

IP Camera CGI User Manual

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Version Release Notes

Version	Author	Date	Modified
1.0	Himmy Ho	2011-07-30	The first version
1.1	Franck Zhao	2011-09-08	Revised

IP Camera CGI Summary

All the CGI APIs is based http protocol, IP camera could be manipulated by CGI command in client or other web application .

- CGI authorization: The CGI listed below is required for authorization when it be used , and different CGI is not the same authority needed. A total of three authorizations: visitor, operator and Administrator . Authority set by the user on the device . IP camera support two specific authorization : Basic authorization in http protocol 、 Additional parameters directly in the cgi user name and password .
- Cgi methods to access: In this article cgi only support get and post method , upgrade.cgi and restore.cgi only support post method .

Get (Example)

```
<form name="form2" method="get" action="cgi-bin/hi3510/cleanlog.cgi">
  <input name="cururl" type="hidden" >
  <input name="name" type="hidden" value="access">
</form>
```

</form>

Post (Example):

```
<form name="form5" method="post" target="retframe" enctype="multipart/form-data"
  action="cgi-bin/hi3510/upgrade.cgi" onSubmit="return upgrade()">
  <td colspan="3"><input type="file" name="setting_file" >
  <input type="submit" value=" submit" >
</form>
```

</form>

- Value of CGI returned : CGI can be divided into two types according to the return value:
 - ✓ To get the device status and parameters , return the text of device status and parameter if CGI is executed successfully. The format of return text is the same as javascript variable definition .

For example:

```
var bps_1="2048";
var fps_1="25";
var gop_1="50";
var brmode_1="1";
var imagegrade_1="1";
var width_1="704";
var height_1="576";
```

Return error message if failed, for example: [Error]Get video attribution error! errcode is 0xa10e6008” .

- ✓ To setup or manipulate device: This type of CGI will be return the reuslut text, If CGI is executed successfully ,”HTTP/1.0 200 OK” will be returned ; otherwise , for example: ”[Error][Data-Length:91] unrecongnized or incomplete command line.” it tells us the CGI parameter error.
- ✓ You could put the CGI string into Web Browser to test the CGI, such as:
<http://192.168.1.88/cgi-bin/hi3510/param.cgi?cmd=getvencattr&-chn=11>
<http://192.168.1.6/cgi-bin/hi3510/param.cgi?cmd=setvencattr&-chn=11&-fps=15>
<http://192.168.1.6/cgi-bin/getwifi.cgi>

1 Audio/Video

param.cgi?cmd=getvideoattr

Function	To get video properties, main-stream / sub-stream resolution and video format	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getvideoattr]	
parameters	none	
Return Value	videomode	18:1VGA_1QVGA or 1D1_1CIF 19: 1VGA_1QQVGA or 1D1_1QCIF 21: 1QVGA_1QVGA or 1CIF_1CIF 22: 1QVGA_1QQVGA or 1CIF_1QCIF 24: 1QQVGA_1QVGA or 1QCIF_1CIF 25: 1QQVGA_1QQVGA or 1QCIF_1QCIF 31: 1HD720P_1HDQ720P 32: 1HD720P_1HDQQ720P 33: 1HDQ720P_1HDQ720P 34: 1HDQ720P_1HDQQ720P 35: 1HDQQ720P_1HDQ720P 36: 1HDQQ720P_1HDQQ720P
	vinorm	P: 50Hz(PAL) N: 60Hz(NTSC)
Note	Attention: 1VGA resolution is 640x480 1QVGA resolution is 320x240 1QQVGA resolution is 160x112 1D1 resolution is PAL: 704x576, NTSC: 704x480	

	<p>1CIF resolution is PAL: 352x288, NTSC: 352x240</p> <p>1QCIF resolution is PAL: 176x144, NTSC: 176x112</p> <p>1QVGA resolution is 320x240</p> <p>1QQVGA resolution is 160x112</p> <p>1HD720P resolution is 1280x720</p> <p>1HDQ720P resolution is 640x352</p> <p>1HDQQ720P resolution is 320x176</p> <p>Attention:</p> <p>It is main-stream resolution in front of “_” ,followed by sub-stream resolution</p> <p>1HD720P_1HDQ720P: main-stream resolution is 720P , sub-stream resolution is Q720P</p>
Example	/cgi-bin/hi3510/param.cgi?cmd=getvideoattr

param.cgi?cmd=setvideoattr

Function	To set video properties, main-stream / sub-stream resolution and video format	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd= setvideoattr&- videomode =&-vinorm=]	
parameters	videomode	18:1VGA_1QVGA or 1D1_1CIF 19: 1VGA_1QQVGA or 1D1_1QCIF 21: 1QVGA_1QVGA or 1CIF_1CIF 22: 1QVGA_1QQVGA or 1CIF_1QCIF 24: 1QQVGA_1QVGA or 1QCIF_1CIF 25: 1QQVGA_1QQVGA or 1QCIF_1QCIF 31: 1HD720P_1HDQ720P 32: 1HD720P_1HDQQ720P 33: 1HDQ720P_1HDQ720P 34: 1HDQ720P_1HDQQ720P 35: 1HDQQ720P_1HDQ720P 36: 1HDQQ720P_1HDQQ720P
	vinorm	P: 50Hz(PAL) N: 60Hz(NTSC)
Return Value	Success: contain Success Failure: contain Error	
Note	Attention: Type of CCD D1device can identify PAL or NTSC automatically , vinorm setting invalid Attention:	

	<p>1VGA resolution is 640x480</p> <p>1QVGA resolution is 320x240</p> <p>1QQVGA resolution is 160x112</p> <p>1D1 resolution is PAL: 704x576, NTSC: 704x480</p> <p>1CIF resolution is PAL: 352x288, NTSC: 352x240</p> <p>1QCIF resolution is PAL: 176x144, NTSC: 176x112</p> <p>1QVGA resolution is 320x240</p> <p>1QQVGA resolution is 160x112</p> <p>1HD720P resolution is 1280x720</p> <p>1HDQ720P resolution is 640x352</p> <p>1HDQQ720P resolution is 320x176</p> <p>Attention:</p> <p>It is main-stream resolution in front of “_”, followed by sub-stream resolution</p> <p>1HD720P_1HDQ720P: main-stream resolution is 720P , sub-stream resolution is Q720P</p> <p>Attention:</p> <p>Return Value: Time-consuming operation</p>
Example	<p>/cgi-bin/hi3510/param.cgi?cmd=setvideoattr&-videomode=31&-vinorm=P</p> <p>/cgi-bin/hi3510/param.cgi?cmd=setvideoattr&-videomode=33</p> <p>/cgi-bin/hi3510/param.cgi?cmd=setvideoattr&-vinorm=N</p>

param.cgi?cmd=getvencattr

Function	To get video codec parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/getvencattr.cgi [?-chn=]	
parameters	chn	Stream Number: 11: main-stream 12: sub-stream
Return Value	bps_1 or bps_2	Bit rate
	fps_1 or fps_2	Frame rate
	gop_1 or gop_2	Main frame interval
	brmode_1 or brmode_2	Video coding control: 0: Fixed rate 1: Variable bit rate
	imagegrade_1 or imagegrade_2	video encoding quality
	width_1 or width_2	Video width
	height_1 or height_2	Video height

