



## FDT IP Camera CGI User Guide

V1.0.2

1

## Contents

Intorduction.....	6
1. Video & Audio.....	7
getvideoattr.....	7
setvideoattr.....	8
getvencattr.....	9
setvencattr.....	10
getimageattr.....	11
setimageattr.....	12
getldcattr.....	13
setldcattr.....	13
getircutattr.....	14
setircutattr.....	14
getoverlayattr.....	14
setoverlayattr.....	15
getmobilesnapattr.....	15
setmobilesnapattr.....	16
getaencattr.....	16
setaencattr.....	16
getaudioinvolume.....	17
setaudioinvolume.....	17
getaudiooutvolume.....	18
setaudiooutvolume.....	18
getaudiooutvolume.....	18
setaudiooutvolume.....	19
requestfrm.....	19
2. IR Led control.....	19
getinfrared.....	19
setinfrared.....	20
3. Network.....	20
getnetattr.....	20
setnetattr.....	21
gethttpport.....	21
sethttpport.....	22
getrtsport.....	22
setrtsport.....	22
getrtspauth.....	23
setrtspauth.....	23
getinterip.....	23
getupnattr.....	24
setupnattr.....	24
getonvifattr.....	24
setonvifattr.....	25

4. Wireless.....	26
getwirelessattr.....	26
setwirelessattr.....	26
searchwireless.....	27
chkwirelessattr.....	28
getchkwireless.....	29
5. DDNS.....	29
get3thddnsattr.....	29
set3thddnsattr.....	30
6. PTZ control.....	31
ptzctrl.....	31
preset.....	31
getmotorattr.....	32
setmotorattr.....	33
getmotorange.....	33
setmotorange.....	34
getptzcomattr.....	34
setptzcomattr.....	35
ptzup.cgi.....	36
ptzdown.cgi.....	36
ptzleft.cgi.....	36
ptzright.cgi.....	37
ptzzoomin.cgi.....	37
ptzzoomout.cgi.....	37
getlightattr.....	37
setlightattr.....	38
7. Motion detection and I/O alarm.....	38
getmdattr.....	38
setmdattr.....	39
getioattr.....	40
setioattr.....	40
getaudioalarmattr.....	41
setaudioalarmattr.....	41
getmdalarm.....	42
setmdalarm.....	43
getrelayattr.....	44
setrelayattr.....	44
getmotorattr.....	45
setmotorattr.....	45
getalarmsnapattr.....	45
setalarmsnapattr.....	45
getscheduleex.....	46
setscheduleex.....	47
getalarmsnapattr.....	48

setalarmsnapattr .....	48
getplanrecattr .....	49
setplanrecattr .....	49
getalarmsserverattr .....	50
setalarmsserverattr .....	50
relayctrl.....	51
8. Privacy masking .....	51
getcover .....	51
setcover .....	52
9. Multi-screens .....	53
getdevices.....	53
setdevices.....	54
10. User management.....	55
getuserattr .....	55
setuserattr.....	55
getsetupflag .....	56
getstreamflag .....	56
getptzflag .....	56
getuserinfo.....	57
11. Scheduled snapshot .....	57
getsnaptimerattrex.....	57
setsnaptimerattrex.....	58
12. FTP .....	59
getftpattr.....	59
setftpattr .....	59
testftp.....	60
13. SMTP .....	60
getsmtpattr.....	60
setsmtpattr .....	61
testsmtp.....	62
14. System setting.....	62
getserverinfo.....	62
getdevtype .....	63
getstreamnum .....	63
getservertime .....	63
setservertime.....	64
getntpattr.....	64
setntpattr.....	65
web/tmpfs/auto.jpg .....	66
Sysreset.cgi.....	66
Sysreboot.cgi .....	66
backup.cgi .....	66
restore.cgi.....	67
logsync.....	67

cleanlog.....67

15. RTSP URL .....68

    1. Verify the authorization by client.....68

    2. Include the authorization in the URL.....68

16. Appendix .....68

    Appendix I Defines for device type .....68

    Appendix II Time zone list .....70

### History

Ver	Auth	Edit Date	Remark
1.0.0	Martin	2016-4-29	Baseline Version
1.0.1	Hasan	2016-5-5	Formatting edits
1.0.2	Martin	2017-4-7	Add a snap url for web browser

## Introduction

All CGI commands listed in this document are based on the HTTP protocol, which can be executed in a web browser or software client.

- Authentication

All cgi commands need authentication before they can be executed. There are 3 different authentications which can be configured in your IP camera: administrator/user/guest. There are 2 kinds of authentications mechanism. The first one is the Basic authentication mechanism declared by HTTP protocol. The second one is including the username/password in the paramaters of CGI command URL.

- We only support GET and POST method of HTTP CGI. The command **upgrade.cgi** and **restore.cgi** are used for the POST method, all others commands are GET methods.

Example for GET method:

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

</form>

Example for POST method:

```
<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>

- CGI execute return information

- ✓ For the commands to get information from the IP camera, such as the running status or configurations.

If the command is executed successfully, there will return a text to show the information from the IP camera. Each status or parameter is defined as text variables; you can get its values from the return information after the CGI was executed. 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";
```

If the command is execution fails, it will return information with an error code. For example, "[Error]Get video attribution error! errcode is 0xa10e6008" .

- ✓ For the command to set configurations to the IP camera. If success, it will return the executing result information, such as "HTTP/1.0 200 OK". If fail, it will return

the error promoting, such as “[Error][Data-Length:91] unrecongized or incomplete command line.”

- ✓ CGI can be executed in the URL of web browser, which are as follows:

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/hi3510/param.cgi?cmd=getwirelessattr

Or you can include the username/password of the IP camera directly:

http://192.168.1.88/cgi-bin/hi3510/param.cgi?cmd=getvencattr&-chn=11&-usr=admin  
&-pwd=admin

http://192.168.1.6/cgi-bin/hi3510/param.cgi?cmd=getwirelessattr&-usr=admin&-pwd=admin

## 1. Video & Audio

### getvideoattr

Function	Get the properties of camera video, such as resolution, format and H.264 profile.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getvideoattr]	
Param.	None	
Return	videomode	31: 720P_Q720P_QQ720P 32: 720P_QQ720P_QQ720P 33: Q720P_Q720P_QQ720P 34: Q720P_QQ720P_QQ720P 41: 1080P_Q720P_QQ720P 42: 1080P_QQ720P_QQ720P 51: 960P_VGA_QVGA 52: 960P_QVGA_QVGA 53:VGA_VGA_QVGA 54: VGA_QVGA_QVGA 17: D1_CIF_CIF 20: CIF_CIF_CIF
	vinorm	P: 50Hz(PAL) N: 60Hz(NTSC)
	profile	0: baseline 1: mainprofile
Note	Note: The resolution of 720P is 1280x720	

	<p>The resolution of Q720P is 640x352</p> <p>The resolution of QQ720P is 320x176</p> <p>The resolution of 960P is 1280x960</p> <p>The resolution of VGA is 640x480</p> <p>The resolution of QVGA is 320x240</p> <p>The resolution of 1080P is 1920x1080</p> <p>Note:</p> <p>720P_Q720P_QQ720P: It is 720P for first stream, Q720P for second stream.</p>
Example	/cgi-bin/hi3510/param.cgi?cmd=getvideoattr

## setvideoattr

Function	Set the properties of camera video.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setvideoattr&-vinorm=&-profile=&-videomode=]	
Param.	vinorm	P: 50Hz(PAL) N: 60Hz(NTSC)
	profile	0: baseline 1: mainprofile
	videomode	31: 720P_Q720P_QQ720P 32: 720P_QQ720P_QQ720P 33: Q720P_Q720P_QQ720P 34: Q720P_QQ720P_QQ720P 41: 1080P_Q720P_QQ720P 42: 1080P_QQ720P_QQ720P 51: 960P_VGA_QVGA 52: 960P_QVGA_QVGA 53:VGA_VGA_QVGA 54: VGA_QVGA_QVGA 17: D1_CIF_CIF 20: CIF_CIF_CIF
Return	Success: Success Fail: Error Note: The resolution of 720P is 1280x720	



	<p>The resolution of Q720P is 640x352</p> <p>The resolution of QQ720P is 320x176</p> <p>The resolution of 960P is 1280x960</p> <p>The resolution of VGA is 640x480</p> <p>The resolution of QVGA is 320x240</p> <p>The resolution of 1080P is 1920x1080</p> <p>Note:</p> <p>720P_Q720P_QQ720P: It is 720P for first stream, Q720P for second stream.</p> <p>Note: This command will take some time for return value.</p>
Note	None
Example	/cgi-bin/hi3510/param.cgi?cmd=setvideoattr&-vinorm=N&-profile=1&-videomode=32

