

---

# IP/WIRELES CAMERA CGI Command Manual

---

## 一、 Introduction

CGI stated in this file means the protocol subset provided by IP camera to communicate with client; CGI can use stated CGI to communicate through two ways: one is based on HTTP, the other one is based on P2P; Based on HTTP client ( can be any web run through browser or application) can through CGI to operate the device. Based on P2P client program can use our provided SDK to communicate, SDK package include: Android/IOS/windows SDK.

### 1, CGI safety certificate

CGI divided into three kinds of authority certificate:

- 1> is through HTTP Basic, this method more is about to get related parameter's CGI.
- 2> is through CGI get user name and password, this mainly is to set related CGI.
- 3> support HTTPS to certificate <not all device>

### 2、 POST related CGI:

POST CGI means CGI get via HTTP post .

Using POST CGI , only have two upgrade CGI to use: upgrade\_firmware.cgi and upgrade\_htmls.cgi

Post example:

```
<form action="upgrade_firmware.cgi?next_url=mail.htm" method="post"
enctype="multipart/form-data"> <input type="file" name="file" size="20"> </form>
```

### 3、 GET related CGI:

Get device status and parameter's CGI, include get\_status.cgi and get\_params.cgi. Their return include device status or parameter text, specific format similar to java script variables, Define each state or parameter as a variable and return, such as:

```
var alias="IPCAM";
var sys_ver="Apr 28 2011 00:18:03";
var id="00000000031729";
```

### 4、 SET related CGI:

Configure device CGI, each CGI requires different permission, such as:

[http://ip:port/set\\_alias.cgi?loginuse=admin&loginpas=&alias=hdipcam](http://ip:port/set_alias.cgi?loginuse=admin&loginpas=&alias=hdipcam)

### 5、 Media stream CGI:

Configured device parameter, each AGD requires different permission, such as:

<http://ip:port/livestream.cgi?streamid=10&substream=1&user=admin&pwd=>

6、 Search protocol: This protocol document used for find device network information in the LAN, if need any help, pls feel free to contact Shenzhen VStarcam Technology CO., LTD.

7、 Camera default parameter and corresponding version check, if need any help, pls feel free to contact Shenzhen VStarcam Technology CO., LTD.

---

## 一、GET related CGI

get\_status.cgi:

function: get device status

permission required: Manger

Grammar: /get\_status.cgi[?user=&pwd=&loginuse=&loginpas=]

return:

alias: device name, max 32 bit

deviceid: device UID, max32 bit

sys\_ver: system firmware version

app\_version: User interface firmware version

oem\_id: OEM Client code

now: From 1970-1-1 0:0:0 until device current time the number of seconds that elapsed.

alarm\_status: device current status:

0 -> no alarm;

1 -> motion detection alarm;

2 -> Input alarm

3 -> Sensor alarm

upnp\_status:

When device No. is model C7838-AR

deviceType: 2138546911

other device, UPNP status:

1->success

255->failure

dnsenable: indicates third party whether to enable DNS:

0->disabled

1->enabled

osdenable: indicate whether OSD is open:

0->disabled

1->enabled

syswifi\_mode: means system WIFI status:

0->Station mode

1->AP mode

mac: wired MAC address

wifimac: wireless MAC address

sdstatus: TF card recording status

record\_sd\_status: TF card status

0-> means TF card didn't insert

1->SD card is insert

2->recording

3->TF card file system error.

4->TF card is formatting

5->TF card didn't mount

internet: network status

1-> means device didn't connect to internet

2->means device has been connected to the internet

p2pstatus:P2P connection status

0-> shows device heart beat didn't reach P2P server.

1-> means device has heart beat, and has reached P2P server

devicetype: factory-defined device function type, unused

devicesubtype: factory-defined device function sub type, unused.

externwifi: unused

encrypt: encryption check

0-> encryption check success

1-> encryption check unsuccessful

under: whether arrears, unused

0-> means device working properly

1->means device has been delinquent

sdtotal:TF card total capacity MB

sdfree:TF card remaining capacity

sdlevel:TF card remaining capacity

audio\_encoder\_mode:

adpcm0 -> Device listen whether return the index cleared audio data

adpcm1 -> Device listen whether return the index not cleared audio data.

get\_params.cgi

function: get device parameter

Permission required: manager

Grammar: /get\_params.cgi[?user=&pwd=&loginuse=&loginpas=]

return:

Time set parameters		
now	Seconds past from 1970	
tz	Device current time zone settings and deviation seconds with standard GMT	
ntp_enable	0: forbidden ntp calibrate	1: allow ntp calibrate
ntp_svr	NTP server	
Network parameter set		
dhcpen	0: turn off DHCP	1: turn on DHCP
ip	Camera IP address	
mask	Camera sub net	
gateway	Camera gateway	
dns1	camera first DNS server	
dns2	camera second DNS server	
port	Camera HTTP port	
Multiple device related parameters		
dev2_alias	The second channel device other name	
dev2_host	Second chancel device address	
dev2_port	The second channel device HTTP port	
dev2_user	The second channel device visit user	
dev2_pwd	The second channel device visit password	
.....	.....	
dev9_alias	The ninth device name	
dev9_host	The ninth device address	
dev9_port	The ninth device HTTP port	
dev9_user	The ninth device visit user	
dev9_pwd	The ninth device visit password	
<Below parameter need administrator authority level >		
User group		
user1_name	User name<visitor>	
user1_pwd	password<visitor>	
user2_name	User name<operator>	
user2_pwd	password<operator>	
user3_name	User name<manager>	

user3_pwd		password<manager>				
Wireless parameter group						
wifi_enable	0:WIFI off				1:WIFI on	
wifi_ssid	WIFI SSID					
wifi_mode	Station mode				1:AP hotspot mode	
wifi_encrypt	reserve					
wifi_authtype	0: no authentication	1:wep	2:wpa-psk/aes	3:wpa-psk/kip	4:wpa2-psk/aes	5->wpa2-psk/kip
wifi_keyformat	WEP key format; 0:16 hexadecimal digits				1: ascii character	
wifi_defkey	WEP key choose(below 1-4 key)					
wifi_key1	WEP key1					
wifi_key2	WEP key2					
wifi_key3	WEP key3					
wifi_key4	WEP key 4					
wifi_key1_bits	WEP key 1 length, 0: 64 bits; 1: 128 bits					
wifi_key2_bits	WEP key 2 length, 0: 64 bits; 1: 128 bits					
wifi_key3_bits	WEP key 3 length, 0: 64 bits; 1: 128 bits					
wifi_key4_bits	WEP key 4 length, 0: 64 bits; 1: 128 bits					
wifi_wpa_psk	wpa psk key					
wifi_channel	wireless channel number					
PPPOE parameter						
pppoe_enable	0: turn on pppoe; 1: turn off					
pppoe_user	pppoe dial-up user					
pppoe_pwd	pppoe dial-up password					
RTSP parameter						
rtsp_auth_enable	RTSP stream certificate					
rtsp_user	rtsp user					
Rtsp_pwd	rtsp password					
UPNP parameter						
p2p_upnp_enable	0:forbidden P2P upnp mapping				1:allow P2P upnp mapping	
upnp_enable	0: forbidden upnp mapping				1: allow upnp mapping	
Third party DDNS service						
ddns_service	DDNS serial no. , pls refer to above document					
ddns_user	ddns user					
ddns_pwd	ddns password					
ddns_host	ddns domain name					
ddns_proxy_svr	Proxy address					
ddns_proxy_port	Proxy port					
ddns_mode	ddns mode					
ddns_status	Current ddns status					
Email service						
mail_svr	Mail server address					
mail_port	Mail server port					
mail_user	Mail sever login user					
mail_pwd	Mail server login password					
mail_sender	Mail sender					
mail_receiver1	Mail receiver 1					
mail_receiver2	Mail_receiver 2					
mail_receiver3	Mail receiver 3					
mail_receiver4	Mail receiver 4					

