.2 kbps, 7: 12.2 kbps,
head.AudioEnable	bool	Enable/Disable audio

4.6 SnapEncode

4.6.1 GetSnapConfigCaps

URL Syntax	http://<*ip*>/cgi-bin/encode.cgi?action=**getConfigCaps**
Comment	***Channel***: video channel index ***SnapType***:

	0 = regular snapshot 1 = motion detection snapshot 2 = alarm snapshot
Response	caps[***Channel***].SnapFormat[***SnapType***].Video.CompressionTypes=H.264,MJPG caps[***Channel***].SnapFormat[***SnapType***].Video.ResolutionTypes=3M,1080,SXGA,1_3M,720,D1,CIF

Field in respons	**Value range**	**Description**
CompressionTypes	string	It contains all supported video compression types separated by comma. Range is {MPEG4, MPEG2, MPEG1, MJPG, H.263, H.264}
ResolutionTypes	string	It contains all supported video resolutions, separated by comma. Range is {D1, HD1, BCIF, CIF, QCIF, VGA, QVGA, SVGA, XVGA, WXGA, SXGA, WSXGA, UXGA, WUXGA, ND1,720, 1080, 1_3M, 2_5M, 3M, 5M}.

4.6.2 GetSnapEncodeConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=**getConfig**&name=Encode [***Channel***].SnapFormat
Response	***headSnap***.Video.BitRate=384 ***headSnap***.Video.BitRateControl=VBR ***headSnap***.Video.Compression=H.264 ***headSnap***.Video.FPS=1 ***headSnap***.Video.GOP=50 ***headSnap***.Video.Height=576 ***headSnap***.Video.Quality=4 ***headSnap***.Video.Width=704 ***headSnap***.VideoEnable=true
Comment	***Channel***: video channel index ***SnapType***: 0 = regular snapshot 1 = motion detection snapshot 2 = alarm snapshot Abbreviations in above table: ***headSnap*** = table.Encode[***Channel***].SnapFormat[***SnapType***]

4.6.3 SetSnapEncodeConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	***Channel***: video channel index ***SnapType***:

	0 = regular snapshot 1 = motion detection snapshot 2 = alarm snapshot Abbreviation in below table: ***head***= Encode[***Channel***].SnapFormat[***SnapType***]
Response	OK or ERROR

ParamName	ParamValue type	Description
head.Video.BitRate	integer	Unit is Kbps Range depends on capability in **4.3.1 GetVideoInputCaps**
head.Video.BitRateControl	string	Range is {CBR,VBR} CBR: constant bitrate VBR: variable bitrate
head.Video.Compression	String	Range is {MPEG4,MPEG2, MPEG1,MJPG,H.263,H.264} Depends on capacity in **4.3.1 GetVideoInputCaps**
head.Video.FPS	float	Range is [0.2-30]. The lower limit can be reached 0.00002 with firmware 2.4 and above. Frames per second. < 1.0: several seconds/frame, FPS=0.3333: 3 seconds per frame. >1.0: several frames/second. FPS=3: 3 frames per second.
head.Video.GOP	integer	Range is [1-100]. Group of picture, it's the interval of I Frame, Example: GOP=50, means there is one I frame every 49 P or B frames
head.Video.Height	integer	Video height
head.Video.Width	integer	Video Width
head.Video.Quality	integer	Range is [1-6]. Image Quality, available when Video.BitRateControl=VBR 1: worst quality 6: best quality
head.VideoEnable	bool	True: enable video

4.7ChannelTitle

4.7.1 GetChannelTitleConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**ChannelTitle**
Comment	Get the title of the channel. In below table, ***Channel*** = video channel index
Response	table.ChannelTitle[***Channel***].Name=CAM1

4.7.2 SetChannelTitleConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>
Comment	Set the title of the channel. If VideoWidget[***Channel***].ChannelTitle.EncodeBlend is true, this title is blended to the video frames. Please refer to **4.8.2 SetVideoWidget** In below table, ***Channel*** : video channel index
Response	OK or ERROR

ParamName	ParamValue type	Description
ChannelTitle[***Channel***].Name	String	Channel Name

4.8VideoStandard

4.8.1 GetVideoStandardConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**VideoStandard**
Comment	
Response	table.VideoStandard=PAL

4.8.2 SetVideoStandardConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>
Comment	
Response	OK or ERROR

ParamName	ParamValue type	Description
VideoStandard	string	Range is {PAL， NTSC} Video Standard

4.9VideoWidget

4.9.1 GetVideoWidgetConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**VideoWidget**
Description	VideoWidget config contains ChannelTitle, Covers and TimeTitle parameters, defines the background color, front color and positions of channel title and time title, and defines the regions which are not visible (cover).

Response	***head***.BackColor[0]=0 ***head***.BackColor[1]=0 ***head***.BackColor[2]=0 ***head***.BackColor[3]=128 ***head***.EncodeBlend=true ***head***.FrontColor[0]=255 ***head***.FrontColor[1]=255 ***head***.FrontColor[2]=255 ***head***.FrontColor[3]=0 ***head***.Rect[0]=0 ***head***.Rect[1]=8191 ***head***.Rect[2]=0 ***head***.Rect[3]=8191 ... ...
Comment	Channel: video channel index CoReg: Cover Region Covers is an array which sustains multi- Cover regions 0 = region 1 1 = region 2 2 = region 3 3 = region 4 ***head***=table.VideoWidget[*Channel*].ChannelTitle (or) table.VideoWidget[*Channel*].Covers[*CoReg*] (or) table.VideoWidget[*Channel*].TimeTitle table.VideoWidget[*Channel*].CustomTitle[index]

4.9.2 SetVideoWidgetConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	Channel: video channel index CoReg :Cover region index Covers is an array which contains multiple cover regions 0 = region 1 1 = region 2 2 = region 3 3 = region 4 ***headChannelTitle*** = VideoWidget[*Channel*].ChannelTitle ***headCover*** = VideoWidget[*Channel*].Covers[*CoReg*] ***headTimeTitle*** = VideoWidget[*Channel*].TimeTitle ***headCustomTitle*** = VideoWidget[*Channel*].CustomTitle

	VideoWidgetConfig contains cover region settings, channel title settings and time title settings. The italics below will be replaced by the above abbreviations.
Response	OK or ERROR

ParamName	ParamValue type	Description
headCover.BackColor[0] ***headCover***.BackColor[1] ***headCover***.BackColor[2] ***headCover***.BackColor[3]	integer	Range is [0-255]. BackColor[0]:red value BackColor[1]:green value BackColor[2]:blue value BackColor[3]: alpha value
headCover.EncodeBlend	bool	false - widget blend is disabled.
headCover.FrontColor[0] ***headCover***.FrontColor[1] ***headCover***.FrontColor[2] ***headCover***.FrontColor[3]	integer	Range is [0-255]. FrontColor[0]:red value FrontColor[1]:green value FrontColor[2]:blue value FrontColor[3]: alpha value
headCover.Rect[0] ***headCover***.Rect[1] ***headCover***.Rect[2] ***headCover***.Rect[3]	integer	Range is [0-8191]. Rect[0]：top left corner x coordinate (left) Rect[1]：top left corner y coordinate (top) Rect[2]：bottom right x coordinate (right) Rect[3]：bottom right y coordinate (bottom)
headChannelTitle.BackColor[0] ***headChannelTitle***.BackColor[1] ***headChannelTitle***.BackColor[2] ***headChannelTitle***.BackColor[3]	integer	Range is the same with ***headCover***
headChannelTitle.EncodeBlend	bool	
headChannelTitle.FrontColor[0] ***headChannelTitle***.FrontColor[1] ***headChannelTitle***.FrontColor[2] ***headChannelTitle***.FrontColor[3]	integer	
headChannelTitle.Rect[0] ***headChannelTitle***.Rect[1] ***headChannelTitle***.Rect[2] ***headChannelTitle***.Rect[3]	integer	Only use the value of (left,top),the value of (right,bottom) is the same as (left,top) Rect[0], Rect[1] are used, and Rect[2] must be same with Rect[0], Rect[3] must be same with Rect[1].
headTimeTitle.BackColor[0] ***headTimeTitle***.BackColor[1] ***headTimeTitle***.BackColor[2] ***headTimeTitle***.BackColor[3]	integer	Range is the same with ***headChannelTitle*** These are configs about time title.
headTimeTitle.EncodeBlend	bool	
headTimeTitle.FrontColor[0] ***headTimeTitle***.FrontColor[1] ***headTimeTitle***.FrontColor[2] ***headTimeTitle***.FrontColor[3]	integer	
headTimeTitle.Rect[0] ***headTimeTitle***.Rect[1]	integer	

headTimeTitle.Rect[2] ***headTimeTitle***.Rect[3]		
headTimeTitle.ShowWeek	bool	True: Display week within the time title.
headCustomTitle.BackColor[0] ***headCustomTitle***.BackColor[1] ***headCustomTitle***.BackColor[2] ***headCustomTitle***.BackColor[3]	integer	Range is the same with ***headCover***
headCustomTitle.EncodeBlend	bool	
headCustomTitle.FrontColor[0] ***headCustomTitle***.FrontColor[1] ***headCustomTitle***.FrontColor[2] ***headCustomTitle***.FrontColor[3]	integer	
headCustomTitle.Rect[0] ***headCustomTitle***.Rect[1] ***headCustomTitle***.Rect[2] ***headCustomTitle***.Rect[3]	integer	Range is [0-8191]. Rect[0]：top left corner x coordinate (left) Rect[1]：top left corner y coordinate (top) Rect[2]：bottom right x coordinate (right) Rect[3]：bottom right y coordinate (bottom).
PTZPreset.BackColor[0] ***PTZPreset***.BackColor[1] ***PTZPreset***.BackColor[2] ***PTZPreset***.BackColor[3]	integer	Range is the same with headCover
PTZPreset.EncodeBlend	bool	
PTZPreset.FrontColor[0] ***PTZPreset***.FrontColor[1] ***PTZPreset***.FrontColor[2] ***PTZPreset***.FrontColor[3]	integer	
PTZPreset.Rect[0] ***PTZPreset***.Rect[1] ***PTZPreset.Rect[2]*** ***PTZPreset.Rect[3]***	integer	Range is [0-8191]. Rect[0]：top left corner x coordinate (left) Rect[1]：top left corner y coordinate (top) Rect[2]：bottom right x coordinate (right) Rect[3]：bottom right y coordinate (bottom).

4.10VideoOut

4.10.1 GetVideoOutConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**VideoOut**
Description	
Response	***head***.Margin[0]=0 ***head***.Margin[1]=0 ***head***.Margin[2]=0 ***head***.Margin[3]=0

	head.Color.Brightness=50 ***head***.Color. Contrast =50 ***head***.Color. Satuation =50 ***head***.Color. Hue =50 ***head***.Mode. Width =800 ***head***.Mode. Height=600 ***head***.Mode. BPP =16 ***head***.Mode. Format =”Auto” ***head***.Mode. RefreshRate =60... ...
Comment	head = ***table.VideoOut[channel].***

4.10.2 SetVideoOutConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	
Response	OK or ERROR

ParamName	ParamValue type	Description
head.Margin[0] ***head.Margin[1]*** ***head.Margin[2]*** ***head.Margin[3]***	integer	Margin
head.Color.Brightness	integer	Brightness
head.Color.Contrast =50	integer	Contrast
head.Color.Satuation =50	integer	Satuation
head.Color.Hue =50	integer	Hue
head.Mode.Width =800 ***head***.Mode.Height=600	integer	Resolution
head.Mode.BPP =16	integer	
head.Mode.Format =”Auto”	string	The range is {“Auto”, “TV”, “VGA”, “DVI”}
head.Mode.RefreshRate =60	integer	Refresh rate.

4.11FlashLight

4.11.1 GetFlashLightConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**FlashLight**
Description	
Response	***head*** .Brightness=50 ***head***.Enable=false

	head.TimeSection[0][0]=1 00:00:00-23:59:59 ***head***.TimeSection[0][1]=0 00:00:00-23:59:59 … ***head***.TimeSection[6][5]=0 00:00:00-23:59:59
Comment	head = ***table.FlashLight***

4.11.2 SetFlashLightConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
FlashLight.Enable	bool	Enable
FlashLight.Brightness	integer	Brightness
FlashLight.TimeSection[***wd***][***ts***]	string	It's table contains effective time period for flash light everyday. ***wd*** (week day) range is [0-6] (Sunday-Staurday) ***ts*** (time section) range is [0-23], it's index of timesection table. Format: mask hh:mm:ss-hh:mm:ss Mask: {0,1}, hh: [0-24], mm: [00-59], ss: [00-59] Mask 0: this time section is not used. Mask 1: this time section is used. Example: TimeSection[1][0]=1 12:00:00-18:00:00 Means flash light is effective between 12:00:00 and 18:00:00 at Monday.

5.NetWork

5.1NetInterfaces

5.1.1 GetInterfaces

URL Syntax	http://<*ip*>/cgi-bin/netApp.cgi?action=getInterfaces
Comment	Get all of the system network interfaces. Description for items In below table

	Name: network interface name. “eth0” - wired network interface “eth2” - wireless network interface “3G” - 3G network interface Type: “Normal” – wired network “Wireless” – wireless network "Auto", "TD-SCDMA", "WCDMA", "CDMA1x", "EDGE", "EVDO" – 3G network types. Valid: network interface is valid if netInterface[n].Valid is true.
Response	netInterface[0].Name=eth0 netInterface[0].Type=Normal netInterface[0].Valid=true netInterface[1]…. …

5.2BasicConfig

5.2.1 GetBasicConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**Network**
Comment	Basic config contains basic network parameters (Default interface, domain name, host name), and configuration of each network interface. ***interface*** in below table is network interface name, such as eth0, eth2…
Response	table.Network.DefaultInterface=eth0 table.Network.Domain=dahua table.Network.Hostname=badak table.Network.***interface***.DefaultGateway=10.7.0.1 table.Network.***interface***.DhcpEnable=false table.Network.***interface***.DnsServers[0]=221.123.33.228 table.Network.***interface***.DnsServers[1]=221.12.1.228 table.Network.***interface***.IPAddress=10.7.2.3 table.Network.***interface***.MTU=1500 table.Network.***interface***.PhysicalAddress=00:10:5c:f2:1c:b4 table.Network.***interface***.SubnetMask=255.255.0.0

5.2.2 SetBasicConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	***interface*** in below table is network interface name, such as eth0, eth1…
Response	OK or ERROR

ParamName	ParamValue type	Description
NetWork.DefaultInterface	string	Set default network interface when multiple interfaces exist. Range of interfaces is depends on **5.1.1 GetInterfaces**
NetWork.Domain	string	Domain name.
NetWork.Hostname	string	Hostname and Domain compose a network address.
Network.***interface***.DefaultGateway	string	IP address
Network.***interface***.DhcpEnable	bool	Enable/Disable DHCP.
Network.***interface***.DnsServers[0]	string	IP address of first DNS server.
Network.***interface***.DnsServers[1]	string	IP address of second DNS server.
Network.***interface***.IPAddress	string	Interface IP address.
Network.***interface***.MTU	integer	Interface MTU.
Network.***interface***.PhysicalAddress	string	MAC address of interface. HEX string in the form of: xx:xx:xx:xx:xx:xx. Range of x is [0-9,a-f,A-F] Example: 00:10:5c:f2:1c:b4 00:10:5C:F2:1C:B5
Network.***interface***.SubnetMask	string	Network mask string: In the form of x.x.x.x, range of x is [0-255] Example: 255.255.255.0

5.3PPPoE

5.3.1 GetPPPoEConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**PPPoE**
Comment	
Response	table.PPPoE.Enable=false table.PPPoE.Password=123456 table.PPPoE.UserName=123456

5.3.2 SetPPPoEConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	
Response	OK or ERROR

ParamName	ParamValue type	Description
PPPoE.Enable	bool	Enable/Disable PPPoE.
PPPoE.UserName	string	PPPoE user name.
PPPoE.Password	string	PPPoE user password.