## getvencattr

Function	Get encoding information for camera video.	
Privilege	admin, user, guest	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getvencattr &-chn=]	
Param.	chn	Channel No. 11: The first stream. 12: The second stream.
Return	bps_1, bps_2	Bit rate.
	fps_1, fps_2	Frame rate.
	gop_1, gop_2	Key frame interval.
	brmode_1, brmode_2	Encode mode: 0: CBR 1: VBR
	imagegrade_1 imagegrade_2	Image quality.
	width_1, width_2	The width of the video.
	height_1, height_2	The hight of the video.
Note	Note: “_1” is for the first stream, “_2” is for the second stream.	
Example	/cgi-bin/hi3510/param.cgi?cmd=getvencattr&-chn=11	

## setvencattr

Function	Set encoding information for camera video.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setvencattr&-chn=&-bps=&-fps=&-brmode=&-imagegrade=&-gop=]	
Param.	chn	Channel No. 11 is the first stream. 12 is the second stream.
	bps	Bit rate 720P: The range is [32 ~ 6144 kbps] 1080P: The range is [32 ~ 8192 kbps] D1: The range is [32 ~ 2048 kbps] CIF: The range is [32 ~ 512 kbps] QCIF: The range is [32 ~ 256 kbps] VGA: The range is [32 ~ 2048 kbps] QVGA: The range is [32 ~ 512 kbps] QQVGA: The range is [32 ~ 256 kbps]
	fps	Frame rate PAL: The range is [1 ~ 25] NTSC: The range is [1 ~ 30]
	brmode	Encode mode value: 0: CBR 1: VBR
	imagegrade	Image quality value: The range is [1 ~ 6] Note: The smaller the value, the better the image, and the greater to affect the video bit rate.
	gop	Key frame interval value: The range is [2 ~ 150]
Return	Success: Success Fail: 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&-f	

	ps=25
--	-------

## getimageattr

Function	Get the attributes of the image.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getimageattr]	
Param.	None.	
Return	brightness	The value for brightness.
	saturation	The value for saturation.
	contrast	The value for contrast.
	sharpness	The value for sharpness.
	hue	The value for hue.
	targety	The value for target.
	flip	The value for flip status: on: enable. off: disable
	mirror	The status for mirror: on: enable. off: disable
	night	The status for night vision: on: enable. off: disable
	shutter	The value for shutter.
	wdr	The status for WDR: on: enable. off: disable
	noise	The status for denoise: on: enable. off: disable
	gc	The value for gain control, the range is [0-4294967295]
imgmode	The mode to improve the video: 0: Improve the video frame rate first. 1: Improve the image light first.	
aemode	The value for AE control mode: 0: Auto, 1: Indoor, 2: Outdoor.	

	display_mode	The current video mode for camera: 0: Black/White, 1: Colorful.
Note	Different devices will have different image parameters, please see Appendix I for reference.	
Example	/cgi-bin/hi3510/param.cgi?cmd=getimageattr	

## setimageattr

Function	Set the attributes of the image.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setimageattr&-brightness=&-saturation=&-contrast=&-hue=&-targety=&-flip=&-mirror=&-noise=&-imgmode=&-aemode=&-display_mode=&]	
Param.	brightness	The value for brightness.
	saturation	The value for saturation.
	contrast	The value for contrast.
	sharpness	The value for sharpness.
	hue	The value for hue.
	targety	The value for target.
	flip	The value for flip status: on: enable. off: disable
	mirror	The status for mirror: on: enable. off: disable
	night	The status for night vision: on: enable. off: disable
	shutter	The value for shutter.
	wdr	The status for WDR: on: enable. off: disable
	noise	The status for denoise: on: enable. off: disable
	gc	The value for gain control, the range is [0-4294967295]

	imgmode	The mode to improve the video: 0: Improve the video frame rate first. 1: Improve the image light first.
	aemode	The value for AE control mode: 0: Auto, 1: Indoor, 2: Outdoor.
	display_mode	The current video mode for camera: 0: Black/White, 1: Colorful.
Return	Success: Success. Fail: Error.	
Note	Different devices will have different image parameters, please see Appendix I for reference.	
Example	/cgi-bin/hi3510/param.cgi?cmd=setimageattr&-brightness=1&-saturation=1&-contrast=1&-hue=1&-flip=on&-mirror=on&-noise=on&-imgmode=0&-aemode=0&-display_mode=1	

## getldcattr

Function	Get the distortion value of lens.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getldcattr]	
Param.	None.	
Return	ldc_ratio	The value for distortion, from 0 to 511.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getldcattr	

## setldcattr

Function	Set the distortion value of lens.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setldcattr&- ldc_ratio =]	
Param.	ldc_ratio	The value for distortion, from 0 to 511.
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setldcattr&- ldc_ratio=1	

## getircutattr

Function	Get the value for the automatic switch of the IR-CUT.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getircutattr]	
Param.	None	
Return	saradc_switch_value	The value for IR_Cut switch, from 1 to 1024.
Note	None.	
Example	/cgi-bin/hi3510/param.cgi?cmd=getircutattr	

## setircutattr

Function	Set the value for the automatic switch of the IR-CUT.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setircutattr&-saradc_switch_value=]	
Param.	saradc_switch_value	The value for IR_Cut switch, from 1 to 1024.
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setircutattr&-saradc_switch_value=700	

## getoverlayattr

Function	Get the information for OSD region.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getoverlayattr&-region=]	
Param.	region	Region 0: OSD camera time. 1: OSD camera name.
Return	x_[region]	The x-coordinate for OSD region.
	y_[region]	The y-coordinate for OSD region.
	w_[region]	The width for OSD region.
	h_[region]	The height for OSD region.
	show_[region]	Whether to display the OSD region 0: Hidden 1: Display

	name_[region]	OSD name
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getoverlayattr&-region=0	

## setoverlayattr

Function	Set the imformation for OSD region.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setoverlayattr&-region=&show=&name=]	
Param.	region	Region 0: OSD camera time. 1: OSD camera name.
	show	Whether to display the OSD region 0: Hidden 1: Diaplay
	name	OSD name, only support English, less then 16 characters.
Return	Success: Success. Fail: Error.	
Note	Note: region_0 time OSD region do support to set name.	
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	

## getmobilesnapattr

Function	Get image attributes for mobile phone.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getmobilesnapattr]	
Param.	None	
Return	msize	1: The max. resolution for the second stream. 2: The min. resolution for the second stream.
Note	Some kinds of devices do not support to set this attributes, please see Appendix I for reference.	
Example	/cgi-bin/hi3510/param.cgi?cmd=getmobilesnapattr	

## setmobilesnapattr

Function	Set image attributes for mobile phone.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setmobilesnapattr&-msize=]	
Param.	msize	1: The max. resolution for the second stream. 2: The min. resolution for the second stream.
Return	Success: Success. Fail: Error.	
Note	Some kinds of devices do not support to set this attributes, please see Appendix I for reference.	
Example	/cgi-bin/hi3510/param.cgi?cmd=setmobilesnapattr&-msize=1	

## getaencattr

Function	Get the encode attributes of audio.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getaencattr&-chn=]	
Param.	chn	Channel No.: 11: The first stream. 12: The second stream.
Return	aeswitch_1, aeswitch_2	Whether to enable the switch for audio encode: 0: Disable 1: Enable
	aeformat_1, aeformat_2	The format for audio encode: g711a: G711A, bit rate is 64Kbps g726: G726 bit rate is 16Kbps
Note	1. _1 represents the first stream, _2 represents the second stream. 2. The sampling rate for audio is 8K, single track, 16 bit wide.	
Example	/cgi-bin/hi3510/param.cgi?cmd=getaencattr&-chn=11	

## setaencattr

Function	Set the encode attributes of audio.
Privilege	admin



Usage	/cgi-bin/hi3510/param.cgi[?cmd=setaencattr&-chn=]	
Param.	chn	Channel No.: 11: The first stream. 12: The second stream.
	aeswitch	Whether to enable the switch for audio encode: 0: Disable 1: Enable
	aeformat	The format for audio encode: g711a: G711A, bit rate is 64Kbps g726: G726 bit rate is 16Kbps
Return	Success: Success. Fail: Error.	
Note	The sampling rate for audio is 8K, single track, 16 bit wide.	
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	

## getaudioinvolume

Function	Get the volume of the input audio.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getaudioinvolume]	
Param.	None	
Return	volume	The value of volumn, the range is [1-100]
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getaudioinvolume	

## setaudioinvolume

Function	Set the volume of the input audio.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setaudioinvolume&-volume=]	
Param.	volume	The value of volumn, the range is [1-100]
Return	Success: Success. Fail: Error.	
Note	None	

Example	/cgi-bin/hi3510/param.cgi?cmd=setaudioinvolume&-volume=80
---------	---

## getaudiooutvolume

Function	Get the volume of the output audio.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getaudiooutvolume]	
Param.	None	
Return	ao_volume	The value of volumn, the range is [1-100]
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getaudiooutvolume	

## setaudiooutvolume

Function	Set the volume of the output audio.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setaudiooutvolume&-volume=]	
Param.	volume	The value of volumn, the range is [1-100]
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setaudiooutvolume&-volume=80	