Note	Attention: Suffix "_1" is main-stream parameters , Suffix "_2" is sub-stream parameters .
Example	/cgi-bin/hi3510/getvencattr.cgi?-chn=11

param.cgi?cmd=setvencattr

Function	To config video codec parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setvencattr&-chn=&-bps=&-fps=&-brmode=&-imagegrade=&-gop=]	
parameters	chn	Channel number : 11: main-stream 12: sub-stream
	bps	Bit Rate: 720P: range [1024 ~ 6144 kbps] D1: range [32 ~ 2048 kbps] CIF: range [32 ~ 512 kbps] QCIF: range [32 ~ 256 kbps] QVGA: range [32 ~ 512 kbps] VGA: range [32 ~ 2048 kbps] QQVGA: range [32 ~ 256 kbps]
	fps	Frame rate: PAL: range [1 ~ 25] NTSC: range [1 ~ 30]
	brmode	Video coding control: 0: Fixed rate 1: Variable bit rate
	imagegrade	video encoding quality: range [1 ~ 6] AttentionThe smaller the value, the better the image quality, the larger the stream control
	gop	Main frame interval: range [2 ~ 150]
Return Value	Success: contain Success Failure: contain Error	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setvencattr&-chn=11&-bps=1536&-fps=25 &-brmode=1&-imagegrade=1&-gop=50	
	/cgi-bin/hi3510/param.cgi?cmd=setvencattr&-chn=12&-bps=1536&-fps=25 &-brmode=1&-imagegrade=1&-gop=50	

	/cgi-bin/hi3510/param.cgi?cmd=setvencattr&-chn=11&-bps=1536&-fps=25
--	---------------------------------------------------------------------

param.cgi?cmd=getimageattr

Function	To get image parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getimageattr]	
parameters	None	
Return Value	brightness	Brightness
	saturation	Saturation
	contrast	Contrast
	hue	Color
	scene	White Balance: auto indoor outdoor
	flip	Image flip: on off
	mirror	Image mirror: on off
Note	Different device type has different image parameters, reference to Appendix I: Definition of device type	
Example	/cgi-bin/hi3510/param.cgi?cmd=getimageattr	

param.cgi?cmd=setimageattr

Function	To set image parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setimageattr&-brightness=&-saturation=&-contrast=&-hue=&-flip=&-mirror=&-scene=]	
parameters	brightness	Brightness 0-255
	saturation	Saturation 0-255
	contrast	Contrast 0-255
	hue	Color 0-127
	scene	White Balance:

		auto indoor outdoor
	flip	Image flip: on off
	mirror	Image mirror: on off
Return Value	Success: contain Success Failure: contain Error	
Note	Different device type supports different image parameters, reference to Appendix I: Definition of device type	
Example	/cgi-bin/hi3510/param.cgi?cmd=setimageattr&-brightness=1&-saturation=1&-contrast=1&-hue=1&-flip=on&-mirror=on&-scene=indoor&	

param.cgi?cmd=getoverlayattr

Function	To get OSDparameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getoverlayattr&-region=]	
parameters	region	region 0: OSD time region 1: OSD name region
Return Value	x_[region]	OSD region x Coordinate
	y_[region]	OSD region y Coordinate
	w_[region]	OSD region width
	h_[region]	OSD region height
	show_[region]	OSD show/hide 0: hide 1: show
	name_[region]	OSD name
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getoverlayattr&-region=0	

param.cgi?cmd=setoverlayattr

Function	To set OSD parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setoverlayattr&-region=&show=&name=]	
parameters	region	region 0: OSD time region 1: OSD name region
	show	OSD show/hide 0: hide 1: show
	name	OSD name , Support English characters only. Length can not exceed 16 characters
Return Value	Success: contain Success Failure: contain Error	
Note	Attention: region_0 time OSD region does not support set name parameters	
Example	/cgi-bin/hi3510/param.cgi?cmd=setoverlayattr&-region=0&-show=0	
	/cgi-bin/hi3510/param.cgi?cmd=setoverlayattr&-region=1&-show=1&-name=IPCam	

param.cgi?cmd=getmobilesnapattr

Function	To get mobile snapshot attributes parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getmobilesnapattr]	
parameters	None	
Return Value	msize	1: sub-stream max resolution 2: sub-stream min resolution
Note	Some device does not support to change these attributes , reference to Appendix I: Definition of device type	
Example	/cgi-bin/hi3510/param.cgi?cmd=getmobilesnapattr	

param.cgi?cmd=setmobilesnapattr

Function	To set mobile snapshot attributes parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setmobilesnapattr&-msize=]	
parameters	msize	1: sub-stream max resolution

	2: sub-stream min resolution
Return Value	Success: contain Success Failure: contain Error
Note	Some device does not support to change these attributes , reference to Appendix I: Definition of device type
Example	/cgi-bin/hi3510/param.cgi?cmd=setmobilesnapattr&-msize=1

param.cgi?cmd=getaencattr

Function	To get audio codec parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getaencattr&-chn=]	
parameters	chn	Channel number: 11: main-stream 12: sub-stream
Return Value	aeswitch_1 or aeswitch_2	Audio Codec Switch 0: dissable 1: enable
	aeformat_1 or aeformat_2	Audio Codec Format g711a: G711 a-law 64Kbps g726: G726 16Kbps
Note	_1 is main-stream ,_2 is sub-stream . Audio Sampling rate: 8K, Mono, 16 bit	
Example	/cgi-bin/hi3510/param.cgi?cmd=getaencattr&-chn=11	

param.cgi?cmd=setaencattr

Function	To set audio codec parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setaencattr&-chn=]	
parameters	chn	Channel number: 11: main-stream 12: sub-stream
	aeswitch	Audio Codec Switch 0: dissable 1: enable
	aeformat	Audio Codec Format

		g711a: G711 a-law 64Kbps g726: G726 16Kbps
Return Value	Success: contain Success Failure: contain Error	
Note	Audio Sampling rate: 8K, Mono, 16 bit	
Example	/cgi-bin/hi3510/param.cgi?cmd=setaencattr&-chn=11&-aeswitch=0	
	/cgi-bin/hi3510/param.cgi?cmd=setaencattr&-chn=12&-aeswitch=1&-aeformat=g726	

param.cgi?cmd=getaudioinvolume

Function	To get volume value	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getaudioinvolume]	
parameters	None	
Return Value	volume	Range: 1-127
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getaudioinvolume	

param.cgi?cmd=setaudioinvolume

Function	To set volume value	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setaudioinvolume&-volume=]	
parameters	volume	Range: 1-127
Return Value	Success: contain Success Failure: contain Error	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setaudioinvolume&-volume=100	