5.4DDNS

5.4.1 GetDDNSConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**DDNS**
Comment	***Index*** below is the DDNS protocol table index, start from 0.
Response	table.DDNS[***index***].Address=www.dahuatech.com table.DDNS[***index***].Enable=true table.DDNS[***index***].HostName=www.dahuatech.com table.DDNS[***index***].KeepAlive=10 table.DDNS[***index***].Password=none table.DDNS[***index***].Port=5050 table.DDNS[***index***].Protocol=DAHUA table.DDNS[***index***].UserName=user1

5.4.2 SetDDNSConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	***Index*** below is the DDNS protocol table index, start from 0.
Response	OK or ERROR

ParamName	ParamValue type	Description
DDNS[***index***].Address	string	DDNS server IP address or name.
DDNS[***index***].Enable	bool	Multiple DDNS hostname can be configured, but Only one hostname can be enabled, others should be disabled.
DDNS[***index***].HostName	String	Host name of this device.
DDNS[***index***].KeepAlive	integer	Range is [1-65535]. Unit is minutes.
DDNS[***index***].Password	string	DDNS user password
DDNS[***index***].Port	integer	Range is [1-65535]. Port of DDSN server
DDNS[***index***].Protocol	string	Range is {NO-IP DDNS, Dyndns DDNS, DAHUA}. DDSN protocol type

DDNS[***index***].UserName	string	DDNS user name

5.5Email

5.5.1 GetEmailConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**Email**
Comment	
Response	table.Email.Address=www.dahuatech.com table.Email.Anonymous=true table.Email.AttachEnable=true table.Email.AttachmentEnable=true table.Email.Enable=true table.Email.HealthReport.Enable=false table.Email.HealthReport.Interval=61 table.Email.Password=123456 table.Email.Port=26 table.Email.Receivers[0]=x@dahuatech.com table.Email.Receivers[1]=y@dahuatech.com table.Email.Receivers[2]=z@dahuatech.com table.Email.SendAddress=x@dahuatech.com table.Email.SslEnable=false table.Email.Title=DVRMessage table.Email.UserName=anonymitty

5.5.2 SetEmailConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
Email.Address	string	SMTP server IP address or name.
Email.Anonymous	bool	Enable/Disable anonymous email.
Email.AttachEnable	bool	Enable/Disable email attachment
Email.AttachmentEnable	bool	Enable/Disable email attachment
Email.Enable	bool	Enable/Disable email function
Email.HealthReport.Enable	bool	Enable/Disable report device status by email.

Email.HealthReport.Interval	integer	Range is [30-1440]. Unit is minutes
Email.Password	string	User password of email account.
Email.Port	integer	Range is [1-65535]
Email.Receivers[0]	string	Email addresses of 3 receivers.
Email.Receivers[1]	string	
Email.Receivers[2]	string	
Email.SendAddress	string	Sender email address.
Email.SslEnable	bool	True: enable SSL email.
Email.Title	string	Title of email.
Email.UserName	string	User name of email account.

5.6Wlan

5.6.1 GetWlanConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**WLan**
Comment	
Response	table.WLan.eth2.Enable=true table.WLan.eth2.Encryption=off table.WLan.eth2.KeyFlag=false table.WLan.eth2.KeyID=0 table.WLan.eth2.KeyType=Hex table.WLan.eth2.Keys[0]=password1 table.WLan.eth2.Keys[1]=password2 table.WLan.eth2.Keys[2]=password3 table.WLan.eth2.Keys[3]=password4 table.WLan.eth2.LinkMode=Auto table.WLan.eth2.SSID=dahua

5.6.2 SetWlanConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	***interface*** is name of wireless interface, to get all the network interfaces and their properties, refer to **5.1:NetInterfaces.**
Response	OK or ERROR

ParamName	ParamValue type	Description
WLan.***interface***.Enable	bool	True: Enable WLan on this interface.
WLan.***interface***.Encryption	string	Range is {Off, On, WEP64Bits, WEP128Bits, WPA-PSK-TKIP, WPA-PSK-CCMP} Encryption mode.
WLan.***interface***.KeyFlag	bool	true: key is configured.
WLan.***interface***.KeyID	integer	Range is [0-3] Indicates which key is used. 0 : WLan.***interface***.Keys[0] is used.
WLan.***interface***.KeyType	string	Range is {Hex, ASCII]
WLan.***interface***.Keys[0]	string	For ASCII key type: 64bits encryption key length is 5, 128bits encryption key length is 13, consists of [0-9, a-z, A-Z] For HEX key type: 64bits encryption key length is 10, 128bits encryption key length is 26, consists of [0-9, a-z, A-Z]
WLan.***interface***.Keys[1]	string	
WLan.***interface***.Keys[2]	string	
WLan.***interface***.Keys[3]	string	
WLan.***interface***.LinkMode	string	Range is {Auto, Ad-hoc, Infrastructure}. Auto – select suitable mode automatically. Ad-hoc – Device with wireless network adapter can connect to each other without Access Point. Infrastructure – Integrate wire and wireless LAN together to share network resource, access point is need in this mode.
WLan.***interface***.SSID	string	

5.6.3 ScanWlanDevices

URL Syntax	http://<*ip*>/cgi-bin/wlan.cgi?action=scanWlanDevices&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	Search wifi information
Response	Available wifi num and detailed information, for example: Found Num:1 wlanDevice[0].ApConnected=0 wlanDevice[0].ApMaxBitRate=54000000 wlanDevice[0].ApNetWorkType=255 wlanDevice[0].AuthMode=7 wlanDevice[0].BSSID=28:2c:b2:5c:de:36 wlanDevice[0].EncrAlgr=3 wlanDevice[0].LinkMode=0 wlanDevice[0].LinkQuality=31 wlanDevice[0].RSSIQuality=0 wlanDevice[0].SSID=xia_yuguo 13098 Internet

ParamName	ParamValue type	Description
SSID	string	Specified SSID, if not include any SSID, all wifi information will be searched and displayed.

5.7UPnP

5.7.1 GetUPnPConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**UPnP**
Comment	***Index*** in below is the UPNP map table index, start from 0.
Response	table.UPnP.Enable=true table.UPnP.MapTable[***index***].Enable=true table.UPnP.MapTable[***index***].InnerPort=80 table.UPnP.MapTable[***index***].OuterPort=8080 table.UPnP.MapTable[***index***].Protocol=TCP table.UPnP.MapTable[***index***].ServiceName=HTTP

5.7.2 SetUPnPConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	***Index*** in below table is UPNP map table index, range is [0-255]
Response	OK or ERROR

ParamName	ParamValue type	Description
UPnP.Enable	bool	Enable/Disable UPNP feature.
UPnP.MapTable[***index***].Enable	bool	Enable/Disable this UPNP map.
UPnP.MapTable[***index***].InnerPort	integer	Range is [1-65535]. Inner port number
UPnP.MapTable[***index***].OuterPort	integer	Range is [1-65535]. Outer port number.
UPnP.MapTable[***index***].Protocol	string	Range is {TCP, UDP]
UPnP.MapTable[***index***].ServiceName	string	User defined UPnP service name.

5.7.3 GetUPnPStatus

URL Syntax	http://<*ip*>/cgi-bin/netApp.cgi?action=getUPnPStatus

Comment	Get UPNP mapping result: result=1: mapping succeed. result=0: mapping failed.
Response	rsult=1

5.8NTP

5.8.1 GetNTPConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**NTP**
Comment	
Response	table.NTP.Address=clock.isc.org table.NTP.Enable=false table.NTP.Port=38 table.NTP.TimeZone=9 table.NTP.UpdatePeriod=31

5.8.2 SetNTPConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
NTP.Address	string	NTP server IP address or name.
NTP.Enable	bool	Enable/Disable NTP server.
NTP.Port	integer	Range is [1-65535]. Port of NTP server.
NTP.TimeZone	integer	Range is [0-32]. 0: "GMT+00:00" 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" 8: "GMT+05:30" 9: "GMT+05:45"

		10: "GMT+06:00" 11: "GMT+06:30" 12: "GMT+07:00" 13: "GMT+08:00" 14: "GMT+09:00" 15: "GMT+09:30" 16: "GMT+10:00" 17: "GMT+11:00" 18: "GMT+12:00" 19: "GMT+13:00" 20: "GMT-01:00" 21: "GMT-02:00" 22: "GMT-03:00" 23: "GMT-03:30" 24: "GMT-04:00" 25: "GMT-05:00" 26: "GMT-06:00" 27: "GMT-07:00" 28: "GMT-08:00" 29: "GMT-09:00" 30: "GMT-10:00" 31: "GMT-11:00" 32: "GMT-12:00"
NTP.UpdatePeriod	integer	Range is [0-65535], unit is minutes

5.9RTSP

5.9.1 GetRTSPConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**RTSP**
Comment	
Response	table.RTSP.Enable=true table.RTSP.Port=554 table.RTSP.RTP.EndPort=40000 table.RTSP.RTP.StartPort=20000

5.9.2 SetRTSPConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]

Comment	
Response	OK or ERROR

ParamName	ParamValue type	Description
RTSP.Enable	bool	Enable/Disable RTSP.
RTSP.Port	integer	RTSP port.
RTSP.RTP.StartPort	integer	RTP start port.
RTSP.RTP.EndPort	integer	RTP end port.

6.Events

6.1EventHandler

EventHandler is used in alarm and event config in following sections. It contains settings for actions linked with alarm and events. Actions include record, snapshot, PTZ action, log, mail, alarm out and so on.When alarm or event happen, actions defined in alarm EventHandler and event EventHandler are executed.

6.1.1 GetEventHandler

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**<*handlerName*>**
Comment	**< *handlerName*>** can be one of below four formats Alarm[***alarm channel***].EventHandler MotionDetect[***video channel]***. EventHandler BlindDetect[***video channel***]. EventHandler LossDetect[***video channel***]. EventHandler LoginFailureAlarm.EventHandler Example URL: http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=Alarm[0].EventHandler can get EventHandler settings of alarm channel 0.
Response	 ***handlerName***.EventHandler.AlarmOutChannels[0]=1 ***handlerName***.EventHandler.AlarmOutChannels[1]=1 … ***handlerName***.EventHandler.AlarmOutEnable=false ***handlerName***.EventHandler.AlarmOutLatch=10 ***handlerName***.EventHandler.BeepEnable=true ***handlerName***.EventHandler.Dejitter=0 ***handlerName***.EventHandler.Delay=30

	handlerName.EventHandler.LogEnable=true ***handlerName***.EventHandler.MailEnable=true ***handlerName***.EventHandler.PtzLink[0][0]=None ***handlerName***.EventHandler.PtzLink[0][1]=0 ***handlerName***.EventHandler.PtzLink[1][0]=None ***handlerName***.EventHandler.PtzLink[1][1]=0 … ***handlerName***.EventHandler.PtzLinkEnable=false ***handlerName***.EventHandler.RecordChannels[0]=1 ***handlerName***.EventHandler.RecordChannels[1]=1 … ***handlerName***.EventHandler.RecordEnable=true ***handlerName***.EventHandler.RecordLatch=10 ***handlerName***.EventHandler.SnapshotChannels[0]=1 ***handlerName***.EventHandler.SnapshotChannels[1]=1 … ***handlerName***.EventHandler.SnapshotEnable=false ***handlerName***.EventHandler.SnapshotPeriod=3 ***handlerName***.EventHandler.SnapshotTimes=0 ***handlerName***.EventHandler.TimeSection[0][0]=1 01:00:00-24:00:00 ***handlerName***.EventHandler.TimeSection[0][1]=1 01:00:00-24:00:00 … … ***handlerName***.EventHandler.TimeSection[6][5]=1 01:00:00-24:00:00 ***handlerName***.EventHandler.TipEnable=true ***handlerName***.EventHandler. ExAlarmOutEnable=true ***handlerName***. ExAlarmOutChannels[0] =2 ***handlerName***.ExAlarmOutChannels[1]=3 …

6.1.2 SetEventHandler

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	Meaning of ***handlerName*** is the same with **6.1.1 GetEventHandler**
Response	OK or ERROR

paramName	**paramValue type**	**Description**
handlerName.EventHandler.AlarmOutChannels[***ch***]	integer	Range is {0, 1}, ***ch*** is alarm out channel index.