## getaudiooutvolume

Function	Get the input type for audio.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getaudiooutvolume]	
Param.	None	
Return	volin_type	0: Line in 1: Mac in
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getaudiooutvolume	

## setaudiooutvolume

Function	Set the input type for audio.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setaudiooutvolume&-volin_type=]	
Param.	volin_type	0: Line in 1: Mac in
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setaudiooutvolume&-volin_type=0	

## requestifrm

Function	Request the key frame of next frame group.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=requestifrm&-chn=]	
Param.	chn	Channel No. 11: The first stream. 12: The second stream.
Return	Success: Success. Fail: Error.	
Note	None.	
Example	/cgi-bin/hi3510/param.cgi?cmd=requestifrm&-chn=11	

## 2. IR Led control

### getinfrared

Function	Get the status of IR LED switch.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getinfrared]	
Param.	None	
Return	infraredstat	IR Led status: auto: Automatical switch as the changing of outside light. open: Force to open permanently.

		close: Force to close permanently.
Note	Some kinds of devices do not support to set this attribute, please see Appendix I for reference.	
Example	/cgi-bin/hi3510/param.cgi?cmd=getinfrared	

## setinfrared

Function	Set the status of IR LED switch.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setinfrared]	
Param.	None	
Return	infraredstat	IR Led status: auto: Automatical switch as the changing of outside light. open: Force to open permanently. close: Force to close permanently.
Note	Some kinds of devices do not support to set this attributes, please see Appendix I for reference.	
Example	/cgi-bin/hi3510/param.cgi?cmd=setinfrared&-infraredstat=auto	

## 3. Network

### getnetattr

Function	Get the attributes of camera network.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getnetattr]	
Param.	None	
Return	dhcpflag	DHCP status: On: Enable Off: Disable
	ip	IP address
	netmask	Subnet mask
	gateway	Gatway
	dnsstat	DNS Status: 0: Set manually.

		1: Obtain automatically.
	fdnsip	First DNS
	sdnsip	Reserve DNS
	macaddress	MAC address
	networktype	Network type: LAN: Wired WiFi: Wireless
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getnetattr	

## setnetattr

Function	Set the attributes of camera network.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setnetattr&-dhcp=&-ipaddr=&-netmask=&-gateway=&-dnsstat=&-fdnsip=&-sdnsip=]	
Param.	dhcp	DHCP status: On: Enable Off: Disable
	ipaddr	IP address
	netmask	Subnet mask
	gateway	Gateway
	dnsstat	DNS Status: 0: Set manually. 1: Obtain automatically.
	fdnsip	First DNS
	sdnsip	Reserve DNS
Return	Success: Success. Fail: 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=	

## gethttpport

Function	Get the port of HTTP.
----------	-----------------------

Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=gethttpport]	
Param.	None	
Return	httpport	HTTP port number.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=gethttpport	

## sethttpport

Function	Set the port of HTTP.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=sethttpport&-httpport=]	
Param.	httpport	HTTP port number, the range is [80~65535]
Return	Success: Success. Fail: Error.	
Note	The camera will reboot automatically after modify its HTTP port.	
Example	/cgi-bin/hi3510/param.cgi?cmd=sethttpport&-httpport=80	

## getrtsport

Function	Get the ports for RTSP and RTP.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getrtsport]	
Param.	None	
Return	rtsport	RTSP port
	rtpport	RTP port
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getrtsport	

## setrtsport

Function	Set the ports for RTSP and RTP.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setrtsport&-rtsport=&-rtpport=]	
Param.	rtsport	RTSP port number, the range is [80~65535]
	rtpport	RTP port number, the range is [5000~8000]

Return	Success: Success. Fail: Error.
Note	The camera will reboot automatically after modify its ports.
Example	/cgi-bin/hi3510/param.cgi?cmd=setrtsport&-rtsport=554&-rtpport=660 0

## getrtspauth

Function	Get the status to verify authorization.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getrtspauth]	
Param.	None	
Return	rtsp_aenable	0: Disable 1: Enable
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getrtspauth	

## setrtspauth

Function	Set the status to verify authorization.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setrtspauth&-rtsp_aenable=]	
Param.	rtsp_aenable	0: Disable 1: Enable
Return	Success: Success. Fail: Error.	
Note	The camera will reboot automatically after modify this status.	
Example	/cgi-bin/hi3510/param.cgi?cmd=setrtspauth&-rtsp_aenable=1	

## getinterip

Function	Get the internet IP address of the camera network.	
Privilege	admin	
Usage	/cgi-bin/param.cgi?cmd=getinterip	
Param.	None	
Return	interip	Internet IP, such as interip = "220.112.14.173"

Note	None
Example	/cgi-bin/param.cgi?cmd=getinterip

## getupnpatr

Function	Get the status of UPNP enable.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getupnpatr]	
Param.	None	
Return	upm_enable	0: Disable 1: Enable
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getupnpatr	

## setupnpatr

Function	Set the status of UPNP enable.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setupnpatr&-upm_enable=]	
Param.	upm_enable	0: Disable 1: Enable
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setupnpatr&-upm_enable=1	

## getonvifattr

Function	Get the attributes of Onvif.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getonvifattr]	
Param.	None	
Return	ov_enable	Onvif enable status: 1: Enable 0: Disable
	ov_port	Onvif port number.



	ov_authflag	Authorization check status: 1: Enable 0: Disable
	ov_forbitset	Enable status for onvif parameters: 0: Enable to set time zone, enable to set image parameters. 1: Disable to set time zone, enable to set image parameters. 2: Enable to set time zone, Disable to set image parameters. 3: Disable to set time zone, Disable to set image parameters.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getonvifattr	

## setonvifattr

Function	Set the attributes of Onvif.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi?cmd=setonvifattr&-ov_enable=&-ov_port=&-ov_authflag=&-ov_forbitset=]	
Param.	ov_enable	Onvif enable status: 1: Enable 0: Disable
	ov_port	Onvif port number.
	ov_authflag	Authorization check status: 1: Enable 0: Disable
	ov_forbitset	Enable status for onvif parameters: 0: Enable to set time zone, enable to set image parameters. 1: Disable to set time zone, enable to set image parameters. 2: Enable to set time zone, Disable to set image parameters. 3: Disable to set time zone, Disable to set image parameters.

Return	Success: Success. Fail: Error.
Note	The camera will reboot automatically after modify this onvif settings.
Example	/cgi-bin/hi3510/param.cgi?cmd=setonvifattr&-ov_enable=1&-ov_port=8080&-ov_authflag=0&-ov_forbitset=0

## 4. Wireless

### getwirelessattr

Function	Get the attributes of wireless.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getwirelessattr]	
Param.	None	
Return	wf_enable	Wireless status: 0: Disable 1: Enable
	wf_ssid	SSID, less then 32 characters.
	wf_auth	Security Mode: 0: None 1: WEP 2: WPA-PSK 3: WPA2-PSK
	wf_key	Password
	wf_enc	WPA Algorithm 0: TKIP 1: AES
	wf_mode	Connection mode: 0: Router mode 1: Point to Point mode
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getwirelessattr	

### setwirelessattr

Function	Set the attributes of wireless.
Privilege	admin

Usage	/cgi-bin/hi3510/param.cgi[?cmd=setwirelessattr&-wf_enable=&-wf_ssid=&-wf_auth=&-wf_key=&-wf_enc=&-wf_mode=]	
Param.	wf_enable	Wireless status: 0: Disable 1: Enable
	wf_ssid	SSID, less then 32 characters.
	wf_auth	Security Mode: 0: None 1: WEP 2: WPA-PSK 3: WPA2-PSK
	wf_key	Password
	wf_enc	WPA Algorithm 0: TKIP 1: AES
	wf_mode	Connection mode: 0: Router mode 1: Point to Point mode
	Return	Success: Success. Fail: 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	

## searchwireless

Function	Search wireless AP.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=searchwireless]	
Param.	None	
Return	waccess_points	AP counts.
	wchannel	Channel
	wrssi	Signal strength
	wssid	SSID
	wenc	Security mode
	wauth	WPA Algorithm
	wnet	Connection mode (Router or Point to Point)

	<p>Note: If the waccess_points &gt; 1, it means there are several AP, then it will return a value for each segments from wchannel to wnet of every AP.</p> <p>For example:</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

## chkwirelessattr

Function	Check wireless configuration is right or not.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=chkwirelessattr&-wf_ssid=&-wf_auth=&-wf_key=&-wf_enc=&-wf_mode=]	
Param.	wf_ssid	SSID, less than 32 characters.
	wf_auth	Security mode : 0: None 1: WEP 2: WPA-PSK

		3: WPA2-PSK
	wf_key	Password
	wf_enc	WPA Algorithm 0: TKIP 1: AES
	wf_mode	Connection mode: 0: Router mode 1: Point to Point mode
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=chkwirelessattr&-wf_ssid=linksys&-wf_auth=3&-wf_key=1234567890&-wf_enc=0&-wf_mode=0	

