DAHUA HTTP API FOR DVR

Version 1.29

Document History

No	Release Notes	Date	Version	Author
1	draft	**2007-1-18**	**1.10**	**Haifeng Wang**
2	Add alarm push and version description	**2012-8-18**	**1.20**	**Weijun Li**
3	Add ptz control description	**2012-9-11**	**1.21**	**Weijun Li**
4	Add Playback,download file in rtsp description in character 4.1.5,4.1.6 and monitor and playback in http in character 4.1.7 and 4.1.8.	**2012-9-29**	**1.22**	**Mingwei Zhou**
5	Delete 4.3VideoInOptions,10.2.1GetStorageDeviceCollect, 10.3.1GetWorkGroupCollect,10.4.1GetWorkDirectoryCollect Add 10.2.1 GetStorageDevicePortInfo Add 9.8.8 GetVendor	**2012-10-26**	**1.23**	**Chenglei Tang**
7	Add firmware version description in chapter 1.Add motion data description in chapter 6.9.	**2012-10-29**	**1.24**	**Wei Chen**
8	Add chapter 15 PositionManager.	**2013-1-18**	**1.25**	**WeiChen**
9	Add stream type description in chapter 4.1.4.	**2013-3-22**	**1.26**	**WeiChen**
10	Modify some descprition error. Modify MotionDetect to LossDetect in chapter 6.5.1 .Modify audio bitrate and compression range description in chapter 4.4.3.	**2013-4-2**	**1.27**	**WeiChen**
11	Add 9.8.9 GetSoftWareVersion Add 9.8.10 GetBuildDate	**2013-4-2**	**1.28**	**Chenglei Tang**
12	Modify descprition error in chapter 14.1.The stream format is used in 4.1.9 and 4.1.10.	**2013-6-7**	**1.29**	**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 2.608, 2.610 and above. This document with version 1.20, 1.21, 1.22, 1.23, 1.24 is available with firmware 2.616 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. <*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***>&subtype=<***typeNo***>]
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. Subtype: the stream type. The <typeNo> of main stream is 0, extra stream 1 is 1, extra stream 2 is 2.

4.1.5 Playback

URL Syntax	rtsp://<*username*>:<*password*>@<*ip*>:<*port*>/cam/playback?channel=<*channelNo*>&starttime=<starttime>&endtime=<endtime>
Comment	It's similar with **4.1.1 GetStream.** Except there is parameter starttime and endtime. For example: rtsp://admin:admin@10.44.200.8:554/cam/playback?channel=1&starttime=2012_09_15_12_37_05&endtime=2012_09_15_18_34_14

4.1.6 Download

URL Syntax	http://<ip>/cgi-bin/loadfile.cgi?action=startLoad&channel=<*channelNo*>&subtype=<typeNo>startTime=<starttime>&endTime=<endtime>
Response	HTTP Code: 200 OK Content-Type: Application/octet-stream Content-Length:<fileLength> Body: <data> <data>
Comment	The channel number starts from 0. Subtype default 0. For example: http://10.61.200.14/cgi-bin/loadfile.cgi?action=startLoad&channel=0&subtype=0&startTime=2012-10-8%2013:00:01& endTime=2012-10-8%2014:00:01

4.1.7 PlayBack By Filename

URL Syntax	rtsp://<*username*>:<*password*>@<*ip*>:<*port*>/<filename>
Response	It's similar with **4.1.1 GetStream.** For example: rtsp://admin:admin@10.44.200.8:554/2012_09_15_12_37_05:2012_09_15_18_34_14[0][0].dav

4.1.8 LoadFile By Filename

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/2012_09_15_12_37_05:2012_09_15_18_34_14[0][0].dav

4.1.9 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.

4.1.10 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

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	

4.3VideoEncode

4.3.1 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**.

4.3.2 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	

4.3.3 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*]

4.3.4 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
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

4.4AudioEncode

4.4.1 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}

4.4.2 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*]

4.4.3 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 **4.4.1 GetAudioConfigCaps**
head.Audio.Compression	string	Range depends on capacity in **4.4.1 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

4.5 SnapEncode

4.5.1 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}.

4.5.2 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***]

4.5.3 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 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 **4.3.1 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.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

4.6ChannelTitle

4.6.1 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

4.6.2 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

4.7VideoStandard

4.7.1 GetVideoStandardConfig

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

4.7.2 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

4.8VideoWidget

4.8.1 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

4.8.2 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 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]	integer	Range is [0-8191].

headCover.Rect[1] ***headCover***.Rect[2] ***headCover***.Rect[3]		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.