		0 – do not output alarm at alarm out channel ***ch*** 1 – output alarm at alarm out channel ***ch***
handlerName.EventHandler.AlarmOutEnable	bool	Enable/Disable alarm out function.
handlerName.EventHandler.AlarmOutLatch	Integer	Range is [10-300]. Unit is seconds, indicates the time to output alarm after input alarm is cleared.
handlerName.EventHandler.BeepEnable	bool	Enable/Disable beep.
handlerName.EventHandler.Dejitter	integer	Range is [0-255]. Alarm signal dejitter seconds. Alarm signal change during this period is ignored.
handlerName.EventHandler.Delay	integer	Range is [0-300]. Delay seconds before setting take effect.
handlerName.EventHandler.LogEnable	bool	Enable/Disable log for alarm.
handlerName.EventHandler.MailEnable	bool	Enable/Disable mail send for alarm.
handlerName.EventHandler.PtzLink[***ch***][0]	string	Range is {None, Preset, Tour, Pattern} This is PTZ action linked with events. ***ch*** is PTZ channel index.
handlerName.EventHandler.PtzLink[***ch***][1]	integer	This is the parameter of PtzLink[***ch***][0], If PtzLink[***ch***]][0] is Preset: this is preset point. Tour: this is tour path number. Pattern: this is pattern number.
handlerName.EventHandler.PtzLinkEnable	Bool	Enable/Disable PTZ link.
handlerName.EventHandler.RecordChannels[***ch***]	Integer	Range is {0, 1} 0 – do not record on video channel ***ch*** 1 – record. on video channel ***ch***
handlerName.EventHandler.RecordEnable	bool	Enable/Disable record function.
handlerName.EventHandler.RecordLatch	integer	Range is [10-300]. Unit is seconds, indicates the time to record after input alarm is cleared..
handlerName.EventHandler.SnapshotChannels[***ch***]	integer	Range is {0, 1} 0 – do not snapshot on video channel ***ch*** 1 – snapshot on video channel ***ch***
handlerName.EventHandler.SnapshotEnable	bool	Enable/Disable snapshot function.
handlerName.EventHandler.SnapshotPeriod	integer	Range is [0-255]. Frames between snapshot. 0 means continuously snapshot for every frame.
handlerName.EventHandler.SnapshotTimes	integer	Range is [0-65535] Snapshot times before stop, 0 means don't stop snapshot.
handlerName.EventHandler.TimeSection[***wd***][***ts***]	String	It's table contains effective time period for eventHanlder everyday. ***wd*** (week day) range is [0-6] (Sunday-Staurday) ***ts*** (time section) range is [0-23], it's index of timesection table. Format: mask hh:mm:ss-hh:mm:ss Mask: {0,1}, hh: [0-24], mm: [00-59], ss: [00-59] Mask 0: this time section is not used. Mask 1: this time section is used.

		Example: TimeSection[1][0]=1 12:00:00-18:00:00 Means EventHandler is effective between 12:00:00 and 18:00:00 at Monday.
handlerName.EventHandler.TipEnable	bool	Enable/Disable local message box tip.
handlerName.EventHandler. ExAlarmOutEnable	bool	
handlerName. ExAlarmOutChannels[channels]	integer	

6.2Alarm

6.2.1 GetAlarmConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**Alarm**
Comment	
Response	table.Alarm[0].Enable=false table.Alarm[0].EventHandler….(output of EventHandler is described in **6.1.1 GetEventHandler**) table.Alarm[0].Name=Door1 table.Alarm[0].SensorType=NC table.Alarm[1]…. …

6.2.2 SetAlarmConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	In below table, **input** is external alarm input channel, ***ch*** is channel number, ***wd*** is weekday index, ***ts*** is timesection index. EventHandler defines parameter of relevant actions when alarm or event happens. It's also used in following sections about events.
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
Alarm[*input*].Enable	bool	Enable/Disable alarm from a input channel
Alarm[*input*].EventHandler		Setting of EventHandler is described in **6.1.2 SetEventHandler**
Alarm[*input*].Name	string	Name of alarm input channel.
Alarm[*input*].SensorType	string	Range is {NC, NO]. NC: normal close NO: normal open

6.2.3 GetAlarmOutConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**AlarmOut**
Comment	***alarmOutChannel*** below is the alarm out channel index.
Response	table.AlarmOut[***alarmOutChannel***].Mode=0 table.AlarmOut[***alarmOutChannel***].Name=Beep

6.2.4 SetAlarmOutConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	***Port*** in below table is alarm out port index, start form 0.
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
AlarmOut[***port***].Mode	integer	Range is {0, 1, 2} 0: automatically alarm 1: force alarm 2: close alarm
AlarmOut[***port***].Name	string	Alarm out port name.

6.2.5 GetInSlots

URL Syntax	http://<*ip*>/cgi-bin/alarm.cgi?action=**getInSlots**
Comment	Get alarm input channel number. Below response means there are 2 alarm input channels.
Response	result=2

6.2.6 GetOutSlots

URL Syntax	http://<*ip*>/cgi-bin/alarm.cgi?action=**getOutSlots**
Comment	Get alarm output channel number.
Response	result=1

6.2.7 GetInState

URL Syntax	http://<*ip*>/cgi-bin/alarm.cgi?action=**getInStates**
Comment	Get alarm input state for all channels. A bit in the response result indicates a channel alarm states, below result 3 means alarm channel 1 and channel 2 have alarm now.
Response	result=3

6.2.8 GetOutState

URL Syntax	http://<*ip*>/cgi-bin/alarm.cgi?action=**getOutStates**
Comment	Get alarm output state for all channels. A bit in the response result indicates a channel. 1 means alarm is present.
Response	result=0

6.2.9 GetChannelInState

URL Syntax	http://<*ip*>/cgi-bin/alarm.cgi?action=**getInStates&channel=<*channelNo*>**
Comment	Get alarm input state for ***channelNo***. ***channelNo*** starts from 0, and must be less than alarm input channels obtained from **6.2.5 GetInSlots**. Result 1 means alarm is present. Result 0 means alarm is not present.
Response	result=1

6.2.10 GetChannelOutState

URL Syntax	http://<*ip*>/cgi-bin/alarm.cgi?action=**getOutStates&channel=<*channelNo*>**
Comment	Get alarm output state for ***channelNo***. ***channelNo*** starts from 0, and must be less than alarm output channels obtained from **6.2.6 GetOutSlots** . Result 1 means alarm is present. Result 0 means alarm is not present.
Response	result=0

6.3MotionDetect

6.3.1 GetMotionDetectConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**MotionDetect**

Comment	MotionDetect config of a video channel contains Enable, Level, Region and EventHandler.
Response	table.MotionDetect[0].Enable=false table.MotionDetect[0].EventHandler… (output of EventHandler is described in **6.1.1 GetEventHandler)** table.MotionDetect[0].Level=3 table.MotionDetect[0].Region[0]=3932160 table.MotionDetect[0].Region[1]=3932160 table.MotionDetect[0].MotionDetectWindow[0].Id=0 table.MotionDetect[0].MotionDetectWindow[0].Name=Region0 table.MotionDetect[0].MotionDetectWindow[0].Sensitive=58 table.MotionDetect[0].MotionDetectWindow[0].Threshold=4 table.MotionDetect[0].MotionDetectWindow[0].Region[0]=3932160 table.MotionDetect[0].MotionDetectWindow[0].Region[1]=3932160 … … table.MotionDetect[1]… …

6.3.2 SetMotionDetectConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	Channel: video channel index ***LineNum*** Index of region, region is divided into lines and each line has several blocks, a line is described by a 32 bit integer, a bit for a block.. 0=Line 1 1=Line 2 … … ***WinNum*** Index of detect window, there are 4 detect windows at present. Each window is divided into 18 lines and 22 blocks/line. MotionDetectWindow is available with firmware 2.212 and above. ***RegionIndex*** It is similar with ***LineNum,***but is beyond to a detect window. ***Head*** = MotionDetect[*Channel*] The italics below will be replaced by the above abbreviations.
Response	OK or ERROR

ParamName	ParamValue type	Description
head.Enable	bool	Enable/Disable motion detect feature in a channel.
head.EventHandler		Setting of EventHandler is described in **6.1.2 SetEventHandler**
head.Level	integer	Range is [1-6]. Sensitivity of motion detection. 1: lowest sensitivity.

		6: highest sensitivity.
head.Region[***LineNum***]	integer	Currently, region is divided into 18 lines and 22 blocks/line. A bit describes a block in the line. Bit = 1: motion in this block is monitored.. This filed is used to compatible with the previous firmware. It can be instead by ***head***. MotionDetectWindow[***WinNum***]. Example: MotionDetect[0].Region[0] = 4194303 (0x3FFFFF):: motion in channel 0 line 0's 22 blocks is monitored. MotionDetect[0].Region[1] =0: motion in line 1's 22 blocks is not monitored. MotionDetect[0].Region[17] = 3: in the last line of channel 0, motion in the left two blocks is monitored.
head.MotionDetectWindow [***WinNum***].Id	integer	It is the Id of a detect window.
head.MotionDetectWindow [***WinNum***].Name	string	It is the name of a detect window.
head.MotionDetectWindow [***WinNum***].Sensitive	integer	Range is [0-100]. It presents more sensitive if the value is larger.
head.MotionDetectWindow [***WinNum***]. Threshold	integer	Range is [0-100]. It presents the threshold value when trigger motion detect.
head.MotionDetectWindow [***WinNum***]. Region[***RegionIndex***]	integer	It is similar with ***head***.Region[***LineNum***].

6.4BlindDetect

6.4.1 GetBlindDetectConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**BlindDetect**
Comment	*Channel*: video channel number ***head***= table.BlindDetect[*Channel*]
Response	***head***.Enable=false ***head***.EventHandler= (output of EventHandler is described in **6.1.1 GetEventHandler**) ***head***.Level=3

6.4.2 SetBlindDetectConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	*Channel*: video channel number ***head***=BlindDetect[*Channel*]
Response	OK or ERROR

ParamName	ParamValue type	Description
head.Enable	bool	Enable/Disable blind detect feature.
head.EventHandler		Setting of EventHandler is described in **6.1.2 SetEventHandler**
head.Level	integer	Range is [1-6]. Sensitivity of blind detection. 1: lowest sensitivity. 6: highest sensitivity.

6.5LossDetect

6.5.1 GetLossDetectConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**LossDetect**
Comment	*Channel*: video channel number ***head***=table.BlindDetect[*Channel*]
Response	***head***.Enable=false ***head***.EventHandler= (output of EventHandler is described in **6.1.1 GetEventHandler**)

6.5.2 SetLossDetectConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	*Channel*: video channel number ***Head*** = BlindDetect[*Channel*]
Response	OK or ERROR

ParamName	ParamValue type	Description
head.Enable	bool	Enable/Disable loss detect feature.
head.EventHandler		Setting of EventHandler is described in **6.1.2 SetEventHandler**

6.6LoginFailureAlarm

6.6.1 GetLoginFailureAlarmConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**LoginFailureAlarm**
Comment	*Channel*: video channel number ***head***=table.LoginFailureAlarm
Response	***head***.Enable=false ***head***.EventHandler= (output of EventHandler is described in **6.1.1 GetEventHandler**)

6.6.2 SetLoginFailureAlarmConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	***Head***=LoginFailureAlarm
Response	OK or ERROR

ParamName	ParamValue type	Description
head.Enable	bool	Enable/Disable notify LoginFailure event.Now this event can be linked with send email and alarm out.The max try login times can be configured in chapter **9.1.2 SetGeneralConfig**.
head.EventHandler		Setting of EventHandler is described in **6.1.2 SetEventHandler**

6.7 StorageAbnormal

6.7.1 GetStorageNotExistConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=StorageNotExist
Comment	
Response	StorageNotExist.Enable=false StorageNotExist.EventHandler= (output of EventHandler is described in **6.1.1 GetEventHandler**)

6.7.2 SetStorageNotExistConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	
Response	OK or ERROR

ParamName	ParamValue type	Description
StorageNotExist.Enable	bool	Enable/Disable loss detect feature.
StorageNotExist.EventHandler		Setting of EventHandler is described in **6.1.2 SetEventHandler**

6.7.3 Get StorageFailureConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name= StorageFailure
Comment	
Response	StorageFailure.Enable=false StorageFailure.EventHandler= (output of EventHandler is described in **6.1.1 GetEventHandler**)

6.7.4 Set StorageFailureConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	
Response	OK or ERROR

ParamName	ParamValue type	Description
StorageFailure.Enable	bool	Enable/Disable loss detect feature.
StorageFailure.EventHandler		Setting of EventHandler is described in **6.1.2 SetEventHandler**

6.7.5 GetStorageLowSpaceConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name= StorageLowSpace
Comment	
Response	StorageLowSpace.Enable=false StorageLowSpace.EventHandler= (output of EventHandler is described in **6.1.1 GetEventHandler**)

6.7.6 SetStorageLowSpaceConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	
Response	OK or ERROR

ParamName	ParamValue type	Description
StorageLowSpace.Enable	bool	Enable/Disable loss detect feature.
StorageLowSpace.EventHandler		Setting of EventHandler is described in **6.1.2 SetEventHandler**

6.8 NetAbnormal

6.8.1 GetNetAbortConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name= NetAbort
Comment	
Response	NetAbort.Enable=false NetAbort.EventHandler= (output of EventHandler is described in **6.1.1 GetEventHandler**)

6.8.2 SetNetAbortConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
NetAbort.Enable	bool	Enable/Disable loss detect feature.
NetAbort.EventHandler		Setting of EventHandler is described in **6.1.2 SetEventHandler**

6.8.3 GetIPConflictConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name= IPConflict
Comment	
Response	IPConflict.Enable=false IPConflict.EventHandler= (output of EventHandler is described in **6.1.1 GetEventHandler**)

6.8.4 SetIPConflictConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
IPConflict.Enable	bool	Enable/Disable loss detect feature.
IPConflict.EventHandler		Setting of EventHandler is described in **6.1.2 SetEventHandler**

6.9 GetEventIndexes

URL Syntax	http://<*ip*>/cgi-bin/eventManager.cgi?action=getEventIndexes&code=<***eventCode***>
Comment	Get channels indexes that event of code ***eventCode*** happens. ***eventCode*** includes: VideoMotion: motion detection event VideoLoss: video loss detection event VideoBlind: video blind detection event. AlarmLocal: alarm detection event.

Response	channels[0]=0 channels[1]=2 channels[2]=3 … (This response means event happened on channel 0, channel 2, and channel 3.)