## getchkwireless

Function	Get the check result for wifi configurations.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getchkwireless]	
Param.	None	
Return	chkres	The status for wifi connection: 0: Fail 1: Success
Note	Please run chkwirelessattr command first before use this cgi.	
Example	/cgi-bin/hi3510/param.cgi?cmd=getchkwireless	

## 5. DDNS

### get3thddnsattr

Function	Get the DDNS attributes of third party.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=get3thddnsattr]	
Param.	None	
Return	d3th_enable	The status for third-party DDNS: 0: Disable

		1: Enable
	d3th_service	The type of third-party DDNS provider: 0: dyndns.org 1: 322.org 2: dynddns.us 3: No-ip.com
	d3th_uname	Username
	d3th_passwd	Password
	d3th_domain	Domain
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=get3thddnsattr	

## set3thddnsattr

Function	Set the DDNS attributes of third partyt.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=set3thddnsattr.&-d3th_enable=&-d3th_service=&-d3th_uname=&-d3th_passwd=&-d3th_domain=]	
Param.	d3th_enable	The status for third-party DDNS: 0: Disable 1: Enable
	d3th_service	The type of third-party DDNS provider: 0: dyndns.org 1: 322.org 2: dynddns.us 3: No-ip.com
	d3th_uname	Username
	d3th_passwd	Password
	d3th_domain	Domain
Return	Success: Success. Fail: 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 control

### ptzctrl

Function	The control for PTZ motion.	
Privilege	admin, user	
Usage	/cgi-bin/hi3510/param.cgi?cmd=ptzctrl.cgi[&-step=&-act=&-speed=]	
Param.	step	Stepping mode: 0: Single step and stop until stop command. 1: Single step and stop automatically.
	act	Command strings for motion control: left: Go to left. right: Go to right. up: Go to up. Down: Go to down upleft, upright, downleft, downright: Go to upleft, upright, downleft, downright home: Back to center point. zoomin: Zoom in. zoomout: Zoom out. hscan: The curise of horizontal. vscan: The curise of vertical. stop: Stop.
	speed	Speed for motion, the value is [1~63].
Return	Success: Success. Fail: Error.	
Note	Different device types may have different parameters for PTZ, please see Appendix I for reference.	
Example	/cgi-bin/hi3510/param.cgi?cmd=ptzctrl&-step=0&-act=left&-speed=45	

### preset

Function	Set the attributes for preset.	
Privilege	admin, user	
Usage	/cgi-bin/hi3510/param.cgi?cmd=preset[&-act=&-status=&-number=]	
Param.	act	Command strings: goto: Call and go to the preset point.

		set: Set the preset point.
	status	Set the status for preset point: 0: Clear the preset point. 1: Save the preset point.
	number	The No for the preset.
Return	Success: Success. Fail: Error.	
Note	Different device type may have different count of preset.	
Example	/cgi-bin/hi3510/param.cgi?cmd=preset&-act=goto&-number=1 /cgi-bin/hi3510/param.cgi?cmd=preset&-act=set&-status=1&-number=1	

## getmotorattr

Function	Get the attributes for PTZ.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getmotorattr]	
Param.	None	
Return	panspeed	Speed of Pan: 0: Fast 1: Medium 2: Slow
	tiltspeed	Speed of Tilt 0: Fast 1: Medium 2: Slow
	panscan	The number for horizontal cruise.
	tiltscan	The number for vertical cruise.
	movehome	Back to center after self-check: on: Enable off: Disable
	ptzalarmmask	Close the motion alarm while PTZ is moving. on: Enable off: Disable
	alarmpresetindex	Alarm link action for going to preset, the preset number is [1-8].
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getmotorattr	



## setmotorattr

Function	Set the attributes for PTZ.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setmotorattr&-panspeed=&-tiltspeed=&-panscan=&-tiltscan=&-movehome=&-ptzalarmmask=&-alarmpresetindex=]	
Param.	panspeed	Speed of Pan: 0: Fast 1: Medium 2: Slow
	tiltspeed	Speed of Tilt 0: Fast 1: Medium 2: Slow
	panscan	The number for horizontal cruise.
	tiltscan	The number for vertical cruise.
	movehome	Back to center after self-check: on: Enable off: Disable
	ptzalarmmask	Close the motion alarm while PTZ is moving. on: Enable off: Disable
	alarmpresetindex	Alarm link action for going to preset, the preset number is [1-8].
Return	Success: Success. Fail: Error.	
Note	They must be the same for the speed of Pan and Tilt. And they must be the same for the number of horizontal and vertical cruise.	
Example	/cgi-bin/hi3510/param.cgi?cmd=setmotorattr&-panspeed=1&-tiltspeed=1&-panscan=1&-tiltscan=1&-movehome=on&-ptzalarmmask=on&-alarmpresetindex=1	

## getmotorrange

Function	Get the attributes of PTZ motor type.
----------	---------------------------------------

Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getmotorange]	
Param.	None	
Return	motortype	0: Default, include a travel switch. 1: Do not have a travel switch.
	panrange	Step length for pan.
	tilrange	Step length for Tilt.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getmotorange	

## setmotorange

Function	Set the attributes of PTZ motor type.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setmotorange&-motortype=&-panrange=&-tilrange=]	
Param.	motortype	0: Default, include a travel switch. 1: Do not have a travel switch.
	panrange	Step length for pan.
	tilrange	Step length for Tilt.
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setmotorange&-motortype=0&-panrange=580&-tilrange=150	

## getptzcomattr

Function	Get the PTZ common attributes.	
Privilege	admin, user	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getptzcomattr]	
Param.	None	
Return	protocal	Protocol type: 0: PELCO-D 1: PELCO-P
	address	Address code, the range is [0~255].

	baud	Baud rate, 1200, 2400, 4800, 9600, 19200, 38400, 57600.
	databit	Data bits, 7 or 8.
	stopbit	Stop bits, 1 or 2.
	check	The method to verify: 0: None 1: Odd parity check. 2: Even parity check. 3: Mark 4: Blank space.
Note	Some kinds of device do not support this attribute, please see Appendix I for reference.	
Example	/cgi-bin/hi3510/param.cgi?cmd=getptzcomattr	

## setptzcomattr

Function	Set the PTZ common attributes.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setptzcomattr&-protocol=&-address=&-baud=&-databit=&-stopbit=&-check=]	
Param.	protocol	Protocol type: 0: PELCO-D 1: PELCO-P
	address	Address code, the range is [0~255].
	baud	Baud rate, 1200, 2400, 4800, 9600, 19200, 38400, 57600.
	databit	Data bits, 7 or 8.
	stopbit	Stop bits, 1 or 2.
	check	The method to verify: 0: None 1: Odd parity check. 2: Even parity check. 3: Mark 4: Blank space.
Return	Success: Success. Fail: Error.	
Note	Some kinds of device do not support this attribute, please see Appendix	

	I for reference.
Example	/cgi-bin/hi3510/param.cgi?cmd=setptzcomattr&-protocal=0&-address=1 &-baud=9600&-databit=8&-stopbit=1&-check=0

## ptzup.cgi

Function	Let the PT go to up, used for the control on mobile phone.
Privilege	admin, user
Usage	/cgi-bin/hi3510/ptzup.cgi
Param.	None
Return	Success: Success. Fail: Error.
Note	None
Example	/cgi-bin/hi3510/ptzup.cgi

## ptzdown.cgi

Function	Let the PT go to down, used for the control on mobile phone.
Privilege	admin, user
Usage	/cgi-bin/hi3510/ptzdown.cgi
Param.	None
Return	Success: Success. Fail: Error.
Note	None
Example	/cgi-bin/hi3510/ptzdown.cgi

## ptzleft.cgi

Function	Let the PT go to left, used for the control on mobile phone.
Privilege	admin, user
Usage	/cgi-bin/hi3510/ptzleft.cgi
Param.	None
Return	Success: Success. Fail: Error.
Note	None
Example	/cgi-bin/hi3510/ptzleft.cgi

## ptzright.cgi

Function	Let the PT go to right, used for the control on mobile phone.
Privilege	admin, user
Usage	/cgi-bin/hi3510/ptzright.cgi
Param.	None
Return	Success: Success. Fail: Error.
Note	None
Example	/cgi-bin/hi3510/ptzright.cgi

## ptzzoomin.cgi

Function	Let the PTZ to zoom in, used for the control on mobile phone.
Privilege	admin, user
Usage	/cgi-bin/hi3510/ptzzoomin.cgi
Param.	None
Return	Success: Success. Fail: Error.
Note	None
Example	/cgi-bin/hi3510/ptzzoomin.cgi

## ptzzoomout.cgi

Function	Let the PTZ to zoom out, used for the control on mobile phone.
Privilege	admin, user
Usage	/cgi-bin/hi3510/ptzzoomout.cgi
Param.	None
Return	Success: Success. Fail: Error.
Note	None
Example	/cgi-bin/hi3510/ptzzoomout.cgi