mail_inet_ip	Whether send email notification when Camera inetip changes, 0: no; 1: yes		
mailssl	0: don't use SSL	1: use starttls	2: use tls
FTP parameter			
ftp_svr	ftp server address		
ftp_port	ftp sever port		
ftp_user	ftp server login user		
ftp_pwd	ftp server login password		
ftp_dir	ftp server stored directory		
ftp_mode	0: FPT use port mode	1: FPT use pasv mode	
ftp_upload_interval	Instantly upload image interval(s), 0: disable		
ftp_filename	ftp save file name		
Alarm parameter			
alarm_motion_armed	0: disable motion detection; 1: Enable motion detection		
alarm_motion_sensitivity	0-9: high to low		
alarm_input_armed	0: Input detection disarm; 1: arm (unused)		
alarm_ioin_level	Input alarm trigger level, 0: low; 1: high, (unused)		
alarm_iolinkage	0: IO linkage Disabled when alarm; 1: allow (unused)		
alarm_presetsit	0: Preset linkage Disabled when alarm	Other: linkage preset position when alarm	
alarm_ioout_level	io linkage output level, 0: low; 1: high (unused)		
alarm_mail	0: disable email notification when alarm	1: Allow email notification when alarm	
alarm_audio	0:disable sound alarm 1->high sensitivity 2->medium sensitivity 3->low sensitivity (unused)		
alarm_tempture	0:disable temperature alarm 1->high sensitivity 2->medium sensitivity 3->low sensitivity (unused)		
alarm_upload_interval	Picture upload interval (s) when alarm, 0: disable		
alarm_snapshot	0: disable snapshot when alarm; 1: allow (unused)		
alarm_record	0: disable record when alarm	1: Allow record when alarm	
alarm_http	0: disable HTTP access when alarm 1: allow (unused)		
alarm_http_url	Alarm access URL (unused)		
alarm_schedule_enable	0: disable arming plan	1: Enable arming plan	
alarm_schedule_sun_0	Alarm deployment plan from Monday to Sunday, 24 hours a day, 15mins per period, total 96 arming period bit0-95: 0: this period is not armed; 1: this period is armed; -1: arm 8 hours; other value indicate arming in that time point.		
alarm_schedule_sun_1			
alarm_schedule_sun_2			
alarm_schedule_mon_0			
alarm_schedule_mon_1			
alarm_schedule_mon_2			
alarm_schedule_tue_0			
alarm_schedule_tue_1			
alarm_schedule_tue_2			
alarm_schedule_wed_0			
alarm_schedule_wed_1			
alarm_schedule_wed_2			
alarm_schedule_thu_0			
alarm_schedule_thu_1			
alarm_schedule_thu_2			
alarm_schedule_fri_0			
alarm_schedule_fri_1			
alarm_schedule_fri_2			
alarm_schedule_sat_0			
alarm_schedule_sat_1			
alarm schedule sat 2			

alarm_line1_trigger	(Unused)
alarm_voice_trigger	(Unused)
enable_alarm_audio	0->No sound when alarm, 1->Sound when alarm
defense_plan1	Sensor arming plan1
defense_plan2	Sensor arming plan2
...	
defense_plan21	Sensor arming plan21
alarm_note	1->support alarm notification
alarm_server	http url domain name when alarm (unused)
alarm_port	http url port when alarm (unused)
alarm_user	http url user name when alarm (unused)
alarm_pwd	http url password when alarm (unused)

get\_camera\_params.cgi

function: get device video related parameter

Permission: administrator

grammar: /get\_camera\_params.cgi[?user=&pwd=&loginuse=&loginpas=]

return:

cameratype: indicate camera type

0->solomon ssd1935

1->rt5350

2->ar9331

3->hi3518e

resolution: indicates main stream resolution

2->1280\*720

3->1280\*920

4->1920\*1080

resolutionsub: means secondary stream

0->640\*360

2->1280\*720

resolutionssubsub: means third stream

0->640\*360

1->320\*180

vbright: means the brightness (value range: 0-255)

vcontrast: means contrast(range: 0-255)

vsaturation: means saturation (range: 0-255)

vhue:means chrome (range: 0-255)

OSDEnable:means time stamp

0 ->disableOSD

1->enable OSD

mode: means camera operating voltage

0->50hz

1->60hz

flip: means flip and mirror image

0->(normal)

1->(mirror)

2->(flip)

3->(mirror and flip)

enc\_size: consistent with resolution

enc\_framerate:main frame rate

enc\_keyframe: main stream key frame

enc\_quant: main stream quality

enc\_bitrate: main stream bitrate

enc\_ratemode: main stream mode

---

sub\_enc\_size: consistent with resolution  
sub\_enc\_framerate: secondary stream frame rate  
sub\_enc\_keyframe: secondary stream key frame  
sub\_enc\_quant: secondary stream picture quality  
sub\_enc\_bitrate: secondary stream rate  
sub\_enc\_ratemode: secondary stream stream mode  
sub\_sub\_enc\_size: consistent with resolution  
sub\_sub\_enc\_framerate: secondary stream framerate  
sub\_sub\_enc\_keyframe: secondary stream key frame  
sub\_sub\_enc\_quant: secondary stream quality  
sub\_sub\_enc\_bitrate: secondary stream bitrate  
sub\_sub\_enc\_ratemode: secondary stream mode  
speed: Pan Tile speed  
ircut: mens infrared lights  
    0-> Turn off infrared lights  
    1-> Turn on infrared light  
involume: mean input (listen) volume  
outvolume: means output (talk) volume  
MainStreamWidth: 1280  
MainStreamHeight:  
    720->720P  
    960->960P

get\_alarmlog.cgi

get\_log.cgi

function: get device alarm and operate records

permission: administrator

grammar: /get\_log.cgi[?user=&pwd=&loginuse=&loginpas=]

return:

log information, e.g:

log\_text+="2014-10-15 11:06:52 localhost Date Read last time\n";

log\_text+=" 2014-10-15 11:06:22 localhost Date Read last time\n";

log\_text+="2014-10-15 11:06:52 alarm is happen for sound\n";

log\_text+=" 2014-10-15 11:06:22 alarm is happen for motion\n";

log\_text+=" 2014-10-15 11:06:22 alarm is clear\n";

Log info saved in log\_text variables, use '\n' to apart each log info

get\_misc.cgi

function: get device pan tilt related parameter

permission: administrator

grammar: /get\_misc.cgi[?user=&pwd=&loginuse=&loginpas=]

return: refer to set\_misc.cgi

ptz\_patrol\_rate: means the entire speed

ptz\_patrol\_up\_rate: means the move up speed

ptz\_patrol\_down\_rate: means move down speed

ptz\_patrol\_left\_rate: means move left speed

ptz\_patrol\_right\_rate: means move right speed

Note: Pan tile speed from 0 to 10,11 level

ptz\_disppreset:

1-> means disable Pan tilt function

0-> means enable Pan Tilt function

ptz\_center\_onstart: means auto centered after restart,

0->means not automatically centered

1-> means auto centered



preset\_onstart: means preset position called when device start, 0 start up in center, 1-16 call corresponding preset position; set related preset position when start up, if no setting, might lead to position inaccuracy.

led\_mode: means the indicator mode

0: turn off indicator

1: turn on indicator

ptruntimes: cruising loop

0-> no limit cruise

1-10-> corresponding cruise loops

device\_type: device function type (unused)

ptz\_soft\_limit\_stop\_percent\_level: soft limit stop level percentage

ptz\_soft\_limit\_stop\_percent\_vert: soft limit vertical stop percentage

ptz\_soft\_limit\_max\_level: soft limit max horizontal step

ptz\_soft\_limit\_max\_vert: soft limit max vertical step.

