

DAHUA IPC HTTP API

1. Preface

This document details the API of Dahua IPC. Programmers can access and configure Dahua IPC follows the API.

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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 IP Camera, then send the response back to the client application. The HTTP APP is taken in GET form. If the request is successful, the IP Camera 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/1.0 200 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=table.VideoColor[0][0].Brightness Response: HTTP/1.0 200 OK Content-Type:text/plain table.VideoColor[0][0].Brightness=50

3.2 Authentication

The IP Camera supplies two authentication ways: basic authentication and digest authentication. Client can login through: http://<ip>/cgi-bin/global.login?userName=admin. The IP camera returns 401. Then the client inputs a username and password to authorize.

For example:

1. When basic authentication, the IP camera 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 IP camera 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 camera settings.

4.1 Stream

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 IP Camera. <port >:the default port is 554. It can be omitted. <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}

4.2 VideoColor

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[<i>ChannelNo</i>][<i>ColorConfigNo</i>] <i>ChannelNo</i> = video channel index, <i>colorConfigNo</i> = 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[<i>ChannelNo</i>][<i>ColorConfigNo</i>] <i>ChannelNo</i> = video channel index, <i>colorConfigNo</i> = 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 respons	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. NightOptions, and so on
Response	<pre> 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.BrightnessThreshold=50 head.NightOptions.ExposureSpeed=0 head.NightOptions.ExposureValue1=0.100000 head.NightOptions.ExposureValue2=80 head.NightOptions.Gain=50 head.NightOptions.GainAuto=true head.NightOptions.GainBlue=50 head.NightOptions.GainGreen=50 head.NightOptions.GainRed=50 head.NightOptions.IrisAuto=false head.NightOptions.SunriseHour=0 head.NightOptions.SunriseMinute=0 head.NightOptions.SunriseSecond=0 head.NightOptions.SunsetHour=0 head.NightOptions.SunsetMinute=0 head.NightOptions.SunsetSecond=0 head.NightOptions.SwitchMode=0 head.NightOptions.WhiteBalance=Disable head.ReferenceLevel=50 head.ReferenceLevelEnable=false head.Rotate90=0 head.SignalFormat=BT656 head.WhiteBalance=Disable </pre>
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.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.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; 1: Switch depends on brightness; 2: Switch depends on time, switch to NightOptions when time is after sunset time and before sunrise.
head .NightOptions.ExposureSpeed	integer	Range is same as relevant items of normal 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	

4.4 VideoEncode

4.4.1 GetVideoConfigCaps

URL Syntax	http://<ip>/cgi-bin/encode.cgi?action= getConfigCaps
Description	Get video config capabilities.
Response	headMain .Video.BitRateOptions=448,2560 headMain .Video.CompressionTypes=H.264,MJPEG 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,MJPEG 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: <i>Channel</i>: video channel index <i>RecordType</i>: 0 = regular record 1 = motion detection record 2 = alarm record <i>ExtraStream</i>: 0 = extra stream 1 1 = extra stream 2 2 = extra stream 3 <i>SnapType</i>: 0 = regular snapshot 1 = motion detection snapshot 2 = alarm snapshot Abbreviations in below table: headMain= caps[<i>Channel</i>].MainFormat[<i>RecordType</i>] headExtra = caps[<i>Channel</i>].ExtraFormat[<i>ExtraStream</i>] headSnap = caps[<i>Channel</i>].SnapFormat[<i>SnapType</i>]

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	<pre> 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.Video.Enable=true headExtra.Video.BitRate=8192 headExtra.Video.BitRateControl=CBR headExtra.Video.Compression=H.264 headExtra.Video.FPS=25 headExtra.Video.GOP=50 </pre>	

	headExtra.Video.Height =1200 headExtra.Video.Profile =Main headExtra.Video.Quality =4 headExtra.Video.Width =1600 headExtra.VideoEnable =true
Comment	<i>Channel</i> : video channel index <i>RecordType</i> : 0 = regular record 1 = motion detection record 2 = alarm record <i>ExtraStream</i> : 0 = extra stream 1 1 = extra stream 2 2 = extra stream 3 Abbreviations in above table: headMain = table.Encode[<i>Channel</i>].MainFormat[<i>RecordType</i>] headExtra =table.Encode[<i>Channel</i>].ExtraFormat[<i>ExtraStream</i>]