## getlightattr

Function	Get the status for indicator light LED.
----------	---

Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getlightattr]	
Param.	None	
Return	light_enable	The status for indocator light: on: The LED always light. off: The LED always go out.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getlightattr	

## setlightattr

Function	Set the status for indicator light LED.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setlightattr]	
Param.	None	
Return	light_enable	The status for indocator light: on: The LED always light. off: The LED always go out.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setlightattr&-light_enable=on	

## 7. Motion detection and I/O alram

### getmdattr

Function	Get the attributes for motion detection.	
Privilege	admin	
Usage	cgi-bin/hi3510/param.cgi[?cmd=getmdattr]	
Param.	None	
Return	m1_enable	The status of motion detection of area 1: 0: Disable 1: Enable
	m1_x	X-coordinate for area 1.
	m1_y	Y-coordinate for area 1.
	m1_w	The width for area 1.
	m1_h	The height for area 1.

	m1_sensitivity	The sensitivity for area 1.
	m1_threshold	Reserved
	m2_enable	The status of motion detection of area 2: 0: Disable 1: Enable
	m2_x	X-coordinate for area 2.
	m2_y	Y-coordinate for area 2.
	m2_w	The width for area 2.
	m2_h	The height for area 2.
	m2_sensitivity	The sensitivity for area 2.
	m2_threshold	Reserved
	m3_enable	The status of motion detection of area 3: 0: Disable 1: Enable
	m3_x	X-coordinate for area 3.
	m3_y	Y-coordinate for area 3.
	m3_w	The width for area 3.
	m3_h	The height for area 3.
	m3_sensitivity	The sensitivity for area 3.
	m3_threshold	Reserved
	m4_enable	The status of motion detection of area 4: 0: Disable 1: Enable
	m4_x	X-coordinate for area 4.
	m4_y	Y-coordinate for area 4.
	m4_w	The width for area 4.
	m4_h	The height for area 4.
	m4_sensitivity	The sensitivity for area 4.
	m4_threshold	Reserved
Note	The width and height for the area is based on the max. resolution of camera.	
Example	/cgi-bin/hi3510/param.cgi?cmd=getmdattr	

## setmdattr

Function	Set the attributes for motion detection.
Privilege	admin

Usage	/cgi-bin/hi3510/param.cgi[?cmd=setmdattr&-enable=&-s=&-name=&-x=&-y=&-w=&-h=]	
Param.	enable	The status of motion detection: 0: Disable 1: Enable
	s	Sensitivity, the range is [1 ~ 100].
	name	Area number, the rang is [1 ~ 4]
	x	X-coordinate for detection area.
	y	Y-coordinate for detection area.
	w	The width for detection area.
	h	The height for detection area.
Return	Success: Success. Fail: Error.	
Note	The width and height for the area is based on the max. resolution of camera.	
Example	/cgi-bin/hi3510/param.cgi?cmd=setmdattr&-enable=1&-s=50&-name=1&-x=0&-y=0&-w=60&-h=60	

## getioattr

Function	Get the attributes for I/O alarm.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getioattr]	
Param.	None	
Return	io_enable	Whether to allow the I/O alarm or not: 0: Disable, do not allow. 1: Enable, allow.
	io_flag	The trigger mode for I/O alarm: 0: Always close. 1: Always open.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getioattr	

## setioattr

Function	Set the attributes for I/O alarm.	
Privilege	admin	



Usage	/cgi-bin/hi3510/param.cgi[?cmd=setioattr &-io_enable=&-io_flag=]	
Param.	io_enable	Whether to allow the I/O alarm or not: 0: Disable, do not allow. 1: Enable, allow.
	io_flag	The trigger mode for I/O alarm: 0: Always close. 1: Always open.
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setioattr&-io_enable=0&-io_flag=1	

## getaudioalarmattr

Function	Get the attributes for audio alarm.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getaudioalarmattr]	
Param.	None	
Return	aa_enable	Whether to allow the audio alarm or not: 0: Disable, do not allow. 1: Enable, allow.
	aa_value	Sensitivity value, the range is [1-100]. Much bigger will be much more sensitivity.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getaudioalarmattr	

## setaudioalarmattr

Function	Set the attributes for audio alarm.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setaudioalarmattr&-aa_enable=&-aa_value=]	
Param.	aa_enable	Whether to allow the audio alarm or not: 0: Disable, do not allow. 1: Enable, allow.
	aa_value	Sensitivity value, the range is [1-100]. Much bigger will be much more sensitivity.

Return	Success: Success. Fail: Error.
Note	None
Example	/cgi-bin/hi3510/param.cgi?cmd=setaudioalarmattr&-aa_enable=0&-aa_value=50

## getmdalarm

Function	Get the attributes for alarm link actions.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getmdalarm&-aname=]	
Param.	aname	<p>Link action name:</p> <p>Email: E-mail alarm</p> <p>Emailsnap: E-mail alarm with snapshots.</p> <p>Snap: Save snapshots to SD card.</p> <p>Ftpsnap: Save snapshots to FTP server.</p> <p>record: Save video to SD card.</p> <p>ftprec: Save video to FTP server.</p> <p>relay: Relay output.</p> <p>server: Alarm server.</p> <p>preset: Actions for preset of PT.</p>
Return	md_email_switch	<p>Whether to allow the email alarm:</p> <p>on: Enable, allow.</p> <p>off: Disable, do not allow.</p>
	md_emailsnap_switch	<p>Whether to allow the email alarm with snapshots:</p> <p>on: Enable, allow.</p> <p>off: Disable, do not allow.</p>
	md_snap_switch	<p>Whether to allow to save snapshots to SD card:</p> <p>on: Enable, allow.</p> <p>off: Disable, do not allow.</p>
	md_ftpsnap_switch	<p>Whether to allow to save snapshots to FTP server:</p> <p>on: Enable, allow.</p> <p>off: Disable, do not allow.</p>
	md_record_switch	<p>Whether to allow to save video to SD card:</p>

		<p>on: Enable, allow.</p> <p>off: Disable, do not allow.</p>
	md_ftprec_switch	<p>Whether to allow to save video to FTP server:</p> <p>on: Enable, allow.</p> <p>off: Disable, do not allow.</p>
	md_relay_switch	<p>Whether to allow the relay output:</p> <p>on: Enable, allow.</p> <p>off: Disable, do not allow.</p>
	md_server_switch	<p>Whether to allow to enable the alarm server:</p> <p>on: Enable, allow.</p> <p>off: Disable, do not allow.</p>
	md_preset_switch	<p>Whether to allow the preset action for alarm:</p> <p>on: Enable, allow.</p> <p>off: Disable, do not allow.</p>
Note	None	
Example	<pre>/cgi-bin/hi3510/param.cgi?cmd=getmdalarm&amp;-aname=email&amp;cmd=getmdalarm&amp;-aname=emailsnap&amp;cmd=getmdalarm&amp;-aname=ftpsnap&amp;cmd=getmdalarm&amp;-aname=snap&amp;cmd=getmdalarm&amp;-aname=emailrec&amp;cmd=getmdalarm&amp;-aname=record&amp;cmd=getmdalarm&amp;-aname=ftprec&amp;cmd=getmdalarm&amp;-aname=relay&amp;cmd=getmdalarm&amp;-aname=server&amp;cmd=getmdalarm&amp;-aname=preset</pre>	

## setmdalarm

Function	Set the attributes for alarm link actions.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setmdalarm &-aname=&-switch=]	
Param.	aname	<p>Link action name:</p> <p>Email: E-mail alarm</p> <p>Emailsnap: E-mail alarm with snapshots.</p> <p>Snap: Save snapshots to SD card.</p> <p>Ftpsnap: Save snapshots to FTP server.</p> <p>record: Save video to SD card.</p> <p>ftprec: Save video to FTP server.</p> <p>relay: Relay output.</p> <p>server: Alarm server.</p> <p>preset: Actions for preset of PT.</p>

	switch	Action status: on: Enable off: Disable
Return	Success: Success. Fail: Error.	
Note	None	
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=ftpsnap&-switch=off&cmd=setmdalarm&-aname=record&-switch=off&cmd=setmdalarm&-aname=relay&-switch=off&cmd=setmdalarm&-aname=server&-switch=off&cmd=setmdalarm&-aname=preset&-switch=off	

## getrelayattr

Function	Get the relay output time for alarm link action.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getrelayattr]	
Param.	None	
Return	time	Output time, the unit is second, var time="10";
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getrelayattr	

## setrelayattr

Function	Set the relay output time for alarm link action.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setrelayattr&-time=]	
Param.	time	Output time, the unit is second , include [5, 10, 20, 30]
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setrelayattr&-time=10	

## getmotorattr

Function	Get the preset number for alarm action.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getmotorattr]	
Param.	None	
Return	alarmpresetindex	Preset name or number, the range is [1-8].
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getmotorattr	