get\_record.cgi

function: get device video related parameters

permission: administrator

grammar: /get\_record.cgi[?user=&pwd=&loginuse=&loginpas=]

return:

enc\_size: consistent with resolution

enc\_framerate: main stream framerate

enc\_keyframe: main stream key frame

enc\_quant: main stream image quality

enc\_bitrate: main stream bitrate

enc\_ratemode: main stream mode

sub\_enc\_size: consistent with resolutionsub

sub\_enc\_framerate: secondary stream framerate

sub\_enc\_keyframe: secondary stream key frame

sub\_enc\_quant: secondary stream quality

sub\_enc\_bitrate: secondary stream bitrate

sub\_enc\_ratemode: secondary stream mode

sub\_sub\_enc\_size: consistent with resolutionsubsub

sub\_sub\_enc\_framerate: secondary stream framerate

sub\_sub\_enc\_keyframe: secondary stream key frame

sub\_sub\_enc\_quant: secondary stream quality

sub\_sub\_enc\_bitrate: secondary stream bitrate

sub\_sub\_enc\_ratemode: secondary stream mode

record\_audio: record audio

0: don't record audio

1: record audio

record\_cover\_enable: video overwrite

0-> disable overwrite

1-> allow overwrite

record\_timer: recording duration

record\_size: keep

record\_time\_enable: scheduled recording plan

0-> disable scheduled record

1-> allow record plan

Week deployment plan, 24hours per day, 15 mins as a time period, one hour divide into four periods.

bit0-95:

0: this period don't record

1: record in this period

-1: record 8hours

other value indicate the recording time;

record\_schedule\_sun\_0/record\_schedule\_sun\_1/record\_schedule\_sun\_2/record\_schedule\_mon\_0/record\_schedule\_mon\_1/record\_schedule\_mon\_2/record\_schedule\_tue\_0/record\_schedule\_tue\_1/record\_schedule\_tue\_2/record\_schedule\_wed\_0/record\_schedule\_wed\_1/record\_schedule\_wed\_2/record\_schedule\_thu\_0/record\_schedule\_thu\_1/record\_schedule\_thu\_2/record\_schedule\_fri\_0/record\_schedule\_fri\_1/record\_schedule\_fri\_2/record\_schedule\_sat\_0/record\_schedule\_sat\_1/record\_schedule\_sat\_2: indicate the recording plan in this time period

tf\_enable: TF card loading status

record\_chnl: choose recording channel

0: main stream record

1: secondary stream record

2: secondary stream record

sdtotal: TF card total capacity

sdfree: TF card remaining storage

record\_sd\_status: TF card status

get\_record\_file.cgi

function: get record file list

permission: administrator

grammar: get\_record\_file.cgi[?user=&pwd=&loginuse=&loginpas=&PageSize=&PageIndex]

input params:

PageSize: The maximum number of video files once returned, default is 100

PageIndex: access TF card video PageIndex PageSize record file, default is 0

return:

record\_alarm0: video status

0: real time recording

1: alarm recording

record\_alarmcount0: alarm times in recording file

record\_name0: recording file name

record\_size0: recording file size

record\_time0: recording file time

record\_num0: recording file number, query one time, max file number depends on SD card capacity.

get\_wifi\_scan\_result.cgi

function: get device search WiFi list result

permission: administrator

grammar: /get\_wifi\_scan\_result.cgi[?user=&pwd=&loginuse=&loginpas=]

return:

ap\_number: can search how many SSID

ap\_ssid: WiFi account

ap\_mac: WiFi router MAC value

ap\_security: safety mode

1-> NONE

2-> WEP

3-> WPA-PSK AES

4-> WPA-PSK TKIP

5-> WPA2-PSK AES

6-> WPA2-PSK TKIP

ap\_dbm: signal strength

ap\_dbm1: signal strength

ap\_mode: working mode

0->infra  
1->adhoc ap\_channel:  
wireless channel number

#### get\_factory\_param.cgi

function: get device factory default setting parameter

permission: administrator

grammar: /get\_factory\_param.cgi[?user=&pwd=&loginuse=&loginpas=]

return:

factory\_server: factory DDNS

factory\_user: factory ddns user name

factory\_passwd: factory ddns password

factory\_alarmserver: alarm server address

factory\_heatbeat: factory ddns heartbeat

factory\_port: factory ddns port

factory\_index: factory serial No.

factory\_mode: factory ddns mode

factory\_status: factory ddns status

support\_pigeon\_push:

1->Pigeon pushes 1.0

2->Pigeon pushes 2.0

support\_cloud\_storage:

1-> support cloud storage

support\_alarmcenter:

1->support alarm center

support\_doorbell\_push:

0-> disableddoorbell push

1-> enable doorbell push

support\_alarm\_audio:

0-> disablealarm sound

1-> enable alarm sound

support\_adpcm\_version

1-> firmware only supports ADPCM audio data index and reference are cleared.

2-> firmware supports ADPCM audio data index and reference both are not cleared.

if no such field , then default is firmware only support ADPCM audio data index and reference are cleared.

#### get\_apwifi.cgi

function: get AP related parameter

permission: administrator

grammar: /get\_apwifi.cgi[?user=&pwd=&loginuse=&loginpas=]

return:

apwifi\_encrypt: means AP encrypted authentication mode

0-> no encryption

1->WEP:do not support

2->WPA/AES

3->WPA/TKIP

4->WPA2/AES

5->WPA2/TKIP

apwifi\_port: AP port

apwifi\_key:encrypted string

apwifi\_ssid: WiFi AP SSID

apwifi\_ipaddr: WiFi IP address

apwifi\_mask: WiFi MASK  
apwifi\_startip: WiFi start IP address  
apwifi\_endip: WiFi ends IP address

mailtest.cgi  
function: Test email  
permission: Administrator  
grammar: /mailtest.cgi[?user=&pwd=&loginuse=&loginpas=]

ftptest.cgi  
function: test FTP  
Permission: Administrator  
grammar: /ftptest.cgi[?user=&pwd=&loginuse=&loginpas=]

login.cgi:  
Function: get the IE login latest user name, password and privileges.  
permission: administrator  
grammar: /login.cgi[?user=&pwd=&loginuse=&loginpas=]  
return:  
loginuser: last login user name  
loginpass: last login password  
pir: latest login user privilege  
1: Visitor  
2: operator  
255: administrator

get\_factory\_extra.cgi  
function: get ADC related parameters  
permission: administrator  
grammar: /get\_factory\_extra.cgi[?user=&pwd=&loginuse=&loginpas=]  
return:  
adc\_use: means whether to enable ADC  
adc\_min: setup ACD minimum value  
adc\_max: setup ADC maximum value

get\_pnp\_server.cgi  
function: get P2P server configuration parameters  
permission: administrator  
grammar: /get\_pnp\_server.cgi[?user=&pwd=&loginuse=&loginpas=]  
return:  
pnpservice:P2P server string  
pnpport:P2P server port  
pnppuser: unused  
pnppwd: unused  
sysver: First field of the version number

get\_rtsp.cgi  
Function: get RTSP related parameters  
permission: administrator  
grammar: /get\_rtsp.cgi[?user=&pwd=&loginuse=&loginpas=]  
return:

rtspenable: whether to enable RTSP  
rtspport: RTSP port number  
rtspuser: access RTSP account(reserve)  
rtsppwd: access RTSP password(reserve)

get\_onvif.cgi

Function: get ONVIF status

permission: administrator

grammar: /get\_onvif.cgi[?user=&pwd=&loginuse=&loginpas=]

return:

onvifenable: where to enable ONVIF

0: disable ONVIF service

1: enable ONVIF service

get\_aging.cgi(aging mode)

function: get related aging parameters

permission: administrator

grammar: /get\_aging.cgi[?user=&pwd=&loginuse=&loginpas=]

return:

enable: whether enable aging mode

ptzspeed: Pan Tile speed in aging mode

## 二、Audio & video related CGI

snapshot.cgi

function: snapshot

permission: administrator

grammar: /snapshot.cgi[?user=&pwd=&loginuse=&loginpas=&res=]

input: default res = 1 res:

0 -> 640\*360

1 -> 360\*180

2 -> 1280\*720

return: a corresponding resolution JPEG picture

videostream.cgi

function : start firefox and non-IE browser kernel streaming video request Push

permission: administrator

grammar: /videostream.cgi[?user=&pwd=&loginuse=&loginpas=]

return: video stream pushed to non-IE kernel browser.