4.4.4 SetVideoEncodeConfig

URL Syntax	http://<ip>/cgi-bin/configManager.cgi?action=setConfig&<paramName>=<paramValue>[&<paramName>=<paramValue>...]
Comment	<i>Channel</i> : video channel index <i>RecordType</i> : 0 = regular record 1 = motion detection record 2 = alarm record <i>ExtraStream</i> : 0 = extra stream 1 1 = extra stream 2 2 = extra stream 3 Abbreviation in below table: head =Encode[<i>Channel</i>].MainFormat[<i>RecordType</i>] (or) Encode[<i>Channel</i>].ExtraFormat[<i>ExtraStream</i>]
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
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.Bitrates=64 headExtra .Audio.Compression=G.711A headExtra .Audio.Depth=16 headExtra .Audio.Frequency=44000 headExtra .Audio.Mode=0 headExtra .AudioEnable=false
Comment	<i>Channel</i> : video channel index <i>RecordType</i> : 0 = regular record 1 = motion detection record 2 = alarm record <i>ExtraStream</i> : 0 = extra stream 1 1 = extra stream 2 2 = extra stream 3 Abbreviations in above table: headMain =table.Encode[<i>Channel</i>].MainFormat[<i>RecordType</i>] headExtra =table.Encode[<i>Channel</i>].ExtraFormat[<i>ExtraStream</i>]

4.5.3 SetAudioEncodeConfig

URL Syntax	http://<ip>/cgi-bin/configManager.cgi?action=setConfig&<paramName>=<paramValue>[&<paramName>=<paramValue>...]
Comment	<i>Channel</i> : video channel index <i>RecordType</i> : 0 = regular record 1 = motion detection record 2 = alarm record <i>ExtraStream</i> : 0 = extra stream 1 1 = extra stream 2 2 = extra stream 3 Abbreviations in below table: head =Encode[<i>Channel</i>].MainFormat[<i>RecordType</i>] (or) Encode[<i>Channel</i>].ExtraFormat[<i>ExtraStream</i>]
Response	OK or ERROR

ParamName	ParamValue type	Description
head .Audio.Bitrates	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,MJPEG 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 [<i>Channel</i>].SnapFormat
Response	<pre>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</pre>
Comment	Channel: video channel index SnapType: 0 = regular snapshot 1 = motion detection snapshot 2 = alarm snapshot Abbreviations in above table: headSnap = table.Encode[<i>Channel</i>].SnapFormat[<i>SnapType</i>]

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[<i>Channel</i>].SnapFormat[<i>SnapType</i>]
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]. 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

4.8 VideoStandard

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

4.9 VideoWidget

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	<pre> 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.PreviewBlend=true head.Rect[0]=0 head.Rect[1]=8191 head.Rect[2]=0 head.Rect[3]=8191 ... </pre>

	...
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[<i>Channel</i>].ChannelTitle (or) table.VideoWidget[<i>Channel</i>].Covers[<i>CoReg</i>] (or) table.VideoWidget[<i>Channel</i>].TimeTitle

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[<i>Channel</i>].ChannelTitle headCover = VideoWidget[<i>Channel</i>].Covers[<i>CoReg</i>] headTimeTitle = VideoWidget[<i>Channel</i>].TimeTitle 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] headTimeTitle .Rect[2] headTimeTitle .Rect[3]	integer	
headTimeTitle .ShowWeek	bool	
		True: Display week within the time title.

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	<pre>netInterface[0].Name=eth0 netInterface[0].Type=Normal netInterface[0].Valid=true netInterface[1].... ...</pre>

5.2 BasicConfig

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	<pre>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</pre>

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

5.3 PPPoE

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.

5.4 DDNS

5.4.1 GetDDNSConfig

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

5.4.2 SetDDNSConfig

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

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

DDNS[index].UserName	string	DDNS user name
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5.5 Email

5.5.1 GetEmailConfig

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

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.

5.6 Wlan

5.6.1 GetWlanConfig

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

5.6.2 SetWlanConfig

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

5.7UPnP

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	result=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

5.9 AlarmServer

5.9.1 GetAlarmServerConfig

URL Syntax	http://<ip>/cgi-bin/configManager.cgi?action=getConfig&name= AlarmServer
Comment	
Response	table.AlarmServer.Address=0.0.0.0 table.AlarmServer.Enable=true table.AlarmServer.Port=37777

5.9.2 SetAlarmServerConfig

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

ParamName	ParamValue type	Description
AlarmServer.Address	string	Alarm server IP address or name.
AlarmServer.Enable	bool	Enable/Disable Alarm server.
AlarmServer.Port	integer	Range is [1-65535]. Port of Alarm server.