2 Infrared LED Control

param.cgi?cmd=getinfrared

Function	To get Infrared LED parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getinfrared]	

parameters	None	
Return Value	infraredstat	Infrared LED Status: auto open close
Note	Some device does not support to change these attributes , reference to Appendix I: Definition of device type	
Example	/cgi-bin/hi3510/param.cgi?cmd=getinfrared	

param.cgi?cmd=setinfrared

Function	To set Infrared LED parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setinfrared]	
parameters	None	
Return Value	infraredstat	Infrared LED Status: auto open close
Note	Some device does not support to change these attributes , reference to Appendix I: Definition of device type	
Example	/cgi-bin/hi3510/param.cgi?cmd=setinfrared&-infraredstat=auto	

3 Network

param.cgi?cmd=getnetattr

Function	To get network parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getnetattr]	
parameters	None	
Return Value	dhcpflag	DHCP: on: enable off: disable
	ip	IP address
	netmask	xxx.xxx.xxx.xxx
	gateway	xxx.xxx.xxx.xxx

	dnsstat	DNS status: 0: manual 1: auto
	fdnsip	Primary DNS
	sdnsip	The second DNS
	macaddress	MAC address
	networktype	Network type: LAN WiFi
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getnetattr	

param.cgi?cmd=setnetattr

Function	To config LAN parameters of device	
Authority	Admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setnetattr&-dhcp=&-ipaddr=&-netmask=&-gateway=&-dnsstat=&-fdnsip=&-sdnsip=]	
parameters	dhcp	DHCP: on: enable off: disable
	ipaddr	IP address
	netmask	xxx.xxx.xxx.xxx
	gateway	xxx.xxx.xxx.xxx
	dnsstat	DNS status: 0: manual 1: auto
	fdnsip	Primary DNS
	sdnsip	The second DNS
Return Value	Success: contain Success Failure: contain Error	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setnetattr&-dhcp=off&-ipaddr=192.168.1.88 &-netmask=255.255.255.0&-gateway=192.168.1.1&-dnsstat=0&-fdnsip=192. 168.1.1&-sdnsip=	

param.cgi?cmd=gethttpport

Function	To get HTTP port	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=gethttpport]	
parameters	None	
Return Value	httpport	HTTP port
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=gethttpport	

param.cgi?cmd=sethttpport

Function	To config HTTP port	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=sethttpport&-httpport=]	
parameters	httpport	HTTP port : range [80~49151]
Return Value	Success: contain Success Failure: contain Error	
Note	Device will automatically restart when the configuration is successful	
Example	/cgi-bin/hi3510/param.cgi?cmd=sethttpport&-httpport=80	

param.cgi?cmd=getrtspport

Function	To get rtsp port	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getrtspport]	
parameters	None	
Return Value	rtspport	RTSP port
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getrtspport	

param.cgi?cmd=setrtspport

Function	To config RTSP port	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setrtspport&-rtspport=]	

parameters	Rtsp port	RTSP port range: [80~49151]
Return Value	Success: contain Success Failure: contain Error	
Note	Device will automatically restart when the configuration is successful	
Example	/cgi-bin/hi3510/param.cgi?cmd=setrtsport&-rtsport=554	

param.cgi?cmd=getinternetip

Function	To inquiry the Internet IP address of this device	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getinternetip]	
parameters	None	
Return Value	internetip	Web IP address ,for example: var internetip="220.112.14.173"
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getinternetip	

param.cgi?cmd=getupnpatr

Function	To get UPNP parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getupnpatr]	
parameters	None	
Return Value	upm_enable	UPNP port map : 0: disable 1: enable
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getupnpatr	

param.cgi?cmd=setupnpatr

Function	To set UPNP parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setupnpatr&-upm_enable=]	
parameters	upm_enable	UPNP port map : 0: disable 1: enable

Return Value	Success: contain Success Failure: contain Error
Note	None
Example	/cgi-bin/hi3510/param.cgi?cmd=setupnpatr&-upm_enable=1

4 Wi-Fi setting

param.cgi?cmd=getwirelessattr

Function	To get wifi parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getwirelessattr]	
parameters	None	
Return Value	wf_enable	Wifi Switch 0: Turn off 1: Turn on
	wf_ssid	SSID Max 32 english characters
	wf_auth	Encryption: 0: None 1: WEP 2: WPA-PSK 3: WPA2-PSK
	wf_key	Wi-Fi Key
	wf_enc	Key type 0: TKIP 1: AES
	wf_mode	Connection mode: 0: Route mode 1: Peer to peer mode
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getwirelessattr	

param.cgi?cmd=setwirelessattr

Function	To set Wi-Fi parameters
Authority	admin

Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setwirelessattr&-wf_enable=&-wf_ssid=&-wf_auth=&-wf_key=&-wf_enc=&-wf_mode=]	
parameters	wf_enable	Wifi Switch 0: Turn off 1: Turn on
	wf_ssid	SSID Max 32 english characters
	wf_auth	Encryption: 0: None 1: WEP 2: WPA-PSK 3: WPA2-PSK
	wf_key	Wi-Fi Key
	wf_enc	Key type 0: TKIP 1: AES
	wf_mode	Connection mode: 0: Route mode 1: Peer to peer mode
Return Value	Success: contain Success Failure: contain Error	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setwirelessattr&-wf_ssid=linksys&-wf_enable=1&-wf_auth=2&-wf_key=1234567890&-wf_enc=0&-wf_mode=0	

param.cgi?cmd=searchwireless

Function	To scan Wi-Fi network	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=searchwireless]	
parameters	None	
Return Value	waccess_points	Number of Access Point
	wchannel	Channel
	wrssi	Signal strength
	wssid	SSID
	wenc	Encryption
	wauth	Authentication

	wnet	Connection mode (Route mode or peer to peer mode)
	<p>Attention :If there are several Access Point, (waccess_points >1), This CGI command will return field value of "wchannel" to "wnet" except access_points,for examples:</p> <pre> var waccess_points="2" ; var wchannel=new Array(); var wrssi=new Array(); var wssid=new Array(); var wenc=new Array(); var wauth=new Array(); var wnet=new Array(); wchannel[0]="6" ; wrssi[0]="-82" ; wssid[0]="Fumax wireless" ; wenc[0]="AES" ; wauth[0]="WPA(2)-PSK" ; wnet[0]="Infra" ; wchannel[1]="11" ; wrssi[1]="-62" ; wssid[1]="linksys" ; wenc[1]="TKIP" ; wauth[1]="WPA(2)-PSK" ; wnet[1]="Infra" ; </pre>	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=searchwireless	

param.cgi?cmd=chkwirelessattr

Function	To check Wi-Fi parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=chkwirelessattr&-wf_ssid=&-wf_auth=&-wf_key=&-wf_enc=&-wf_mode=]	
	wf_ssid	SSID Max 32 english characters
	wf_auth	Encryption 0: None 1: WEP 2: WPA-PSK