4.9VideoOut

4.9.1 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].***

4.9.2 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.

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	

5.7UPnP

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

5.9AlarmServer

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

6.1EventHandler

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 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]=4194303 table.MotionDetect[0].Region[1]=4194303 … … 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 … … ***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 (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.

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.LossDetect [*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*** = LossDetect [*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**

6.6 StorageAbnormal

6.6.1 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**)

6.6.2 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**

6.6.3 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**)

6.6.4 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**

6.6.5 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**)

6.6.6 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**

6.7 NetAbnormal

6.7.1 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**)

6.7.2 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**

6.7.3 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**)

6.7.4 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**

6.8 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.)

6.9 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. 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= 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,	0	0

			range is [1-8]		
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, this is tour path	0
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

7.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***].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

:

8.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

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	

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=DVR

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= PA1FQ15900207 deviceType=27 processor= ST7108

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 the software information.
Response	version=2.616.0000.0

9.8.10 GetBuildDate

URL Syntax	http://<*ip*>/cgi-bin/magicBox.cgi?action=**getBuildDate**
Comment	Get the build date information.
Response	builddate=2013-04-22

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

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***>&condition.VideoStream=<***stream***>
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. condition.VideoStream: which video stream type you want to find. The range of ***stream*** is {"Main", "Extra1", "Extra2", "Extra3"}. If omitted, find files with all the stream types. 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&condition.VideoStream="Main"
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]. VideoStream=Main items[0]. FilePath =/mnt/dvr/sda0/2010/8/11/dav/15:40:50.jpg items[0]. Length =790 items[0]. Duration = 3600

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.
VideoStream	Video Stream type.
FilePath	File path.
Length	File length
Duration	Duration time

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 GetStorageDevicePortInfo

URL Syntax	http://<*ip*>/cgi-bin/storageDevice.cgi?action=factory.getPortInfo
Comment	Get the storage device port info
Response	device port info Total=2 Plug=1 Mask=1 Bad=0

10.3 NAS

10.3.1 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"

10.3.2 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.

10.4 Storage Point

10.4.1 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

10.4.2 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.

10.4.3 GetStorageGroupConfig

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

Response	table.StorageGroup[0]. FileHoldTime =0 table.StorageGroup[0]. OverWrite =1

10.4.4 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. GUI

11.1.1 GetGUIConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=GUISet
Comment	Get GUI config.
Response	table.GUISet. WindowAlpha =128 table.GUISet. TimeTitleEnable =true table.GUISet. TimeTitlePos[0]=0 table.GUISet. TimeTitlePos[1]=0 table.GUISet. TimeTitlePos[2]=8191 table.GUISet. TimeTitlePos[3]=8191 table.GUISet. MenuShowOption =0 table.GUISet. MenuAutoHideTime =10 table.GUISet. AutoLogout =10 table.GUISet. ChannelTitleShowEnable =true table.GUISet. ChannelTitlePos[0]=0 table.GUISet. ChannelTitlePos[1]=0 table.GUISet. ChannelTitlePos[2]=8191 table.GUISet. ChannelTitlePos[3]=8191 table.GUISet. AutoGuideEnable =true …

11.1.2 SetGUIConfig

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

ParamName	ParamValue type	Description
GUISet.WindowAlpha	integer	Diaphaneity of the window background.
GUISet.TimeTitleEnable	bool	Show the time title or not.
GUISet.TimeTitlePos[0]	integer	The position of the time title.
GUISet.TimeTitlePos[1]	integer	
GUISet.TimeTitlePos[2]	integer	
GUISet.TimeTitlePos[3]	integer	
GUISet.MenuShowOption	integer	0: Show the directory. 1:Hide the directory. 2:Timing hide the directory.
GUISet.MenuAutoHideTime	integer	How many seconds to hide the directory.
GUISet.AutoLogout	integer	How many minutes to auto logout. The range is [0-120]. 0 expresses not logout.
GUISet.ChannelTitleShowEnable	bool	Show the channel title or not.
GUISet.ChannelTitlePos[0]	integer	The position of the channel title.
GUISet.ChannelTitlePos[1]	integer	
GUISet.ChannelTitlePos[2]	integer	
GUISet.ChannelTitlePos[3]	integer	
GUISet.AutoGuideEnable	bool	Auto guide or not when startup.