6.10 Attach

URL Syntax	http://<*ip*>/cgi-bin/eventManager.cgi?action=attach&codes=[<***eventCode***>,<***eventCode***> ,…]
Comment	Get channels indexes that event of code ***eventCode*** happens. ***eventCode*** includes: VideoMotion: motion detection event VideoLoss: video loss detection event VideoBlind: video blind detection event. AlarmLocal: alarm detection event. MDResult: motion detection data reporting event. The motion detect window contains 18 rows and 22 columns. The event info contains motion detect data with mask of every row.
Response	HTTP Code: 200 OK\r\n Cache-Control: no-cache\r\n Pragma: no-cache\r\n Expires: Thu, 01 Dec 2099 16:00:00 GMT\r\n Connection: close\r\n Content-Type: multipart/x-mixed-replace; boundary=<***bondary***>\r\n Body: --<***bondary***>\r\n Content-Type: text/plain\r\n Content-Length: ***<data length>\r\n*** ***<eventInfo>\r\n\r\n*** --<***bondary***>\r\n Content-Type: text/plain\r\n Content-Length: ***<data length>***\r\n ***<eventInfo>\r\n\r\n*** For example: HTTP Code: 200 OK\r\n Cache-Control: no-cache\r\n Pragma: no-cache\r\n Expires: Thu, 01 Dec 2099 16:00:00 GMT\r\n Connection: close\r\n Content-Type: multipart/x-mixed-replace; boundary=myboundary\r\n\r\n Body: -- myboundary \r\n Content-Type: text/plain\r\n

	Content-Length: 39\r\n Code=VideoMotion;action=Start;index=0\r\n\r\n -- myboundary \r\n Content-Type: text/plain\r\n Content-Length: 38\r\n Code=VideoBlind;action=Start;index=0\r\n\r\n -- myboundary \r\n Content-Type: text/plain\r\n Content-Length: 38\r\n Code= AlarmLocal;action=Start;index=0\r\n\r\n -- myboundary \r\n Content-Type: text/plain\r\n Content-Length: 38\r\n Code= MDResult;action=Pulse;index=0;data=61708863,61708863…\r\n\r\n -- myboundary \r\n …

7.PTZ

7.1PTZConfig

7.1.1 GetPTZConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**Ptz**
Comment	***Port*** in below table is PTZ port index, start form 0.
Response	table.Ptz[***port***].Address=8 table.Ptz[***port***].Attribute[0]=115200 table.Ptz[***port***].Attribute[1]=8 table.Ptz[***port***].Attribute[2]=Even table.Ptz[***port***].Attribute[3]=1 table.Ptz[***port***].Homing[0]=0 table.Ptz[***port***].Homing[1]=30 table.Ptz[***port***].NumberInMatrixs=0 table.Ptz[***port***].ProtocolName=NONE

7.1.2 SetPTZConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	***Port*** in below table is PTZ port index, start form 0.

Response	OK or ERROR

ParamName	ParamValue type	Description
Ptz[***port***].Address	integer	Range is [0-255]. Device address, if there are more than one device connected to this port, distinguish them by this address.
Ptz[***port***].Attribute[0]	integer	Range is {1200, 2400 ,4800, 9600, 19200, 38400, 57600, 115200}. Baudrate
Ptz[***port***].Attribute[1]	integer	Range is {4, 5, 6, 7, 8}. Data bit.
Ptz[***port***].Attribute[2]	string	Range is {Even, Mark, None, Odd, Space}. Parity verification mode.
Ptz[***port***].Attribute[3]	float	Range is {1, 1.5, 2}. Stop bit.
Ptz[***port***].Homing[0]	integer	Range is {-1,0-255} -1: homing is disabled. [0-255]: preset point number
Ptz[***port***].Homing[1]	integer	Range is [0-65535]. No operation timeout, unit is seconds. After no operation timeout, PTZ go to preset point set in Ptz[port].Homing[0].
Ptz[***port***].ProtocolName	string	PTZ protocol name, depends on PTZ capability, refer to **7.2.1 GetProtocolList** to get the protocol list.

7.2PTZControl

7.2.1 GetProtocolList

URL Syntax	http://<*ip*>/cgi-bin/ptz.cgi?action=**getProtocolList**
Comment	Get PTZ protocol list. Response contains all support PTZ protocols separated by comma.
Response	result=NONE,AD1641M,ADMATRIX,BANKNOTE,DH-CC440,DH-MATRIX,DH-SD1,DH-SD2,HAIYU,HY,LILIN,PANASONIC

7.2.2 GetCurrentProtocolCaps

URL Syntax	http://<*ip*>/cgi-bin/ptz.cgi?action=**getCurrentProtocolCaps**&channel=<***channelNo***>
Comment	Get PTZ protocol list, ***channelNo*** is PTZ channel index.

Response	caps.AlarmLen=0 caps.AuxMax=8 caps.AuxMin=1 caps.CamAddrMax=255 caps.CamAddrMin=1 caps.Interval=200 caps.Menu=false caps.MonAddrMax=255 caps.MonAddrMin=0 caps.Name=DH-SD1 caps.PanSpeedMax=255 caps.PanSpeedMin=1 caps.PatternMax=5 caps.PatternMin=1 caps.PresetMax=80 caps.PresetMin=1 caps.TileSpeedMax=255 caps.TileSpeedMin=1 caps.TourMax=7 caps.TourMin=0 caps.Type=1

Field in response	**Description**
AlarmLen	Alarm length in protocol
AuxMax	Maximum/Minimum number for auxiliary functions
AuxMin	
CamAddrMax	Maximum/Minimum channel address
CamAddrMin	
Menu	True or false, support internal menu of the PTZ or not,
MonAddrMax	Maximum/Minimum monitor address
MonAddrMin	
Name	Name of the operation protocol
PanSpeedMax	Maximum/Minimum pan speed.
PanSpeedMin	
PatternMax	Maximum/Minimum pattern path number.
PatternMin	
PresetMax	Maximum/Minimum preset point number.
PresetMin	
TileSpeedMax	Maximum/Minimum tile speed.
TileSpeedMin	
TourMax	Maximum/Minimum tour path number.
TourMin	
Type	Type of PTZ protocol.

7.2.3 PTZ control commands

URL Syntax	http://<*ip*>/cgi-bin/ptz.cgi?action=[**action**]&channel=[**ch**]&code=[**code**]&arg1=[**argstr**]& arg2=[**argstr**]&arg3=[**argstr**]
Comment	This URL is used to start/stop PTZ control command. ***action*** is PTZ control command, it can be ***start*** or ***stop***. ***ch*** is PTZ channel range is [0 - n-1], code is PTZ operation, and arg1, arg2, arg3 is the arguments of operation. ***Code*** and ***argstr*** values are listed in below table.
Response	OK or ERROR

Code	**Code description**	**arg1**	**arg2**	**arg3**	**arg4**
Up	Tile up	0	Vertical speed, range is [1-8]	0	0
Down	Tile down	0	Vertical speed, range is [1-8]	0	0
Left	Pan left	0	Vertical speed, range is [1-8]	0	0
Right	Pan right	0	Vertical speed, range is [1-8]	0	0
ZoomWide	Zoom out	0	multiple	0	0
ZoomTele	Zoom in	0	multiple	0	0
FocusNear	Focus near	0	multiple	0	0
FocusFar	Focus far	0	multiple	0	0
IrisLarge	Aperture larger	0	multiple	0	0
IrisSmall	Aperture smaller	0	multiple	0	0
GotoPreset	Go to PTZ preset point	0	Preset point number	0	0
SetPreset	Set PTZ preset point	0	Preset point number	0	0
ClearPreset	Clear PTZ preset point	0	Preset point number	0	0
LampWaterClear		1: open 2: close	0	0	0
StartTour	Start PTZ tour	Tour path number	0	1: start 2: automatically 3: stop	0
LeftUp	Pan left and tile up	Vertical speed, range is [1-8]	Horizontal speed, range is [1-8]	0	0
RightUp	Pan right and tile up	Vertical speed, range is [1-8]	Horizontal speed, range is [1-8]	0	0
LeftDown	Pan left and tile down	Vertical speed, range is [1-8]	Horizontal speed, range is [1-8]	0	0
RightDown	Pan right and tile down	Vertical speed, range is [1-8]	Horizontal speed, range is [1-8]	0	0

AddTour	Add preset point to tour path	Tour path number	Preset point number	0	0
DelTour	Delete preset point from tour path	Tour path number	Preset point number	0	0
ClearTour	Clear tour path	Tour path number	0	0	0
AutoPanOn	Start pan rotate	0	0	0	0
AutoPanOff	Stop pan rotate	0	0	0	0
SetLeftLimit	Set left limit.	0	0	0	0
SetRightLimit	Set right limit.	0	0	0	0
AutoScanOn	Start auto scan.	0	0	0	0
AutoScanOff	Stop auto scan.	0	0	0	0
SetPatternBegin	Begin pattern path set.	Pattern number	0	0	0
SetPatternEnd	End pattern path set.	Pattern number	0	0	0
StartPattern	Run pattern path	Pattern number	0	0	0
StopPattern	Stop pattern path	Pattern number	0	0	0
ClearPattern	Clear pattern path	Pattern number	0	0	0
AlarmSearch	Search alarm.	0	0	0	0
Position	Go to position	Horizontal position	Vertical position	Zoom change	0
AuxOn	Auxiliary function on, auxiliary function is defined in product definition document.	0	0	0	0
AuxOff	Auxiliary function off	0	0	0	0
Menu		0	0	0	0
Exit		0	0	0	0
Enter		0	0	0	0
Esc		0	0	0	0
MenuUp		0	0	0	0
MenuDown		0	0	0	0
MenuLeft		0	0	0	0
MenuRight		0	0	0	0
Reset	Restore default configuration.	0	0	0	0
SetPresetName		Preset point number (1 byte)	Preset point title.	0	0
AlarmPtz	Alarm linked PTZ.	External alarm input channel.	Link type： 1: go to preset point 2: auto scan 3: tour	Argument of link type: Link type = 1, this is preset point number Link type = 2, this is auto scan path Link type = 3,	0

				this is tour path	
LightController	Control the light on/off.	Address of light controller	Light number	switch	0
PositionABS	Go to ABS position	Horizontal angle: 0°-360°	Vertical angle :0°-90°	Zoom in mutiple	Speed[1-8], not must
PositionReset	Use current direction as reference.	0	0	0	0
UpTele	up + TELE	Speed [1-8]	0	0	0
DownTele	down + TELE	Speed [1-8]	0	0	0
LeftTele	left + TELE	Speed [1-8]	0	0	0
RightTele	right + TELE	Speed [1-8]	0	0	0
LeftUpTele	leftup + TELE	Speed [1-8]	0	0	0
LeftDownTele	leftdown + TELE	Speed [1-8]	0	0	0
RigjtUpTele	rightup + TELE	Speed [1-8]	0	0	0
RightDownTele	rightdown + TELE	Speed [1-8]	0	0	0
UpWide	up + WIDE	Speed [1-8]	0	0	0
DownWide	down + WIDE	Speed [1-8]	0	0	0
LeftWide	left + WIDE	Speed [1-8]	0	0	0
RightWide	right + WIDE	Speed [1-8]	0	0	0
LeftUpWide	leftup + WIDE	Speed [1-8]	0	0	0
LeftDownWide	leftdown + WIDE	Speed [1-8]	0	0	0
RightUpWide	rightup + WIDE	Speed [1-8]	0	0	0
RightDownWide	rightdown + WIDE	Speed [1-8]	0	0	0
Continuously	Move Continuously	Horizontal Speed [-8-8]	Vertical Speed [-8-8]	Zoom Speed [-8-8]	Timeout
Relatively	Move Relatively	Relatively angle: 0°-360°	Relatively angle :0°-90°	Relatively Zoom	

7.3PTZStatus

7.3.1 PTZ GetStatus

URL Syntax	http://<*ip*>/cgi-bin/ptz.cgi?action=getStatus
Comment	This URL is used to get PTZStatus.
Response	status.UTC=6538920 status.MoveStatus=Idle status.ZoomStatus=Idle status.PresetID=10 status.Position=120,12,2

8.Record&Snap

8.1Record

8.1.1 GetRecordConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**Record**
Comment	***Channel*** in below table is video channel number, ***weekday*** range is [0-6] (Sunday - Saturday). Record config contains pre record time and record time sections of every day.
Response	table.Record[***channel***].PreRecord=6 table.Record[***channel***].HolidayEnable=true table.Record[***channel***].TimeSection[***weekday***][0]=1 00:00:00-24:00:00 table.Record[***channel***].TimeSection[***weekday***][1]=0 02:00:00-24:00:00 table.Record[***channel***].TimeSection[***weekday***][2]=0 03:00:00-24:00:00 table.Record[***channel***].TimeSection[***weekday***][3]=0 04:00:00-24:00:00 table.Record[***channel***].TimeSection[***weekday***][4]=0 05:00:00-24:00:00 table.Record[***channel***].TimeSection[***weekday***][5]=0 06:00:00-24:00:00

8.1.2 SetRecordConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	In below table: ***ch*** = channel index, ***wd*** = week day index, ***ts*** = time section index
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
Record[***ch***].PreRecord	integer	Range is [0-300]. Prerecord seconds, 0 means no prerecord. ch (Channel number) starts form 0
Record[***ch***]. HolidayEnable	bool	Record or not when a day is a holiday setted is chapter **8.4 Holiday**.
Record[***ch***].TimeSection[***wd***][***ts***]	string	***wd*** (week day) range is [0-6] (Sunday - Staurday) ***ts*** (time section) range is [0-23], timesection table index. Format: mask hh:mm:ss-hh:mm:ss Mask: [0-65535], hh: [0-24], mm: [0-59], ss: [0-59] Mask indicates record type by bits: Bit0: regular record Bit1: motion detection record Bit2: alarm record

		Bit3: card record

Example:

Set record time to every Sunday all day. Record type is motion detection and alarm.

URL should be:

http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&name=Record[0].TimeSection[0][0]&table=6 00:00:00-24:00:00

In this example, "6 00:00:00-24:00:00" means motion detection and alarm record all day (6 = 4 & 2, alarm is 4, motion detection is 2.).

8.1.3 GetRecordModeConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**RecordMode**
Comment	Get record mode for video channels. ***channel*** in below table is video channel number.
Response	table.RecordMode[***channel***].Mode=0

8.1.4 SetRecordModeConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	***channel*** in below table is video channel index, start form 0.
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
RecordMode[***channel***].Mode	integer	Range is {0, 1, 2}. 0: automatically record 1: manually record 2: stop record.