		3: WPA2-PSK
	wf_key	Wi-Fi Key
	wf_enc	Key type 0: TKIP 1: AES
	wf_mode	Connection mode: 0: Route mode 1: Peer to peer mode
Return Value	wf_result	WIFI check Return Value 0: failure 1: success
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=chkwirelessattr&-wf_ssid=linksys&-wf_auth=2&-wf_key=1234567890&-wf_enc=0&-wf_mode=0	

5 DDNS

param.cgi?cmd=get3thddnsattr

Function	To get DDNS parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=get3thddnsattr]	
parameters	None	
Return Value	d3th_enable	DDNS: 0: disable 1: enable
	d3th_service	DDNS Service providers : 0: dyndns.org 1: 322.org 2: dynddns.us
	d3th_uname	User name
	d3th_passwd	password
	d3th_domain	Domain name
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=get3thddnsattr	

param.cgi?cmd=set3thddnsattr

Function	To set DDNS parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi?cmd=set3thddnsattr.[?-d3th_enable=&-d3th_service=&-d3th_uname=&-d3th_passwd=&-d3th_domain=]	
parameters	d3th_enable	DDNS: 0: disable 1: enable
	d3th_service	DDNS Service providers : 0: dyndns.org 1: 322.org 2: dynddns.us
	d3th_uname	User name
	d3th_passwd	password
	d3th_domain	Domain name
Return Value	Success: contain Success Failure: contain Error	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=set3thddnsattr&-d3th_enable=1&-d3th_service=1&-d3th_uname=sample&-d3th_passwd=1234&-d3th_domain=sample.dyndns.org	

6 PTZ

ptzctrl.cgi

Function	To control PTZ	
Authority	admin and user	
Syntax	/cgi-bin/hi3510/ptzctrl.cgi[?-step=&-act=&-speed=]	
parameters	step	Step Mode: 0: After step run , PTZ needs new CGI command to stop 1: After step run, PTZ stop automatically
	act	Control command string , for example: left

		right up down home zoom in zoom out hscan vscan stop
	speed	PTZ speed , range 1~63 .
Return Value	Success: contain Success Failure: contain Error	
Note	Different device type support different PTZ parameters, reference to Appendix I: Definition of device type	
Example	/cgi-bin/hi3510/ptzctrl.cgi?-step=0&-act=left&-speed=45	

preset.cgi

Function	To preset PTZ	
Authority	Admin and user	
Syntax	/cgi-bin/hi3510/preset.cgi[?-act=&-status=&-number=]	
parameters	act	Command : goto: go to preset position set: set preset position
	status	Preset command: 0: clear 1: save
	number	Preset position number
Return Value	Success: contain Success Failure: contain Error	
Note	Different device type support different preset number parameters, reference to Appendix I: Definition of device type	
Example	/cgi-bin/hi3510/preset.cgi?-act=goto&-number=1 /cgi-bin/hi3510/preset.cgi?-act=set&-status=1&-number=1	

param.cgi?cmd=getptzcomattr

Function	To get PTZ parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getptzcomattr]	
parameters	None	
Return Value	protocal	Protocol type: 0: PELCO-D 1: PELCO-P
	address	Address code (0~255)
	baud	Baud rate
	databit	Data width
	stopbit	Stop bit
	check	Parity: 0: None 1: odd parity 2: even parity 3: mark 4: space
Note	Some device does not support this attribute , reference to Appendix I: Definition of device type	
Example	/cgi-bin/hi3510/param.cgi?cmd=getptzcomattr	

param.cgi?cmd=setptzcomattr

Function	To set PTZ parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setptzcomattr&-protocal=&-address=&-baud=&-databit=&-stopbit=&-check=]	
parameters	protocal	Protocol type: 0: PELCO-D 1: PELCO-P
	address	Address code: 0~255
	baud	Baud rate: 1200、2400、4800、9600、19200、38400、57600
	databit	Data width: 7 or 8

	stopbit	Stop bit: 1or 2
	check	Parity: 0: None 1: odd parity 2: even parity
Return Value	Success: contain Success Failure: contain Error	
Note	Some device does not support this attribute , reference to Appendix I: Definition of device type	
Example	/cgi-bin/hi3510/param.cgi?cmd=setptzcomattr&-protocol=0&-address=1&-baud=9600&-databit=8&-stopbit=1&-check=0	

ptzup.cgi

Function	To control PTZ upward movement for mobile
Authority	admin and user
Syntax	/cgi-bin/hi3510/ptzup.cgi
parameters	None
Return Value	Success: contain Success Failure: contain Error
Note	None
Example	/cgi-bin/hi3510/ptzup.cgi

ptzdown.cgi

Function	To control PTZ downward movement for mobile
Authority	admin and user
Syntax	/cgi-bin/hi3510/ptzdown.cgi
parameters	None
Return Value	Success: contain Success Failure: contain Error
Note	None
Example	/cgi-bin/hi3510/ptzdown.cgi

ptzleft.cgi

Function	To control PTZ left movement for mobile
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Authority	admin and user
Syntax	/cgi-bin/hi3510/ptzleft.cgi
parameters	None
Return Value	Success: contain Success Failure: contain Error
Note	None
Example	/cgi-bin/hi3510/ptzleft.cgi

ptzright.cgi

Function	To control PTZ right movement for mobile
Authority	admin and user
Syntax	/cgi-bin/hi3510/ptzright.cgi
parameters	None
Return Value	Success: contain Success Failure: contain Error
Note	None
Example	/cgi-bin/hi3510/ptzright.cgi

ptzzoomin.cgi

Function	To zoom in for mobile
Authority	admin and user
Syntax	/cgi-bin/hi3510/ptzzoomin.cgi
parameters	None
Return Value	Success: contain Success Failure: contain Error
Note	None
Example	/cgi-bin/hi3510/ptzzoomin.cgi

ptzzoomout.cgi

Function	To zoom out for mobile
Authority	admin and user
Syntax	/cgi-bin/hi3510/ptzzoomout.cgi
parameters	None
Return Value	Success: contain Success