6. Events

6.1 EventHandler

EventHandler is used in alarm and event config in following sections.

It contains setting 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 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.AlarmOut=1 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.Record=1 handlerName.EventHandler.RecordChannels[0]=1 handlerName.EventHandler.RecordChannels[1]=1 ... handlerName.EventHandler.RecordEnable=true handlerName.EventHandler.RecordLatch=10 handlerName.EventHandler.Snapshot=1 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
--	---

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.

6.2 Alarm

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[<i>input</i>].Enable	bool	Enable/Disable alarm from a input channel
Alarm[<i>input</i>].EventHandler		Setting of EventHandler is described in 6.1.2 SetEventHandler
Alarm[<i>input</i>].Name	string	Name of alarm input channel.
Alarm[<i>input</i>].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[<i>port</i>].Mode	integer	Range is {0, 1, 2} 0: automatically alarm 1: force alarm 2: close alarm
AlarmOut[<i>port</i>].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

6.3 MotionDetect

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	<pre>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]=4194303 table.MotionDetect[0].Region[1]=4194303 table.MotionDetect[1]... ...</pre>

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 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..

		Example: MotionDetect[0].Region[0] = 4194303 (0x3FFFFFF):: 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.
--	--	--

6.4 BlindDetect

6.4.1 GetBlindDetectConfig

URL Syntax	http://<ip>/cgi-bin/configManager.cgi?action=getConfig&name= BlindDetect
Comment	<i>Channel</i>: video channel number head= table.BlindDetect[<i>Channel</i>]
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	<i>Channel</i>: video channel number head=BlindDetect[<i>Channel</i>]
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.

6.5 LossDetect

6.5.1 GetLossDetectConfig

URL Syntax	http://<ip>/cgi-bin/configManager.cgi?action=getConfig&name= LossDetect
Comment	<i>Channel</i> : video channel number

	head =table.BlindDetect[<i>Channel</i>]
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	<i>Channel</i> : video channel number Head = BlindDetect[<i>Channel</i>]
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

6.6 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.
Response	channels[0]=0 channels[1]=2 channels[2]=3 ... (This response means event happened on channel 0, channel 2, and channel 3.)

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.

7.2 PTZ Control

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.HighAuxMask=0 caps.Internal=2000 caps.LowAuxMask=0 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 caps.lowMask=2143289167

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, 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
Up	Tile up	0	Vertical speed, range is [1-8]	0
Down	Tile down	0	Vertical speed, range is [1-8]	0
Left	Pan left	0	Vertical speed, range is [1-8]	0
Right	Pan right	0	Vertical speed, range is [1-8]	0
ZoomWide	Zoom out	0	multiple	0
ZoomTele	Zoom in	0	multiple	0
FocusNear	Focus near	0	multiple	0
FocusFar	Focus far	0	multiple	0
IrisLarge	Aperture larger	0	multiple	0
IrisSmall	Aperture smaller	0	multiple	0

GotoPreset	Go to PTZ preset point	0	Preset point number	0
SetPreset	Set PTZ preset point	0	Preset point number	0
ClearPreset	Clear PTZ preset point	0	Preset point number	0
LampWaterClear		1: open 2: close	0	0
StartTour	Start PTZ tour	Tour path number	0	1: start 2: automatically 3: stop
LeftUp	Pan left and tile up	Vertical speed, range is [1-8]	Horizontal speed, range is [1-8]	0
RightUp	Pan right and tile up	Vertical speed, range is [1-8]	Horizontal speed, range is [1-8]	0
LeftDown	Pan left and tile down	Vertical speed, range is [1-8]	Horizontal speed, range is [1-8]	0
RightDown	Pan right and tile down	Vertical speed, range is [1-8]	Horizontal speed, range is [1-8]	0
AddTour	Add preset point to tour path	Tour path number	Preset point number	0
DelTour	Delete preset point from tour path	Tour path number	Preset point number	0
ClearTour	Clear tour path	Tour path number	0	0
AutoPanOn	Start pan rotate	0	0	0
AutoPanOff	Stop pan rotate	0	0	0
SetLeftLimit	Set left limit.	0	0	0
SetRightLimit	Set right limit.	0	0	0
AutoScanOn	Start auto scan.	0	0	0
AutoScanOff	Stop auto scan.	0	0	0
SetPatternBegin	Begin pattern path set.	Pattern number	0	0
SetPatternEnd	End pattern path set.	Pattern number	0	0
StartPattern	Run pattern path	Pattern number	0	0
StopPattern	Stop pattern path	Pattern number	0	0
ClearPattern	Clear pattern path	Pattern number	0	0
AlarmSearch	Search alarm.	0	0	0
Position	Go to position	Horizontal position	Vertical position	Zoom change
AuxOn	Auxiliary function on, auxiliary function is defined in product definition document.	0	0	0
AuxOff	Auxiliary function off	0	0	0
Menu		0	0	0
Exit		0	0	0
Enter		0	0	0
Esc		0	0	0
MenuUp		0	0	0
MenuDown		0	0	0
MenuLeft		0	0	0
MenuRight		0	0	0