//stream head

typedef struct \_STREAMHEAD

{

unsigned int startcode; // 0xa815aa55

char type;

char streamid;

unsigned short militime;

unsigned int sectime;

unsigned int frameno;

unsigned int len;

unsigned char version;

unsigned char resolution;

unsigned char sessid;

unsigned char currsit;

unsigned char endflag;

char byzone;

char channel; //for user in sit

char type1;

short sample;

short index;

} STREAMHEAD, \*PSTREAMHEAD;

livestream.cgi

function: ask video communication

permission: administrator

grammar:

/livestream.cgi?streamid=[&user=&pwd=&loginuse=&loginpas=&audio=&res=&substream=&filena me=&offset=]

Input:

streamid:

0x00 -> IE request real-time video playback

0x03 -> IE request real-time video playback

0x50 -> IE request main stream video playback

0x51 -> IE request secondary stream video playback

0x52 -> IE request secondary stream video playback

0x0a -> request real-time video playback

0x04 -> request video playback

0x10 -> Stop real-time video playback

0x11 -> Stop video playback

audio:

0 -> disable sound transmission

1 -> Enable sound transmission

res:

0 -> 640\*360

1 -> 320\*180

3 -> 1280\*720

4 -> 1920\*1080

substream: when substream exists will ignore res input, reconfiguration resolution.

0、1、14、15、16、17、18、19、20、21、22->1280\*720

2、3、7、8、9、10、11、12->640\*360

5、6->320\*180

filename: works in playback. The requested file name.

offset: works in playback the requested file location

request video return the data format:head(32 bytes)+video data(head.len bytes)

the struct head of return data valid field

unsigned int startcode 0xa815aa55

char type

0->264 的video 的I frame

1->264 的P frame

unsigned int len: one frame data length

unsigned int frameno: frame number

unsigned short militime: frame associated time with frame : ms

unsigned int sectime: frame associated time with frame: seconds

unsigned char resolution:

0 -> 640\*360

1 -> 320\*180

2 -> 1280\*720

3 -> 1280\*960

4 -> 1920\*1080

char byzone: time zone

audiostream.cgi

function: request video communication

permission: administrator

grammar: /audiostream.cgi?streamid=[&user=&pwd=&loginuse=&loginpas=]

input:

streamid:

0x00、0x01、0x02、0x03-> enable listen, request return of index and reference are cleared.

0x04 -> enable listen, request return of index and reference are not cleared.

0x10 -> disable listen

request audio return the data format:head(32 bytes)+video data(head.len bytes)

the struct head of return data valid field

unsigned int startcode 0xa815aa55 char type 0x06

unsigned int len: one frame data length

unsigned int frameno: frame number

unsigned short militime: frame and frame related time: ms

unsigned int sectime: frame and frame related time: seconds

short sample: reference sample, when streamid are 0x00、0x01、0x02、0x03 , sample=0  
when streamid is 0x04 , sample=1, indicates that listen data reference is not cleared  
short index: reference index, when streamid are 0x00、0x01、0x02、0x03, index=0  
when streamid is 0x04 , index=1, indicates that listen data is not cleared.

Talk back function send to camera directly through data stream

format: header (32 bytes) + adpcm audio data (256 bytes)

the struct head of send data valid field

unsigned int startcode 0xa815aa55

char type 0x08

unsigned int len: 256

short sample: reference sample, through get\_factory\_param.cgi determine whether support\_adpcm\_version field exists, If not exist, client sent sample=0, means adpcm decoding is cleared. support\_adpcm\_version=2, sent sample=1, means adpcm decoding is not cleared.

short index: reference index, through get\_factory\_param.cgi determine whether support\_adpcm\_version exist, if not exist, client sent index=0, means adpcm decoding is cleared; if exists and also support\_adpcm\_version=2, sent index=1, means decoding is not cleared, means adpcm decoding is not cleared.

RTSP stream

Function: get RTSP steam

permission: administrator

Description: ipcamera send h264 stream media format audio and video data, so support H264 and RTSP streaming player. Recommend use vlc media play0.8.6c/mplayer/quicktime。 Also can use Smartphone which supports H264 and RTSP streaming player

grammar: rtsp://ip:port/av0\_0[?user=&pwd=&loginuse=&loginpas=]

parameter:

av0\_0/av1\_0: means main stream

av0\_1/av1\_1: means secondary stream

av0\_2/av1\_2: means third stream

Note: front 0 means whether enable audio



### 三、Control related CGI

#### reboot.cgi

function : reboot device

permission: administrator

grammar: /reboot.cgi[?user=&pwd=&loginuse=&loginpas=]

#### camera\_control.cgi

function: image sensor parameter control

permission: administrator

grammar: /camera\_control.cgi?param=&value=[&user=&pwd=&loginuse=&loginpas=]

parameter:

param: parameter type

value: parameter vale

param	value	Remark
0: resolution/stream	3: main stream 0: secondary stream 1: third stream	
1: brightness range	0~255	
2: contrast range	0~255	
3: mode	0: 50hz 1: 60hz	
5: flipe and mirror	0: original 1: mirror 2: Flip 3: mirror flip	
6: main stream frame rate	1-25fps	
7: Restore default color value	restore default color vale	
8: Saturation	0-255	
9: Chroma	0-255	
10: OSD	1: show OSD 0: hide OSD	Do not function in OSD device
12: secondary stream frame rate	1-25fps	
13: main stream rate	N*128kbps(N vale: 1~32)	
14: IRCUT switch	0: Disable 1: Enable	
15: MJPEG size switch	0: 640*360 1: 320*180 2: 1280*720	
16: Image quality	Not support	Unimplemented
17: Third stream frame rate	1-25fps	
18:		reserve
19: secondary stream rate	128/256/384/512/640/768/896/1024kbps	
20: third stream rate	128/256/384/1024kbps	
21: main stream bite rate mode	0: VBR 1: CBR	
22: sub-stream rate mode	0: VBR 1: CBR	
23: third stream bit rate mode	0: VBR 1: CBR	
24: Input volume	0~31	
25: output volume	0~31	
30: Demagnification		
31: Magnification		
32: Stop		
100: PTZ speed	0~10	

#### decoder\_control.cgi

function : Pan tilt control

permission: administrator

grammar: /decoder\_control.cgi?command=&onestep=&sit=[&loginuse=&loginpas=&next\_url=]

Parameter:

onestep=1: Specify PTZ operation as single-step operation is stopped, only apply for device that carrying PTZ function, and only to operate up, down ,left and right movement.

command: decoder command:

---

Command code	word	explanation
CMD_PTZ_UP	0	UP
CMD_PTZ_UP_STOP	1	Up stop
CMD_PTZ_DOWN	2	down
CMD_PTZ_DOWN_STOP	3	Down stop
CMD_PTZ_LEFT	4	left
CMD_PTZ_LEFT_STOP	5	Left stop
CMD_PTZ_RIGHT	6	right
CMD_PTZ_RIGHT_STOP	7	Right stop
CMD_PTZ_CENTER	25	Auto cruise and center
CMD_PTZ_UP_DOWN	26	Up down cruise
CMD_PTZ_UP_DOWN_STOP	27	Stop up down cruise
CMD_PTZ_LEFT_RIGHT	28	Left right cruise
CMD_PTZ_LEFT_RIGHT_STOP	29	Stop left right cruise
CMD_PTZ_PREFAB_BIT_SET0	30	Set preset position 1
CMD_PTZ_PREFAB_BIT_RUN0	31	call preset position 1
...		
CMD_PTZ_PREFAB_BIT_SETF	60	Set preset position 16
CMD_PTZ_PREFAB_BIT_RUNF	61	Call preset position 16
CMD_PTZ_LEFT_UP	90	Left up
CMD_PTZ_RIGHT_UP	91	Right up
CMD_PTZ_LEFT_DOWN	92	Left down
CMD_PTZ_RIGHT_DOWN	93	Right down
CMD_PTZ_IO_HIGH	94	IO output high
CMD_PTZ_IO_LOW	95	IO output low
CMD_PTZ_MOTO_TEST	255	Test motor
CMD_PTZ_IRCUT_HIGH	96	Turn on Ir-Cut
CMD_PTZ_IRCUT_LOW	97	Turn off Ir-Cut