	Failure: contain Error
Note	None
Example	/cgi-bin/hi3510/ptzzoomout.cgi

7 Motion detection and I/O Alarm

param.cgi?cmd=getmdattr

Function	To get motion detection parameters	
Authority	admin	
Syntax	cgi-bin/hi3510/param.cgi[?cmd=getmdattr]	
parameters	None	
Return Value	m1_enable	The first motion detection region: 0: disable 1: enable
	m1_x	Region 1 abscissa
	m1_y	Region 1 Ordinate
	m1_w	Region 1 width
	m1_h	Region 1 height
	m1_sensitivity	Region 1 sensitivity
	m1_threshold	Reserved, unused
	m2_enable	The second motion detection region: 0: 关闭 1: 启用
	m2_x	Region 2 abscissa
	m2_y	Region 2 Ordinate
	m2_w	Region 2 width
	m2_h	Region 2 height
	m2_sensitivity	Region 2 sensitivity
	m2_threshold	Reserved, unused
	m3_enable	The third motion detection region: 0: disable 1: enable
	m3_x	Region 3 abscissa
	m3_y	Region 3 Ordinate
	m3_w	Region 3 width

	m3_h	Region 3 height
	m3_sensitivity	Region 3 sensitivity
	m3_threshold	Reserved, unused
	m4_enable	The fourth motion detection region: 0: disable 1: enable
	m4_x	Region 4 abscissa
	m4_y	Region 4 Ordinate
	m4_w	Region 4 width
	m4_h	Region 4 height
	m4_sensitivity	Region 4 sensitivity
	m4_threshold	Reserved, unused
Note	The region coordinate, width and height are based the max resolution of this device.	
Example	/cgi-bin/hi3510/param.cgi?cmd=getmdattr	

param.cgi?cmd=setmdattr

Function	To set motion detection parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setmdattr&-enable=&-s=&-name=&-x=&-y=&-w=&-h=]	
parameters	enable	motion detection function: 0: disable 1: enable
	s	sensitivity: range [0 ~ 100]
	name	Alarm region : range[1 ~ 4]
	x	motion detection region abscissa
	y	motion detection region Ordinate
	w	motion detection region width
	h	motion detection region height
Return Value	Success: contain Success Failure: contain Error	
Note	The region coordinate, width and height are based the max resolution of this device.	
Example	/cgi-bin/hi3510/param.cgi?cmd=setmdattr&-enable=1&-s=50&-name=1&-x=0&-y=0&-w=60&-h=60	

param.cgi?cmd=getioattr

Function	To get alarm IO parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getioattr]	
parameters	None	
Return Value	io_enable	Alarm IO: 0: disable 1: enable
	io_flag	Alarm IO mode: 0: NC 1: NO
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getioattr	

param.cgi?cmd=setioattr

Function	To set alarm IO parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setioattr &-io_enable=&-io_flag=]	
parameters	io_enable	Alarm IO: 0: disable 1: enable
	io_flag	Alarm IO mode: 0: NC 1: NO
Return Value	Success: contain Success Failure: contain Error	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setioattr&-io_enable=0&-io_flag=1	

param.cgi?cmd=getmdalarm

Function	To get alarm linkage parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getmdalarm&-aname=]	
parameters	aname	option:

		email: E-mail alarm emailsnap: E-mail alarm and send snapshot snap: save snapshot to SD card record: save video to SD card ftprec: upload video to FTP server relay: relay output
Return Value	md_email_switch	E-mail alarm function: on: enable off: disable
	md_emailsnap_switch	E-mail alarm and send image function: on: enable off: disable
	md_snap_switch	Save snapshot to SD card: on: enable off: disable
	md_record_switch	save video to SD card: on: enable off: disable
	md_ftprec_switch	Upload video to FTP server: on: enable off: disable
	md_relay_switch	Relay output: on: enable off: disable
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getmdalarm&-aname=email&cmd=getmdalarm&-aname=emailsnap&cmd=getmdalarm&-aname=snap&cmd=getmdalarm&cmd=getmdalarm&-aname=record&cmd=getmdalarm&-aname=ftprec&cmd=getmdalarm&-aname=relay	

param.cgi?cmd=setmdalarm

Function	To set alarm linkage parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setmdalarm &-aname=&-switch=]	
parameters	aname	Alarm linkage option: email: E-mail alarm emailsnap: E-mail alarm and send snapshot

		snap: save snapshot to SD card record: save video to SD card ftprec: upload video to FTP server relay: relay output
	switch	alarm linkage value: on: enable off: disable
Return Value	Success: contain Success Failure: contain Error	
Note	Attention:Before upload video to FTP serve,you must enable save video to SD card. Please be sure to insert SD card,enable save snapshot and save video, in order to upload video to FTP server .	
Example	/cgi-bin/hi3510/param.cgi?cmd=setmdalarm&-aname=email&-switch=off&cmd=setmdalarm&-aname=emailsnap&-switch=off&cmd=setmdalarm&-aname=ftprec&-switch=off&cmd=setmdalarm&-aname=snap&-switch=off&cmd=setmdalarm&-aname=record&-switch=off&cmd=setmdalarm&-aname=relay&-switch=off	

param.cgi?cmd=getrelayattr

Function	To get alarm linkage relay output time	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getrelayattr]	
parameters	None	
Return Value	time	Output time (s) , for examplevar time="10";
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getrelayattr	

param.cgi?cmd=setrelayattr

Function	To set alarm linkage relay output time	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setrelayattr&-time=]	
parameters	time	Output time (s) , range [5、 10、 20、 30]
Return Value	Success: contain Success Failure: contain Error	

Note	None
Example	/cgi-bin/hi3510/param.cgi?cmd=setrelayattr&-time=10

param.cgi?cmd=getschedule

Function	To get alarm and arming schedule table	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getschedule&-type=&-ename=]	
parameters	type	Arming type: event
	ename	Alarm type: md: motion dection
Return Value	etm	Arming time mode: 0: All week mode 1: working days rest days mode 2: All time mode
	workday	Arming time period of working days,using in working days rest days mode.
	weekend	Arming time period of rest days,using in working days rest days mode.
	week	Every day arming time period in All week mode
	md_interval	Arm time interval
	Attention: There are more groups of alarm schedule table in return value. For example: <pre> var etm="0"; var workday = "0~95," ; var weekend="0~95," ; var week= new Array() ; week[0] = "0~95,"; week[1] = "0~95,"; week[2] = "0~95,"; week[3] = "0~95,"; week[4] = "0~95,"; week[5] = "0~95,"; week[6] = "0~95,"; var md_interval="0"; </pre>	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getschedule&-type=event&-ename=md	

param.cgi?cmd=setschedule

Function	To set alarm and arming schedule table	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setschedule&-type=&-ename=&-etm=&-workday=&-weekend=&-week0=&-week1=&-week2=&-week3=&-week4=&-week5=&-week6=]	
parameters	type	Arming type: event
	ename	Alarm type: md: motion dection
	etm	Arming time mode: 0: All week mode 1: working days rest days mode 2: All time mode
	workday	Arming time period of working days Format : start time~end time
	weekend	Arming time period of rest days Format : start time~end time
	week0	Arming time period on Monday Format : start time~end time
	week1	Arming time period on Tuesday Format : start time~end time
	week2	Arming time period on Wednesday Format : start time~end time .
	week3	Arming time period on Thursday Format : start time~end time
	week4	Arming time period on Friday Format : start time~end time
	week5	Arming time period on Saturday Format : start time~end time
	week6	Arming time period on Sunday Format : start time~end time
	<p>Attention:</p> <p>workday and weekend field only used in working days rest days mode, week0 ~ week6 field only used in all week mode,and start time must be less than end time .</p>	