8.2Snap

8.2.1 GetSnapConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**Snap**
Comment	***Channel*** in below table is video channel number, ***weekday*** range is [0-6] (Sunday - Saturday).
Response	table.Snap [***channel***].HolidayEnable=true table.Snap[***channel***].TimeSection[***weekday***][0]=1 00:00:00-24:00:00 table.Snap[***channel***].TimeSection[***weekday***][1]=0 02:00:00-24:00:00 table.Snap[***channel***].TimeSection[***weekday***][2]=0 03:00:00-24:00:00 table.Snap[***channel***].TimeSection[***weekday***][3]=0 04:00:00-24:00:00 table.Snap[***channel***].TimeSection[***weekday***][4]=0 05:00:00-24:00:00 table.Snap[***channel***].TimeSection[***weekday***][5]=0 06:00:00-24:00:00

8.2.2 SetSnapConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	In below table: ***ch*** = channel index, ***wd*** = week day index, ***ts*** = time section index
Response	OK or ERROR

ParamName	ParamValue type	Description
Snap [***ch***].HolidayEnable	bool	Snap or not when a day is a holiday setted is chapter **8.4 Holiday**.
Snap[***ch***].TimeSection[***wd***][***ts***]	string	**wd** (week day) range is [0-6] (Sunday- Staurday) **ts** (time section) range is [0-23], it's timesection table index. Format: mask hh:mm:ss-hh:mm:ss Mask: [0-65535], hh: [0-24], mm: [0-59], ss: [0-59] Mask indicates record type by bits: Bit0: regular snapshot Bit1: motion detection snapshot Bit2: alarm snapshot Bit3: card snapshot

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8.3MediaGlobal

8.3.1 GetMediaGlobalConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**MediaGlobal**
Description	
Response	table.MediaGlobal.SnapFormatAs=MainFormat

8.3.2 SetMediaGlobalConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	It presents obtaining snap stream from Main stream or extra stream.
Response	OK or ERROR

ParamName	ParamValue type	Description

MediaGlobal.SnapFormatAs	string	The range is {“MainFormat”, “ExtraFormat”}

8.4Holiday

8.4.1 GetHolidayConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**Holiday**
Description	Get holiday config for record or snap.
Response	table.Holiday.MonthMask[0]=3 table.Holiday.MonthMask[1]=0 table.Holiday.MonthMask[2]=0 table.Holiday.MonthMask[3]=0 table.Holiday.MonthMask[4]=0 table.Holiday.MonthMask[5]=0 table.Holiday.MonthMask[6]=0 table.Holiday.MonthMask[7]=0 table.Holiday.MonthMask[8]=0 table.Holiday.MonthMask[9]= 1610612739 table.Holiday.MonthMask[10]=0 table.Holiday.MonthMask[11]=0

8.4.2 SetHolidayConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	***monthIndex*** presents the index of a month. 0 presents January, 1 presents February, 11 presents December.
Response	OK or ERROR

ParamName	ParamValue type	Description
Holiday.MonthMask[***monthIndex***]	integer	It is the mask of a month.Every bit present a day. For example, 0x0001 presents the first day of a month is holiday.0x0002 presents the second day of a month is holiday, 0x0003 presents the first day and second day of a month is holiday.

9.System

9.1General

9.1.1 GetGeneralConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**General**
Comment	
Response	table.General.MachineName=Dahua001 table.General. LocalNo=8 table.General. MachineAddress=”binjiangqv jiangnandadao weiyelu” table.General. MachineGroup=”jiaojing yidui table.General.LockLoginEnable=true table.General.LockLoginTimes=3 table.General.LoginFailLockTime=1800

9.1.2 SetGeneralConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
General.MachineName	string	Device name or serial number.
General. LocalNo	integer	
General. MachineAddress	string	
General. MachineGroup	string	
General. LockLoginEnable	bool	Whether support lock login times setting.
General. LockLoginTimes	integer	Max try times of login failed, when exceeding the times the device will be locked and alarm.
General. LoginFailLockTime	integer	Lock login seconds.

9.2SystemTime

9.2.1 GetCurrentTime

URL Syntax	http://<*ip*>/cgi-bin/global.cgi?action=getCurrentTime
Comment	The time format is "Y-M-D H-m-S". It's not be effected by Locales.TimeFormat in **9.3.2 SetLocalesConfig.**
Response	result = 2011-7-3 21:02:32

9.2.2 SetCurrentTime

URL Syntax	http://<*ip*>/cgi-bin/global.cgi?action=setCurrentTime&time=2011-7-3%2021:02:32
Comment	The time format is "Y-M-D H-m-S". It's not be effected by Locales.TimeFormat in **9.3.2 SetLocalesConfig.**
Response	OK or ERROR

9.3Locales

9.3.1 GetLocalesConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**Locales**
Comment	
Response	table.Locales.DSTEnable=false table.Locales.DSTEnd.Day=1 table.Locales.DSTEnd.Hour=0 table.Locales.DSTEnd.Minute=0 table.Locales.DSTEnd.Month=1 table.Locales.DSTEnd.Week=2 table.Locales.DSTEnd.Year=2011 table.Locales.DSTStart.Day=0 table.Locales.DSTStart.Hour=0 table.Locales.DSTStart.Minute=0 table.Locales.DSTStart.Month=1 table.Locales.DSTStart.Week=1 table.Locales.DSTStart.Year=2011 table.Locales.TimeFormat=yyyy-MM-dd HH:mm:ss

9.3.2 SetLocalesConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
Locales.DSTEnable	bool	Enable/Disable DST (daylight saving time)
Locales.DSTEnd.Day	integer	Range is [0-6] or [1-31] [0-6]: week day, 0 = Sunday, 6 = Saturday [1-31]: month day If Locales.DSTEnd.Week is 0, use month day, otherwise, use week day.
Locales.DSTEnd.Hour	integer	Range is [0-23]
Locales.DSTEnd.Minute	integer	Range is [0-59]
Locales.DSTEnd.Month	integer	Range is [1-12]
Locales.DSTEnd.Week	Integer	Range is {1,2,3,4,-1,0}. 0 = Use month day [1,2,3,4,-1]: use week day. 1 = first week, 2 = second, 3 = third, 4 = fourth, -1 = last.
Locales.DSTEnd.Year	Integer	Range is [2000-2038]
Locales.DSTStart.Day		Range is the same with items in Locales.DSTEnd Locales.DSTStart table and Locales.DSTEnd table together defines the time range of DST.
Locales.DSTStart.Hour		
Locales.DSTStart.Minute		
Locales.DSTStart.Month		
Locales.DSTStart.Week		
Locales.DSTStart.Year		
Locales.TimeFormat	string	Defines time format displayed in video time title. String form is: ***year*-*month*-*day* *hour***:mm:ss. Position of ***year***, ***month*** and ***day*** can be exchanged. Range of ***year*** is {yy, yyyy} yy = year without century, yyyy = year with century. Range of ***month*** is {M, MM, MMMM} M = 1 for January, MM = 01 for January, MMMM = Jan for January Range of ***day*** is {d, dd} d = 1 for first day, dd = 01 for first day Range of ***hour*** is {H, HH, h, hh} H = 1 for 1:00, HH = 01 for 1:00, range is 0-23 h = 1 for 1:00, hh = 01 for 1:00, time range is 1-12 Example: yyyy-MM-dd HH:mm:ss or

		MM-dd-yyyy HH:mm:ss or dd-M-yy hh:mm:ss

9.4Language

9.4.1 GetLanguageCaps

URL Syntax	http://<*ip*>/cgi-bin/magicBox.cgi?action=getLanguageCaps
Comment	Get the list of supported languages, response is a string contains languages with comma separated. Languages include {English, SimpChinese, TradChinese, Italian, Spanish, Japanese, Russian, French, German]
Response	Languages=SimpChinese,English,French

9.4.2 GetLanguageConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**Language**
Comment	Get current system language cofnig.
Response	table.Language=SimpChinese

9.4.3 SetLanguageConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	**NOTE: After changing language setting, system will automatically reboot!**
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
Language	string	The language range is get from interface in **9.3.1 GetLanguageCaps**

9.5AccessFilter

9.5.1 GetAccessFilterConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**AccessFilter**
Comment	***bannedIndex*** below is the banned IP list index, ***trustIndex*** below is the trust IP list index.
Response	table.AccessFilter.BannedList[***bannedIndex***]=10.6.10.1 table.AccessFilter. TrustList[***trustIndex***]=1.2.3.4 table.AccessFilter.Enable=false table.AccessFilter.Type=BannedList

9.5.2 SetAccessFilterConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	Range of ***index*** in below table is [0-255]
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
AccessFilter.BannedList[***index***]	string	Banned IP address list
AccessFilter.TrustList[***index***]	string	Trusted IP address list
AccessFilter.Enable	bool	Enable/Disable access filter function
AccessFilter.Type	string	Range is {TrustList, BannedList}, TrustList: Turst list is used, banned list is not used. BannedList: Banned list is used, turst list is not used.

9.6AutoMaintain

9.6.1 GetAutoMaintainConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**AutoMaintain**
Comment	
Response	table.AutoMaintain. AutoRebootDay=3 table.AutoMaintain. AutoRebootHour=0 table.AutoMaintain. AutoRebootMinute=0 table.AutoMaintain. AutoShutdownDay=1

	table.AutoMaintain. AutoShutdownHour=0 table.AutoMaintain. AutoShutdownMinute=0 table.AutoMaintain. AutoStartUpDay=1 table.AutoMaintain. AutoStartUpHour=2 table.AutoMaintain. AutoStartUpMinute=0

9.6.2 SetAutoMaintainConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
AutoMaintain. AutoRebootDay	integer	Range is [-1-7]. Auto restart day. -1 = never auto restart 0- 6 = Sunday-Saturday 7 = restart every day
AutoMaintain. AutoRebootHour	integer	Range is [0-23]. Auto restart hour
AutoMaintain. AutoRebootMinute	integer	Range is [0-59]. Auto restart minute
AutoMaintain. AutoShutdownDay	integer	Auto reboot time. Range is same with AutoOpenDay, AutoOpenHour, AutoOpenMinute.
AutoMaintain. AutoShutdownHour		
AutoMaintain. AutoShutdownMinute		
AutoMaintain. AutoStartUpDay	integer	Auto shutdown time. Range is same with AutoOpenDay, AutoOpenHour, AutoOpenMinute.
AutoMaintain. AutoStartUpHour		
AutoMaintain. AutoStartUpMinute		

9.7UserManager

9.7.1 Group

There are two user groups: “admin” and “user”. The “admin” group has all the authorities of operating the IP Camera. The “user” group only has monitor and replay authorities.

9.7.2 GetGroupInfo

URL Syntax	http://<*ip*>/cgi-bin/userManager.cgi?action=**getGroupInfo**&name=<***groupName***>
Comment	Get group setting with name ***groupName.*** The range of ***groupName*** is: “admin” and “user”.
Response	group.Name=admin group.Memo=administrator group goup. AuthorityList=<***authList***>

9.7.3 GetGroupInfoAll

URL Syntax	http://<*ip*>/cgi-bin/userManager.cgi?action=**getGroupInfoAll**
Comment	Get information of all groups.
Response	group[0].Name=admin group[0].Memo=administrator group group[0]. AuthorityList=<***authList***> group[1].Name=user group[1].Memo=user group group[1]. AuthorityList=<***authList***> group[2]….

9.7.4 AddUser

URL Syntax	http://<*ip*>/cgi-bin/userManager.cgi?action=**addUser**& user.Name=<***userName***>& user.Password=<***userPassword***>& user.Memo=<***userMemo***>& user.Group=<***userGroup***>& user.Reserved=<***userReserved***>& user.Sharable=<***userSharable***> user.AuthList=<***authList***>
Comment	user.Group: string, the range is “admin” and “user”. In different group, the user has different authorities. user.Sharable: bool, true means allow multi-point login. User.Reserved: bool, true means this user can’t be deleted. User.AuthList;. For example: Add a user of name operator, password 123456, belongs to group user, and allow multi-point login. http://<*ip*>/cgi-bin/userManager.cgi?action=addUser&user.Name=operator&user.Password=123456&user.Group=user&user.Sharable=true&user.Reserved=false&user.AuthList= CtrlPanel,ShutDown, Record,Backup
Response	OK or ERROR

9.7.5 DeleteUser

URL Syntax	http://<*ip*>/cgi-bin/userManager.cgi?action=**deleteUser**&name=<***userName***>
Comment	Delete user with name ***username.***
Response	OK or ERROR

9.7.6 ModifyUser

URL Syntax	http://<*ip*>/cgi-bin/userManager.cgi?action=**modifyUser**& name=<***oldUserName***>& user.Name=<***userName***>& user.Password=<***userPassword***>& user.Memo=<***userMemo***>& user.Group=<***userGroup***>& user.Reserved=<***userReserved***>& user.Sharable=<***userSharable***> user.AuthList=<***authList***>
Comment	Value range of parameters in <> is the same with **9.7.4 AddUser**
Response	OK or ERROR

9.7.7 ModifyPassword

URL Syntax	http://<*ip*>/cgi-bin/userManager.cgi?action=**modifyPassword&**name=**<username>**&pwd=<***newPwd***>&pwdOld=<***oldPwd***>
Comment	Modify user password, old password ***oldPwd*** should be supplied, new password is ***newPwd.***
Response	OK or ERROR

9.7.8 GetUserInfo

URL Syntax	http://<*ip*>/cgi-bin/userManager.cgi?action=**getUserInfo**&name=<***userName***>
Comment	Get use information with name ***userName***
Response	user.Name=admin user.Memo=admin 's account user.Group=admin user.Reserved=true user.Sharable=true user. AuthList=<***authList***>

9.7.9 GetUserInfoAll

URL Syntax	http://<*ip*>/cgi-bin/userManager.cgi?action=**getUserInfoAll**
Comment	Get information of all users.
Response	users[0].Group=admin users[0].Id=1 users[0].Memo=admin 's account users[0].Name=admin users[0].Reserved=true users[0].Sharable=true users[0]. AuthList=<***authList***> users[1].Group=admin …

9.7.10 GetActiveUserInfoAll

URL Syntax	http://<*ip*>/cgi-bin/userManager.cgi?action=**getActiveUserInfoAll**
Comment	Get active users.
Response	users[0].name=admin users[0].ip=10.43.2.16 users[0].group=admin users[0].clienttype=web3.0 users[0].logintime=2011-11-08 09:51:03

9.8System Operation

9.8.1 Reboot

URL Syntax	http://<*ip*>/cgi-bin/magicBox.cgi?action=**reboot**
Comment	Reboot the device. If successful, response OK. If fail, response ERROR.
Response	OK or ERROR

9.8.2 Shutdown

URL Syntax	http://<*ip*>/cgi-bin/magicBox.cgi?action=**shutdown**
Comment	Shutdown the device. If successful, response OK. If fail, response ERROR.
Response	OK or ERROR

9.8.3 GetDeviceType

URL Syntax	http://<*ip*>/cgi-bin/magicBox.cgi?action=**getDeviceType**
Comment	Get the device type.
Response	type=IPC-HF3300