restore\_factory.cgi

function: restore back to factory setting

permission: administrator

grammar: /restore\_factory.cgi[?user=&pwd=&loginuse=&loginpas=]

set\_moto\_run.cgi

function: setup PTZ test cruise

permission: administrator

grammar: /set\_moto\_runcgi[?user=&pwd=&loginuse=&loginpas=]

del\_file.cgi

function: delete TF card recordedfile

permission: administrator

grammar: /del\_file.cgi?name=[&user=&pwd=&loginuse=&loginpas=]

test\_ftp.cgi

function: Get FTP test results

permission: administrator

grammar: /test\_ftp.cgi[?user=&pwd=&loginuse=&loginpas=]

return

result: 0 -> test success      -1 -> test failure

test\_mail.cgi

---

function: get Email test result  
permission: administrator  
grammar: / test\_mail.cgi[?user=&pwd=&loginuse=&loginpas=]  
return  
result: 0 -> test success      -1 -> test failure

wifi\_scan.cgi  
function: Search wifi network permission: administrator  
grammar: / wifi\_scan.cgi[?user=&pwd=&loginuse=&loginpas=]  
Parameter: non

set\_ir\_gpio.cgi  
function: control infrared light  
permission: administrator  
grammar: / set\_ir\_gpio.cgi?val=[&user=&pwd=&loginuse=&loginpas=]  
parameter:  
val: 0 -> turn off infrared light      1 -> Auto infrared

check\_user.cgi  
function: verify login Eye4 account  
permission: administrator  
grammar: /check\_user.cgi?name=[&user=&pwd=&loginuse=&loginpas=]  
parameter:  
name: Eye4 account name

---

#### 四、SET related CGI

##### set\_upnp.cgi

function: setup device upnp option

permission: administrator

grammar: /set\_upnp.cgi?enable=[&user=&pwd=&loginuse=&loginpas=]

parameter:

enable:UPNP mapping function

0: disable upnp mapping

1: allow upnp mapping

##### set\_alarm.cgi

function: setup device alarm option ( motion detection, sound alarm, GPIO alarm, temperature and humidity alarm )

permission: administrator

grammar:

/set\_alarm.cgi?motion\_armed=&motion\_sensitivity=&mail=&upload\_interval=&record=&alarm\_audio=&preset=&schedule\_enable=&schedule\_sun\_0=&schedule\_sun\_1=&schedule\_sun\_2=&schedule\_mon\_0=&schedule\_mon\_1=&schedule\_mon\_2=&schedule\_tue\_0=&schedule\_tue\_1=&schedule\_tue\_2=&schedule\_wed\_0=&schedule\_wed\_1=&schedule\_wed\_2=&schedule\_thu\_0=&schedule\_thu\_1=&schedule\_thu\_2=&schedule\_fri\_0=&schedule\_fri\_1=&schedule\_fri\_2=&schedule\_sat\_0=&schedule\_sat\_1=&schedule\_sat\_2=[&loginuse=&loginpas=&next\_url=]

parameter:

motion_armed	0: Disarming motion detection	1: motion detection arming
motion_sensitivity	Motion detection sensitivity, 0-9: high-low	
mail	0: disable alarm mail notification	1: enable alarm mail notification
record	0: disable alarm recording	1: enable alarm recording
alarm_audio	Sound alarm 0->disable1->high sensitivity 2->medium 3->low sensitivity	
preset	Preset position linkage when alarm (preset position: 1~16)	
upload_interval	Upload alarm picture number, 0: disable, 0-10 pcs	
schedule_enable	0: disable arming program	1: start arming plan
schedule_sun_0	Sunday arming program, 24hours per day, 15mins per set, total 96 arming time periods. bit0-95: 0: Not armed in this time; 1: arming in this time	
schedule_sun_1		
schedule_sun_2		
schedule_mon_0		
schedule_mon_1		
schedule_mon_2		
schedule_tue_0		
schedule_tue_1		
schedule_tue_2		
schedule_wed_0		
schedule_wed_1		
schedule_wed_2		
schedule_thu_0		
schedule_thu_1		
schedule_thu_2		
schedule_fri_0		
schedule_fri_1		
schedule_fri_2		
schedule_sat_0		

schedule_sat_1	
schedule_sat_2	
enable_alarm_audio	0 -> disable sound when alarm      1 -> Enable sound when alarm
snapshot	0 -> Don't snapshot when alarm      1 -> Snapshot when alarm
alarm_http	url alarm switch when alarm: 0->disable 1-> enable
alarm_http_url	URL calling when alarm
alarmserver	unused
alarmuser	unused
alarmpasswd	unused
alarmdeviceid	unused
defense_plan1	Sensor arming program 1
defense_plan2	Sensor arming program 2
...	
defense_plan21	Sensor arming program 21

set\_users.cgi

function: setup user

permission: administrator

grammar: /set\_users.cgi?user1=&pwd1=&user2=&pwd2=&user3=&pwd3=&loginuse=&loginpas=&next\_url=

Parameter: (note: user1 is visitor user2 is operator user3 is administrator)

user1,pwd1: means user 1 account and password

user2,pwd2: means user 2 account and password

user3,pwd3: means user 3 account and password

Note: max length for account and password is 16 bit

set\_alias.cgi

function: setup camera alias

permission: administrator

grammar: /set\_alias.cgi?alias= [&loginuse=&loginpas=&next\_url=]

parameter :

alias: means alias to be set

set\_mail.cgi

function: setup mail service

permission: administrator

grammar: /set\_mail.cgi?svr=&user=&pwd=&sender=&receiver1=&receiver2=&receiver3=&receiver4=&ssl=&smtpport=[&loginuse=&loginpas=&next\_url=]

parameter:

sender: mail sender

receiver1/receiver2/receiver3/receiver4: respectively represent mail recipient 1/2/3/4

ssl: support SSL authentication

svr: mail server address , length<=64

smtpport: SMTP port

user: SMTP user

pwd: SMTP user password

set\_wifi.cgi

function: setup device wifi parameter

permission: administrator

grammar:

/set\_wifi.cgi?enable=&ssid=&encrypt=&defkey=&key1=&key2=&key3=&key4=&auth

type=&keyformat=&key1\_bits=&key2\_bits=&key3\_bits=&key4\_bits=&channel=&mode=&wpa\_psk=&loginuse=&loginpas=&next\_url=

enable	0: disable wifi function	1: Enable wifi function
ssid	Intend to join WiFi SSID, length <=40	
channel	Wireless channel number	
mode	Wifi mode: 0: Infra mode	1: Ad hoc mode
authtype	0:disable certificate	1:wep 2:wpa-psk/aes 3:wpa-psk/kip 4:wpa2-psk/aes 5->wpa2-psk/kip
encrypt	wep verify mode, 0: open	1: share
keyformat	wep key format, 0: 16 hexadecimal numbers	1: ascii character
defkey	wep key choose(below 1-4 keys)	
key1	wep key1, length<= 30	
key2	wep key2	
key3	wep key3	
key4	wep key4	
key1_bits	wep key1 length, 0: 64 bits; 1: 128 bits	
key2_bits	wep key2 length, 0: 64 bits; 1: 128 bits	
key3_bits	wep key3 length, 0: 64 bits; 1: 128 bits	
key4_bits	wep key4 length, 0: 64 bits; 1: 128 bits	
wpa_psk	wpa psk key, length<= 64	

#### set\_datetime.cgi

function: setup device date and time parameter

permission: administrator

grammar: /set\_datetime.cgi?tz=&ntp\_enable=&ntp\_svr=&now=&loginuse=&loginpas=&next\_url

parameter:

now: means the seconds have passed from 1970-1-1 0:0:0 to designated time, if add this parameter, then device will calibration according to this time.