	<p>The calculation method of these start and end time field are:</p> <p>If time is 0 hour 0 minute, it will be set to “none”,</p> <p>Other cases according to the following formula:</p> $\text{start-time} = \text{start-hour} * 4 + \text{start-minute number}$ $\text{end-time} = \text{end-hour} * 4 + \text{end-minute number} - 1;$ <p>One minute is split to four time period: 0(number is 0), 15(number is 1), 30(number is 2) and 45(number is 3).</p> <p>For example:</p> <p>If specify a start time of 8:30, then $\text{start-time} = 8*4+2=34$,</p> <p>If specify a end time of 8:30, then $\text{end-time} = 8*4+2-1=33$</p>
Note	
Example	<pre>/cgi-bin/hi3510/param.cgi?cmd=setschedule&-type=event&-ename=md&-etm=1&-workday=0~33&-weekend=none</pre> <pre>/cgi-bin/hi3510/param.cgi?cmd=setschedule&-type=event&-ename=md&-etm=2</pre>

param.cgi?cmd=getalarmserverattr

Function	To get alarm server parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getalarmserverattr]	
parameters	None	
Return Value	as_server	Server address
	as_port	Server port (1-65535)
	as_username	username
	as_password	password
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getalarmserverattr	

8 User Management

param.cgi?cmd=getuserattr

Function	To get all user information
Authority	admin

Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getuserattr]	
parameters	None	
Return Value	at_name	User name
	at_password	password
Note	This CGI command will return all user information, for example: <pre>var at_name0="admin"; var at_password0="admin"; var at_name1="user"; var at_password1="user"; var at_name2="guest"; var at_password2="guest";</pre>	
Example	/cgi-bin/hi3510/param.cgi?cmd=getuserattr	

param.cgi?cmd=setuserattr

Function	To set user management parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setuserattr&-at_username=&-at_password=]	
parameters	at_username	username parameters, must be admin, user, guest
	at_password	password parameters, max length must be less than 16
Return Value	Success: contain Success Failure: contain Error	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setuserattr&-at_username=admin&-at_password=admin	

getsetupflag.cgi

Function	To get admin parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/getsetupflag.cgi	
parameters	None	
Return Value	name0	name
	password0	password
	authLevel0	reversed

Note	None
Example	/cgi-bin/hi3510/getsetupflag.cgi

getstreamflag.cgi

Function	To get guest parameters	
Authority	guest	
Syntax	/cgi-bin/hi3510/getstreamflag.cgi	
parameters	None	
Return Value	name2	name
	password2	password
	authLevel2	reversed
Note	None	
Example	/cgi-bin/hi3510/getstreamflag.cgi	

getptzflag.cgi

Function	To get user parameters	
Authority	user	
Syntax	/cgi-bin/hi3510/getptzflag.cgi	
parameters	None	
Return Value	name1	name
	password1	password
	authLevel1	reversed
Note	None	
Example	/cgi-bin/hi3510/getptzflag.cgi	

9 Time Snapshot

param.cgi?cmd=getsnaptimerattr

Function	To get time snapshot parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getsnaptimerattr]	
parameters	None	
Return Value	as_enable	Time Snapshot :

		0: disable 1: enable
	as_interval	Time interval , minute (range: 1~1440)
	as_type	Linkage type 1: save snapshot to SD card . 4: send E-mail 5: save snapshot to SD card and send E-mail.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getsnaptimerattr	

param.cgi?cmd=setsnaptimerattr

Function	To set time snapshot parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setsnaptimerattr&-as_enable=&-as_interval=&-as_type=]	
parameters	as_enable	Time Snapshot : 0: disable 1: enable
	as_interval	Time interval , minute (range: 1~1440)
	as_type	Linkage type 1: save snapshot to SD card . 4: send E-mail 5: save snapshot to SD card and send E-mail.
Return Value	Success: contain Success Failure: contain Error	
Note	3 parameters must be used together	
Example	/cgi-bin/hi3510/param.cgi?cmd=setsnaptimerattr&-as_enable=1&-as_interval=60&-as_type=5	

10 FTP

param.cgi?cmd=getftpattr

Function	To get FTP parameters
Authority	admin

Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getftpattr]	
parameters	None	
Return Value	ft_server	FTP server address
	ft_port	Server port
	ft_username	username
	ft_password	password
	ft_mode	Passive mode: 0: disable 1: enable
	ft_dirname	Path
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getftpattr	

param.cgi?cmd=setftpattr

Function	To set FTP parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getftpattr&-ft_server=&-ft_port=&-ft_username=&-ft_password=&-ft_mode=]	
parameters	ft_server	FTP server address
	ft_port	Server port
	ft_username	username
	ft_password	password
	ft_mode	Passive mode: 0: disable 1: enable
	ft_dirname	Path ,path is “.”
Return Value	Success: contain Success Failure: contain Error	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setftpattr&-ft_server=220.112.14.173&-ft_port=21&-ft_username=FTPUsername&-ft_password=FTPPassword&-ft_mode=1&-ft_dirname=abc	

11 SMTP

param.cgi?cmd=getsmtppatr

Function	To get SMTP parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getsmtppatr]	
parameters	None	
Return Value	ma_server	SMTP server address
	ma_port	Server port
	ma_ssl	Use SSL: 0: disable 1: enable
	ma_logintype	authentication: 1: enable 3: disable
	ma_username	username
	ma_password	password
	ma_from	Sender address
	ma_to	Delivery Address
	ma_subject	Mail subject
	ma_text	Mail text
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getsmtppatr	

param.cgi?cmd=setsmtppatr

Function	To set SMTP parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setsmtppatr&-ma_server=&-ma_port=&-ma_ssl=&-ma_logintype=&-ma_username=&-ma_password=&-ma_from=&-ma_to=&-ma_subject=&-ma_text=]	
parameters	ma_server	SMTP server address
	ma_port	Server port
	ma_ssl	Use SSL: 0: disable 1: enable

	ma_logintype	authentication: 1: enable 3: disable
	ma_username	username
	ma_password	password
	ma_from	Sender address
	ma_to	Delivery Address
	ma_subject	Mail subject
	ma_text	Mail text
Return Value	Success: contain Success Failure: contain Error	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setsmtattr&-ma_server=stmp.sdf.com&-ma_from=sd1@sdf.com&-ma_to=a1@sdf.com&-ma_subject=demosubject&-ma_text=demotext&-ma_logintype=1&-ma_username=demo&-ma_password=123456&-ma_port=25&-ma_ssl=0	