9.8.4 GetHardwareVersion

URL Syntax	http://<*ip*>/cgi-bin/magicBox.cgi?action=**getHardwareVersion**
Comment	Get the device hardware version
Response	version=1.00

9.8.5 GetSerialNo

URL Syntax	http://<*ip*> /cgi-bin/magicBox.cgi?action=**getSerialNo**
Comment	Get the device serial number
Response	sn=YZC0GZ05100020

9.8.6 GetMachineName

URL Syntax	http://<*ip*>/cgi-bin/magicBox.cgi?action=**getMachineName**
Comment	Get the device machine name.
Response	name=YZC0GZ05100020

9.8.7 GetSystemInfo

URL Syntax	http://<*ip*>/cgi-bin/magicBox.cgi?action=**getSystemInfo**
Comment	Get the system information.
Response	serialNumber=YZC0GZ05100020 deviceType=IPC-HF3300 hardwareVersion=1.00

9.8.8 GetVendor

URL Syntax	http://<ip>/cgi-bin/magicBox.cgi?action=getVendor
Comment	Get the vendor information.
Response	vendor=Dahua

9.8.9 GetSoftwareVersion

URL Syntax	http://<ip>/cgi-bin/magicBox.cgi?action=getSoftwareVersion
Comment	Get software information.
Response	version=2.212.0000.0.R,build:2013-11-14

9.8.10 GetOnvifVersion

URL Syntax	http://<ip>/cgi-bin/intervideoManager.cgi?action=getOnvifVersion
Comment	Get onvif version information.
Response	version=2.4.1

9.9 Log

9.9.1 StartFind

URL Syntax	http://*<ip>*/cgi-bin/log.cgi?action=**startFind**&condition.StartTime=<***start***>&condition.EndTime=<***end***>
Comment	Start to find log, in response, there is a token for further log finding process. ***start/end***: the start/end time of log. Format is: yyyy-mm-dd hh:mm:ss. Example: Find log between 2011-1-1 12:00:00 and 2011-1-10 12:00:00, URL is: http://*<ip>*/cgi-bin/log.cgi?action=startFind&condition.StartTime=2011-1-1 12:00:00 &condition.EndTime=2011-1-10 12:00:00
Response	token=1

9.9.2 DoFind

URL Syntax	http://*<ip>*/cgi-bin/log.cgi?action=**doFind**&token=<***tokenValue***>&count=<***logCount***>
Comment	Find log with token ***tokenValue*** and count ***logCount*** ***tokenValue*** is get by startFind in above section, ***logCount*** is the count of logs for this query. The maximum value of ***logCount*** is 100.
Response	found=2 items[0].RecNo=789 items[0].Time=2011-05-20 11:59:10 items[0].Type=ClearLog items[0].User=admin items[1].Detail.Compression=H.264->MJPG items[1].Detail.Data=Encode

	items[1].RecNo=790 items[1].Time=2011-05-20 11:59:21 items[1].Type=SaveConfig items[1].User=System …

Field in Response	Description
found	Count of found log, found is 0 if no log is found.
User	User name
Type	Log type
Time	Time of this log
RecNo	Log number.
Detail	Log details.

9.9.3 StopFind

URL Syntax	http://<*ip*>/cgi-bin/log.cgi?action=**stopFind**&token=<***tokenValue***>
Comment	Stop query log by token ***tokenValue***
Response	OK or ERROR

9.9.4 Clear

URL Syntax	http://<*ip*>/cgi-bin/log.cgi?action=**clear**
Comment	Clear all the logs.
Response	OK or ERROR

9.10 UserGlobal

9.10.1 GetUserGlobalConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**UserGlobal**
Comment	
Response	table.UserGlobal.OnvifLoginCheck=false

9.10.2 SetUserGlobalConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&UserGlobal.OnvifLoginCheck=***<flag>***
Comment	Enable Onvif login check or not, ***<flag>*** range is {true, false}
Response	OK or ERROR

10.Storage

10.1 File Finding

10.1.1 Create

URL Syntax	http://<*ip*>/cgi-bin/mediaFileFind.cgi?action=factory.create
Comment	Create a media file finder
Response	result=08137

10.1.2 StartFind

URL Syntax	http://<*ip*>/cgi-bin/mediaFileFind.cgi?action=findFile&object=<***objectId***>&condition.Channel=<***channel***>&condition.StartTime=<***start***>&condition.EndTime=<***end***>&condition.Dirs[0]=<***dir***>&condition.Types[0]=<***type***>&condition.Flag[0]=<***flag***>&condition.Events[0]=<***event***>
Comment	Start to find file wth the above condition. If start successfully, return true, else return false. object : The object Id is got from interface in **10.1.1 Create** condition.Channel: in which channel you want to find the file . condition.StartTime/condition.EndTime: the start/end time when recording. condition.Dirs: in which directories you want to find the file. It is an array. The index starts from 0. The range of ***dir*** is {"/mnt/dvr/sda0", "/mnt/dvr/sda1"}. This condition can be omitted. If omitted, find files in all the directories. condition.Types: which types of the file you want to find. It is an array. The index starts from 0. The range of ***type*** is {"dav", "jpg", "mp4"}. If omitted, find files with all the types. condition.Flags: which flags of the file you want to find. It is an array. The index starts from 0. The range of ***flag*** is {"Timing", "Manual", "Marker", "Event", "Mosaic", "Cutout"}. If omitted, find files with all the flags. condition.Event: by which event the record file is triggered. It is an array. The index starts from 0. The range of ***event*** is {"AlarmLocal", "VideoMotion", "VideoLoss", "VideoBlind", "Traffic*"}. This condition can be omitted. If omitted, find files of all the events. Example: Find file in channel 1, in directory "/mnt/dvr/sda0",event type is "AlarmLocal" or "VideoMotion", file type is "dav", and time between 2011-1-1 12:00:00 and 2011-1-10 12:00:00 , URL is: http://<*ip*>/cgi-bin/mediaFileFind.cgi?action=findFile&object=08137&condition.Channel=1&conditon.Dir[0]="/mnt/dvr/sda0"&conditon.Event[0]=AlarmLocal&conditon.Event[1]=VideoMotion&condition.StartTime=2011-1-1%2012:00:00&condition.EndTime=2011-1-10%2012:00:00
Response	OK or Error

10.1.3 FindNextFile

URL Syntax	http://<*ip*>/cgi-bin/mediaFileFind.cgi?action=findNextFile&object=<***objectId***>&count=<***fileCount***>

Comment	Find the next ***fileCount*** files. The maximum value of ***fileCount*** is 100.
Response	found=1 items[0]. Channel =1 items[0]. StartTime =2011-1-1 12:00:00 items[0]. EndTime =2011-1-1 13:00:00 items[0]. Type =dav items[0]. Events[0]=AlarmLocal items[0]. FilePath =/mnt/dvr/sda0/2010/8/11/dav/15:40:50.jpg items[0]. Length =790 items[0]. Duration = 3600 items[0].SummaryOffset=2354 tems[0].Repeat=0 items[0].WorkDir=”/mnt/dvr/sda0” items[0]. Overwrites=5 items[0]. WorkDirSN=0

Field in Response	**Description**
found	Count of found file, found is 0 if no file is found.
Channel	Channel
StartTime	Start Time
EndTime	End time
Type	File type
Events	Event type.
FilePath	filepath.
Length	File length
Duration	Duration time
SummaryOffset	Summary offset
Repeat	Repeat file number
WorkDir	The file’s directory
Overwrites	Overwrite times of the work directory
WorkDirSN	Workdir No

10.1.4 Close

URL Syntax	http://<*ip*>/cgi-bin/mediaFileFind.cgi?action=close&object=<***objectId***>
Comment	Stop find.
Response	OK or ERROR

10.1.5 Destroy

URL Syntax	http://<*ip*>/cgi-bin/mediaFileFind.cgi?action=destroy&object=<***objectId***>

Comment	Destroy the media file finder.
Response	OK or ERROR

10.2 Storage Device

10.2.1 GetStorageDeviceCollect

URL Syntax	http://<*ip*>/cgi-bin/storageDevice.cgi?action=factory.getCollect
Comment	Get all the storage device names
Response	A list of all device names list[0]=”/dev/sda0” list[1]=”/dev/sda1” list[2]=”/dev/sg1”

10.3 Work Group

10.3.1 GetWorkGroupCollect

URL Syntax	http://<*ip*>/cgi-bin/workGroup.cgi?action=factory.getCollect
Comment	Get all the work group names
Response	A list of all device names list [0]=”group1” list [1]=”group2” list [2]=”group3”

10.4 Work Directory

10.4.1 GetWorkDirectoryCollect

URL Syntax	http://<*ip*>/cgi-bin/workDirectory.cgi?action=factory.getCollect
Comment	Get the all work derictory names
Response	A list of all work directory names list [0]=”dir1” list [1]=”dir2” list [2]=”dir3”

10.5 NAS

10.5.1 GetNASConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**NAS**
Comment	Return all the directories on the NAS server.
Response	table.NAS[0].Name=" FTP1" table.NAS[0].Enable = true table.NAS[0].Protocol ="FTP" table.NAS[0].Address ="www.dahuatech.com" table.NAS[0].Port =21 table.NAS[0].UserName ="anonymity" table.NAS[0].Password ="none" table.NAS[0].Directory ="share"

10.5.2 SetNASConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	In below table: ***Head*** **=**NAS[***index***] ***Index:*** The index of the NAS Server
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
Head.Name	string	NAS name.
Head .Enable	bool	Enable/Disable the NAS.
Head. Protocol	string	The range is {"FTP", "SMB"}
Head. Address	string	The IP address or host name.
Head .Port	integer	NAS port.
Head.UserName	string	NAS username.
Head .Password	string	NAS password.
Head .Directory	string	Directory name.

10.6 Storage Point

10.6.1 GetRecordStoragePointConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=**RecordStoragePoint**
Comment	
Response	table.RecordStoragePoint [0].TimingRecord.Local =”local” table.RecordStoragePoint [0].TimingRecord. Redundant =” Redundant” table.RecordStoragePoint [0].TimingRecord. Remote =” FTP” table.RecordStoragePoint [0].TimingRecord. AutoSync = false table.RecordStoragePoint [0].TimingRecord. AutoSyncRange =0 table.RecordStoragePoint [0].TimingRecord. LocalForEmergency =false table.RecordStoragePoint [0].TimingRecord. CompressBefore =15

10.6.2 SetRecordStoragePointConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	In below table: ***ch*** = channel index, ***recType*** :The range is {“TimingRecord”,” VideoDetectRecord”,” AlarmRecord”,” EventRecord”,” TimingSnapShot”,” VideoDetectSnapShot”,” AlarmSnapShot”,” EventSnapShot”}
Response	OK or Error

ParamName	**ParamValue type**	**Description**
RecordStoragePoint [***ch***].[***recType***].Local	string	Local directory name.
RecordStoragePoint [***ch***].[***recType***]. Redundant	string	Redundant directory name.
RecordStoragePoint [***ch***].[***recType***]. Remote	string	Remote directory name.
RecordStoragePoint [***ch***].[***recType***]. AutoSync	bool	When remote directory recovers, auto synchronize local directory to remote directory or not.
RecordStoragePoint [***ch***].[***recType***]. AutoSyncRange	integer	From the remote directory recovering time, how long the data needs to be synchronized. The unit is hour. If it is 0, all the data needs to be synchronized.
RecordStoragePoint [***ch***].[***recType***]. LocalForEmergency	bool	When the remote directory is unusable, save the data the local directory or not.
RecordStoragePoint [***ch***].[***recType***]. CompressBefore	integer	How many days data will be compressed.

10.6.3 GetStorageGroupConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=StorageGroup
Comment	

Response	table.StorageGroup[0]. Name=”ReadWrite” table.StorageGroup[0]. Memo =” For Reading & Writing Files” table.StorageGroup[0]. FileHoldTime =0 table.StorageGroup[0]. OverWrite =true table.StorageGroup[0]. Channels[0]. MaxPictures =1000 table.StorageGroup[0]. Channels[0]. Path =”/mnt/dvr/sda0”

10.6.4 SetStorageGroupConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	In below table: ***Index*** = StorageGroup index ***ch*** = channel index
Response	OK or Error

ParamName	**ParamValue type**	**Description**
StorageGroup[***Index***]. Name	string	Storage group name.
StorageGroup[***Index***]. Memo	string	Storage group memo.
StorageGroup[***Index***]. FileHoldTime	integer	How many days the file will be hold.
StorageGroup[***Index***]. OverWrite	bool	Over write or not when there is not enough storage.
StorageGroup[***Index***]. Channels[***ch***]. MaxPictures	Integer	The max pictures beyond which the old pictures will be over written. If it is 0, the old pictures will be not over written.
StorageGroup[***Index***]. Channels[***ch***]. Path	string	The channel path.

11.Audio

11.1 Audio MIME type

MIME	Description
Audio/PCM	
Audio/ADPCM	
Audio/G.711A	
Audio/G.711Mu	
Audio/G.726	
Audio/G.729	
Audio/MPEG2	
Audio/AMR	
Audio/AAC	

11.2 Post Audio

URL Syntax	http://<*ip*>/cgi-bin/audio.cgi?action=postAudio&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	**paramValue** as below table.
Response	OK or ERROR

ParamName	ParamValue type	Description
httptype	string	singlepart:HTTP content is a continuous flow of audio packets multipart:HTTP content type is multipart/x-mixed-replace,and each audio packet ends with a boundary string
channel	integer	The audio channel

11.2.1 Example for singlepart

The RUL of transmit a singlepart、channel 1 audio stream(encoded with G.711 A-law) is:

http: //<ip>/cgi-bin/audio.cgi?action=postAudio&httptype=singlepart&channel=1

example:

POST /cgi-bin/audio.cgi?action=postAudio&httptype=singlepart&channel=1 HTTP/1.1

Content-Type: Audio/G.711A

Content-Length:9999999

<Audio data>

<Audio data>

11.2.2 Example for multipart

The RUL of transmit a multipart、channel 1 audio stream(encoded with G.711 A-law) is:

http: //<ip>/cgi-bin/audio.cgi?action=postAudio&httptype= multipart &channel=1

example:

POST /cgi-bin/audio.cgi?action=postAudio&httptype= multipart &channel=1 HTTP/1.1

Content-Type: multipart/x-mixed-replace; boundary=<boundary>

--<boundary>

Content-Type: Audio/G.711A

Content-Length: 800

<Audio data>

--<boundary>

11.3 Get Audio

URL Syntax	http://<*ip*>/cgi-bin/audio.cgi?action=getAudio&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	**paramValue** as below table.
Response	OK or ERROR

ParamName	ParamValue type	Description
httptype	string	singlepart:HTTP content is a continuous flow of audio packets multipart:HTTP content type is multipart/x-mixed-replace,and each audio packet ends with a boundary string
channel	integer	The audio channel

11.3.1 Example for singlepart

The RUL of Request a singlepart、channel 1 audio stream(encoded with G.711 A-law) is:
http: //<ip>/cgi-bin/audio.cgi?action=getAudio&httptype=singlepart&channel=1

If the request was successful, the server returns a continuous flow of audio packets.The content type is only set at the beginning of the connection.
Return:
HTTP Code: 200 OK
Content-Type: Audio/G.711A
Body:
<Audio data>
<Audio data>

11.3.2 Example for multipart

The RUL of Request a multipart、channel 1 audio stream(encoded with G.711 A-law) is:
http: //<ip>/cgi-bin/audio.cgi?action=getAudio&httptype=multipart&channel=1

If the request was successful, the server returns a continuous flow of audio packets. The content type is “multipart/x-mixed-replace” and each audio packet ends with a boundary string.
Return:
HTTP Code: 200 OK
Content-Type: multipart/x-mixed-replace; boundary=<boundary>
--<boundary>
Content-Type: Audio/G.711A
Content-Length: 800

<Audio data>

--<boundary>

12.Appendix

12.1 Stream Format

The Stream format is used by 4.1.7 GetStream By Http and 4.1.8 Playback By Http, describes the format of the data stream.