Reset	Restore default configuration.	0	0	0
SetPresetName		Preset point number (1 byte)	Preset point title.	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, this is tour path
LightController	Control the light on/off.	Address of light controller	Light number	switch
PositionABS	Go to ABS position	Horizontal angle: 0°-360°	Vertical angle :0°-90°	Zoom in mutiple
PositionReset	Use current direction as reference.	0	0	0
UpTele	up + TELE	Speed [1-8]	0	0
DownTele	down + TELE	Speed [1-8]	0	0
LeftTele	left + TELE	Speed [1-8]	0	0
RightTele	right + TELE	Speed [1-8]	0	0
LeftUpTele	leftup + TELE	Speed [1-8]	0	0
LeftDownTele	leftdown + TELE	Speed [1-8]	0	0
RigjtUpTele	rightup + TELE	Speed [1-8]	0	0
RightDownTele	rightdown + TELE	Speed [1-8]	0	0
UpWide	up + WIDE	Speed [1-8]	0	0
DownWide	down + WIDE	Speed [1-8]	0	0
LeftWide	left + WIDE	Speed [1-8]	0	0
RightWide	right + WIDE	Speed [1-8]	0	0
LeftUpWide	leftup + WIDE	Speed [1-8]	0	0
LeftDownWide	leftdown + WIDE	Speed [1-8]	0	0
RightUpWide	rightup + WIDE	Speed [1-8]	0	0
RightDownWide	rightdown + WIDE	Speed [1-8]	0	0

8. Record&Snap

8.1 Record

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].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].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].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
Record[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

:

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

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.

9.2 SystemTime

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

9.3 Locales

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

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

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		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
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9.4 Language

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

9.5 AccessFilter

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.

9.6 AutoMaintain

9.6.1 GetAutoMaintainConfig

URL Syntax	http://<ip>/cgi-bin/configManager.cgi?action=getConfig&name= AutoMaintain
Comment	
Response	table.AutoMaintain.AutoOpenDay=3 table.AutoMaintain.AutoOpenHour=0 table.AutoMaintain.AutoOpenMinute=0 table.AutoMaintain.AutoRebootDay=1

	table.AutoMaintain.AutoRebootHour=0 table.AutoMaintain.AutoRebootMinute=0 table.AutoMaintain.AutoShutDay=1 table.AutoMaintain.AutoShutHour=2 table.AutoMaintain.AutoShutMinute=0
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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.AutoOpenDay	integer	Range is [-1-7]. Auto restart day. -1 = never auto restart 0- 6 = Sunday-Saturday 7 = restart every day
AutoMaintain.AutoOpenHour	integer	Range is [0-23]. Auto restart hour
AutoMaintain.AutoOpenMinute	integer	Range is [0-59]. Auto restart minute
AutoMaintain.AutoRebootDay	integer	Auto reboot time. Range is same with AutoOpenDay, AutoOpenHour, AutoOpenMinute.
AutoMaintain.AutoRebootHour		
AutoMaintain.AutoRebootMinute		
AutoMaintain.AutoShutDay	integer	Auto shutdown time. Range is same with AutoOpenDay, AutoOpenHour, AutoOpenMinute.
AutoMaintain.AutoShutHour		
AutoMaintain.AutoShutMinute		

9.7 UserManager

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

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[1].Name=user group[1].Memo=user group 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>
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. 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
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 <i>username</i> .
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>
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 <i>oldPwd</i> should be supplied, new password is <i>newPwd</i> .
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 <i>userName</i>
Response	user.Name=admin user.Memo=admin 's account user.Group=admin user.Reserved=true user.Sharable=true

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[1].Group=admin ...

9.8 System 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
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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

9.9 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>
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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