## setmotorattr

Function	Set the preset number for alarm action.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setmotorattr&-alarmpresetindex=]	
Param.	alarmpresetindex	Preset name or number, the range is [1-8].
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setmotorattr&-alarmpresetindex=2	

## getalarmsnapattr

Function	Get the count for alarm snapshots.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getalarmsnapattr]	
Param.	None	
Return	snap_count	The count for snapshots of alarm.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getalarmsnapattr	

## setalarmsnapattr

Function	Set the count for alarm snapshots.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setalarmsnapattr&-snap_count=]	

Param.	snap_count	Count for snapshots, the range is [1、 2、 3]
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setalarmsnapattr&-snap_count=2	

## getscheduleex

Function	Get the time schedule for motion alarm and scheduled snap.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getscheduleex&-ename=]	
Param.	ename	Schedule name: md : Schedule for motion detection. Snap: Schedule for planed snap.
Return	<pre> week0=PPPPPPPP PPPPPPPPPPPPPP PPPPPPPPPPPPPP PPPPPPPPPPPPPP P week1=PPPPPPPP PPPPPPPPPPPPPP PPPPPPPPPPPPPP PPPPPPPPPPPPPP P week3=PPPPPPPP PPPPPPPPPPPPPP PPPPPPPPPPPPPP PPPPPPPPPPPPPP P week4=PPPPPPPP PPPPPPPPPPPPPP PPPPPPPPPPPPPP PPPPPPPPPPPPPP P week5=PPPPPPPP PPPPPPPPPPPPPP PPPPPPPPPPPPPP </pre>	<pre> week0: Sunday week1: Monday week2: Tuesday week3: Wednesday week4: Thursday week5: Friday week6: Saturday P : Represents enable N : Represents disable </pre>







	snap_timer_name	File name for snapshot of planning snap.
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setalarmsnapattr&-snap_name_mode=1&-snap_alarm_name=snapalarm&-snap_timer_name=snaptime	

## getplanrecattr

Function	Get the attributes for scheduled recording.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd= getplanrecattr]	
Param.	None	
Return	planrec_enable	Whether to enable the recording: 0: Disable 1: Enable
	planrec_time	Time length for recoding, the range is [15-900] seconds.
	planrec_chn	The stream channel for recording, 11, 12, 13
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getplanrecattr	

## setplanrecattr

Function	Set the attributes for scheduled recording.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setplanrecattr&-planrec_enable=&-planrec_time&-planrec_chn]	
Param.	planrec_enable	Whether to enable the recording: 0: Disable 1: Enable
	planrec_time	Time length for recoding, the range is [15-900] seconds.
	planrec_chn	The stream channel for recording, 11, 12, 13
Return	Success: Success. Fail: Error.	

Note	The camera will reboot automatically after modify the recording channel.
Example	/cgi-bin/hi3510/param.cgi?cmd=setplanrecattr&-planrec_enable=1&-planrec_time=30&-planrec_chn=12

## getalarmserverattr

Function	Get the attributes for alarm server.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getalarmserverattr]	
Param.	None	
Return	as_server	Server address.
	as_port	Server port, the range is [1-65535]
	as_username	Username
	as_password	Password
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getalarmserverattr	

## setalarmserverattr

Function	Set the attributes for alarm server.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setalarmserverattr&-as_server=&-as_port=&-as_username=&-as_password=]	
Param.	as_server	Server address.
	as_port	Server port, the range is [1-65535]
	as_username	Username
	as_password	Password
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setalarmserverattr&-as_server=alarm.net&-as_port=8990&-as_username=asdf&-as_password=1234	

## relayctrl

Function	Enable or disable the relay manually.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=relayctrl&-act=]	
Param.	act	on: Enable off: Disable
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=relayctrl&-act=on	

## 8. Privacy masking

### getcover

Function	Get the attributes for masking.	
Privilege	admin	
Usage	cgi-bin/hi3510/param.cgi[?cmd=getcover]	
Param.	None	
Return	show_1	Whether to enable privacy masking for area 1: 0: Disable 1: Enable
	color_1	The masking color for area 1.
	x_1	X-coordinate for area 1.
	y_1	Y-coordinate for area 1.
	w_1	The width for area 1.
	h_1	The height for area 1.
	show_2	Whether to enable privacy masking for area 2: 0: Disable 1: Enable
	color_2	The masking color for area 2.
	x_2	X-coordinate for area 2.
	y_2	Y-coordinate for area 2.
	w_2	The width for area 2.
	h_2	The height for area 2.

	show_3	Whether to enable privacy masking for area 3: 0: Disable 1: Enable
	color_3	The masking color for area 3.
	x_3	X-coordinate for area 3.
	y_3	Y-coordinate for area 3.
	w_3	The width for area 3.
	h_3	The height for area 3.
	show_4	Whether to enable privacy masking for area 4: 0: Disable 1: Enable
	color_4	The masking color for area 4.
	x_4	X-coordinate for area 4.
	y_4	Y-coordinate for area 4.
	w_4	The width for area 4.
	h_4	The height for area 4.
Note	The coordinate/width/height are based on the max. resolution of the camera.	
Example	/cgi-bin/hi3510/param.cgi?cmd=getcover	

## setcover

Function	Set the attributes for masking.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setcover&-show=&-region=&-color=&-x=&-y=&-w=&-h=]	
Param.	show	Whether to enable privacy masking: 0: Disable 1: Enable
	region	Area number for masking, [1 ~ 4]
	color	Masking color.
	x	X-coordinate for masking.
	y	Y-coordinate for masking.
	w	The width for masking.
	h	The height for masking.
Return	Success: Success. Fail: Error.	

Note	The coordinate/width/height are based on the max. resolution of the camera.
Example	/cgi-bin/hi3510/param.cgi?cmd=setcover&-show=1&-region=1&-color=000000&-x=0&-y=0&-w=50&-h=50

## 9. Multi-screens

### getdevices

Function	Get the attributes for multi-screen.	
Privilege	admin, user, guest	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getdevices]	
Param.	None	
Return	<pre>d_host[0]=""</pre> <pre>d_alias[0]=""</pre> <pre>d_port[0]="80"</pre> <pre>d_username[0]=""</pre> <pre>d_password[0]=""</pre> <pre>d_host[1]=""</pre> <pre>d_alias[1]=""</pre> <pre>d_port[1]="80"</pre> <pre>d_username[1]=""</pre> <pre>d_password[1]=""</pre> <pre>d_host[2]=""</pre> <pre>d_alias[2]=""</pre> <pre>d_port[2]="80"</pre> <pre>d_username[2]=""</pre> <pre>d_password[2]=""</pre> <pre>d_host[3]=""</pre> <pre>d_alias[3]=""</pre> <pre>d_port[3]="80"</pre> <pre>d_username[3]=""</pre> <pre>d_password[3]=""</pre>	<p>Camera IP address for screen-x.</p> <p>Camera name for screen-x.</p> <p>Camera HTTP port for screen-x.</p> <p>Camera username for screen-x.</p> <p>Camera password for screen-x.</p> <p>X should be 1-9 which represents the screen from channel 1 to channel 9.</p>

	<pre>d_host[4]="" d_alias[4]="" d_port[4]="80" d_username[4]="" d_password[4]=""  d_host[5]="" d_alias[5]="" d_port[5]="80" d_username[5]="" d_password[5]=""  d_host[6]="" d_alias[6]="" d_port[6]="80" d_username[6]="" d_password[6]=""  d_host[7]="" d_alias[7]="" d_port[7]="80" d_username[7]="" d_password[7]=""</pre>	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getdevices	

## setdevices

Function	Set the attributes for multi-screen.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setdevices&-d_number=&-d_alias=&-d_host=&-d_port=&-d_username=&-d_password=]	
Param.	d_number	Screen number, the range is 0-8.
	d_host	The IP address of camera.
	d_alias	Camera name.
	d_port	The HTTP port for camera.
	d_username	The username of camera.

	d_password	The password of camera.
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setdevices&-d_number=0&-d_alias=IP Camer&-d_host=192.168.1.88&-d_port=80&-d_username=admin&-d_ password=admin	

## 10. User management.

### getuserattr

Function	Get the attributes of users.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getuserattr]	
Param.	None	
Return	at_name	The username of camera.
	at_password	The password of camera.
Note	This command will return all user information, such as username and password:  var at_name0="admin"; var at_password0="admin"; var at_name1="user"; var at_password1="user"; var at_name2="guest"; var at_password2="guest";	
Example	/cgi-bin/hi3510/param.cgi?cmd=getuserattr	

### setuserattr

Function	Set the attributes of users.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setuserattr&-at_username=&-at_new name= &-at_password =]	
Param.	at_username	The current username, less then 16 characters.
	at_newname	The new username, less then 16 characters.
	at_password	The password, less then 16 characters.