12. Display

12.1 Split

12.1.1 GetSplitMode

URL Syntax	http://<*ip*>/cgi-bin/split.cgi?action=getMode&channel=***<channel>***
Comment	Get the split mode.
Response	mode=split1 group=4

12.1.2 SetSplitMode

URL Syntax	http://<*ip*>/cgi-bin/split.cgi?action=setMode&channel=***<channel>***&mode=***<mode>***&group=***<group>***
Comment	mode:enum{split1,split2,split4,split6,split8,split9,split12,split16,split20,split25,split36,split64,split144,pip1,pip3};
Response	OK or ERROR

12.2 Monitor Tour

12.2.1 EnableMonitorTour

URL Syntax	http://<*ip*>/cgi-bin/split.cgi?action=enableTour&channel=***<channel>***&enable=***<flag>***
Comment	Enbale monitor tour.
Response	OK or ERROR

12.2.2 GetMonitorTourConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=MonitorTour
Comment	Get MonitorTour config.
Response	table.MonitorTour[ch].Enable=128 table.MonitorTour[ch].Interval=true table.MonitorTour[ch].Mask.Split1=0,1,5 table.MonitorTour[ch].Mask.Split8=0,1,5 table.MonitorTour[ch].Collections=Favortite1, Favortite2…

12.2.3 SetMonitorTourConfig

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

ParamName	**ParamValue type**	**Description**
MonitorTour[ch].Enable	bool	MonitorTour or not.
MonitorTour[ch].Interval	integer	MonitorTour interval.
MonitorTour[ch].Mask.Split1		Channel array for split1
MonitorTour[ch].Mask.Split8		Channel array for split8

MonitorTour[ch].Collections		Split collections

12.3 Monitor Collect

12.3.1 GetMonitorCollectionConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=getConfig&name=MonitorCollection
Comment	Get GUI config.
Response	table.MonitorCollection.collectionname. Mode=Split1 table.MonitorCollection.collectionname.Windows[winno].Enable= true table.MonitorCollection.collectionname.Windows[winno].Device=device1 table.MonitorCollection.collectionname.Windows[winno].VideoChannel=5 table.MonitorCollection.collectionname.Windows[winno].VideoStream=Main table.MonitorCollection.collectionname.Windows[winno].AudioChannel=5 table.MonitorCollection.collectionname.Windows[winno].AudioStream=Main …

12.3.2 SetMonitorCollectionConfig

URL Syntax	http://<*ip*>/cgi-bin/configManager.cgi?action=setConfig&<**paramName**>=<**paramValue**>[&<**paramName**>=<**paramValue**>...]
Comment	In below table:**Collect**= MonitorCollection.**collectionname. collectionname** can be any name**.**
Response	OK or ERROR

ParamName	**ParamValue type**	**Description**
Collect. Mode	string	The range is the same as **12.1.2 SetSplitMode**
Collect.Windows[winno]. Enable	bool	Enable the window or not.
Collect.Windows[winno]. Device	string	The device Id.
Collect.Windows[winno]. VideoChannel	integer	The video channel .
Collect.Windows[winno]. VideoStream	string	The range is {“Main”, “Extra1”, “Extra2”, “Extra3”, “Auto”}.
Collect.Windows[winno]. AudioChannel	integer	The audio channel .
Collect.Windows[winno]. AudioStream	string	The range is {“Main”, “Extra1”, “Extra2”, “Extra3”, “Auto”}.

13. Audio

13.1 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	

13.2 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

13.2.1 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>

13.3.2 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>

13.3 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

13.3.1 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>

13.3.2 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>

14. Appendix

14.1 Stream Format

The Stream format is used by 4.1.9 GetStream By Http and 4.1.10 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.

15 PositionManager

15.1 GetStatus

URL Syntax	http://<ip>/cgi-bin/positionManager.cgi?action=getStatus&channel=<***channelno***>
Comment	Get GPS status. status.Time: current time; status.Longitude: current longitude; status.Latitude: current latitude; status.Altitude: current altitude; status.Speed: current speed, km/h; status.Bearing: current bearing; status.AntennasStatus: current antennas status; status.PositioningResult: positioning

	status.SatelliteCount: satellite number; status.WorkStatus: work status; status.AlarmPoints: alarm Position;
Response	status.Time= [2009,9,8,10,32,12] status.Longitude=[120,10,32.00] status.Latitude=[30,11,11.0] status.Altitude=9999.9 status.Speed=30.00 status.Bearing=45.3 status.AntennasStatus=1 status.PositioningResult=1 status.SatelliteCount=2 status.WorkStatus=2 status.AlarmPoints=[1,31]