tz: means time zone setting: deviation seconds from standard GMT

ntp\_enable: ntp calibration

0: ban ntp calibration

1: allow ntp calibration

ntp\_svr: ntp server, length <= 64

#### set\_media.cgi

function: setup media

permission: administrator

grammar:

main stream:

/set\_media.cgi?mainrate=0&enc\_size=&enc\_framerate=&enc\_keyframe=&enc\_quant=&enc\_rate\_mode=&enc\_bitrate=&enc\_main\_mode=&loginuse=&loginpas=

secondary stream:

/set\_media.cgi?mainrate=1&sub\_enc\_size=&sub\_enc\_framerate=&sub\_enc\_keyframe=&sub\_enc\_quant=&sub\_enc\_ratemode=&sub\_enc\_bitrate=&sub\_enc\_main\_mode=&loginuse=&loginpas=

main stream

mainrate:0-> main stream rate 1->second stream rate

enc\_size: main stream rate can not be revised .

enc\_bitrate: means bitrate

enc\_ratemode: means stream mode

0 means CBR 1: means VBR

enc\_keyframe: key frame, suggest as 50, range 25-200

enc\_quant: picture quality, range 2- 50, suggest 30

enc\_framerate: frame rate secondary stream:  
 sub\_enc\_size: 0->1/2 1->1/4  
 sub\_enc\_bitrate: means stream  
 sub\_enc\_ratemode: means stream mode 0 means CBR 1: means VBR  
 sub\_enc\_keyframe: means key frame, suggest 50, range 25-200  
 sub\_enc\_quant: picture quality, range 2-50, suggest 30  
 sub\_enc\_framerate: frame rate  
 mainmode: 0-> means the attached parameter is useful 1-10 means adopt system customize.  
 submode: 0-> means the attached parameter is useful, 1-10 means adopt system customize

#### set\_ddns.cgi

function: setup device ddns options

permission: administrator

grammar: /set\_ddns.cgi?service=&user=&pwd=&host=&proxy\_svr=&proxy\_port=[&loginuse=&loginpas=&next\_url=]

parameter:

service: third party DNS sever  
 user: third party DNS user  
 pwd: third party DNS user password  
 host: third party DNS domain name  
 proxy\_svr: third party DNS server  
 proxy\_port: third party DNS port

service	0: disable ddns service
1: DynDns(not supported)	
2: DynDns.org(dyndns)	
3: DynDns.org(statdns)	
4: DynDns.org(custom)	
5: reserve	
6: reserve	
7: reserve	
8: 3322(dyndns)	
9: 3322(statdns)	
10: 9299	
11: Manufacture own	
12: Manufacture own	

#### set\_misc.cgi

function: setup camera PT parameter

permission: administrator

grammar: /set\_misc.cgi?led\_mode=&ptz\_preset=&ptz\_run\_times=&ptz\_patrol\_rate=&ptz\_patrol\_up\_rate=&ptz\_patrol\_down\_rate=&ptz\_patrol\_left\_rate=&ptz\_patrol\_right\_rate=&ptz\_dispreset=[&loginuse=&loginpas=&next\_url=]

parameter:

led\_mode: camera indicator  
 0: turn off indicator  
 1: turn on indicator  
 ptz\_run\_times: cruise laps  
 0: unlimited  
 1-10: from 1 to 10 laps  
 ptz\_patrol\_rate: PTZ manually operate speed

ptz\_patrol\_up\_rate: Up cruise cruising speed  
 ptz\_patrol\_down\_rate: down cruise cruising speed  
 ptz\_patrol\_left\_rate: left cruise cruising speed  
 ptz\_patrol\_right\_rate: right cruise cruising speed

Note: above speed can be break into 0~10 total 11 levels, speed 0 lowest

ptz\_disppreset:  
 1->disable PT function  
 0->enable PT function

ptz\_center\_onstart: reboot auto centered,  
 0-> didn't auto centered  
 1-> auto centered

preset\_onstart: preset position called during reboot, 0 reboot centered, 1-16 respectively calling corresponding preset position; request setup related preset positionwhen reboot, if didn't setup, may lead to inaccuracy position.

ptz\_soft\_limit\_stop\_percent\_level: soft limit stop percentage  
 ptz\_soft\_limit\_stop\_percent\_vert: soft limit vertical stop percentage  
 ptz\_soft\_limit\_max\_level: soft limit horizontal maximum step  
 ptz\_soft\_limit\_max\_vert: soft limit vertical maximum step  
 osdenable: 0 -> disableOSD 1 -> enable OSD

#### set\_default.cgi

function: setup current setting as factory default  
 permission: administrator  
 grammar: / set\_default.cgi[?&loginuse=&loginpas=&next\_url=]

#### set\_devices.cgi

function: setup multiple device parameter  
 permission: administrator  
 grammar: /set\_devices.cgi?dev2\_alias=&dev2\_host=&dev2\_port=&dev2\_user=&dev2\_pwd=&dev3\_alias=&dev3\_host=&dev3\_port=&dev3\_user=&dev3\_pwd=&dev4\_alias=&dev4\_host=&dev4\_port=&dev4\_user=&dev4\_pwd=&dev5\_alias=&dev5\_host=&dev5\_port=&dev5\_user=&dev5\_pwd=&dev6\_alias=&dev6\_host=&dev6\_port=&dev6\_user=&dev6\_pwd=&dev7\_alias=&dev7\_host=&dev7\_port=&dev7\_user=&dev7\_pwd=&dev8\_alias=&dev8\_host=&dev8\_port=&dev8\_user=&dev8\_pwd=&dev9\_alias=&dev9\_host=&dev9\_port=&dev9\_user=&dev9\_pwd=&loginuse=&loginpas=&next\_url=

parameter:

dev2_alias	Second channel device name, length<= 24
dev2_host	Second channel device address, length<= 64
dev2_port	Second channel device port
dev2_user	Second channel device visit user, length<= 16
dev2_pwd	Second channel device visit password, length<= 16
.....	.....
dev9_alias	Ninth channel device name
dev9_host	Ninth channel device address
dev9_port	Ninth channel device port
dev9_user	Ninth channel device user
dev9_pwd	Ninth channel device password

#### set\_network.cgi

function: setup device basic network parameter  
 permission: administrator  
 grammar: /set\_network.cgi?ipaddr=&mask=&gateway=&dns1=&dns2=&dhcp=&port=[&loginuse=&loginpas=&next\_url=]



parameter:

ipaddr: camera IP address  
mask: camera IP address sub net  
gateway: IP address gateway  
dns1: first DNS server  
dns2: second DNS server  
dhcp: whether enable DHCP  
0: disable DHCP  
1: enable DHCP  
port: IP address network port

set\_factory\_param.cgi

function: setup factory default parameter

permission: administrator

grammar: /set\_factory\_param.cgi?loginuse=&loginpas=&deviceid=&mac=&wifimac=&server=  
&port=&username=&userpwd=&heartbeat=&serviceindex=&mode=

parameter:

wifimac: camera WIFI MAC address  
mac: camera MAC address  
server: ddns sever  
username: ddns account  
userpwd: ddns password  
port: domain port  
alarm\_server: alarm domain  
heartbeat: heartbeat interval  
serviceindex: manufacturer serial No.  
factory\_index: manufacturer domain serial NO.  
deviceid: device UID  
pnpserver:p2p server  
pnpport: p2p port  
mode: some dns mode

set\_pppoe.cgi

function: setup device pppoe

permission: administrator

grammar: /set\_pppoe.cgi?enable=&user=&pwd=&mail\_ip=[&loginuse=&loginpas=&next\_url=]

parameter:

enable	0: disablepppoe; 1: enable
user	pppoe dial-up user, length<= 64
pwd	pppoe dial-up password, length<= 64

set\_formatsd.cgi

function: format sd card

permission: administrator

grammar: /set\_formatsd.cgi[?next\_url=&loginuse=&loginpas=]

record\_sd\_status in get\_status.cgi means format different status

set\_recordsch.cgi

Description: record setting

Permission : administrator

grammar:

/set\_recordsch.cgi?next\_url=&loginuse=&loginpas=&record\_cover=&record\_time=&reco

d\_audio=&time\_schedule\_enable=&schedule\_sun\_0=&schedule\_sun\_1=&schedule\_sun\_2=&schedule\_mon\_0=&schedule\_mon\_1=&schedule\_mon\_2=&schedule\_tue\_0=&schedule\_tue\_1=&schedule\_tue\_2=&schedule\_wed\_0=&schedule\_wed\_1=&schedule\_wed\_2=&schedule\_thu\_0=&schedule\_thu\_1=&schedule\_thu\_2=&schedule\_fri\_0=&schedule\_fri\_1=&schedule\_fri\_2=&schedule\_sat\_0=&schedule\_sat\_1=&schedule\_sat\_2=

return:

record\_cover: record overwrite

record\_time: video file compress time

record\_audio: recording audio

time\_schedule\_enable: schedule

schedule\_sun\_0/schedule\_sun\_1/schedule\_sun\_2/schedule\_mon\_0/schedule\_mon\_1/schedule\_mon\_2/schedule\_tue\_0/schedule\_tue\_1/schedule\_tue\_2/schedule\_wed\_0/schedule\_wed\_1/schedule\_wed\_2/schedule\_thu\_0/schedule\_thu\_1/schedule\_thu\_2/schedule\_fri\_0/schedule\_fri\_1/schedule\_fri\_2/schedule\_sat\_0/schedule\_sat\_1/schedule\_sat\_2: recording schedule from Monday to Sunday, according to 24 hours per day, and each 15mins as a period, total 96 arming period (bit0-95) .

bit0-95:

0: Don't record in this period

1: record in this period

-1: record 8 hours;

other number means record at that time

set\_ftp.cgi

function: setup device ftp

permission: administrator

grammar: /set\_ftp.cgi?svr=&port=&user=&pwd=&mode=&dir=&upload\_interval=[&loginuse=&loginpas=&next\_url=]

parameter:

svr: FTP server address, length<=64

port: FTP server port

user: login FTP server user, length<=64

pwd: login FTP server user password, length<=64

dir: FTP server store directory, file name length<=64

mode: FTP mode

0:port mode

1:pasv mode upload\_interval: upload image interval (ms)

set\_rtsp.cgi

function: setup rtsp certificate service

permission: administrator

grammar:

/set\_rtsp.cgi?rtspenable=&rtspport=&rtspuser=&rtsppwd=[&loginuse=&loginpas=&next\_url=]

parameter:

rtspenable: RTSP status

0: disable RTSP service

1: enable RTSP service

rtspport: access RTSP port

rtspuser: access RTSP requested account, didn't implement

rtsppwd: access RTSP requested account password, didn't implement

set\_apwifi.cgi(WiFi network)

function: setup AP related parameter

permission: administrator

grammar: set\_apwifi.cgi?apwifi\_encrypt=&apwifi\_port=&apwifi\_key=&apwifi\_ssid=&apwifi\_ipaddr=&apwifi\_mask=&apwifi\_startip=&apwifi\_endip=

parameter:

apwifi\_encrypt: encryption authentication

mode: 0->no encryption

1->WEP: don't support

2->WPA/AES

3->WPA/TKIP

4->WPA2/AES

5->WPA2/TKIP

apwifi\_key: encryption string

apwifi\_ssid: WiFi AP SSID

apwifi\_ipaddr: WiFi IP address

apwifi\_mask: WiFi MASK

apwifi\_startip: WiFi start IP address

apwifi\_endip: WiFi ends address

set\_alarmlogclr.cgi

function: delete alarm log

permission: administrator

grammar: /set\_alarmlogclr.cgi[?loginuse=&loginpas=&next\_url=]

set\_pnp\_server.cgi

function: setup customized P2P server address string

permission: administrator

grammar: set\_pnp\_server.cgi?sysver=&pnpserver=&pnpport=&pnpuser=&pnpvwd=[&loginuse=&loginpas=]

parameter:

sysver: customized P2P server address string system firmware version no., only need to setup the first field

pnpserver: P2P server address string

pnpport: P2P server address port

pnpuser: login P2P user name

pnpvwd: login P2P password

(note: pnpport/pnpuser/pnpvwd these three are reserved, no real function; as currently the whole CGI is not completed)

set\_bootday.cgi

function: set\_bootday.cgi? bootday [&user=&pwd=]

permission: administrator

grammar: bootday: how many days reboot

set\_extra.cgi

function: setup parameter

permission: administrator

grammar: set\_extra.cgi?close\_ap=&close\_mic=&devicetype=[&user=&pwd=]

parameter

close\_ap: disable ap function

close\_mic: disable MIC

devicetype: device type, only works on certain device

set\_factory\_extra.cgi

function: setup ADC

permission: administrator

grammar: set\_factory\_extra.cgi?adcmin=&adcmax=&adc\_use=[&loginuse=&loginpas=]

parameter:

adcmin: ADC set minimum

adcmax: ADC set maximum

adc\_use: use of ADC

1->disable ADC

2->enable ADC

set\_onvif.cgi

function: setup ONVIF parameter

permission: administrator

grammar: /set\_onvif.cgi?onvifenable=[&loginuse=&loginpas=] parameter;

onvifenable: ONVIF enabled

0: turn off ONVIF

1: turn on ONVIF

set\_aging.cgi

function: setup aging mode

permission: administrator

grammar: /set\_aging.cgi?enable=&ptzspeed=[&loginuse=&loginpas=]

parameter:

enable: whether enable aging mode

0: turn off aging mode

1: turn on aging mode

ptzspeed: PTZ speed in aging mode

## 五、POST related CGI

### upgrade\_firmware.cgi

function: upgrade device firmware

permission: administrator

grammar: /upgrade\_firmware.cgi?next\_url=rebootme.htm[&loginuse=&loginpas=]

Note: this cgi compress files which need upgrade and send to IP camera through post.

### upgrade\_htmls.cgi

function: upgrade device web interface

permission: administrator

grammar: /upgrade\_htmls.cgi?next\_url=rebootme.htm[&loginuse=&loginpas=]

Note: this cgi compress files which need upgrade and send to IP camera through post.

### set\_update\_push\_user.cgi

function: Notify camera update push user list

permission: administrator

grammar: /set\_update\_push\_user.cgi?[&loginuse=&loginpas=]

### auto\_download\_file.cgi

function: online upgrade function

permission: administrator

grammar:

/auto\_download\_file.cgi?server=&file=&type=[&port=&loginuse=&loginpas=]

parameter:

server: online upgrade server domain

file: file name which needs to download

type: online upgrade firmware type

1->User Interface firmware

2->system firmware

port: online upgrade server port, default is 80

file\_len: download file size, in bytes, current unused, value is 0

### lens\_control.cgi

function: C7833-x4 for adjusting zoom initialize parameter

permission: administrator

grammar: /lens\_control.cgi?step1=&step2=[&loginuse=&loginpas=]

parameter:

step1: For calibrating the difference

step2: for calibrate the maximum step, due to difference in lens assembly, apply in minute adjusting.