Return	Success: Success. Fail: Error.
Note	None
Example	/cgi-bin/hi3510/param.cgi?cmd=setuserattr&-at_username=admin&-at_newname=newname&-at_password=admin

## getsetupflag

Function	Get the attributes of admin user.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi?cmd=getsetupflag	
Param.	None	
Return	name0	Username
	password0	Password
	authLevel0	Reserved
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getsetupflag	

## getstreamflag

Function	Get the attributes of guest user.	
Privilege	guest	
Usage	/cgi-bin/hi3510/ param.cgi?cmd=getstreamflag	
Param.	None	
Return	name2	Username
	password2	Password
	authLevel2	Reserved
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getstreamflag	

## getptzflag

Function	Get the attributes of user account.	
Privilege	user	
Usage	/cgi-bin/hi3510/param.cgi?cmd=getptzflag	
Param.	None	



Return	name1	Username
	password1	Password
	authLevel1	Reserved
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getptzflag	

## getuserinfo

Function	Get the online user information.	
Privilege	admin, user, guest	
Usage	/cgi-bin/hi3510/param.cgi?cmd=getuserinfo	
Param.	None	
Return	name	Username
	password	Password
	authLevel	The authorization level: 15: admin 3: user 1: guest
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getuserinfo	

## 11. Scheduled snapshot

### getsnaptimerattrex

Function	Get the attributes for scheduled snapshot.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getsnaptimerattrex]	
Param.	None	
Return	as_snap_enable	Whether to save snapshots to SD card: 0: Disable 1: Enable
	as_snap_interval	Time interval, the unit is second, the range is [5~86400].

	as_email_enable	Whether to send snapshots to E-mail: 0: Disable 1: Enable
	as_email_interval	Time interval, the unit is second, the range is [5~86400].
	as_ftp_enable	Whether to upload snapshots to FTP server: 0: Disable 1: Enable
	as_ftp_interval	Time interval, the unit is second, the range is [5~86400].
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getsnaptimerattrex	

## setsnaptimerattrex

Function	Set the attributes for scheduled snapshot.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setsnaptimerattrex&-as_enable=&-as_interval=&-as_type=]	
Param.	as_enable	Whether to enable the scheduled snapshot? 0: Disable 1: Enable
	as_interval	Time interval for snap, the range is [5~86400] seconds.
	as_type	Link actions: snap: Save snapshots to SD card. email: Send snapshots to E-mail. ftp: Upload snapshots to FTP server.
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setsnaptimerattrex&-as_enable=1&-as_interval=60&-as_type=snap	

## 12. FTP

### getftpattr

Function	Get the attributes of FTP setting.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getftpattr]	
Param.	None	
Return	ft_server	Server address.
	ft_port	Server port.
	ft_username	Username.
	ft_password	Password.
	ft_dirname	Storage path.
	ft_mode	Whether to enable the passive mode? 0: Diasble 1: Enable
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getftpattr	

### setftpattr

Function	Set the attributes of FTP setting.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getftpattr&-ft_server=&-ft_port=&-ft_username=&-ft_password=&- ft_dirname =&-ft_mode=]	
Param.	ft_server	Server address.
	ft_port	Server port.
	ft_username	Username.
	ft_password	Password.
	ft_dirname	Storage path.
	ft_mode	Whether to enable the passive mode? 0: Diasble 1: Enable
Return	Success: Success. Fail: 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=FTPPasswo rd&-ft_dirname =Program Files&-ft_mode=1
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## testftp

Function	Test the FTP setting.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=testftp]	
Param.	None	
Return	result	Return value: 0: Success. -1: Unknow error. -2: Can not connect the FTP server. -3: Username and password do not match. -4: The storage path is error.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=testftp	

## 13. SMTP

### getsmtpattr

Function	Get the SMTP setting.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getsmtpattr]	
Param.	None	
Return	ma_server	SMTP server address.
	ma_port	Server port.
	ma_ssl	Authentication link: 0: None. 1: SSL. 2: TLS. 3: STARTTLS.
	ma_logintype	Whether to enable the check of authentication: 1: Enable

		3: Disable
	ma_username	Username
	ma_password	Password
	ma_from	The email address of sender.
	ma_to	The email address of receiver.
	ma_subject	The email subject.
	ma_text	The email content.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getsmtpatr	

## setsmtpatr

Function	Set the SMTP setting.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setsmtpatr&-ma_server=&-ma_port=&-ma_ssl=&-ma_logintype=&-ma_username=&-ma_password=&-ma_from=&-ma_to=&-ma_subject=&-ma_text=]	
Param.	ma_server	SMTP server address.
	ma_port	Server port.
	ma_ssl	Authentication link: 0: None. 1: SSL. 2: TLS. 3: STARTTLS.
	ma_logintype	Whether to enable the check of authentication: 1: Enable 3: Disable
	ma_username	Username
	ma_password	Password
	ma_from	The email address of sender.
	ma_to	The email address of receiver.
	ma_subject	The email subject.
	ma_text	The email content.
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setsmtpatr&-ma_server=stmp.sdf.co	

	m&-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
--	--

## testsmtp

Function	Test the SMTP setting.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=smtp]	
Param.	None	
Return	result	Return value: 0: Success. -1: Unknow error. -2: SSL error. -3: None, can not to connect the server. -4: The username and password do not match.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=testsmtp	

## 14. System setting

### getserverinfo

Function	Get the attributes of camera.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getserverinfo]	
Param.	None	
Return	model	Model SN number of camera.
	hardVersion	Hardware version.
	softVersion	Software version.
	webVersion	Web version.
	name	Camera name.
	startdate	The start date of system running.
	upnpstatus	Ok: Success off: Disable

		failed: Fail
	facddnsstatus	The status of the DDNS from camera factory. Ok: Success off: Disable failed: Fail
	th3ddnsstatus	The status of the DDNS from third-party. Ok: Success off: Disable failed: Fail
	runtimes	Reserved
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getserverinfo	

## getdevtype

Function	Get the device type of camera.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getdevtype]	
Param.	None	
Return	devtype	Device type.
Note	See appendix I for reference.	
Example	/cgi-bin/hi3510/param.cgi?cmd=getdevtype	

## getstreamnum

Function	Get the count of users online.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getstreamnum]	
Param.	None	
Return	stream_num	Count for users, var stream_num = "1" ;
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getstreamnum	

## getservertime

Function	Get the start time of system running.
----------	---------------------------------------

Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=getservertime]	
Param.	None	
Return	time	The current time, [yyyy][mm][dd][hh][mm][ss] For example, time="20110802182638";
	timeZone	Time zone, timeZone="Asia/Hong_Kong";
	dstmode	Whether to enable the DST: on: Enable off: Disable
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getservertime	

## setservertime

Function	Set the time of camera system.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setservertime&-time=&-timezone=&-dstmode=]	
Param.	stime	Current time: [yyyy].[mm].[dd].[hh].[mm].[ss] For example, 2011.08.23.10.35.08
	timezone	Time zone, like timeZone="Asia/Hong_Kong"; Please see appendix II for reference.
	dstmode	Whether to enable the DST: on: Enable off: Disable
Return	Success: Success. Fail: Error.	
Note	The DST is not used for all time zone.	
Example	/cgi-bin/hi3510/param.cgi?cmd=setservertime&-time=2011.08.23.10.35.08&-timezone=Asia%2FHong_Kong&-dstmode=off	

## getntpattr

Function	Get the attributes of NTP.
Privilege	admin



Usage	/cgi-bin/hi3510/param.cgi[?cmd=getntpattr]	
Param.	None	
Return	ntpenable	Whether to enable the NTP: 1: Enable 0: Disable
	ntpserver	NTP Server name: time.nist.gov time.kriss.re.kr time.windows.com time.nuri.net
	ntpinterval	The interval for NTP time synchronization.
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=getntpattr	

## setntpattr

Function	Set the attributes of NTP.	
Privilege	admin	
Usage	/cgi-bin/hi3510/param.cgi[?cmd=setntpattr&-ntpenable=&-ntpserver=&-ntpinterval=]	
Param.	ntpenable	Whether to enable the NTP: 1: Enable 0: Disable
	ntpserver	NTP Server name: time.nist.gov time.kriss.re.kr time.windows.com time.nuri.net
	ntpinterval	The interval for NTP time synchronization, the range is [1-24] hours.
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=setntpattr&-ntpenable=1&-ntpinterval=2 &-ntpserver=time.nuri.net	

## web/tmpfs/auto.jpg

Function	Snap pictures in web browser.
Privilege	Admin, user, guest
Usage	/web/tmpfs/auto.jpg
Param.	None
Return	snap.jpg
Note	None
Example	http://192.168.1.183/cgi-bin/hi3510/web/tmpfs/auto.jpg

## Sysreset.cgi

Function	Restore the camera settings to default values.
Privilege	admin
Usage	/cgi-bin/hi3510/sysreset.cgi
Param.	None
Return	Success: Success. Fail: Error.
Note	None
Example	/cgi-bin/hi3510/sysreset.cgi