Stream Header：

Byte Order	0	1	2	3	4	5	6	7
Key	**Flag**		**Type**	**reserved**	**packet length**			

Byte Order	8	9	10	11	12	13	14	15
Key	**channel**		**Extend header length**		**Sequence**			

Byte Order	16	17	18	19	20	21	22	23
Key	**utc**				**utcms**		**reserved**	**Check sum**

Flag=”DH”;

Type=0x10 means the audio packet;

Type=0x20 means the video packet;

Packet length means the packet total length, contains the packet header, maybe one or more extend header, and the media data;

Extend Header Format

Byte Order	0	1	2	3	4	5	6	…
Key	**Type**	**length**		**reserved**	**data**			

Extend header length must be multiple of 4 bytes;

Audio extend header:

Byte Order	0	1	2	3	4	5	6	7
Key	**0x11**	**8**		**reserved**	**Audio Type**	**Tracks**	**Sample Freq**	**reserved**

A audio packet must contain the audio extend header;

Audio Type:1 - PCM8;2 - G729;3 - IMA_ADPCM;4 - G711U;5 - G721;6 - PCM8_VWIS;7 - MS_ADPCM;8 - G711A;9 - AMR-NB;10 - PCM16;11- G723.1;12 – AAC;13 - G726_40;14 - G726_32;15 - G726_24;16 - G726_16

Tracks: Tracks number, support 1 and 2;

Sample Freq: audio sample frequence,1 - 4000;2 - 8000;3 - 11025;4 - 16000;5 - 20000;6 - 22050;7 - 32000;8 - 44100;9 - 48000;

Video Extend Header:

Byte Order	0	1	2	3	4	5	6	7
Key	**0x21**	**16**		**reserved**	**Video Type**	**Frame Type**	**Width**	

Byte Order	8	9	10	11	12	13	14	15
Key	**Height**		**I Frame Interval**	**Frame Rate**	**reserved**			

A video packet must contain the video extend header; Video Type means the video codec type, 1-MPEG4; 2-H.264; Frame Type: 1-I frame; 2-P frame;3-B frame; Width and Height describe the frame width and height by pixel;

Channel Title Extend Header:

Byte Order	0	1	2	3	4	5	6	…
Key	**0x22**	**len**		**reserved**	**Title …**			

When a stream begin, or the device channel title changes, the video packet must contain the channel title extend header; If the channel title is Chinese, it only support utf8 format.

TimeZone Extend Header:

Byte Order	0	1	2	3	4	5	6	7
Key	**0x31**	**8**		**reserved**	**Time Zone**		**Daylight saving time**	**reserved**

When a stream begin, or the TimeZone changes, the video packet must contain the TimeZone extend header; Time Zone[0]: [-12,12](west time zone 12 to east time zone 12), Time Zone[1] modify the time by minutes; Daylight saving time: 1/0, yes or not in daylight saving time;

Event Flag Extend Header:

Byte Order	0	1	2	3	4	5	6	…
Key	**0x23**	**len**		**reserved**	**Event Flag**			

If the video frame contain one or more event flags, the video packet should contain the Event Flag Extend Header. The event flag means what event had happened by set the bit as 1;

Event Flag: bit0-exterior alarm; bit1-move detect; bit2-video lost.

13.VedioInput

13.1 AdjustFocus

URL Syntax	http://<*ip*>/cgi-bin/devVideoInput.cgi?action= **adjustFocus&**focus=<***focus***>&zoom=<***zoom***>
Comment	**focus**: float, the range is between 0 and 1; -1 means reset to position 0. **zoom**: float, the range is between 0 and 1; -1 means reset to position 0.
Response	OK or ERROR

13.2 AdjustFocusContinuously

URL Syntax	http://<*ip*>/cgi-bin/devVideoInput.cgi?action= **adjustFocusContinuously**&focus=<***focus***>&zoom=<***zoom***>
Comment	focus: float, the range is -1 < focus < 1; 0 means stop. zoom: float, the range is -1 < zoom< 1; 0 means stop. The value means the moving speed of motor lens, positive value means move forwards, negative value means move backwards. This command is used to drive the lens move continuously, until it reaches end. When motor is moving, and you send this command again with ***focus*** or ***zoom*** parameter as 0, the motor will stop immediately. In this command when you adjust the **focus** parameter, the **zoom** parameter should be -1, and the **focus** parameter should be -1 when adjust the **zoom** parameter.
Example	If we want to adjust focus, the API like this: http://172.30.1.100/cgi-bin/devVideoInput.cgi?action=adjustFocusContinuously&focus=0.02&zoom=-1 and when the motor is moving, we send below command to let it stop: http://172.30.1.100/cgi-bin/devVideoInput.cgi?action=adjustFocusContinuously&focus=0&zoom=-1
Response	OK or ERROR

13.3 AutoFocus

URL Syntax	http://<*ip*>/cgi-bin/devVideoInput.cgi?action= **autoFocus**
Comment	
Response	OK or ERROR

13.4 GetFocusStatus

URL Syntax	http://<*ip*>/cgi-bin/devVideoInput.cgi?action= **getFocusStatus**
Comment	The range of status.Status is “Normal” and “Autofocus”. This command must be continual executed until status.Status is “Normal”.
Response	status.Focus=0.5 status.Zoom=0.5 status.Status=Normal

14. SD Camera

This chapter is only effective with SD Camera.

14.1 VideoInWhiteBalance

14.1.1 GetVideoInWhiteBalance

URL Syntax	http://<ip>**/cgi-bin/configManager.cgi?action=getConfig&name=VideoInWhiteBalance**
Description	Get **VideoInWhiteBalance** capabilities, ***channelNo*** is video in channel index.
Response	table.VideoInWhiteBalance[0][0].ColorTemperatureLevel=50 table.VideoInWhiteBalance[0][0].GainBlue=50 table.VideoInWhiteBalance[0][0].GainGreen=50 table.VideoInWhiteBalance[0][0].GainRed=50 table.VideoInWhiteBalance[0][0].Mode=ATW table.VideoInWhiteBalance[0][1].ColorTemperatureLevel=50 table.VideoInWhiteBalance[0][1].GainBlue=50 table.VideoInWhiteBalance[0][1].GainGreen=50 table.VideoInWhiteBalance[0][1].GainRed=50 table.VideoInWhiteBalance[0][1].Mode=Auto table.VideoInWhiteBalance[0][2].ColorTemperatureLevel=50 table.VideoInWhiteBalance[0][2].GainBlue=50 table.VideoInWhiteBalance[0][2].GainGreen=50 table.VideoInWhiteBalance[0][2].GainRed=50

	table.VideoInWhiteBalance[0][2].Mode=Auto

14.2.2 SetVideoInWhiteBalance

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<***paramName***>=<***paramValue***>[&<***paramName***>=<***paramValue***>...]
Comment	In below table, ***head*** =VideoInOptions[*ChannelNo*] [*ConfigNo*] *ChannelNo* = video channel index. ConfigNo=0,1,2; normal,day,night
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
head. Mode	integer	“Auto”,“Indoor", "Outdoor", "ATW", "Manual", "AutoOutdoor"
head. GainRed	integer	Range is 0-100
head. GainBlue	integer	Range is 0-100

14.2 VideoInExposure

14.2.1 GetVideoInExposure

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name= **VideoInExposure**
Description	
Response	table.VideoInExposure[0][0].AutoGainMax=2 table.VideoInExposure[0][0].Backlight=0 table.VideoInExposure[0][0].Compensation=7 table.VideoInExposure[0][0].DoubleExposure=0 table.VideoInExposure[0][0].Gain=1 table.VideoInExposure[0][0].GlareInhibition=0 table.VideoInExposure[0][0].Iris=10 table.VideoInExposure[0][0].Mode=0 table.VideoInExposure[0][0].RecoveryTime=900 table.VideoInExposure[0][0].Rect[0]=0 table.VideoInExposure[0][0].Rect[1]=0 table.VideoInExposure[0][0].Rect[2]=0 table.VideoInExposure[0][0].Rect[3]=0 table.VideoInExposure[0][0].SlowAutoExposure=0

	table.VideoInExposure[0][0].SlowShutter=true table.VideoInExposure[0][0].SlowSpeed=25 table.VideoInExposure[0][0].Speed=50 table.VideoInExposure[0][0].Value1=0.100000 table.VideoInExposure[0][0].Value2=80 table.VideoInExposure[0][0].WideDynamicRange=0 table.VideoInExposure[0][0].WideDynamicRangeMode=0 table.VideoInExposure[0][1].AutoGainMax=2 table.VideoInExposure[0][1].Backlight=0 table.VideoInExposure[0][1].Compensation=14 table.VideoInExposure[0][1].DoubleExposure=0 table.VideoInExposure[0][1].Gain=1 table.VideoInExposure[0][1].GlareInhibition=0 table.VideoInExposure[0][1].Iris=10 table.VideoInExposure[0][1].Mode=2 table.VideoInExposure[0][1].RecoveryTime=900 table.VideoInExposure[0][1].Rect[0]=0 table.VideoInExposure[0][1].Rect[1]=0 table.VideoInExposure[0][1].Rect[2]=0 table.VideoInExposure[0][1].Rect[3]=0 table.VideoInExposure[0][1].SlowAutoExposure=14 table.VideoInExposure[0][1].SlowShutter=true table.VideoInExposure[0][1].SlowSpeed=25 table.VideoInExposure[0][1].Speed=50 table.VideoInExposure[0][1].Value1=0.100000 table.VideoInExposure[0][1].Value2=80 table.VideoInExposure[0][1].WideDynamicRange=0 table.VideoInExposure[0][1].WideDynamicRangeMode=0 table.VideoInExposure[0][2].AutoGainMax=2 table.VideoInExposure[0][2].Backlight=0 table.VideoInExposure[0][2].Compensation=7 table.VideoInExposure[0][2].DoubleExposure=0 table.VideoInExposure[0][2].Gain=1 table.VideoInExposure[0][2].GlareInhibition=0 table.VideoInExposure[0][2].Iris=10 table.VideoInExposure[0][2].Mode=0 table.VideoInExposure[0][2].RecoveryTime=900 table.VideoInExposure[0][2].Rect[0]=0 table.VideoInExposure[0][2].Rect[1]=0 table.VideoInExposure[0][2].Rect[2]=0 table.VideoInExposure[0][2].Rect[3]=0 table.VideoInExposure[0][2].SlowAutoExposure=0 table.VideoInExposure[0][2].SlowShutter=true table.VideoInExposure[0][2].SlowSpeed=25 table.VideoInExposure[0][2].Speed=50

	table.VideoInExposure[0][2].Value1=0.100000 table.VideoInExposure[0][2].Value2=80 table.VideoInExposure[0][2].WideDynamicRange=0 table.VideoInExposure[0][2].WideDynamicRangeMode=0
Comment	In above table, ***head*** = table.VideoInOptions[*ChannelNo*] *ChannelNo* = video channel index.