12 SD Card manipulation

sdfrmt.cgi

Function	To format SD card to FAT32file system
Authority	admin
Syntax	/cgi-bin/hi3510/sdfrmt.cgi
parameters	None
Return Value	Format SD Card Success
Note	Please wait for a long time
Example	/cgi-bin/hi3510/sdfrmt.cgi

sdstop.cgi

Function	To stop use SD card
Authority	admin
Syntax	/cgi-bin/hi3510/sdstop.cgi
parameters	None
Return Value	Stop SD Card Success

Note	Please wait for a long time
Example	/cgi-bin/hi3510/sdstop.cgi

13 System parameter settings

param.cgi?cmd=getserverinfo

Function	To get device system information	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getserverinfo]	
parameters	None	
Return Value	model	Device serial number
	hardVersion	H/W version
	softVersion	S/W version
	name	Device name
	startdate	System start time
	runtimes	Reversed
	sdstatus	SD card status out: NoneSD Ready: ready to use Readonly: SD card only support to read
	sdfreespace	SD card free space (KB)
	sdtotalspace	SD card total capacity(KB)
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getserverinfo	

param.cgi?cmd=getdevtype

Function	To get device type information	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getdevtype]	
parameters	None	
Return Value	devtype	
Note	reference to Appendix I: Definition of device type	
Example	/cgi-bin/hi3510/param.cgi?cmd=getdevtype	

param.cgi?cmd=getstreamnum

Function	To get online user number	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getstreamnum]	
parameters	None	
Return Value	user_num	online user number , for example: var stream_num = "1" ;
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getstreamnum	

param.cgi?cmd=getservertime

Function	To get system time	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getservertime]	
parameters	None	
Return Value	time	Current date and time [yyyy][mm][dd][hh][mm][ss] time="20110802182638";
	timeZone	Time zone , timeZone="Asia/Hong_Kong";
	dstmode	Daylight saving adjust on: enable off: disable
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getservertime	

param.cgi?cmd=setservertime

Function	To set system time	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setservertime&-time=&-timezone=&-dstmode=]	
parameters	stime	Current date and time [yyyy].[mm].[dd].[hh].[mm].[ss] 2011.08.23.10.35.08
	timezone	Time zone: timeZone="Asia/Hong_Kong";

		Attention: Please reference to Appendix II Time zone about time zone
	dstmode	Daylight saving adjust on: enable off: disable
Return Value	Success: contain Success Failure: contain Error	
Note	Not all time zone can adjust time automaticly in daylight saving time	
Example	/cgi-bin/hi3510/param.cgi?cmd=setservertime&-time=2011.08.23.10.35.08&-timezone=Asia%2FHong_Kong&-dstmode=off	

param.cgi?cmd=getntpattr

Function	To get NTP parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=getntpattr]	
parameters	None	
Return Value	ntpenable	NTP: 1: enable 0: disable
	ntpserver	NTP server: time.nist.gov time.kriss.re.kr time.windows.com time.nuri.net
	ntpinterval	Synchronized interval
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getntpattr	

param.cgi?cmd=setntpattr

Function	To set NTP parameters	
Authority	admin	
Syntax	/cgi-bin/hi3510/param.cgi[?cmd=setntpattr&-ntpenable=&-ntpserver=&-ntpinterval=]	
	ntpenable	NTP:

		1: enable 0: disable
parameters	ntpserver	NTP server: time.nist.gov time.kriss.re.kr time.windows.com time.nuri.net
	ntpinterval	Synchronized interval: range[1 ~ 24 hour]
Return Value	Success: contain Success Failure: contain Error	
Note	None	
Example	cgi-bin/hi3510/param.cgi?cmd=setntpattr&-ntpenable=1&-ntpinterval=2&-ntpserver=time.nuri.net	

sysreset.cgi

Function	To restore factory default
Authority	admin
Syntax	/cgi-bin/hi3510/sysreset.cgi
parameters	None
Return Value	None
Note	None
Example	/cgi-bin/hi3510/sysreset.cgi

sysreboot.cgi

Function	To restart system
Authority	admin
Syntax	/cgi-bin/hi3510/sysreboot.cgi
parameters	None
Return Value	None
Note	None
Example	/cgi-bin/hi3510/sysreboot.cgi

backup.cgi

Function	To backup configuration data
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Authority	admin
Syntax	/cgi-bin/hi3510/backup.cgi
parameters	None
Return Value	None
Note	None
Example	/cgi-bin/hi3510/backup.cgi

restore.cgi

Function	To restore configuration data	
Authority	admin	
Syntax	/cgi-bin/hi3510/restore.cgi[?-setting_file=]	
parameters	setting_file	System config file
Return Value	None	
Note	This CGI only support post method , send backup config file to ipcamera.	
Example	<pre><form name="form6" method="post" enctype="multipart/form-data" action="/cgi-bin/hi3510/restore.cgi" > <input type="file" name="setting_file" > <input type="submit" value="restore" > </form></pre>	

upgrade.cgi

Function	To upgrade system firmware (Caution: it may damage system)	
Authority	admin	
Syntax	/cgi-bin/hi3510/upgrade.cgi[?-filename=]	
parameters	filename	Upgrade file name
Return Value	None	
Note	This CGI only support post method , send new firmware to ipcamera.	
Example	<pre><form name="form5" method="post" target="retframe" enctype="multipart/form-data" action="/cgi-bin/hi3510/upgrade.cgi" > <input type="file" name="setting_file" > <input type="submit" value="upgrade" > </form></pre>	

14 LOG

logsync.cgi

Function	To get log information
Authority	admin
Syntax	/cgi-bin/hi3510/logsync.cgi
parameters	None
Return Value	None
Note	This CGI refresh the log , visit /log/accesslog.txt to view log file text Attention:Restart will clear all log file text.
Example	/cgi-bin/hi3510/logsync.cgi /log/accesslog.txt

cleanlog.cgi

Function	To clear log
Authority	admin
Syntax	/cgi-bin/hi3510/cleanlog.cgi[?-name=]
parameters	name Clear log command : access: log name
Return Value	None
Note	Use this CGI command to clear log ,when it has too much content
Example	/cgi-bin/hi3510/cleanlog.cgi?-name=access

15 Appendix

1. Appendix I Definition of device type

Used to identify the device type, different device has different function .