### get\_sensorstatus.cgi

function: C7838-AR for get sensor status

permission: administrator grammar:

/get\_sensorstatus.cgi?[&loginuse=&loginpas=] return:

armsetstatus: 0 -> disarm 1-> arm

alarmstatus: 0 -> no alarm 1-> alarm

codestatus: 0-> not coding 1-> code matching

doorbell: temporally unused

### set\_sensorstatus.cgi

function: C7838-AR for setup sensors

permission: administrator

grammar: /set\_sensorstatus.cgi?cmd=&doorbell=[&loginuse=&loginpas=]

parameter:

cmd: 0 -> arm 1 -> disarm 2 -> code matching 3 -> cancel code match 4 -> door bell push switch  
5 -> clear all sensors doorbell: temporally unused

#### get\_sensorlist.cgi

function: C7838-AR for setup sensors  
permission: administrator  
grammar: /get\_sensorlist.cgi?[%loginuse=&loginpas=]  
return:  
sensorid10: sensor 0 ID1  
sensorid20: sensor 0 ID2  
sensorid30: sensor 0 ID3  
sensortype0: sensor 0 type  
sensorstatus0: sensor 0 status  
presetid0: sensor 0 bundle preset position  
sensorname0: sensor 0 name  
...  
sensorid12: sensor2 ID1  
sensorid22: sensor2 ID2  
sensorid32: sensor2 ID3  
sensortype2: sensor2 type  
sensorstatus2: sensor2 status  
presetid2: sensor 2 bundle preset position  
sensorname2: sensor 2 name

#### set\_sensorname.cgi

function: C7838-AR for setup sensor name  
permission: administrator  
grammar: /set\_sensorname.cgi?sensorid=&sensorname=[%loginuse=&loginpas=]  
parameter:  
sensorid: sensor ID  
sensorname: needs to revised sensor name

#### del\_sensor.cgi

function: C7838-AR for delete sensor  
permission: administrator  
grammar: /del\_sensor.cgi?sensorid=[%loginuse=&loginpas=]  
parameter:  
sensorid: sensor ID needs to be deleted

#### set\_doorbell\_push.cgi

function: C7838-AR for delete sensor  
permission: administrator  
grammar:  
/set\_doorbell\_push.cgi?value=[%loginuse=&loginpas=]  
parameter:  
value: 0 -> doorbell no need push 1 -> doorbell need push

# About CGI versatility definition

To reduce middleware ( such as android JNI , windows P2PAPI.dll) maintenance workload, we defined a universal CGI, to interactive between client and device.

CMD\_CHANNEL\_HEAD cmd value is 0x60D1 get information CGI command  
trans\_cmd\_string.cgi?loginuse=&loginpas=&[user=&pwd=&]cmd=&[p 1=]&[p2=]...  
cmd define according to actual needs, an integer value, device client based on cmd to achieve corresponding function. CGI return content is also defined based on cmd, client according to cmd to analyze returned content.

JNI or P2PAPI.dll will return whole returned content to client, client resolve their own access to the relevant data. Returned string length should be within 10K.

```
jni  
int TransCmdString(string id,string msg,int msg_len);// parameter same as returned value  
TranferMessage
```

Callback

```
void    CallbackTransCMDString(string ret);// parameter same as returned value  
CallbackTransJson
```

cmd	parameter			function	Time	
2000	command	0->volume up			Setup device C7841 related parameter	2015-05-27 Mr.Peng
		1-> volume down				
		2->next				
		3->previous				
		4->Play				
		5->Pause				
		6->Turn on LED lights				
		7->Turn off LED lights				
		8-> Get current status volume: volume level playstate: play status 1->play2->pause nightLight: LED status 1->Enable 0->disable fileNO: Music no. current_temp: current temperature cry_state: cry detection 0->disable1->enable				
		9->setup volume		param		
10->setup cry detection		param	0->disable			
			1->enable			
2001	command	0->get temperature & humidity related parameter return value current_temp: current temperature current_rh: current humidity current_power: current power current_charge: current charge status config_tempHigh: high temperature alarm threshold config_tempLow: low temperature alarm threshold config_powerLow: current low power alarm threshold cry_state: current cry detection status			Get device C7881 Current power, temperature, humidity ect. parameter	2015-12-28 Mr.Peng
		1-> setup temperature & humidity related parameter tempHigh: setup high temperature alarm threshold tempLow: setup low temperature alarm threshold powerLow: setup low power alarm threshold powerDown: setup pmu power off			setup C7881 Low battery, temperature, humidity ect.	2015-12-28 Mr.Peng
		2-> setup cry detection param: 1-> enable cry detection 0-> disable cry detection			setup C7881 Cry detection	2015-12-31 Mr.Peng
		3->setup power off powerDown: 1->power off			setup C7881 Power off	2015-12-31 Mr.Peng
		4->get battery parameter return value batteryId: battery ID 1: MBELL battery (default) 2: Hitik battery			get C7881 Battery parameter	2016-1-30 Mr.Peng
		5->setup battery parameter batteryId: battery ID 1: MBELL battery			Setup C7881 battery	2016-1-30 Mr.Peng



		2: Hitik battery	parameter	
2002	sensor_type	Setup code matching type 0x01 door sensor 0x02 PIR 0x03 smoke detector 0x04 gas detector 0x05 SOS button 0x07 remote control 0x08 siren 0x0A camera 0x0B curtain	Setup code matching type , for APP use.	2015-12-28 Mr.Peng
2003	sensor_type	Setup code matching start, and attach type 0x01 door sensor 0x02 PIR 0x03 smoke detector 0x04 gas detector 0x05 SOS button 0x07 remote control 0x08 Siren 0x0A camera 0x0B curtain	Setup code matching type , for product tool use.	2015-12-28 Mr.Peng
2005 (setting)	command	1: start learning 2: execute command	Setup execute command	2016-01-29 Mr.Zhou
	mark	Produced by app, only mark for this conversation.		
	type	Device type ( 0、1、2、3 ), 0-->direct transfer , 1-->RF、AR, 2-->zigbee, 3-->Infrared 0: translate json's instruction( json command value) into hexadecimal , then send directly to SCM device. 1: translate json's instruction( json command value) into hexadecimal, add a protocol header(use for ip camera and SCM), the header of type filed can be RF or AR device. 2: translate json's instruction( json command value) into hexadecimal, add a protocol header(use for ip camera and SCM), the header of type filed can be zigbee device. 3: translate json's instruction( json command value) into hexadecimal, add a protocol header(use for ip camera and SCM), the header of type filed can be zigbee device.		
	json	json={"cmd": xxxxxx,}		
2005 (return)	command	According to setup return	2005 cmd return	2016-01-29 Mr.Zhou
	mark	According to setup return		
	type	According to setup return		
	status	Setup success return0, failure return-1		
	json	This field appear only when status is 0, format and learning command is consistent		
2006 (setting)	command	1->get scene configuration 2->setup scene		2016-01-29 Mr.Zhou

	sceneIndex	When command=1 get scene configuration, sceneIndex is scene index, no need json , when command=2 setup scene sceneIndex as scene index, need add json	get Setup scene	
	json			
2006 (return)	command	According setting return	2006 cmd return	2016-01-29 Mr.Zhou
	sceneIndex	According setting return		
	status	When command=1get scene configuration sceneIndex is scen index, status=0, add json return scene, status=-1, get failure, without json.		
	json	When command=2 setup scene sceneIndex is scene index, status=0, setup success, Status=-1, setup fail.		

---

function Below are the camera new features:

Below are the added serial transmission protocol for App<----->Device<----->Uart, protocol 3000 is for obtain tag-on Uart device status, protocol 3100 used to setup Uart tag-on device's configuration, protocol 3200 used for Uart tag-on device proactive notification transmit to APP.

cmd	Return parameter deification (Get)		Function	Time
3000	comand_tag	Returned protocol mark(Reserved)	Get Uart device status	2015-10-08 Mr.Peng
	check_sum	check sum by transfer_content calculate		
	transfer_len	length of the direct transfer data		
	transfer_content	content of the direct transfer data		
	parameter(Set)			
3100	comand_tag	App produce a random tag set to Ip camera,when set successfully, Ip camera will return the tag to App.	Set Uart device configure	2015-10-08 Mr.Peng
	check_sum	check sum by transfer_content calculate		
	transfer_len	length of the direct transfer data		
	transfer_content	content of the direct transfer data		
	parameter(Post)			
3200	comand_tag	Returned protocol mark(Reserved)	Post change status of Uart tag-on device to APP	2015-10-08 Mr.Peng
	check_sum	check sum by transfer_content calculate		
	transfer_len	length of the direct transfer data		
	transfer_content	content of the direct transfer data		