14.2.2 SetVideoInExposure

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<***paramName***>=<***paramValue***>[&<***paramName***>=<***paramValue***>...]
Comment	In below table, ***head*** = VideoInExposure[*ChannelNo*][ConfigNo] *ChannelNo* = video channel index. ConfigNo=0,1,2; normal,day,night
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
head.Mode	integer	Range is {0,2,3, 4} 0: AutoExposure 2: Gain first 3: Exposure first 4:Manual.
head.Gain	integer	Range is 0-15
Head.Iris	integer	Range is 0-17
head.Speed	integer	Range is [3,…,3000]
head.Compensation	float	Range is [0-14],
head.SlowAutoExposure	float	Range is [0-15]
head.AutoGainMax	integer	Range is {0,1,2} 0: low 1: middle 2: high
head.SlowShutter	integer	true: Enable SlowShutter false: Disable SlowShutter
head.SlowSpeed	integer	Range is {1,2,3,6,12,25} 0:forbid flash 1:always flash

		2:auto flash
head.RecoveryTime	integer	Range is {0,300,900, 3600, 7200}, Unit is second. 0:close
head.WideDynamicRangeMode=1	integer	Range is [0,1] 0 –disable, 1 –enable
head.GlareInhibition	integer	Range is [0,1,2,3] 0：disable 1：low 2：middle 3：high
head.Backlight	bool	0: enable Backlight 1: disable Backlight

14.3 VideoInDenoise

14.3.1 GetVideoInDenoise

URL Syntax	http://<ip>**/cgi-bin/configManager.cgi?action=getConfig&name=VideoInDenoise**
Description	
Response	table.VideoInDenoise[0][0].2DEnable=true table.VideoInDenoise[0][0].2DLevel=8 table.VideoInDenoise[0][0].3DAutoType.AutoLevel=2 table.VideoInDenoise[0][0].3DAutoType.Mod=8 table.VideoInDenoise[0][0].3DManulType.SnfLevel=0 table.VideoInDenoise[0][0].3DManulType.TnfLevel=0 table.VideoInDenoise[0][0].3DType=Auto table.VideoInDenoise[0][1].2DEnable=true table.VideoInDenoise[0][1].2DLevel=8 table.VideoInDenoise[0][1].3DAutoType.AutoLevel=2 table.VideoInDenoise[0][1].3DAutoType.Mod=8 table.VideoInDenoise[0][1].3DManulType.SnfLevel=0 table.VideoInDenoise[0][1].3DManulType.TnfLevel=0 table.VideoInDenoise[0][1].3DType=Auto table.VideoInDenoise[0][2].2DEnable=true table.VideoInDenoise[0][2].2DLevel=8 table.VideoInDenoise[0][2].3DAutoType.AutoLevel=2 table.VideoInDenoise[0][2].3DAutoType.Mod=8 table.VideoInDenoise[0][2].3DManulType.SnfLevel=0 table.VideoInDenoise[0][2].3DManulType.TnfLevel=0 table.VideoInDenoise[0][2].3DType=Auto

14.3.2 SetVideoInDenoise

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<***paramName***>=<***paramValue***>[&<***paramName***>=<***paramValue***>...]
Comment	In below table, ***head*** = VideoInDenoise [*ChannelNo*] [*ConfigNo*] *ChannelNo* = video channel index. ConfigNo=0,1,2; normal,day,night
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
head.2DEnable	integer	true: Enable 2D Denoise false: Disable 2D Denoise
head.2DLevel	integer	Range is 1-5
head.3DType	String	“Off” “Auto”
head .3DAutoType.Mode	integer	Range is 0-1

14.4 VideoInDayNight

14.4.1 GetVideoInDayNight

URL Syntax	http://<ip>**/cgi-bin/configManager.cgi?action=getConfig&name=VideoInDayNight**
Description	
Response	table.VideoInDayNight[0][0].BCRDelay=10 table.VideoInDayNight[0][0].ICRDelay=10 table.VideoInDayNight[0][0].Mode=Brightness table.VideoInDayNight[0][0].Sensitivity=4 table.VideoInDayNight[0][0].Type=Electron table.VideoInDayNight[0][1].BCRDelay=10 table.VideoInDayNight[0][1].ICRDelay=10 table.VideoInDayNight[0][1].Mode=BlackWhite table.VideoInDayNight[0][1].Sensitivity=4 table.VideoInDayNight[0][1].Type=Electron table.VideoInDayNight[0][2].BCRDelay=10 table.VideoInDayNight[0][2].ICRDelay=10 table.VideoInDayNight[0][2].Mode=BlackWhite table.VideoInDayNight[0][2].Sensitivity=4 table.VideoInDayNight[0][2].Type=Electron

14.4.2 SetVideoInDayNight

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<***paramName***>=<***paramValue***>[&<***paramName***>=<***paramValue***>...]
Comment	In below table, ***head*** = VideoInDayNight [*ChannelNo*] [*ConfigNo*] *ChannelNo* = video channel index. ConfigNo=0,1,2; normal,day,night
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
head. Type	integer	Electron: Mechanism:
head. Mode	integer	Auto、Color、BlackWhite
head. Sensitivity	integer	Range is 0-7

14.5 VideoInFocus

14.5.1 GetVideoInFocus

URL Syntax	http://<ip>**/cgi-bin/configManager.cgi?action=getConfig&name=VideoInDayNight**
Description	
Response	table.VideoInFocus[0][0].FocusLimit=100 table.VideoInFocus[0][0].FocusLimitSelectMode=Manual table.VideoInFocus[0][0].IRCorrection=0 table.VideoInFocus[0][0].Mode=3 table.VideoInFocus[0][0].Sensitivity=1 table.VideoInFocus[0][1].FocusLimit=100 table.VideoInFocus[0][1].FocusLimitSelectMode=Manual table.VideoInFocus[0][1].IRCorrection=0 table.VideoInFocus[0][1].Mode=3 table.VideoInFocus[0][1].Sensitivity=1 table.VideoInFocus[0][2].FocusLimit=100 table.VideoInFocus[0][2].FocusLimitSelectMode=Manual table.VideoInFocus[0][2].IRCorrection=0 table.VideoInFocus[0][2].Mode=3 table.VideoInFocus[0][2].Sensitivity=1

14.5.2 SetVideoInFocus

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<***paramName***>=<***paramValue***>[&<***paramName***>=<***paramValue***>...]
Comment	In below table, ***head*** = VideoInDayNight [*ChannelNo*] [*ConfigNo*] *ChannelNo* = video channel index. ConfigNo=0,1,2; normal,day,night
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
head. Mode	integer	2-Auto focus,3-Half auto focus，4-Manual focus
head. FocusLimit	integer	100、1000、2000、3000、5000、
head. Sensitivity	integer	Range is 0,1,2 0-high，1-default，2-low
head. IRCorrection	integer	0 ： No correcetion； 1：Correction； 2:Auto correction

14.6 VideoInZoom

14.6.1 GetVideoInZoom

URL Syntax	http://<ip>**/cgi-bin/configManager.cgi?action=getConfig&name=VideoInZoom**
Description	
Response	table.VideoInZoom[0][0].DigitalZoom=true table.VideoInZoom[0][0].Speed=7 table.VideoInZoom[0][0].ZoomLimit=4 table.VideoInZoom[0][1].DigitalZoom=true table.VideoInZoom[0][1].Speed=0 table.VideoInZoom[0][1].ZoomLimit=4 table.VideoInZoom[0][2].DigitalZoom=false table.VideoInZoom[0][2].Speed=7 table.VideoInZoom[0][2].ZoomLimit=4

14.6.2 SetVideoInZoom

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<***paramName***>=<***paramValue***>[&<***paramName***>=<***paramValue***>...]
Comment	In below table, ***head*** = VideoInZoom [*ChannelNo*] [*ConfigNo*] *ChannelNo* = video channel index. ConfigNo=0,1,2; normal,day,night
Response	OK or ERROR

ParamName	ParamValue type	Description
head. DigitalZoom	integer	true: Enable DigitalZoom false: Disable DigitalZoom
head. Speed	integer	Range is 0-7

14.7 VideoInSharpness

14.7.1 GetVideoInSharpness

URL Syntax	http://<ip>**/cgi-bin/configManager.cgi?action=getConfig&name=VideoInSharpness**
Description	
Response	table.VideoInSharpness[0][0].Level=4 table.VideoInSharpness[0][0].Mode=1 table.VideoInSharpness[0][0].Sharpness=8 table.VideoInSharpness[0][1].Level=4 table.VideoInSharpness[0][1].Mode=1 table.VideoInSharpness[0][1].Sharpness=8 table.VideoInSharpness[0][2].Level=4 table.VideoInSharpness[0][2].Mode=1 table.VideoInSharpness[0][2].Sharpness=8

14.7.2 SetVideoInSharpness

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<***paramName***>=<***paramValue***>[&<***paramName***>=<***paramValue***>...]
Comment	In below table, ***head*** = VideoInSharpness [*ChannelNo*] [*ConfigNo*] *ChannelNo* = video channel index. ConfigNo=0,1,2; normal,day,night
Response	OK or ERROR

ParamName	ParamValue type	Description
head. Sharpness	integer	Range is 0-15
head. Level	integer	Range is 0-15

14.8 VideoInColor

14.8.1 GetVideoInColor

URL Syntax	http://<ip>**/cgi-bin/configManager.cgi?action=getConfig&name=**VideoInColor
Description	
Response	table.VideoInColor[0][0].Brightness=50 table.VideoInColor[0][0].ChromaSuppress=1 table.VideoInColor[0][0].Contrast=50 table.VideoInColor[0][0].Gamma=0 table.VideoInColor[0][0].Hue=50 table.VideoInColor[0][0].Saturation=50 table.VideoInColor[0][0].Style=Standard table.VideoInColor[0][1].Brightness=50 table.VideoInColor[0][1].ChromaSuppress=1 table.VideoInColor[0][1].Contrast=50 table.VideoInColor[0][1].Gamma=0 table.VideoInColor[0][1].Hue=50 table.VideoInColor[0][1].Saturation=50 table.VideoInColor[0][1].Style=Standard table.VideoInColor[0][2].Brightness=50 table.VideoInColor[0][2].ChromaSuppress=1 table.VideoInColor[0][2].Contrast=50 table.VideoInColor[0][2].Gamma=0 table.VideoInColor[0][2].Hue=50 table.VideoInColor[0][2].Saturation=50 table.VideoInColor[0][2].Style=Flamboyant

14.8.2 SetVideoInColor

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<***paramName***>=<***paramValue***>[&<***paramName***>=<***paramValue***>...]
Comment	In below table, ***head*** = VideoInColor [*ChannelNo*] [*ConfigNo*] *ChannelNo* = video channel index. ConfigNo=0,1,2; normal,day,night
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
head. Style	integer	Gentle Standard Flamboyant

head. Hue	integer	Range is 0-100
head. Brightness	integer	Range is 0-100
head. Saturation		Range is 0-100
head. ChromaSuppress		Range is 0-3
head. Gamma		Range is 0-15

14.9 VideoInRotate

14.9.1 GetVideoInRotate

URL Syntax	http://<ip>**/cgi-bin/configManager.cgi?action=getConfig&name=**VideoInRotate
Description	
Response	table.VideoInRotate[0][0].Flip=false table.VideoInRotate[0][0].Freeze=false table.VideoInRotate[0][0].Mirror=false table.VideoInRotate[0][0].Rotate90=0 table.VideoInRotate[0][0].Stable=false table.VideoInRotate[0][1].Flip=false table.VideoInRotate[0][1].Freeze=false table.VideoInRotate[0][1].Mirror=false table.VideoInRotate[0][1].Rotate90=0 table.VideoInRotate[0][1].Stable=false table.VideoInRotate[0][2].Flip=false table.VideoInRotate[0][2].Freeze=false table.VideoInRotate[0][2].Mirror=false table.VideoInRotate[0][2].Rotate90=0 table.VideoInRotate[0][2].Stable=false

14.9.2 SetVideoInRotate

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<***paramName***>=<***paramValue***>[&<***paramName***>=<***paramValue***>...]
Comment	In below table, ***head*** = VideoInRotate [*ChannelNo*] [*ConfigNo*] *ChannelNo* = video channel index. ConfigNo=0,1,2; normal,day,night

Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
head. Flip	integer	true: Enable flip function false: Disable flip function

14.10 VideoInMode

14.10.1 GetVideoInMode

URL Syntax	http://<ip>**/cgi-bin/configManager.cgi?action=getConfig&name=**VideoInMode
Description	
Response	table.VideoInMode[0].Config[0]=1 table.VideoInMode[0].Mode=0 table.VideoInMode[0].TimeSection[0][0]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[0][1]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[0][2]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[0][3]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[0][4]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[0][5]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[1][0]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[1][1]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[1][2]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[1][3]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[1][4]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[1][5]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[2][0]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[2][1]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[2][2]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[2][3]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[2][4]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[2][5]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[3][0]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[3][1]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[3][2]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[3][3]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[3][4]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[3][5]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[4][0]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[4][1]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[4][2]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[4][3]=0 00:00:00-23:59:59

	table.VideoInMode[0].TimeSection[4][4]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[4][5]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[5][0]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[5][1]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[5][2]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[5][3]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[5][4]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[5][5]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[6][0]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[6][1]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[6][2]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[6][3]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[6][4]=0 00:00:00-23:59:59 table.VideoInMode[0].TimeSection[6][5]=0 00:00:00-23:59:59

14.10.2 SetVideoInMode

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<***paramName***>=<***paramValue***>[&<***paramName***>=<***paramValue***>...]
Comment	In below table, ***head*** = VideoInMode [*ChannelNo*] *ChannelNo* = video channel index.
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
head. Mode	integer	Range is {0,1} 0: NoSwitch； 1: Switch depends on ***head***.TimeSection.
head. Config	integer	Mode=0 Config[0]={0、1/2} Mode=1 Config[1]={ 1 } Config[2]={ 2 }
head.TimeSection[0][0]	integer	The time format is "0 H:m: H:m:S " For example: 0 00:00:00-10:59:59

15. VideoAnalyse

This chapter is only effective with smart IP Camera.

15.1 VideoAnalyseRule

15.1.1 GetVideoAnalyseRule

URL Syntax	http://<ip>**/cgi-bin/configManager.cgi?action=getConfig&name=VideoAnalyseRule**
Description	Get **VideoAnalyseRule**. In below table, ***head*** =table.VideoAnalyseRule[*ChannelNo*] [*RuleNo*] *ChannelNo* = video channel index. *RuleNo* =rule index.
Response	***head***.Name= line1 ***head.***Type=CrossLineDetection ***head***.VideoAnalyseRule[0][0].Enable =true ***head***.VideoAnalyseRule[0][0].EventHandler= (output of EventHandler is described in **6.1.1 GetEventHandler**) …

15.1.2 SetVideoAnalyseRule

URL Syntax	http://*<ip>*/cgi-bin/configManager.cgi?action=setConfig&<***paramName***>=<***paramValue***>[&<***paramName***>=<***paramValue***>...]
Comment	In below table, ***head*** =VideoAnalyseRule[*ChannelNo*] [*RuleNo*] *ChannelNo* = video channel index. *RuleNo* =rule index. ParamName starts with ***head***.Config is only effective with {“CrossLineDetection”, “CrossRegionDetection”, “LeftDetection”, “TakenAwayDetection”}
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
head.Name	string	Rule name, it must be unique.
head.Type	string	The range is {“CrossLineDetection”, “CrossRegionDetection”, “LeftDetection”,” “TakenAwayDetection” ,”VideoAbnormalDetection”, “FaceDetection”}
head.Enable	bool	Enable/Disable this rule
head.EventHandler		Setting of EventHandler is described in **6.1.2 SetEventHandler**
head.Config.DetectLine[0][0]	integer	The start point of DetectLine 0;
head.Config.DetectLine[0][1]	integer	The end point of DetectLine 0;
head.Config.DetectLine[1][0]	integer	The start point of DetectLine 1;
head.Config.DetectLine[1][1]	integer	The end point of DetectLine 1;
head.Config.Direction	string	The range is {“LeftToRight”, “RightToLeft”, “Both”}
head.Config .SizeFilter.MaxSize[0]	integer	Maximum width. The width of the object must not be beyond maximum width.
head.Config .SizeFilter.MaxSize[1]	integer	Maximum height. The height of the object must not be beyond maximum height.
head.Config .SizeFilter.MinSize[0]	integer	Minimum width. The width of the object must not be less than minimum width.
head.Config .SizeFilter.MinSize[1]	integer	Minimum height. The height of the object must not be beyond minimum height.