ASCII , 32 bytes.

2bytes every one field. The first byte is the total-type of the field, the second byte is the sub-type of the field

field3	field4
LEN	P
'S'	'Z'

3). Len field 'S'

For example:

'0'	CMOS VGA	Brightness, contrast, saturation, color, indoor, outdoor, IR LED switch, flip, mirror. main-stream :VGA, QVGA, QQVGA sub-stream : QVGA, QQVGA
'2'	CCD D1	Brightness, contrast, saturation, color main-stream : D1,CIF,QCIF sub-stream : CIF,QCIF
'7'	CMOS 720P	Brightness, contrast (1-7), saturation, flip, mirror main-stream : 720P, Q720P, QQ720P sub-stream : Q720P, QQ720P mobile image size does not support change

4). PTZ field 'Z'

For example:

'0'	Custom PTZ	up , down , left , right , vscan , hscan , home , preset (max 8 position) does not support setting by serial port , does not support PTZ speed
'3'	485PTZ	Up, down, left, right, zoom in, zoom out, go presetposition can set 485 Property

Appendix II Time zone

Time zone field	Description
Etc/GMT-12	(GMT-12:00) date line west
Pacific/Apia	(GMT-11:00) Midway, Samoan Islands
Pacific/Honolulu	(GMT-10:00) Hawaii
America/Anchorage	(GMT-09:00) Alaska
America/Los_Angeles	(GMT-08:00) Pacific Time (US and Canada)
America/Denver	(GMT-07:00) Mountain Time (US and Canada)
America/Tegucigalpa	(GMT-07:00) Chihuahua,La Paz, Mazatlan
America/Phoenix	(GMT-07:00) Arizona
America/Winnipeg	(GMT-06:00) Saskatchewan
America/Mexico_City	(GMT-06:00) Guadalajara, Mexico City, Monterrey
America/Chicago	(GMT-06:00) Central Time (US and Canada)
America/Costa_Rica	(GMT-06:00) Central America
America/Indianapolis	(GMT-05:00) Indiana (East)
America/New_York	(GMT-05: 00) Eastern Time (U.S. and Canada)
America/Bogota	(GMT-05: 00) Bogota, Lima, Rio Branco
America/Santiago	(GMT-04: 00) Santiago
America/Caracas	(GMT-04: 00) La Paz
America/Montreal	(GMT-04: 00) Atlantic Time (Canada)
America/St_Johns	(GMT-03: 30) Newfoundland
America/Thule	(GMT-03: 00) Greenland

America/Buenos_Aires	(GMT-03: 00) Buenos Aires, Georgetown
America/Sao_Paulo	(GMT-03: 00) Brasilia
Atlantic/South_Georgia	(GMT-02: 00) Mid-Atlantic
Atlantic/Cape_Verde	(GMT-01: 00) Cape Verde Islands
Atlantic/Azores	(GMT-01: 00) Azores
Europe/Dublin	(GMT) Greenwich Mean Time: Dublin, Edinburgh, London, Lisbon
Africa/Casablanca	(GMT) Casablanca, Monrovia, Reykjavik
Europe/Amsterdam	(GMT +01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna
Europe/Belgrade	(GMT +01:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague
Europe/Brussels	(GMT +01:00) Brussels, Copenhagen, Madrid, Paris
Europe/Warsaw	(GMT +01:00) Sarajevo, Skopje, Warsaw, Zagreb
Africa/Lagos	(GMT +01:00) West Central
Europe/Athens	(GMT +02:00) Athens, Istanbul, Minsk
Europe/Bucharest	(GMT +02:00) Bucharest
Africa/Cairo	(GMT +02:00) Cairo
Africa/Harare	(GMT +02:00) Harare, Pretoria
Europe/Helsinki	(GMT +02:00) Helsinki, Kiev, Riga, Sofia, Tallinn, Vilnius
Asia/Jerusalem	(GMT +02:00) Jerusalem
Asia/Baghdad	(GMT +03:00) Baghdad
Asia/Kuwait	(GMT +03:00) Kuwait, Riyadh
Europe/Moscow	(GMT +03:00) Moscow, St. Petersburg, Volgograd
Africa/Nairobi	(GMT +03:00) Nairobi
Asia/Tehran	(GMT +03:30) Tehran
Asia/Dubai	(GMT +04:00) Abu Dhabi, Muscat
Asia/Baku	(GMT +04:00) Baku, Tbilisi, Yerevan
Asia/Kabul	(GMT +04:30) Kabul
Asia/Yekaterinburg	(GMT +05:00) Ekaterinburg
Asia/Karachi	(GMT +05:00) Islamabad, Karachi, Tashkent
Asia/Calcutta	(GMT +05:30) Madras, Calcutta, Mumbai, New Delhi
Asia/Katmandu	(GMT +05:45) Kathmandu
Asia/Almaty	(GMT +06:00) Almaty, Novosibirsk
Asia/Dhaka	(GMT +06:00) Astana, Dhaka
Asia/Colombo	(GMT +06:00) Colombo
Asia/Rangoon	(GMT +06:30) Rangoon
Asia/Bangkok	(GMT +07:00) Bangkok, Hanoi, Jakarta
Asia/Krasnoyarsk	(GMT +07:00) Krasnoyarsk
Asia/Hong_Kong	(GMT +08:00) Beijing, Chongqing, Hong Kong, Urumqi
Asia/Irkutsk	(GMT +08:00) Irkutsk, Ulaanbaatar map
Asia/Kuala_Lumpur	(GMT +08:00) Kuala Lumpur, Singapore
Australia/Perth	(GMT +08:00) Perth

Asia/Taipei	(GMT +08:00) Taipei
Asia/Tokyo	(GMT +09:00) Osaka, Sapporo, Tokyo
Asia/Seoul	(GMT +09:00) Seoul
Asia/Yakutsk	(GMT +09:00) Yakutsk
Australia/Adelaide	(GMT +09:30) Adelaide
Australia/Brisbane	(GMT +10:00) Brisbane
Australia/Sydney	(GMT +10:00) Canberra, Melbourne, Sydney
Pacific/Guam	(GMT +10:00) Guam, Port Moresby
Australia/Hobart	(GMT +10:00) Hobart
Asia/Vladivostok	(GMT +10:00) Vladivostok
Asia/Magadan	(GMT +11:00) Majia Disi Qin, Solomon Islands, New Caledonia
Pacific/Auckland	(GMT +12:00) Auckland, Wellington
Pacific/Fiji	(GMT +12:00) Fiji, Kamchatka, Marshall Islands
Pacific/Tongatapu	(GMT +13:00) Nuku'alofa