## Sysreboot.cgi

Function	Reboot the camera system.
Privilege	admin
Usage	/cgi-bin/hi3510/sysreboot.cgi
Param.	None
Return	Success: Success. Fail: Error.
Note	None
Example	/cgi-bin/hi3510/sysreboot.cgi

## backup.cgi

Function	Backup the camera configurations.
Privilege	admin

Usage	/cgi-bin/hi3510/backup.cgi
Param.	None
Return	config_backup.bin
Note	None
Example	/cgi-bin/hi3510/backup.cgi

## restore.cgi

Function	Restore the camera configurations.
Privilege	admin
Usage	/cgi-bin/hi3510/restore.cgi[?-setting_file=]
Param.	setting_file      The path of the configurations file.
Return	None
Note	This command should use the POST HTTP method.
Example	<pre>&lt;form name="form6" method="post" enctype="multipart/form-data" action="/cgi-bin/hi3510/restore.cgi" &gt;   &lt;input type="file" name="setting_file" &gt;   &lt;input type="submit" value="restore" &gt; &lt;/form&gt;</pre>

## logsync

Function	Get the log of system running.
Privilege	admin
Usage	/cgi-bin/hi3510/param.cgi[?cmd=logsync]
Param.	None
Return	None
Note	<ol style="list-style-type: none"> <li>1. This command will read the log from /log/syslog.txt.</li> <li>2. The log will be cleared automatically after reboot.</li> </ol>
Example	<pre>/cgi-bin/hi3510/param.cgi?cmd=logsync /log/syslog.txt</pre>

## cleanlog

Function	Clear the log of system running.
Privilege	admin

Usage	/cgi-bin/hi3510/param.cgi[?cmd=cleanlog&-name=]	
Param.	name	sys
Return	Success: Success. Fail: Error.	
Note	None	
Example	/cgi-bin/hi3510/param.cgi?cmd=cleanlog&-name=sys	

## 15. RTSP URL

### 1. Verify the authorization by client.

**rtsp://IP address:port/11 or 12 or 13.**

- 11 represents the first stream.
- 12 represents the second stream.
- 13 represents the third stream
- The default port for RTSP is 554

For example, rtsp://192.168.1.108:444/11

### 2. Include the authorization in the URL.

**rtsp://username:password@IP address:port/11 or 12 or 13.**

For example, rtsp://admin:admin@192.168.1.108:444/11

## 16. Appendix

### Appendix I Defines for device type

1. The device type is a 32 bytes ACSII code, which is used to distinguish between different devices with different features.

2. Each field has 2 bytes. The first byte represents the general type and the second byte represents the sub type.

Field 3	Field 4
Lens	PTZ
'S'	'Z'

3. The field for lens 'S'

'e'	CMOS 720P	Brightness [0-100], Saturation [0-255], Contrast [0-100], Hue [0-100], Sharpness [0-100], Shutter [0-65535],
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		<p>Flip, Mirror, WDR, Night vision mode.  The first stream: 720P, Q720P.  The second stream: Q720P, QQ720P.  The third stream: QQ720P.  Snapshots for mobile phone: Q720P, QQ720P.</p>
'f'	<p>CMOS 720P  CMOS 960P</p>	<p>Brightness [0-100], Saturation [0-255], Contrast [0-100],  Hue [0-100], Sharpness [0-100], Shutter [0-65535],  Flip, Mirror, WDR, Night vision mode.  720P:  The first stream: 720P.  The second stream: Q720P, QQ720P.  The third stream: QQ720P.  Snapshots for mobile phone: Q720P, QQ720P.  960P:  The first stream: 960P.  The second stream: VGA, QVGA.  The third stream: QVGA.  Snapshots for mobile phone: VGA, QVGA.</p>
'g'	<p>CMOS 1080P  CMOS 720P</p>	<p>Brightness [0-100], Saturation [0-255], Contrast [0-100],  Hue [0-100], Sharpness [0-100], Shutter [0-65535],  Flip, Mirror, WDR, Night vision mode.  1080P:  The first stream: 1080P.  The second stream: Q720P, QQ720P.  The third stream: QQ720P.  Snapshots for mobile phone: Q720P, QQ720P.  720P:  The first stream: 720P.  The second stream: Q720P, QQ720P.  The third stream: QQ720P.  Snapshots for mobile phone: Q720P, QQ720P.</p>
'h'	<p>CMOS 720P WDR</p>	<p>Brightness [0-6], Saturation [0-6], Contrast [0-8], Hue  [0-255], Sharpness [0-4], Shutter [0-3], WDR, Night  vision mode.  The first stream: 720P, Q720P.  The second stream: Q720P, QQ720P.  The third stream: QQ720P.  Snapshots for mobile phone: Q720P, QQ720P.</p>
'l'	<p>CMOS 1080P  CMOS 720P</p>	<p>Brightness [0-100], Saturation [0-255], Contrast [0-100],  Hue [0-100], Sharpness [0-100], Shutter [0-65535],  Flip, Mirror, WDR, Night vision mode.  1080P:  The first stream: 1080P.</p>

		<p>The second stream: Q720P, QQ720P.</p> <p>The third stream: QQ720P.</p> <p>Snapshots for mobile phone: Q720P, QQ720P.</p> <p>720P:</p> <p>The first stream: 720P.</p> <p>The second stream: Q720P, QQ720P.</p> <p>The third stream: QQ720P.</p> <p>Snapshots for mobile phone: Q720P, QQ720P.</p>
'j'	<p>CMOS 1080P</p> <p>CMOS 720P</p>	<p>Brightness [0-100], Saturation [0-255], Contrast [0-100], Hue [0-100], Sharpness [0-100], Shutter [0-65535], Flip, Mirror, WDR, Night vision mode.</p> <p>1080P:</p> <p>The first stream: 1080P.</p> <p>The second stream: Q720P, QQ720P.</p> <p>The third stream: QQ720P.</p> <p>Snapshots for mobile phone: Q720P, QQ720P.</p> <p>720P:</p> <p>The first stream: 720P.</p> <p>The second stream: Q720P, QQ720P.</p> <p>The third stream: QQ720P.</p> <p>Snapshots for mobile phone: Q720P, QQ720P.</p>
'k'	D1	<p>Brightness [0-100], Saturation [0-255], Contrast [0-100], Hue [0-100], Sharpness [0-100], Shutter [0-65535], Flip, Mirror, Night vision mode.</p> <p>The first stream: D1, CIF.</p> <p>The second stream: CIF.</p> <p>The third stream: CIF.</p> <p>Snapshots for mobile phone: D1.</p>

#### 4. The field for PTZ 'Z'

'0'	User-defined PTZ	<p>Up, Down, Left, Right, Horizontal Curise, Vertical Curise, Back to center point, Call preset point (Up to 8 points). Do not support set by serial port, and set the PTZ speed.</p>
'3'	485 PTZ	<p>Up, Down, Left, Right, Zoom in, Zoom out, Call preset points. Supports to set 485 attributes.</p>

#### Appendix II Time zone list

Time zone	Descriptions
Etc/GMT-12	(GMT-12:00) Date line in the west
Pacific/Apia	(GMT-11:00) Midway Islands, Samoan Islands
Pacific/Honolulu	(GMT-10:00) Hawaii
America/Anchorage	(GMT-09:00) Alaska

America/Los_Angeles	(GMT-08:00) Pacific Standard(US and Canada)
America/Denver	(GMT-07:00) Mountain Standard(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, Monterey
America/Chicago	(GMT-06:00) Central Standard(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 Standard (US and Canada)
America/Bogota	(GMT-05:00) Bogota, Lima, Rio Branco
America/Santiago	(GMT-04:00) San Diego
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 Islands
Europe/Dublin	(GMT) Greenwich Mean Time: Dublin, Edinburgh, London, Lisbon
Africa/Casablanca	(GMT) Dj TK Remix, Monrovia, Reykjavik
Europe/Amsterdam	(GMT+01:00) Amsterdam, Berlin, Berne, Roman, 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) In central west Africa
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) Teheran

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, Bombay, New Delhi
Asia/Katmandu	(GMT+05:45) Katmandu
Asia/Almaty	(GMT+06:00) Alma-Ata, Novosibirsk
Asia/Dhaka	(GMT+06:00) Astana, Dacca
Asia/Colombo	(GMT+06:00) Colombo
Asia/Rangoon	(GMT+06:30) Rangoon
Asia/Bangkok	(GMT+07:00) Bangkok, Hanoi, Djakarta
Asia/Krasnoyarsk	(GMT+07:00) Krasnoyarsk
Asia/Hong_Kong	(GMT+08:00) Beijing, Chongqing, Hong Kong, Urumchi
Asia/Irkutsk	(GMT+08:00) Irkutsk, Ulan Bator
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) Magadan, Solomon Islands, New Caledonia
Pacific/Auckland	(GMT+12:00) Auckland, Wellington
Pacific/Fiji	(GMT+12:00) Fiji, Kamchatka Peninsula, Marshall Islands
Pacific/Tongatapu	(GMT+13:00) Nukualofa